



December 05, 2019

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

**Project Name - Noble - Guttersen D25-08**

**Project Number - [none]**

Attached are your analytical results for Noble - Guttersen D25-08 received by Origins Laboratory, Inc. November 19, 2019. This project is associated with Origins project number Y911329-01.

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, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Gutttersen D25-08

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-01@0.25'	Y911329-01	Soil	November 19, 2019 15:08	11/19/2019 16:50
SS-02@0.25'	Y911329-02	Soil	November 19, 2019 15:12	11/19/2019 16:50
SS-03@0.25'	Y911329-03	Soil	November 19, 2019 15:15	11/19/2019 16:50
SS-04@0.25'	Y911329-04	Soil	November 19, 2019 15:18	11/19/2019 16:50
SS-05@0.25'	Y911329-05	Soil	November 19, 2019 15:21	11/19/2019 16:50
SS-06@0.25'	Y911329-06	Soil	November 19, 2019 15:23	11/19/2019 16:50
SS-07@0.25'	Y911329-07	Soil	November 19, 2019 15:25	11/19/2019 16:50
SS-08@0.25'	Y911329-08	Soil	November 19, 2019 15:27	11/19/2019 16:50
SS-09@0.25'	Y911329-09	Soil	November 19, 2019 15:29	11/19/2019 16:50

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.*

Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersten D25-08

www.originslaboratory.com

911329

page 1 of 1

**ORIGINS**  
LABORATORY, INC

Client: Eagle Env. Consulting, Inc.  
Address: 8000 W. 44th Ave  
Telephone Number: (303) 433-0479  
Email Address: mce3@eagle-enviro.com

Project Manager: Martin Eckert III  
Project Name: Guttersten D25-08  
Project Number: -  
Samples Collected By: KP/CL

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis				Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa #	Other	BTEX	Geo	DDO		Asbestos
SS-01 @ 0.25'	11/19/19	1508	2	X					X				X	X	X	
SS-02 @ 0.25'		1512														
SS-03 @ 0.25'		1515														
SS-04 @ 0.25'		1518														
SS-05 @ 0.25'		1521														
SS-06 @ 0.25'		1523														
SS-07 @ 0.25'		1525														
SS-08 @ 0.25'		1527														
SS-09 @ 0.25'		1529														
Relinquished By: <u>[Signature]</u>	Date: 11/19/19	Time: 1650		Received By: <u>[Signature]</u>				Received By: <u>[Signature]</u>			Date: 11/19/19	Time: 1650	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/>			

Date Results Needed Noble

Temp Received: ATE 207104  
Task 320.10  
Code: 0058

Bill to Howard

Origins Laboratory, Inc.

*Jefe Pellegrini*

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Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Guttersen D25-08

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

## Sample Receipt Checklist

Origins Work Order: 4911329

Client: Eagle Env

Client Project ID: Noble - Guttersen

Checklist Completed by: JE

Shipped Via: HD

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

Date/time completed: 11/19/19

Airbill #: NA

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

(Describe)

Cooler Number/Temperature: 1 / 1.6 °C        /        °C        /        °C        /        °C

Thermometer ID: TC03

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 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 <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 type="checkbox"/>	<input checked="" 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? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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) (pH <2 for samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH >10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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)

Date/Time Reviewed 11/21/19

Origins Laboratory, Inc.

*Jen Pellegrini*

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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

SS-01@0.25'

11/19/2019 3:08:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y911329-01 (Soil)

## Diesel Range Organics (DRO/TEPH) by EPA 8015D

Diesel (C10-C28)	80.6	50.0	mg/kg	1	B9K2008	TEM	11/20/2019	11/21/2019
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Surrogate: o-Terphenyl	90.4 %	50-150			"	"	"
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## GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9K2007	KDK	11/20/2019	11/22/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U
Naphthalene	ND	0.008	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	93.8 %	70-130			"	"	"
Surrogate: Toluene-d8	101 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	70-130			"	"	"

## Metals (Saturated Paste Prep)

Calcium	4.57	me/L	1	[none]	11/29/2019	12/04/2019
Magnesium	2.62	"	"	"	"	"
Sodium	5.88	"	"	"	"	"

## pH in Soil by EPA 9045D

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Gutterson D25-08

SS-01@0.25'

11/19/2019 3:08:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
		Limit								

Origins Laboratory, Inc.

