



March 16, 2023

Tasman Geosciences

Jake Whritenour

6855 West 119th Avenue

Broomfield CO 80020

Project Name - Noble - HSR - Laurice 6-1

Project Number - UWRWE-A2539-ABN

Attached are your analytical results for Noble - HSR - Laurice 6-1 received by Origins Laboratory, Inc. March 06, 2023. This project is associated with Origins project number Y303141-01.

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

Jake Whritenour

Project Number: UWRWE-A2539-ABN

Project: Noble - HSR - Laurice 6-1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-M@4'	Y303141-01	Soil	March 6, 2023 9:57	03/06/2023 15:00
FL01-N@4'	Y303141-02	Soil	March 6, 2023 10:29	03/06/2023 15:00
FL01-O@3'	Y303141-03	Soil	March 6, 2023 10:53	03/06/2023 15:00
FL01-P@4'	Y303141-04	Soil	March 6, 2023 11:49	03/06/2023 15:00
FL01-Q@3'	Y303141-05	Soil	March 6, 2023 12:11	03/06/2023 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.

ORIGINS

LABORATORY, INC

Tasman Geosciences

6855 West 119th Avenue

Broomfield CO 80020

Jake Whritenour

Project Number: UWRWE-A2539-ABN

Project: Noble - HSR - Laurice 6-1

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: 4303191

Client: Tasman

Client Project ID: Hartman 4-1

Checklist Completed by: EH 5/06

Shipped Via: HD

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

Date/time completed: 3/6/23

Airbill #: NA

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

☐ Water

☐ Other:

(Describe)

Cooler Number/Temperature: 141 °C

/ °C

/ °C

/ °C

Thermometer ID: 1004

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C (°F)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) (pH < 2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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)

Date/Time Reviewed 3/7/23

Origins Laboratory, Inc.

J. Bynon

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

Jordan A. Bynon For Jen Pellegrini, Project Manager

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-M@4'

3/6/2023 9:57:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-01 (Soil)
Origins Laboratory, Inc.

Boron (DTPA Sorbitol)

Boron	0.175	0.0998	mg/L	1	B3C0710	KAP	03/07/2023	03/08/2023	
-------	-------	--------	------	---	---------	-----	------------	------------	--

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3C0719	ZZZ	03/07/2023	03/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl	97.7 %	50-150	"	"	"	"	"	"	
------------------------	--------	--------	---	---	---	---	---	---	--

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3C0728	ZZZ	03/07/2023	03/09/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	119 %	70-130	"	"	"	"	"	"	
Surrogate: Toluene-d8	96.7 %	70-130	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130	"	"	"	"	"	"	

Metals by Saturated Paste by EPA 6010

Origins Laboratory, Inc.

J. Bynon

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-M@4'

3/6/2023 9:57:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-01 (Soil)
Origins Laboratory, Inc.

Metals by Saturated Paste by EPA 6010

Calcium	4.59	0.499	meq/L	10	[CALC]	KAP	03/07/2023	03/08/2023	
Magnesium	3.03	0.823	"	"	"	KAP	"	"	
Sodium	11.5	0.435	"	"	"	KAP	"	"	

pH in Soil by 9045D

pH	7.95		pH Units	1	B3C0713	HJD	03/07/2023	03/08/2023	
----	------	--	----------	---	---------	-----	------------	------------	--

SAR by 20B Saturated Paste

SAR	5.89		SAR	1	B3C0707	KAP	03/07/2023	03/08/2023	
-----	------	--	-----	---	---------	-----	------------	------------	--

Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.10	0.00500	mmhos/cm	1	B3C0713	HJD	03/07/2023	03/08/2023	
---------------------------	------	---------	----------	---	---------	-----	------------	------------	--

Waypoint Analytical, LLC.

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00201	mg/Kg	1	L668578		03/09/2023	03/09/2023	
2-Methylnaphthalene	ND	0.00201	"	"	"		"	"	
Acenaphthene	ND	0.00067	"	"	"		"	"	
Anthracene	ND	0.00067	"	"	"		"	"	

Origins Laboratory, Inc.

J. Bynon

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-M@4'

3/6/2023 9:57:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-01 (Soil)

Waypoint Analytical, LLC.

