



April 01, 2022

Verdad Resources

Dean Wagoner

1125 17th St Suite 550

Denver

CO 80202

Project Name - Adam B WH

Project Number - [none]

Attached are your analytical results for Adam B WH received by Origins Laboratory, Inc. March 18, 2022. This project is associated with Origins project number Y203475-01.

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

Verdad Resources

1125 17th St Suite 550

Denver CO 80202

Dean Wagoner

Project Number: [none]

Project: Adam B WH

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Adam B	Y203475-01	Soil	March 18, 2022 10:10	03/18/2022 15:25

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.

Verdad Resources

1125 17th St Suite 550

Denver

CO

80202

Dean Wagoner

Project Number: [none]

Project: Adam B WH

Origins Laboratory

Sample Receipt Checklist

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

Origins Work Order: 4203475

Client: Verdad

Client Project ID: Adam BWH

Checklist Completed by: KLH

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

Date/time completed: 3/14/22

Airbill #: NA

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

Cooler Number/Temperature: 1 16.8 °C / _____ °C / _____ °C (Describe) _____ °C

Thermometer ID: 1004

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?		<input checked="" type="checkbox"/>		<u>same day</u>
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water — is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

Reviewed by (Project Manager) JB

3-21-22
Date/Time Reviewed

Origins Laboratory, Inc.

J. Bynon

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

Verdad Resources
1125 17th St Suite 550
Denver CO 80202

Dean Wagoner
Project Number: [none]
Project: Adam B WH

Adam B

3/18/2022 10:10:00AM

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

Origins Laboratory, Inc.
Y203475-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.200	0.100	mg/L	1	B2C2207	KAP	03/22/2022	03/23/2022	
-------	-------	-------	------	---	---------	-----	------------	------------	--

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2C2924	ZZZ	03/29/2022	03/30/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl	132 %	50-150			"	"	"	
------------------------	-------	--------	--	--	---	---	---	--

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2C2219	ZZZ	03/22/2022	03/27/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Naphthalene	ND	0.00380	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.7 %	70-130			"	"	"
Surrogate: Toluene-d8	92.4 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	95.2 %	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.

Verdad Resources
1125 17th St Suite 550
Denver CO 80202

Dean Wagoner
Project Number: [none]
Project: Adam B WH

Adam B

3/18/2022 10:10:00AM

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

Origins Laboratory, Inc.
Y203475-01 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	2.32	0.499	meq/L	10	[CALC]	KAP	03/22/2022	03/23/2022
Magnesium	ND	0.823	"	"	"	KAP	"	"
Sodium	0.892	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.10		pH Units	1	B2C2210	ACC	03/22/2022	03/23/2022
----	------	--	----------	---	---------	-----	------------	------------

SAR by 20B Saturated Paste

SAR	0.732		SAR	1	B2C2204	KAP	03/22/2022	03/23/2022
-----	-------	--	-----	---	---------	-----	------------	------------

Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.487	0.00500	mmhos/cm	1	B2C2213	ACC	03/22/2022	03/23/2022
---------------------------	-------	---------	----------	---	---------	-----	------------	------------

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.

Verdad Resources
1125 17th St Suite 550
Denver CO 80202

Dean Wagoner
Project Number: [none]
Project: Adam B WH

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 B2C2219 - EPA 5030 (soil)										
Blank (B2C2219-BLK1)					Prepared: 03/22/2022 Analyzed: 03/27/2022					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.0100	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		94.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		92.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		95.7	70-130			

Origins Laboratory, Inc.



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

Verdad Resources
1125 17th St Suite 550
Denver CO 80202

Dean Wagoner
Project Number: [none]
Project: Adam B WH

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 B2C2219 - EPA 5030 (soil)										
LCS (B2C2219-BS1)					Prepared: 03/22/2022 Analyzed: 03/27/2022					
1,2,4-Trimethylbenzene	0.110	0.00200	mg/kg	0.100		110	70-130			
1,3,5-Trimethylbenzene	0.111	0.00200	"	0.100		111	70-130			
Benzene	0.108	0.00200	"	0.100		108	70-130			
Ethylbenzene	0.103	0.00200	"	0.100		103	70-130			
Naphthalene	0.105	0.0100	"	0.100		105	70-130			
Toluene	0.101	0.00200	"	0.100		101	70-130			
o-Xylene	0.102	0.00200	"	0.100		102	70-130			
m,p-Xylene	0.206	0.00400	"	0.200		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		94.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		93.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		95.8	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.