Y911329-01 (Soil)

## pH in Soil by EPA 9045D

pH	8.56	pH Units	1	B9K2606	TEM	11/26/2019	11/26/2019
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## SAR by 20B Saturated Paste

SAR	3.10		1	[none]		11/29/2019	12/04/2019
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## Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.106	0.00500	mmhos/cm	1	B9K2607	TEM	11/26/2019	11/26/2019
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Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

SS-02@0.25'

11/19/2019 3:12:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y911329-02 (Soil)

## Diesel Range Organics (DRO/TEPH) by EPA 8015D

Diesel (C10-C28)	92.0	50.0	mg/kg	1	B9K2008	TEM	11/20/2019	11/21/2019
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Surrogate: o-Terphenyl	87.4 %	50-150			"	"	"
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## GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9K2007	KDK	11/20/2019	11/21/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U
Naphthalene	ND	0.008	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	70-130			"	"	"
Surrogate: Toluene-d8	98.4 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"

## Metals (Saturated Paste Prep)

Calcium	4.58	me/L	1	[none]	11/29/2019	12/04/2019
Magnesium	2.73	"	"	"	"	"
Sodium	6.53	"	"	"	"	"

## pH in Soil by EPA 9045D

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Gutterson D25-08

SS-02@0.25'

11/19/2019 3:12:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
		Limit								

Origins Laboratory, Inc.

Y911329-02 (Soil)

## pH in Soil by EPA 9045D

pH	8.47	pH Units	1	B9K2606	TEM	11/26/2019	11/26/2019
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## SAR by 20B Saturated Paste

SAR	3.42		1	[none]		11/29/2019	12/04/2019
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## Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.136	0.00500	mmhos/cm	1	B9K2607	TEM	11/26/2019	11/26/2019
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Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

SS-03@0.25'

11/19/2019 3:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y911329-03 (Soil)

## Diesel Range Organics (DRO/TEPH) by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B9K2008	TEM	11/20/2019	11/21/2019	U
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Surrogate: o-Terphenyl	92.6 %	50-150			"	"	"		
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## GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9K2007	KDK	11/20/2019	11/21/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U
Naphthalene	ND	0.008	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"	"		
Surrogate: Toluene-d8	94.8 %	70-130			"	"	"		
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"		

## Metals (Saturated Paste Prep)

Calcium	3.78	me/L	1	[none]		11/29/2019	12/04/2019
Magnesium	2.42	"	"	"		"	"
Sodium	4.64	"	"	"		"	"

## pH in Soil by EPA 9045D

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Gutterson D25-08

SS-03@0.25'

11/19/2019 3:15:00PM

Analyte	Result	Reporting	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
		Limit							

**Origins Laboratory, Inc.**  
**Y911329-03 (Soil)**

**pH in Soil by EPA 9045D**

pH	8.39	pH Units	1	B9K2606	TEM	11/26/2019	11/26/2019
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**SAR by 20B Saturated Paste**

SAR	2.64		1	[none]		11/29/2019	12/04/2019
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0703	0.00500	mmhos/cm	1	B9K2607	TEM	11/26/2019	11/26/2019
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Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

SS-04@0.25'

11/19/2019 3:18:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y911329-04 (Soil)

## Diesel Range Organics (DRO/TEPH) by EPA 8015D

Diesel (C10-C28)	162	50.0	mg/kg	1	B9K2008	TEM	11/20/2019	11/21/2019
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Surrogate: o-Terphenyl	91.2 %	50-150			"	"	"
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## GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9K2007	KDK	11/20/2019	11/22/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U
Naphthalene	ND	0.008	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.8 %	70-130			"	"	"
Surrogate: Toluene-d8	94.4 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	98.9 %	70-130			"	"	"

## Metals (Saturated Paste Prep)

Calcium	5.23	me/L	1	[none]	11/29/2019	12/04/2019
Magnesium	2.95	"	"	"	"	"
Sodium	5.86	"	"	"	"	"

## pH in Soil by EPA 9045D

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Gutttersen D25-08

SS-04@0.25'