PAH by 8270D SIM

Benzo(a)anthracene	ND	0.00067	mg/Kg	1	L668578		03/09/2023	03/09/2023	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"	
Benzo(k)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	0.00201	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	51.7 %	33-115	"	"	"	"	"	"	"
Surrogate: 4-Terphenyl-d14	64.6 %	33-122	"	"	"	"	"	"	"
Surrogate: Nitrobenzene-d5	50.8 %	29-110	"	"	"	"	"	"	"

Origins Laboratory, Inc.

J. Bynon

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



Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-N@4'
3/6/2023 10:29:00AM

Y303141-02 (Soil)
Origins Laboratory, Inc.

Boron (DTPA Sorbitol)

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
Boron	0.163	0.0998	mg/L	1	B3C0710	KAP	03/07/2023	03/08/2023	

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3C0719	ZZZ	03/07/2023	03/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U
Surrogate: o-Terphenyl	94.9 %	50-150	"	"	"	"	"	"	

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3C0728	ZZZ	03/07/2023	03/09/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U
Surrogate: 1,2-Dichloroethane-d4	122 %	70-130	"	"	"	"	"	"	
Surrogate: Toluene-d8	98.7 %	70-130	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	99.9 %	70-130	"	"	"	"	"	"	

Metals by Saturated Paste by EPA 6010

Origins Laboratory, Inc.

J. Bynon

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-N@4'

3/6/2023 10:29:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-02 (Soil)
Origins Laboratory, Inc.

Metals by Saturated Paste by EPA 6010

Calcium	5.57	0.499	meq/L	10	[CALC]	KAP	03/07/2023	03/08/2023	
Magnesium	3.40	0.823	"	"	"	KAP	"	"	
Sodium	14.3	0.435	"	"	"	KAP	"	"	

pH in Soil by 9045D

pH	7.97		pH Units	1	B3C0713	HJD	03/07/2023	03/08/2023	
----	------	--	----------	---	---------	-----	------------	------------	--

SAR by 20B Saturated Paste

SAR	6.73		SAR	1	B3C0707	KAP	03/07/2023	03/08/2023	
-----	------	--	-----	---	---------	-----	------------	------------	--

Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.57	0.00500	mmhos/cm	1	B3C0713	HJD	03/07/2023	03/08/2023	
---------------------------	------	---------	----------	---	---------	-----	------------	------------	--

Waypoint Analytical, LLC.

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00201	mg/Kg	1	L668578		03/09/2023	03/09/2023	
2-Methylnaphthalene	ND	0.00201	"	"	"		"	"	
Acenaphthene	ND	0.00067	"	"	"		"	"	
Anthracene	ND	0.00067	"	"	"		"	"	

Origins Laboratory, Inc.

J. Bynon

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-N@4'

3/6/2023 10:29:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-02 (Soil)
Waypoint Analytical, LLC.

PAH by 8270D SIM

Benzo(a)anthracene	ND	0.00067	mg/Kg	1	L668578		03/09/2023	03/09/2023	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"	
Benzo(k)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	0.00201	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	51.8 %	33-115	"	"	"		"	"	
Surrogate: 4-Terphenyl-d14	66.9 %	33-122	"	"	"		"	"	
Surrogate: Nitrobenzene-d5	51.5 %	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

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-0@3'
3/6/2023 10:53:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-03 (Soil)
Origins Laboratory, Inc.

Boron (DTPA Sorbitol)

Boron	0.387	0.0995	mg/L	1	B3C0710	KAP	03/07/2023	03/08/2023	
-------	-------	--------	------	---	---------	-----	------------	------------	--

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3C0719	ZZZ	03/07/2023	03/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl	93.9 %	50-150	"	"	"	"	"	"	
------------------------	--------	--------	---	---	---	---	---	---	--

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3C0728	ZZZ	03/07/2023	03/09/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	125 %	70-130	"	"	"	"	"	"	
Surrogate: Toluene-d8	96.6 %	70-130	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	98.4 %	70-130	"	"	"	"	"	"	

Metals by Saturated Paste by EPA 6010

Origins Laboratory, Inc.

J. Bynon

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-0@3'

3/6/2023 10:53:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-03 (Soil)
Origins Laboratory, Inc.