Verdad Resources
1125 17th St Suite 550
Denver CO 80202

Dean Wagoner
Project Number: [none]
Project: Adam B WH

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 B2C2219 - EPA 5030 (soil)										
Matrix Spike (B2C2219-MS1)		Source: Y203474-01			Prepared: 03/22/2022 Analyzed: 03/27/2022					
1,2,4-Trimethylbenzene	0.106	0.00200	mg/kg	0.100	ND	106	70-130			
1,3,5-Trimethylbenzene	0.108	0.00200	"	0.100	ND	108	70-130			
Benzene	0.103	0.00200	"	0.100	ND	103	70-130			
Ethylbenzene	0.102	0.00200	"	0.100	ND	102	70-130			
Naphthalene	0.0939	0.0100	"	0.100	ND	93.9	70-130			
Toluene	0.0975	0.00200	"	0.100	ND	97.5	70-130			
o-Xylene	0.0990	0.00200	"	0.100	ND	99.0	70-130			
m,p-Xylene	0.203	0.00400	"	0.200	ND	101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		92.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.2	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.

Verdad Resources
1125 17th St Suite 550
Denver CO 80202

Dean Wagoner
Project Number: [none]
Project: Adam B WH

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 B2C2219 - EPA 5030 (soil)										
Matrix Spike Dup (B2C2219-MSD1)	Source: Y203474-01				Prepared: 03/22/2022 Analyzed: 03/27/2022					
1,2,4-Trimethylbenzene	0.0961	0.00200	mg/kg	0.100	ND	96.1	70-130	9.54	20	
1,3,5-Trimethylbenzene	0.0974	0.00200	"	0.100	ND	97.4	70-130	10.3	20	
Benzene	0.0976	0.00200	"	0.100	ND	97.6	70-130	5.77	20	
Ethylbenzene	0.0920	0.00200	"	0.100	ND	92.0	70-130	10.0	20	
Naphthalene	0.0951	0.0100	"	0.100	ND	95.1	70-130	1.33	20	
Toluene	0.0904	0.00200	"	0.100	ND	90.4	70-130	7.53	20	
o-Xylene	0.0910	0.00200	"	0.100	ND	91.0	70-130	8.46	20	
m,p-Xylene	0.184	0.00400	"	0.200	ND	92.2	70-130	9.43	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		92.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		95.6	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.

Verdad Resources
1125 17th St Suite 550
Denver CO 80202

Dean Wagoner
Project Number: [none]
Project: Adam B WH

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 B2C2924 - EPA 3580										
Blank (B2C2924-BLK1)					Prepared: 03/29/2022 Analyzed: 03/30/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	32		"	24.9		131	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.

Verdad Resources

1125 17th St Suite 550

Denver CO 80202

Dean Wagoner

Project Number: [none]

Project: Adam B WH

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 B2C2924 - EPA 3580

LCS (B2C2924-BS1)

Prepared: 03/29/2022 Analyzed: 03/30/2022

Diesel (C10-C28)	1020	50.0	mg/kg	1000		102	70-130			
Residual Range Organics (C28-C40)	917	200	"	1000		91.7	70-130			
Surrogate: o-Terphenyl	66		"	49.8		132	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.

Verdad Resources
1125 17th St Suite 550
Denver CO 80202

Dean Wagoner
Project Number: [none]
Project: Adam B WH

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 B2C2924 - EPA 3580

Matrix Spike (B2C2924-MS1)		Source: Y203429-01			Prepared: 03/29/2022 Analyzed: 03/30/2022					
Diesel (C10-C28)	1030	50.0	mg/kg	1000	ND	103	70-130			
Residual Range Organics (C28-C40)	959	200	"	1000	51.9	90.7	70-130			
Surrogate: o-Terphenyl	64		"	49.8		128	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.

Verdad Resources
1125 17th St Suite 550
Denver CO 80202

Dean Wagoner
Project Number: [none]
Project: Adam B WH

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 B2C2924 - EPA 3580

Matrix Spike Dup (B2C2924-MSD1)		Source: Y203429-01			Prepared: 03/29/2022 Analyzed: 03/30/2022					
Diesel (C10-C28)	1020	50.0	mg/kg	1000	ND	102	70-130	1.47	35	
Residual Range Organics (C28-C40)	1020	200	"	1000	51.9	96.6	70-130	5.93	35	
Surrogate: o-Terphenyl	58		"	49.8		117	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.

Verdad Resources
1125 17th St Suite 550
Denver CO 80202

Dean Wagoner
Project Number: [none]
Project: Adam B WH

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

Saturated Paste - Quality Control

Origins Laboratory, Inc.

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

Batch B2C2210 - NO PREP

Duplicate (B2C2210-DUP1)

Source: Y203469-07

Prepared: 03/22/2022 Analyzed: 03/23/2022

pH	7.85	pH Units	7.92	0.888	25
----	------	----------	------	-------	----

Batch B2C2213 - NO PREP

Blank (B2C2213-BLK1)

Prepared: 03/22/2022 Analyzed: 03/23/2022

Specific Conductance (EC)	0.00110	0.00500	mmhos/cm
---------------------------	---------	---------	----------

Duplicate (B2C2213-DUP1)

Source: Y203469-07

Prepared: 03/22/2022 Analyzed: 03/23/2022

Specific Conductance (EC)	0.669	0.00500	mmhos/cm	0.653	2.36	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.

Verdad Resources

1125 17th St Suite 550

Denver CO 80202

Dean Wagoner

Project Number: [none]

Project: Adam B WH

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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