



December 19, 2023

Eagle Environmental Consulting, LLC

Andrew Newberry

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - HSR - Abramson #5-23 Project Number - [none]

Attached are your analytical results for Noble - HSR - Abramson #5-23 received by Origins Laboratory, Inc. November 29, 2023. This project is associated with Origins project number Y311695-01.

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

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

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

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

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

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



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

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

Andrew Newberry  
Project Number: [none]  
Project: Noble - HSR - Abramson #5-23

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-01@2.5-5'	Y311695-01	Soil	November 29, 2023 10:27	11/29/2023 16:20
MW-02@2.5-5'	Y311695-02	Soil	November 29, 2023 11:35	11/29/2023 16:20
MW-03@2.5-5'	Y311695-03	Soil	November 29, 2023 11:13	11/29/2023 16:20
MW-04@2.5-5'	Y311695-04	Soil	November 29, 2023 10:51	11/29/2023 16:20
MW-05@2.5-5'	Y311695-05	Soil	November 29, 2023 13:03	11/29/2023 16:20

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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# ORIGINS

LABORATORY, INC

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

Andrew Newberry  
 Project Number: [none]  
 Project: Noble - HSR - Abramson #5-23

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

Origins Work Order: U311695 Client: Eagle  
 Client Project ID: Abramson 5-23

Checklist Completed by: EMS Shipped Via: HD  
 Date/time completed: 11/29/23 (UPS, FedEx, Hand Delivered, Pick-up, etc.)  
 Airbill #: N/A

Matrix(s) Received: (Check all that apply):  Soil/Solid  Water  Other: \_\_\_\_\_  
 Cooler Number/Temperature: 114 °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C (Describe)  
 Thermometer ID: 7001

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

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

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 12/1/23

Origins Laboratory, Inc.

[Signature]

Jen Pellegrini For Noelle Doyle Mathis, President

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

Andrew Newberry  
 Project Number: [none]  
 Project: Noble - HSR - Abramson #5-23

**MW-01@2.5-5'**  
**11/29/2023 10:27:00AM**

**Origins Laboratory, Inc.**  
**Y311695-01 (Soil)**

**DRO/ORO by EPA 8015D**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
Diesel (C10-C28)	ND		25.0	mg/kg	1	B3L0101	12/01/2023	12/05/2023	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 105% 50-150 " " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B3L0421	12/04/2023	12/05/2023	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 118% 70-130 " " " "  
 Surrogate: Toluene-d8 95.6% 70-130 " " " "  
 Surrogate: 4-Bromofluorobenzene 103% 70-130 " " " "

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

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 Wheat Ridge CO 80033

Andrew Newberry  
 Project Number: [none]  
 Project: Noble - HSR - Abramson #5-23

**MW-01@2.5-5'**  
**11/29/2023 10:27:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y311695-01 (Soil)**

**pH in Soil by 9045D**

pH	8.32			pH Units	1	B3L0211	12/02/2023	12/03/2023	
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**Total Metals by 6020B**

Arsenic	1.58	0.0855	0.25	mg/Kg	5	L720516	12/05/2023	12/14/2023	
Barium	59	0.042	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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**MW-02@2.5-5'**  
**11/29/2023 11:35:00AM**

**Origins Laboratory, Inc.**  
**Y311695-02 (Soil)**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B3L0101	12/01/2023	12/05/2023	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 99.0% 50-150 " " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B3L0421	12/04/2023	12/05/2023	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 120% 70-130 " " " "  
 Surrogate: Toluene-d8 96.5% 70-130 " " " "  
 Surrogate: 4-Bromofluorobenzene 102% 70-130 " " " "

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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - HSR - Abramson #5-23

**MW-02@2.5-5'**  
**11/29/2023 11:35:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y311695-02 (Soil)**

**pH in Soil by 9045D**

pH	8.48			pH Units	1	B3L0211	12/02/2023	12/03/2023	
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**Total Metals by 6020B**

Arsenic	1.43	0.0855	0.25	mg/Kg	5	L720516	12/05/2023	12/14/2023	
Barium	65	0.042	0.25	"	"	"	"	"	

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**MW-03@2.5-5'**  
**11/29/2023 11:13:00AM**

**Origins Laboratory, Inc.**  
**Y311695-03 (Soil)**

**DRO/ORO by EPA 8015D**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
Diesel (C10-C28)	ND		25.0	mg/kg	1	B3L0101	12/01/2023	12/05/2023	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 98.3% 50-150 " " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B3L0421	12/04/2023	12/05/2023	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 119% 70-130 " " " "  
 Surrogate: Toluene-d8 97.0% 70-130 " " " "  
 Surrogate: 4-Bromofluorobenzene 102% 70-130 " " " "

Origins Laboratory, Inc.