Metals by Saturated Paste by EPA 6010

Calcium	3.39	0.499	meq/L	10	[CALC]	KAP	03/07/2023	03/08/2023	
Magnesium	2.01	0.823	"	"	"	KAP	"	"	
Sodium	17.1	0.435	"	"	"	KAP	"	"	

pH in Soil by 9045D

pH	8.17		pH Units	1	B3C0713	HJD	03/07/2023	03/08/2023	
----	------	--	----------	---	---------	-----	------------	------------	--

SAR by 20B Saturated Paste

SAR	10.4		SAR	1	B3C0707	KAP	03/07/2023	03/08/2023	
-----	------	--	-----	---	---------	-----	------------	------------	--

Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.53	0.00500	mmhos/cm	1	B3C0713	HJD	03/07/2023	03/08/2023	
---------------------------	------	---------	----------	---	---------	-----	------------	------------	--

Waypoint Analytical, LLC.

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00201	mg/Kg	1	L668578		03/09/2023	03/09/2023	
2-Methylnaphthalene	ND	0.00201	"	"	"		"	"	
Acenaphthene	ND	0.00067	"	"	"		"	"	
Anthracene	ND	0.00067	"	"	"		"	"	

Origins Laboratory, Inc.

J. Bynon

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-0@3'
3/6/2023 10:53:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-03 (Soil)
Waypoint Analytical, LLC.

PAH by 8270D SIM

Benzo(a)anthracene	ND	0.00067	mg/Kg	1	L668578		03/09/2023	03/09/2023	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"	
Benzo(k)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	0.00201	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	52.7 %	33-115	"	"	"	"	"	"	
Surrogate: 4-Terphenyl-d14	62.7 %	33-122	"	"	"	"	"	"	
Surrogate: Nitrobenzene-d5	49.4 %	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

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-P@4'

3/6/2023 11:49:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-04 (Soil)
Origins Laboratory, Inc.

Boron (DTPA Sorbitol)

Boron	0.119	0.0981	mg/L	1	B3C0710	KAP	03/07/2023	03/08/2023	
-------	-------	--------	------	---	---------	-----	------------	------------	--

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3C0719	ZZZ	03/07/2023	03/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl	107 %	50-150	"	"	"	"	"	"	
------------------------	-------	--------	---	---	---	---	---	---	--

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3C0728	ZZZ	03/07/2023	03/09/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	122 %	70-130	"	"	"	"	"	"	
Surrogate: Toluene-d8	98.4 %	70-130	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	70-130	"	"	"	"	"	"	

Metals by Saturated Paste by EPA 6010

Origins Laboratory, Inc.

J. Bynon

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-P@4'

3/6/2023 11:49:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-04 (Soil)
Origins Laboratory, Inc.

Metals by Saturated Paste by EPA 6010

Calcium	19.2	0.499	meq/L	10	[CALC]	KAP	03/07/2023	03/08/2023	
Magnesium	6.81	0.823	"	"	"	KAP	"	"	
Sodium	6.40	0.435	"	"	"	KAP	"	"	

pH in Soil by 9045D

pH	7.85		pH Units	1	B3C0713	HJD	03/07/2023	03/08/2023	
----	------	--	----------	---	---------	-----	------------	------------	--

SAR by 20B Saturated Paste

SAR	1.77		SAR	1	B3C0707	KAP	03/07/2023	03/08/2023	
-----	------	--	-----	---	---------	-----	------------	------------	--

Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.75	0.00500	mmhos/cm	1	B3C0713	HJD	03/07/2023	03/08/2023	
---------------------------	------	---------	----------	---	---------	-----	------------	------------	--

Waypoint Analytical, LLC.

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00201	mg/Kg	1	L668578		03/09/2023	03/09/2023	
2-Methylnaphthalene	ND	0.00201	"	"	"		"	"	
Acenaphthene	ND	0.00067	"	"	"		"	"	
Anthracene	ND	0.00067	"	"	"		"	"	

Origins Laboratory, Inc.

J. Bynon

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-P@4'

3/6/2023 11:49:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-04 (Soil)

Waypoint Analytical, LLC.

PAH by 8270D SIM

Benzo(a)anthracene	ND	0.00067	mg/Kg	1	L668578		03/09/2023	03/09/2023	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"	
Benzo(k)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	0.00201	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	56.5 %	33-115	"	"	"	"	"	"	
Surrogate: 4-Terphenyl-d14	70.9 %	33-122	"	"	"	"	"	"	
Surrogate: Nitrobenzene-d5	52 %	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

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-Q@3'
3/6/2023 12:11:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-05 (Soil)
Origins Laboratory, Inc.