11/19/2019 3:18:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y911329-04 (Soil)**

**pH in Soil by EPA 9045D**

pH	8.33		pH Units	1	B9K2606	TEM	11/26/2019	11/26/2019	
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**SAR by 20B Saturated Paste**

SAR	2.90			1	[none]		11/29/2019	12/04/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.103	0.00505	mmhos/cm	1	B9K2607	TEM	11/26/2019	11/26/2019	
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Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

SS-05@0.25'

11/19/2019 3:21:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y911329-05 (Soil)

## Diesel Range Organics (DRO/TEPH) by EPA 8015D

Diesel (C10-C28)	54.0	50.0	mg/kg	1	B9K2008	TEM	11/20/2019	11/21/2019
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Surrogate: o-Terphenyl	82.4 %	50-150			"	"	"
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## GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9K2007	KDK	11/20/2019	11/21/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U
Naphthalene	ND	0.008	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"	"
Surrogate: Toluene-d8	96.8 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"

## Metals (Saturated Paste Prep)

Calcium	3.51	me/L	1	[none]	11/29/2019	12/04/2019
Magnesium	1.81	"	"	"	"	"
Sodium	4.10	"	"	"	"	"

## pH in Soil by EPA 9045D

Origins Laboratory, Inc.



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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Gutttersen D25-08

SS-05@0.25'

11/19/2019 3:21:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y911329-05 (Soil)**

**pH in Soil by EPA 9045D**

pH	8.33		pH Units	1	B9K2606	TEM	11/26/2019	11/26/2019	
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**SAR by 20B Saturated Paste**

SAR	2.51			1	[none]		11/29/2019	12/04/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0961	0.00500	mmhos/cm	1	B9K2607	TEM	11/26/2019	11/26/2019	
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Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

SS-06@0.25'

11/19/2019 3:23:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y911329-06 (Soil)

## Diesel Range Organics (DRO/TEPH) by EPA 8015D

Diesel (C10-C28)	129	50.0	mg/kg	1	B9K2008	TEM	11/20/2019	11/21/2019
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Surrogate: o-Terphenyl	90.8 %	50-150			"	"	"
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## GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9K2007	KDK	11/20/2019	11/21/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U
Naphthalene	ND	0.008	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	70-130			"	"	"
Surrogate: Toluene-d8	93.2 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	70-130			"	"	"

## Metals (Saturated Paste Prep)

Calcium	5.39	me/L	1	[none]	11/29/2019	12/04/2019
Magnesium	3.46	"	"	"	"	"
Sodium	8.78	"	"	"	"	"

## pH in Soil by EPA 9045D

Origins Laboratory, Inc.



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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Gutttersen D25-08

SS-06@0.25'

11/19/2019 3:23:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y911329-06 (Soil)

**pH in Soil by EPA 9045D**

pH	8.32		pH Units	1	B9K2606	TEM	11/26/2019	11/26/2019	
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**SAR by 20B Saturated Paste**

SAR	4.17			1	[none]		11/29/2019	12/04/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.101	0.00502	mmhos/cm	1	B9K2607	TEM	11/26/2019	11/26/2019	
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Origins Laboratory, Inc.



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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

SS-07@0.25'

11/19/2019 3:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y911329-07 (Soil)

## Diesel Range Organics (DRO/TEPH) by EPA 8015D

Diesel (C10-C28)	110	50.0	mg/kg	1	B9K2008	TEM	11/20/2019	11/21/2019
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Surrogate: o-Terphenyl	85.1 %	50-150			"	"	"
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## GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9K2007	KDK	11/20/2019	11/22/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U
Naphthalene	ND	0.008	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.0 %	70-130			"	"	"
Surrogate: Toluene-d8	96.3 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"

## Metals (Saturated Paste Prep)

Calcium	16.27		me/L	1	[none]		11/29/2019	12/04/2019
Magnesium	10.43		"	"	"		"	"
Sodium	19.29		"	"	"		"	"

## pH in Soil by EPA 9045D

Origins Laboratory, Inc.