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 Wheat Ridge CO 80033

Andrew Newberry  
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 Project: Noble - HSR - Abramson #5-23

**MW-03@2.5-5'**  
**11/29/2023 11:13:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y311695-03 (Soil)**

**pH in Soil by 9045D**

pH	8.45			pH Units	1	B3L0211	12/02/2023	12/03/2023	
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**Total Metals by 6020B**

Arsenic	1.49	0.0855	0.25	mg/Kg	5	L720516	12/05/2023	12/14/2023	
Barium	64.9	0.042	0.25	"	"	"	"	"	

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 Project Number: [none]  
 Project: Noble - HSR - Abramson #5-23

**MW-04@2.5-5'**  
**11/29/2023 10:51:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y311695-04 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B3L0101	12/01/2023	12/05/2023	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 100% 50-150 " " " "

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B3L0421	12/04/2023	12/05/2023	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 121% 70-130 " " " "  
 Surrogate: Toluene-d8 95.0% 70-130 " " " "  
 Surrogate: 4-Bromofluorobenzene 102% 70-130 " " " "

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 Wheat Ridge CO 80033

Andrew Newberry  
 Project Number: [none]  
 Project: Noble - HSR - Abramson #5-23

**MW-04@2.5-5'**  
**11/29/2023 10:51:00AM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y311695-04 (Soil)**

**pH in Soil by 9045D**

pH	8.34			pH Units	1	B3L0211	12/02/2023	12/03/2023	
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**Total Metals by 6020B**

Arsenic	1.36	0.0855	0.25	mg/Kg	5	L720516	12/05/2023	12/14/2023	
Barium	50.7	0.042	0.25	"	"	"	"	"	

Origins Laboratory, Inc.  


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 Wheat Ridge CO 80033

Andrew Newberry  
 Project Number: [none]  
 Project: Noble - HSR - Abramson #5-23

**MW-05@2.5-5'**

**11/29/2023 1:03:00PM**

**Origins Laboratory, Inc.**  
**Y311695-05 (Soil)**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B3L0101	12/01/2023	12/05/2023	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl	96.0 %		50-150	"	"	"	"	"	"
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B3L0421	12/04/2023	12/05/2023	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	117 %		70-130	"	"	"	"	"	"
Surrogate: Toluene-d8	96.8 %		70-130	"	"	"	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %		70-130	"	"	"	"	"	"

Origins Laboratory, Inc.



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Andrew Newberry  
 Project Number: [none]  
 Project: Noble - HSR - Abramson #5-23

**MW-05@2.5-5'**

**11/29/2023 1:03:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y311695-05 (Soil)**

**pH in Soil by 9045D**

pH	8.15			pH Units	1	B3L0211	12/02/2023	12/03/2023	
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**Total Metals by 6020B**

Arsenic	1.07	0.0855	0.25	mg/Kg	5	L720516	12/05/2023	12/14/2023	
Barium	48.2	0.042	0.25	"	"	"	"	"	

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Eagle Environmental Consulting, LLC  
8000 W 44th Ave  
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Andrew Newberry  
Project Number: [none]  
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**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 B3L0101 - EPA 3550B

Blank (B3L0101-BLK1)

Prepared: 12/01/2023 Analyzed: 12/04/2023

Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	27		"	24.9		107	50-150			

Origins Laboratory, Inc.

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**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 B3L0101 - EPA 3550B

LCS (B3L0101-BS1)

Prepared: 12/01/2023 Analyzed: 12/04/2023

Diesel (C10-C28)	892	50.0	mg/kg	1000		89.2	70-130			
Residual Range Organics (C28-C40)	817	200	"	1000		81.7	70-130			
Surrogate: o-Terphenyl	54		"	49.8		109	50-150			

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**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 B3L0101 - EPA 3550B

Matrix Spike (B3L0101-MS1)

Source: Y311674-01

Prepared: 12/01/2023 Analyzed: 12/04/2023

Diesel (C10-C28)	893	50.0	mg/kg	1000	ND	89.3	70-130			
Residual Range Organics (C28-C40)	812	200	"	1000	ND	81.2	70-130			
Surrogate: o-Terphenyl	52		"	49.8		104	50-150			

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Andrew Newberry  
 Project Number: [none]  
 Project: Noble - HSR - Abramson #5-23

**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 B3L0101 - EPA 3550B

Matrix Spike Dup (B3L0101-MSD1)

Source: Y311674-01

Prepared: 12/01/2023 Analyzed: 12/04/2023

Diesel (C10-C28)	852	50.0	mg/kg	1000	ND	85.2	70-130	4.70	35	
Residual Range Organics (C28-C40)	774	200	"	1000	ND	77.4	70-130	4.77	35	
Surrogate: o-Terphenyl	51		"	49.8		102	50-150			

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Jen Pellegrini For Noelle Doyle Mathis, President



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

Andrew Newberry  
 Project Number: [none]  
 Project: Noble - HSR - Abramson #5-23