Boron (DTPA Sorbitol)

Boron	0.304	0.0993	mg/L	1	B3C0710	KAP	03/07/2023	03/08/2023	
-------	-------	--------	------	---	---------	-----	------------	------------	--

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3C0719	ZZZ	03/07/2023	03/09/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl	95.6 %	50-150	"	"	"	"	"	"	
------------------------	--------	--------	---	---	---	---	---	---	--

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3C0728	ZZZ	03/07/2023	03/09/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	125 %	70-130	"	"	"	"	"	"	
Surrogate: Toluene-d8	97.9 %	70-130	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	99.1 %	70-130	"	"	"	"	"	"	

Metals by Saturated Paste by EPA 6010

Origins Laboratory, Inc.

J. Bynon

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-Q@3'

3/6/2023 12:11:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-05 (Soil)
Origins Laboratory, Inc.

Metals by Saturated Paste by EPA 6010

Calcium	6.09	0.499	meq/L	10	[CALC]	KAP	03/07/2023	03/08/2023	
Magnesium	3.09	0.823	"	"	"	KAP	"	"	
Sodium	15.8	0.435	"	"	"	KAP	"	"	

pH in Soil by 9045D

pH	8.04		pH Units	1	B3C0713	HJD	03/07/2023	03/08/2023	
----	------	--	----------	---	---------	-----	------------	------------	--

SAR by 20B Saturated Paste

SAR	7.38		SAR	1	B3C0707	KAP	03/07/2023	03/08/2023	
-----	------	--	-----	---	---------	-----	------------	------------	--

Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.61	0.00500	mmhos/cm	1	B3C0713	HJD	03/07/2023	03/08/2023	
---------------------------	------	---------	----------	---	---------	-----	------------	------------	--

Waypoint Analytical, LLC.

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00201	mg/Kg	1	L668578		03/09/2023	03/09/2023	
2-Methylnaphthalene	ND	0.00201	"	"	"		"	"	
Acenaphthene	ND	0.00067	"	"	"		"	"	
Anthracene	ND	0.00067	"	"	"		"	"	

Origins Laboratory, Inc.

J. Bynon

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

FL01-Q@3'
3/6/2023 12:11:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Y303141-05 (Soil)
Waypoint Analytical, LLC.

PAH by 8270D SIM

Benzo(a)anthracene	ND	0.00067	mg/Kg	1	L668578		03/09/2023	03/09/2023	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"	
Benzo(k)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	0.00201	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	44.1 %	33-115	"	"	"		"	"	
Surrogate: 4-Terphenyl-d14	55.9 %	33-122	"	"	"		"	"	
Surrogate: Nitrobenzene-d5	44.4 %	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

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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 B3C0719 - EPA 3580

Blank (B3C0719-BLK1)

Prepared: 03/07/2023 Analyzed: 03/09/2023

Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	25		"	24.9		101	50-150			

Origins Laboratory, Inc.

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.

Jordan A. Bynon For Jen Pellegrini, Project Manager



Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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 B3C0719 - EPA 3580

LCS (B3C0719-BS1)

Prepared: 03/07/2023 Analyzed: 03/09/2023

Diesel (C10-C28)	846	50.0	mg/kg	1000	84.6	70-130
Residual Range Organics (C28-C40)	820	200	"	1000	82.0	70-130
Surrogate: o-Terphenyl	45		"	49.8	91.3	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.

Jordan A. Bynon For Jen Pellegrini, Project Manager



Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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 B3C0719 - EPA 3580

Matrix Spike (B3C0719-MS1)

Source: Y303101-01

Prepared: 03/07/2023 Analyzed: 03/09/2023

Diesel (C10-C28)	804	50.0	mg/kg	1000	ND	80.4	70-130
Residual Range Organics (C28-C40)	785	200	"	1000	ND	78.5	70-130
Surrogate: o-Terphenyl	42		"	49.8		84.7	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.

Jordan A. Bynon For Jen Pellegrini, Project Manager

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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 B3C0719 - EPA 3580

Matrix Spike Dup (B3C0719-MSD1)

Source: Y303101-01

Prepared: 03/07/2023 Analyzed: 03/09/2023

Diesel (C10-C28)	835	50.0	mg/kg	1000	ND	83.5	70-130	3.77	35	
Residual Range Organics (C28-C40)	815	200	"	1000	ND	81.5	70-130	3.79	35	
Surrogate: o-Terphenyl	43		"	49.8		85.7	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.