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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Gutttersen D25-08

SS-07@0.25'

11/19/2019 3:25:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
		Limit								

**Origins Laboratory, Inc.**  
**Y911329-07 (Soil)**

**pH in Soil by EPA 9045D**

pH	8.45	pH Units	1	B9K2606	TEM	11/26/2019	11/26/2019
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**SAR by 20B Saturated Paste**

SAR	5.28		1	[none]		11/29/2019	12/04/2019
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0952	0.00500	mmhos/cm	1	B9K2607	TEM	11/26/2019	11/26/2019
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Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

SS-08@0.25'

11/19/2019 3:27:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y911329-08 (Soil)

## Diesel Range Organics (DRO/TEPH) by EPA 8015D

Diesel (C10-C28)	52.6	50.0	mg/kg	1	B9K2008	TEM	11/20/2019	11/21/2019
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Surrogate: o-Terphenyl	78.7 %	50-150			"	"	"
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## GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9K2007	KDK	11/20/2019	11/21/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U
Naphthalene	ND	0.008	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"	"
Surrogate: Toluene-d8	97.0 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"

## Metals (Saturated Paste Prep)

Calcium	6.98	me/L	1	[none]	11/29/2019	12/04/2019
Magnesium	4.92	"	"	"	"	"
Sodium	10.48	"	"	"	"	"

## pH in Soil by EPA 9045D

Origins Laboratory, Inc.



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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Gutttersen D25-08

SS-08@0.25'

11/19/2019 3:27:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y911329-08 (Soil)

**pH in Soil by EPA 9045D**

pH	8.38		pH Units	1	B9K2606	TEM	11/26/2019	11/26/2019	
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**SAR by 20B Saturated Paste**

SAR	4.30			1	[none]		11/29/2019	12/04/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.177	0.00500	mmhos/cm	1	B9K2607	TEM	11/26/2019	11/26/2019	
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Origins Laboratory, Inc.



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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

SS-09@0.25'

11/19/2019 3:29:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y911329-09 (Soil)

## Diesel Range Organics (DRO/TEPH) by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B9K2008	TEM	11/20/2019	11/21/2019	U
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Surrogate: o-Terphenyl	80.8 %	50-150			"	"	"		
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## GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9K2007	KDK	11/20/2019	11/21/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U
Naphthalene	ND	0.008	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.5 %	70-130			"	"	"		
Surrogate: Toluene-d8	98.0 %	70-130			"	"	"		
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"		

## Metals (Saturated Paste Prep)

Calcium	6.37	me/L	1	[none]		11/29/2019	12/04/2019		
Magnesium	3.51	"	"	"		"	"		
Sodium	7.35	"	"	"		"	"		

## pH in Soil by EPA 9045D

Origins Laboratory, Inc.



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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Gutttersen D25-08

SS-09@0.25'

11/19/2019 3:29:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
		Limit								

**Origins Laboratory, Inc.**  
**Y911329-09 (Soil)**

**pH in Soil by EPA 9045D**

pH	8.25	pH Units	1	B9K2606	TEM	11/26/2019	11/26/2019
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**SAR by 20B Saturated Paste**

SAR	3.31		1	[none]		11/29/2019	12/04/2019
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0860	0.00506	mmhos/cm	1	B9K2607	TEM	11/26/2019	11/26/2019
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Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

**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
<b>Batch B9K2007 - EPA 5030 (soil)</b>										
<b>Blank (B9K2007-BLK1)</b>					Prepared: 11/20/2019 Analyzed: 11/20/2019					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Naphthalene	ND	0.008	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

**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
<b>Batch B9K2007 - EPA 5030 (soil)</b>										
<b>LCS (B9K2007-BS1)</b>					Prepared: 11/20/2019 Analyzed: 11/20/2019					
Benzene	0.119	0.002	mg/kg	0.100		119	70-130			
Toluene	0.111	0.002	"	0.100		111	70-130			
Ethylbenzene	0.114	0.002	"	0.100		114	70-130			
m,p-Xylene	0.221	0.004	"	0.200		111	70-130			
o-Xylene	0.105	0.002	"	0.100		105	70-130			
Naphthalene	0.098	0.008	"	0.100		97.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		102	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Gutttersen D25-08