**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 B3L0421 - EPA 5030 (soil)

Blank (B3L0421-BLK1)

Prepared: 12/04/2023 Analyzed: 12/04/2023

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	0.15		"	0.125		116	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

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Andrew Newberry  
 Project Number: [none]  
 Project: Noble - HSR - Abramson #5-23

**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 B3L0421 - EPA 5030 (soil)

LCS (B3L0421-BS1)

Prepared: 12/04/2023 Analyzed: 12/04/2023

1,2,4-Trimethylbenzene	0.106	0.00200	mg/kg	0.100		106	70-130			
1,3,5-Trimethylbenzene	0.104	0.00200	"	0.100		104	70-130			
Benzene	0.102	0.00200	"	0.100		102	70-130			
Ethylbenzene	0.115	0.00200	"	0.100		115	70-130			
Naphthalene	0.117	0.00380	"	0.100		117	70-130			
Toluene	0.110	0.00200	"	0.100		110	70-130			
o-Xylene	0.110	0.00200	"	0.100		110	70-130			
m,p-Xylene	0.226	0.00400	"	0.200		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		115	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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Andrew Newberry  
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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
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Batch B3L0421 - EPA 5030 (soil)

Matrix Spike (B3L0421-MS1)

Source: Y311695-01

Prepared: 12/04/2023 Analyzed: 12/04/2023

1,2,4-Trimethylbenzene	0.0836	0.00200	mg/kg	0.100	ND	83.6	70-130			
1,3,5-Trimethylbenzene	0.0830	0.00200	"	0.100	ND	83.0	70-130			
Benzene	0.0847	0.00200	"	0.100	ND	84.7	70-130			
Ethylbenzene	0.0918	0.00200	"	0.100	ND	91.8	70-130			
Naphthalene	0.0890	0.00380	"	0.100	ND	89.0	70-130			
Toluene	0.0904	0.00200	"	0.100	ND	90.4	70-130			
o-Xylene	0.0882	0.00200	"	0.100	ND	88.2	70-130			
m,p-Xylene	0.178	0.00400	"	0.200	ND	89.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		120	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	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
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Batch B3L0421 - EPA 5030 (soil)

Matrix Spike Dup (B3L0421-MSD1)

Source: Y311695-01

Prepared: 12/04/2023 Analyzed: 12/04/2023

1,2,4-Trimethylbenzene	0.0781	0.00200	mg/kg	0.100	ND	78.1	70-130	6.78	20	
1,3,5-Trimethylbenzene	0.0770	0.00200	"	0.100	ND	77.0	70-130	7.48	20	
Benzene	0.0802	0.00200	"	0.100	ND	80.2	70-130	5.53	20	
Ethylbenzene	0.0866	0.00200	"	0.100	ND	86.6	70-130	5.74	20	
Naphthalene	0.0813	0.00380	"	0.100	ND	81.3	70-130	8.95	20	
Toluene	0.0854	0.00200	"	0.100	ND	85.4	70-130	5.78	20	
o-Xylene	0.0836	0.00200	"	0.100	ND	83.6	70-130	5.36	20	
m,p-Xylene	0.168	0.00400	"	0.200	ND	84.0	70-130	6.04	20	
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		124	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	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
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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 B3L0211 - Saturated Paste pH/EC**

**Duplicate (B3L0211-DUP1)**

**Source: Y311695-01**

**Prepared: 12/02/2023 Analyzed: 12/03/2023**

pH	8.31	pH Units	8.32	0.120	25
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**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L720516 - 3050B**

**MSD (L 99229-MSD-L720516)**

**Source: 99229**

Prepared: 12/05/2023 Analyzed: 12/18/2023

Arsenic	3.52	0.25	mg/Kg	2.39	1.28	94	75-125	2	80	
Barium	58.3	0.25	"	4.79	48.2	211	75-125	0.5	80	*

**MS (L 99229-MS-L720516)**

**Source: 99229**

Prepared: 12/05/2023 Analyzed: 12/18/2023

Arsenic	3.45	0.25	mg/Kg	2.35	1.28	92	75-125			
Barium	58	0.25	"	4.7	48.2	209	75-125			*

**LCS (LCS-L720516)**

Prepared: 12/05/2023 Analyzed: 12/14/2023

Arsenic	2.24	0.25	mg/Kg	2.5		90	80-120			
Barium	4.52	0.25	"	5		90	80-120			

**LRB (LRB-L720516)**

Prepared: 12/05/2023 Analyzed: 12/14/2023

Barium	0.0467	0.25	mg/Kg							J
Arsenic	ND	0.25	"							

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Andrew Newberry  
Project Number: [none]  
Project: Noble - HSR - Abramson #5-23

## Notes and Definitions

- U Sample is Non-Detect.
  - J Estimated Value. Analyte below reported quantitation limit.
  - \* 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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