Jordan A. Bynon For Jen Pellegrini, Project Manager



Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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 B3C0728 - EPA 5030 (soil)

Blank (B3C0728-BLK1)

Prepared: 03/07/2023 Analyzed: 03/09/2023

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		109	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.2	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.

Jordan A. Bynon For Jen Pellegrini, Project Manager



Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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 B3C0728 - EPA 5030 (soil)

LCS (B3C0728-BS1)

Prepared: 03/07/2023 Analyzed: 03/09/2023

1,2,4-Trimethylbenzene	0.102	0.00200	mg/kg	0.100	102	70-130
1,3,5-Trimethylbenzene	0.102	0.00200	"	0.100	102	70-130
Benzene	0.0916	0.00200	"	0.100	91.6	70-130
Ethylbenzene	0.0966	0.00200	"	0.100	96.6	70-130
Naphthalene	0.0901	0.00380	"	0.100	90.1	70-130
Toluene	0.0924	0.00200	"	0.100	92.4	70-130
o-Xylene	0.0996	0.00200	"	0.100	99.6	70-130
m,p-Xylene	0.195	0.00400	"	0.200	97.4	70-130
Surrogate: 1,2-Dichloroethane-d4	0.14	"	"	0.125	108	70-130
Surrogate: Toluene-d8	0.12	"	"	0.125	98.3	70-130
Surrogate: 4-Bromofluorobenzene	0.12	"	"	0.125	98.9	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.

Jordan A. Bynon For Jen Pellegrini, Project Manager



Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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 B3C0728 - EPA 5030 (soil)

Matrix Spike (B3C0728-MS1)

Source: Y303129-01

Prepared: 03/07/2023 Analyzed: 03/09/2023

1,2,4-Trimethylbenzene	0.0973	0.00200	mg/kg	0.100	ND	97.3	70-130
1,3,5-Trimethylbenzene	0.0974	0.00200	"	0.100	ND	97.4	70-130
Benzene	0.0889	0.00200	"	0.100	ND	88.9	70-130
Ethylbenzene	0.0935	0.00200	"	0.100	ND	93.5	70-130
Naphthalene	0.0870	0.00380	"	0.100	ND	87.0	70-130
Toluene	0.0886	0.00200	"	0.100	ND	88.6	70-130
o-Xylene	0.0960	0.00200	"	0.100	ND	96.0	70-130
m,p-Xylene	0.188	0.00400	"	0.200	ND	94.2	70-130
Surrogate: 1,2-Dichloroethane-d4	0.13	"	"	0.125		107	70-130
Surrogate: Toluene-d8	0.12	"	"	0.125		96.9	70-130
Surrogate: 4-Bromofluorobenzene	0.12	"	"	0.125		98.6	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.

Jordan A. Bynon For Jen Pellegrini, Project Manager



Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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 B3C0728 - EPA 5030 (soil)

Matrix Spike Dup (B3C0728-MSD1)

Source: Y303129-01

Prepared: 03/07/2023 Analyzed: 03/09/2023

1,2,4-Trimethylbenzene	0.105	0.00200	mg/kg	0.100	ND	105	70-130	7.16	20	
1,3,5-Trimethylbenzene	0.104	0.00200	"	0.100	ND	104	70-130	6.23	20	
Benzene	0.0966	0.00200	"	0.100	ND	96.6	70-130	8.33	20	
Ethylbenzene	0.101	0.00200	"	0.100	ND	101	70-130	7.36	20	
Naphthalene	0.0970	0.00380	"	0.100	ND	97.0	70-130	10.8	20	
Toluene	0.0943	0.00200	"	0.100	ND	94.3	70-130	6.24	20	
o-Xylene	0.103	0.00200	"	0.100	ND	103	70-130	6.70	20	
m,p-Xylene	0.202	0.00400	"	0.200	ND	101	70-130	6.86	20	
Surrogate: 1,2-Dichloroethane-d4	0.13	"	"	0.125		106	70-130			
Surrogate: Toluene-d8	0.12	"	"	0.125		94.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.12	"	"	0.125		99.6	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.

Jordan A. Bynon For Jen Pellegrini, Project Manager

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Classical Chemistry Parameters - Quality Control

Origins Laboratory, Inc.