**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
<b>Batch B9K2007 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B9K2007-MS1)</b>		<b>Source: Y911312-01</b>			Prepared: 11/20/2019 Analyzed: 11/20/2019					
Benzene	0.109	0.002	mg/kg	0.100	ND	109	70-130			
Toluene	0.099	0.002	"	0.100	ND	98.7	70-130			
Ethylbenzene	0.097	0.002	"	0.100	ND	96.9	70-130			
m,p-Xylene	0.185	0.004	"	0.200	ND	92.5	70-130			
o-Xylene	0.091	0.002	"	0.100	ND	90.8	70-130			
Naphthalene	0.087	0.008	"	0.100	ND	86.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		105	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.2	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Guttersen D25-08

**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
<b>Batch B9K2007 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B9K2007-MSD1)</b>		<b>Source: Y911312-01</b>			Prepared: 11/20/2019 Analyzed: 11/20/2019					
Benzene	0.159	0.002	mg/kg	0.100	ND	159	70-130	37.4	20	QM-07, QR-03
Toluene	0.150	0.002	"	0.100	ND	150	70-130	41.6	20	QM-07, QR-03
Ethylbenzene	0.163	0.002	"	0.100	ND	163	70-130	50.8	20	QM-07, QR-03
m,p-Xylene	0.331	0.004	"	0.200	ND	165	70-130	56.5	20	QM-07, QR-03
o-Xylene	0.151	0.002	"	0.100	ND	151	70-130	49.9	20	QM-07, QR-03
Naphthalene	0.127	0.008	"	0.100	ND	127	70-130	38.2	20	QR-03
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Gutttersen D25-08

**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 B9K2008 - EPA 3580

Blank (B9K2008-BLK1)

Prepared: 11/20/2019 Analyzed: 11/20/2019

Diesel (C10-C28)	ND	25.0	mg/kg							U
Surrogate: o-Terphenyl	23		"	25.0		93.9	50-150			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Gutttersen D25-08

## 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 B9K2008 - EPA 3580

### LCS (B9K2008-BS1)

Prepared: 11/20/2019 Analyzed: 11/20/2019

Diesel (C10-C28)	928	50.0	mg/kg	1000		92.8	70-130			
Surrogate: o-Terphenyl	51		"	50.0		103	50-150			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Gutttersen D25-08

## 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 B9K2008 - EPA 3580

Matrix Spike (B9K2008-MS1)		Source: Y911323-01			Prepared: 11/20/2019 Analyzed: 11/20/2019					
Diesel (C10-C28)	923	50.0	mg/kg	1000	14.9	90.8	70-130			
Surrogate: o-Terphenyl	46		"	50.0		92.6	50-150			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Gutttersen D25-08

## 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 B9K2008 - EPA 3580

Matrix Spike Dup (B9K2008-MSD1)		Source: Y911323-01			Prepared: 11/20/2019 Analyzed: 11/20/2019					
Diesel (C10-C28)	944	50.0	mg/kg	1000	14.9	92.9	70-130	2.25	35	
Surrogate: o-Terphenyl	47		"	50.0		93.5	50-150			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Gutttersen D25-08

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Classical Chemistry Parameters - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B9K2606 - NO PREP

<b>Duplicate (B9K2606-DUP1)</b>		<b>Source: Y911329-01</b>			Prepared: 11/26/2019 Analyzed: 11/26/2019					
pH	8.27		pH Units		8.56			3.45	25	

#### Batch B9K2607 - NO PREP

<b>Blank (B9K2607-BLK1)</b>		Prepared: 11/26/2019 Analyzed: 11/26/2019								
Specific Conductance (EC)	0.00170	0.00500	mmhos/cm							
<b>Duplicate (B9K2607-DUP1)</b>		<b>Source: Y911329-01</b>			Prepared: 11/26/2019 Analyzed: 11/26/2019					
Specific Conductance (EC)	0.0916	0.00505	mmhos/cm		0.106			14.1	25	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Gutttersen D25-08