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

Batch B3C0707 - Saturated Paste Metals

Blank (B3C0707-BLK1)

Prepared: 03/07/2023 Analyzed: 03/08/2023

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

Duplicate (B3C0707-DUP1)

Source: Y303101-01

Prepared: 03/07/2023 Analyzed: 03/08/2023

Calcium PPM	37.5	10.0	mg/L	38.8	3.38	50
SAR	0.00		SAR	3.78	200	200
Magnesium PPM	6.56	10.0	mg/L	6.82	3.87	50
Sodium PPM	95.2	10.0	"	97.2	2.03	50

Batch B3C0710 - DTPA Sorbitol Preparation

Blank (B3C0710-BLK1)

Prepared: 03/07/2023 Analyzed: 03/08/2023

Boron	ND	0.100	mg/L
-------	----	-------	------

Duplicate (B3C0710-DUP1)

Source: Y303129-01

Prepared: 03/07/2023 Analyzed: 03/08/2023

Boron	2.60	0.0995	mg/L	2.61	0.259	50
-------	------	--------	------	------	-------	----

Origins Laboratory, Inc.



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



Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

Saturated Paste - Quality Control
Origins Laboratory, Inc.

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

Batch B3C0713 - Saturated Paste pH/EC

Blank (B3C0713-BLK1)

Prepared: 03/07/2023 Analyzed: 03/08/2023

Specific Conductance (EC) ND 0.00500 mmhos/cm

Duplicate (B3C0713-DUP1)

Source: Y303101-01

Prepared: 03/07/2023 Analyzed: 03/08/2023

pH	8.13		pH Units	8.08			0.617	25	
Specific Conductance (EC)	0.834	0.00500	mmhos/cm	0.825			1.07	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.

Jordan A. Bynon For Jen Pellegrini, Project Manager

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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

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

Batch L668578 - 3550B

MSD (L 96042-MSD-L668578)

Source: 96042

Prepared: 03/09/2023 Analyzed: 03/09/2023

2-Methylnaphthalene	0.101	0.00201	mg/Kg	0.167	<0.00194	60.4	30-130	4.4	30	
Fluorene	0.119	0.00067	"	0.167	<0.000286	71.2	30-130	5.1	30	
Pyrene	0.118	0.00067	"	0.167	<0.000643	70.6	30-130	0.8	30	
Indeno(1,2,3-cd)pyrene	0.1	0.00067	"	0.167	<0.000627	59.8	30-130	13.7	30	
Fluoranthene	0.119	0.00067	"	0.167	<0.000394	71.2	30-130	1.6	30	
Dibenz(a,h)anthracene	0.114	0.00067	"	0.167	<0.000614	68.2	30-130	13.9	30	
Chrysene	0.115	0.00067	"	0.167	<0.000624	68.8	30-130	1.7	30	
Naphthalene	0.103	0.00201	"	0.167	<0.00145	61.6	30-130	3.7	30	
1-Methylnaphthalene	0.105	0.00201	"	0.167	<0.00109	62.8	30-130	4.8	30	
Benzo(k)fluoranthene	0.087	0.00067	"	0.167	<0.000437	52	30-130	9.2	30	
Acenaphthene	0.114	0.00067	"	0.167	<0.000304	68.2	30-130	6.3	30	
Anthracene	0.124	0.00067	"	0.167	<0.000334	74.2	30-130	4.1	30	
Benzo(a)anthracene	0.119	0.00067	"	0.167	<0.000493	71.2	30-130	4.2	30	
Benzo(a)pyrene	0.123	0.00067	"	0.167	<0.000468	73.6	30-130	1.6	30	
Benzo(b)fluoranthene	0.0899	0.00067	"	0.167	<0.000585	53.8	30-130	8.2	30	
Surrogate: 2-Fluorobiphenyl	59.1		"	0.333	189	59.1	33-115			
Surrogate: Nitrobenzene-d5	54.6		"	0.333	179	54.6	29-110			
Surrogate: 4-Terphenyl-d14	69.6		"	0.333	215	69.6	33-122			

MS (L 96042-MS-L668578)

Source: 96042

Prepared: 03/09/2023 Analyzed: 03/09/2023

Benzo(k)fluoranthene	0.0793	0.00067	mg/Kg	0.166	<0.000437	47.7	30-130			
Acenaphthene	0.107	0.00067	"	0.166	<0.000304	64.4	30-130			
Naphthalene	0.0992	0.00201	"	0.166	<0.00145	59.7	30-130			
Indeno(1,2,3-cd)pyrene	0.0871	0.00067	"	0.166	<0.000627	52.4	30-130			
Fluorene	0.113	0.00067	"	0.166	<0.000286	68	30-130			
Fluoranthene	0.117	0.00067	"	0.166	<0.000394	70.4	30-130			
Dibenz(a,h)anthracene	0.0991	0.00067	"	0.166	<0.000614	59.6	30-130			

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

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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

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

Batch L668578 - 3550B

MS (L 96042-MS-L668578)

Source: 96042

Prepared: 03/09/2023 Analyzed: 03/09/2023

Chrysene	0.113	0.00067	mg/Kg	0.166	<0.000624	68	30-130
1-Methylnaphthalene	0.1	0.00201	"	0.166	<0.00109	60.2	30-130
Benzo(a)pyrene	0.121	0.00067	"	0.166	<0.000468	72.8	30-130
Anthracene	0.119	0.00067	"	0.166	<0.000334	71.6	30-130
Pyrene	0.117	0.00067	"	0.166	<0.000643	70.4	30-130
2-Methylnaphthalene	0.0966	0.00201	"	0.166	<0.00194	58.1	30-130
Benzo(b)fluoranthene	0.0828	0.00067	"	0.166	<0.000585	49.8	30-130
Benzo(a)anthracene	0.114	0.00067	"	0.166	<0.000493	68.6	30-130
Surrogate: Nitrobenzene-d5	52.4	"	"	0.332	179	52.4	29-110
Surrogate: 4-Terphenyl-d14	67.7	"	"	0.332	215	67.7	33-122
Surrogate: 2-Fluorobiphenyl	53.9	"	"	0.332	189	53.9	33-115

LCS (LCS-L668578)

Prepared: 03/09/2023 Analyzed: 03/09/2023

Chrysene	0.125	0.00067	mg/Kg	0.167		74.8	30-130
Dibenz(a,h)anthracene	0.12	0.00067	"	0.167		71.8	30-130
Fluoranthene	0.128	0.00067	"	0.167		76.6	30-130
Fluorene	0.128	0.00067	"	0.167		76.6	30-130
Indeno(1,2,3-cd)pyrene	0.104	0.00067	"	0.167		62.2	30-130
Naphthalene	0.106	0.00201	"	0.167		63.4	30-130
Benzo(k)fluoranthene	0.0938	0.00067	"	0.167		56.1	30-130
Pyrene	0.128	0.00067	"	0.167		76.6	30-130
Benzo(a)pyrene	0.134	0.00067	"	0.167		80.2	30-130
Benzo(a)anthracene	0.127	0.00067	"	0.167		76	30-130
Anthracene	0.132	0.00067	"	0.167		79	30-130
Acenaphthene	0.118	0.00067	"	0.167		70.6	30-130
2-Methylnaphthalene	0.104	0.00201	"	0.167		62.2	30-130
1-Methylnaphthalene	0.109	0.00201	"	0.167		65.2	30-130

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

Jake Whritenour
Project Number: UWRWE-A2539-ABN
Project: Noble - HSR - Laurice 6-1

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

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

Batch L668578 - 3550B

LCS (LCS-L668578)

Prepared: 03/09/2023 Analyzed: 03/09/2023

Benzo(b)fluoranthene	0.0892	0.00067	mg/Kg	0.167	53.4	30-130
Surrogate: Nitrobenzene-d5	57.6	"	"	0.333	57.6	29-110
Surrogate: 4-Terphenyl-d14	74.7	"	"	0.333	74.7	33-122
Surrogate: 2-Fluorobiphenyl	61.2	"	"	0.333	61.2	33-115

LRB (LRB-L668578)

Prepared: 03/09/2023 Analyzed: 03/09/2023

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	0.00201	"	-	-	-
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	0.00201	"	-	-	-
1-Methylnaphthalene	ND	0.00201	"	-	-	-
Pyrene	ND	0.00067	"	-	-	-
Anthracene	ND	0.00067	"	-	-	-
Surrogate: Nitrobenzene-d5	55.2	"	"	0.333	55.2	29-110
Surrogate: 4-Terphenyl-d14	67.2	"	"	0.333	67.2	33-122
Surrogate: 2-Fluorobiphenyl	55.8	"	"	0.333	55.8	33-115

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

Jake Whritenour

Project Number: UWRWE-A2539-ABN

Project: Noble - HSR - Laurice 6-1

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Calculated results may use J-flag data (instead of reported "ND") as part of calculation to provide a more accurate result.

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.

Jordan A. Bynon For Jen Pellegrini, Project Manager