## 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.

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.*

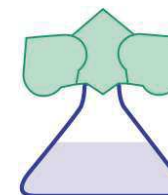
Jen Pellegrini, Project Manager

# American Agricultural Laboratory, Inc.

700 West D Street / PO Box 370 / McCook, Nebraska 69001

Office: 308-345-3670 / FAX: 308-345-7880

www.AmAgLab.com



95029

ORIGINS LABORATORY INC

1725 ELK PLACE

DENVER CO 80211

NAME : ORIGINS

DATE RECEIVED: 11/29/2019

DATE REPORTED: 12/04/2019

## SOIL TEST RESULTS

LAB NUMBER	FIELD IDENTIFICATION	SAMPLE IDENTIFICATION	Depth Inches	pH		EL	SOLUBLE SALTS mod. SP mmhos/cm	OM LOI %	NITRATE-N (FIA)		PHOSPHORUS				
				1 : 1 Soil	Buffer Woodruff				ppm	lbs/A	P1 ppm	Bicarb ppm	P2 ppm	M2 ppm	M3 ppm
2670210	Y911329	01	0-8												
2670211	Y911329	02	0-8												
2670212	Y911329	03	0-8												
2670213	Y911329	04	0-8												
2670214	Y911329	05	0-8												
2670215	Y911329	06	0-8												

LAB NUMBER	SULFATE-S Ca-P ppm	NH4OAc (Exchangeable)				DTPA				BORON Sorbitol ppm	EST. CATION EXCHANGE CAPACITY (CEC) me/100g	% SATURATION					
		K ppm	Ca ppm	Mg ppm	Na ppm	Zn ppm	Fe ppm	Mn ppm	Cu ppm			BASE	H	Ca	Mg	K	Na

2670210																	
2670211																	
2670212																	
2670213																	
2670214																	
2670215																	

LAB NUMBER	SOLUBLE (SAT. EXT.)			SODIUM ADSORPTION RATIO (SAR)	EXCH. SODIUM PERCENT (ESP)	GYPSUM REQ T/A	PARTICLE SIZE ANALYSIS				CHLORIDE		EXCH. NH4-N		ALUMINUM ppm	TOTAL N %
	Ca me/L	Mg me/L	Na me/L				SAND %	SILT %	CLAY %	SOIL TEXTURE	ppm	lbs/A	ppm	lbs/A		
2670210	4.57	2.62	5.88	3.10	3	0										
2670211	4.58	2.73	6.53	3.42	4	0										
2670212	3.78	2.42	4.64	2.64	3	0										
2670213	5.23	2.95	5.86	2.90	3	0										
2670214	3.51	1.81	4.10	2.51	2	0										
2670215	5.39	3.46	8.78	4.17	5	0										

## SUGGESTED FERTILIZER RECOMMENDATIONS

LAB NUMBER	FIELD IDENTIFICATION	SAMPLE IDENTIFICATION	CROP TO BE GROWN	YIELD GOAL	N	P2O5	K2O	S	Zn	MgO	Fe	Mn	Cu	B	Cl	LIME REC 60% ECCE T/A
2670210	Y911329	01														
2670211	Y911329	02														
2670212	Y911329	03														
2670213	Y911329	04														
2670214	Y911329	05														
2670215	Y911329	06														

Analysis By: American Agricultural Lab

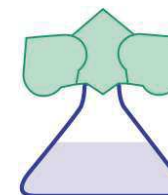
Recommendations By: American Agricultural Lab

# American Agricultural Laboratory, Inc.

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DENVER CO 80211

NAME : ORIGINS

DATE RECEIVED: 11/29/2019

DATE REPORTED: 12/04/2019

## SOIL TEST RESULTS

LAB NUMBER	FIELD IDENTIFICATION	SAMPLE IDENTIFICATION	Depth Inches	pH		EL	SOLUBLE SALTS mod. SP mmhos/cm	OM LOI %	NITRATE-N (FIA)		PHOSPHORUS				
				1 : 1 Soil	Buffer Woodruff				ppm	lbs/A	P1 ppm	Bicarb ppm	P2 ppm	M2 ppm	M3 ppm
2670216	Y911329	07	0-8												
2670217	Y911329	08	0-8												
2670218	Y911329	09	0-8												

LAB NUMBER	SULFATE-S Ca-P ppm	NH4OAc (Exchangeable)				DTPA				BORON Sorbitol ppm	EST. CATION EXCHANGE CAPACITY (CEC) me/100g	% SATURATION					
		K ppm	Ca ppm	Mg ppm	Na ppm	Zn ppm	Fe ppm	Mn ppm	Cu ppm			BASE	H	Ca	Mg	K	Na
2670216																	
2670217																	
2670218																	

LAB NUMBER	SOLUBLE (SAT. EXT.)			SODIUM ADSORPTION RATIO (SAR)	EXCH. SODIUM PERCENT (ESP)	GYPSUM REQ T/A	PARTICLE SIZE ANALYSIS				CHLORIDE		EXCH. NH4-N		ALUMINUM ppm	TOTAL N %
	Ca me/L	Mg me/L	Na me/L				SAND %	SILT %	CLAY %	SOIL TEXTURE	ppm	lbs/A	ppm	lbs/A		
2670216	16.27	10.43	19.29	5.28	7	0										
2670217	6.98	4.92	10.48	4.30	5	0										
2670218	6.37	3.51	7.35	3.31	4	0										

## SUGGESTED FERTILIZER RECOMMENDATIONS

LAB NUMBER	FIELD IDENTIFICATION	SAMPLE IDENTIFICATION	CROP TO BE GROWN	YIELD GOAL	N	P2O5	K2O	S	Zn	MgO	Fe	Mn	Cu	B	Cl	LIME REC 60% ECCE T/A
2670216	Y911329	07														
2670217	Y911329	08														
2670218	Y911329	09														

Analysis By: American Agricultural Lab

Recommendations By: American Agricultural Lab



**Your Lab's letterhead here...**

Address

City, St. Zip

Phone/Fax

## SUBCONTRACT ORDER

### Sending Laboratory:

Origins Laboratory, Inc.  
1725 West Elk Place  
Denver, CO 80211  
Phone: 303.433.1322  
Fax: 303.265.9645

Project Manager: Jen Pellegrini

### Subcontracted Laboratory:

American Agricultural Laboratory, Inc  
210 East 1st Street  
McCook, NE 69001  
Phone: (308) 345-3670  
Fax: (308) 345-7880

### Work Order: Y911329

Analysis	Due	Expires	Comments
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908

**Sample ID: Y911329-01 Soil Sampled: 11/19/2019 15:08**

SAR (Saturated Paste Prep) 11/22/2019 11/20/2019 15:08

Containers Supplied:

909

**Sample ID: Y911329-02 Soil Sampled: 11/19/2019 15:12**

SAR (Saturated Paste Prep) 11/22/2019 11/20/2019 15:12

Containers Supplied:

910

**Sample ID: Y911329-03 Soil Sampled: 11/19/2019 15:15**

SAR (Saturated Paste Prep) 11/22/2019 11/20/2019 15:15

Containers Supplied:

911

**Sample ID: Y911329-04 Soil Sampled: 11/19/2019 15:18**

SAR (Saturated Paste Prep) 11/22/2019 11/20/2019 15:18

Containers Supplied:

912

**Sample ID: Y911329-05 Soil Sampled: 11/19/2019 15:21**

SAR (Saturated Paste Prep) 11/22/2019 11/20/2019 15:21

Containers Supplied:

913

**Sample ID: Y911329-06 Soil Sampled: 11/19/2019 15:23**

SAR (Saturated Paste Prep) 11/22/2019 11/20/2019 15:23

Containers Supplied:

914

**Sample ID: Y911329-07 Soil Sampled: 11/19/2019 15:25**

SAR (Saturated Paste Prep) 11/22/2019 11/20/2019 15:25

Containers Supplied:

**Sample ID: Y911329-08 Soil Sampled: 11/19/2019 15:27**

Released By

Date

Received By

Date



**Your Lab's letterhead here...**

Address

City, St. Zip

Phone/Fax

# SUBCONTRACT ORDER

(Continued)

## Work Order: Y911329 (Continued)

Analysis	Due	Expires	Comments
<b>Sample ID: Y911329-08    Soil    Sampled: 11/19/2019 15:27</b>			
SAR (Saturated Paste Prep)	11/22/2019	11/20/2019 15:27	
Containers Supplied:			
<b>Sample ID: Y911329-09    Soil    Sampled: 11/19/2019 15:29</b>			
SAR (Saturated Paste Prep)	11/22/2019	11/20/2019 15:29	
Containers Supplied:			

Released By  Date 11/26/19 Received By  Date 9/27/19