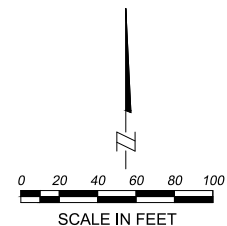


LEGEND	
	SS-BG SOIL SAMPLE LOCATION
	UTILITY POLE
	OhE OVERHEAD ELECTRIC
ND	NOT DETECTED
NA	NOT ANALYZED

SAMPLE DATE	
pH	pH (pH Units)
SAR	SODIUM ABSORPTION RATIO
EC	SPECIFIC CONDUCTANCE (EC) (mmhos/cm)
GRO	GASOLINE RANGE ORGANICS (C6-C10) (mg/kg)
DRO	DIESEL RANGE ORGANICS (C10-C28) (mg/kg)
RRO	RESIDUAL RANGE ORGANICS (C28-C40) (mg/kg)



SOIL SAMPLE LOCATION MAP October 15 & November 5, 2019

IMPETRO RESOURCES, INC.
WALTERS-CALHOUN LEASE HISTORICAL IMPACTS
NENW, S21, T2N, R49W
OTIS, COLORADO

PROJECT:	DRAFT:
1-14006-17728aa	CLB
DATE:	REVIEW:
12/12/2019	



November 13, 2019

CGRS, Inc

Drezden Kinnaird

1301 Academy Court

Fort Collins CO 80524

Project Name - Impetro - Walters-Calhoun**Project Number - 17728aa**

Attached are your analytical results for Impetro - Walters-Calhoun received by Origins Laboratory, Inc. November 06, 2019. This project is associated with Origins project number Y911073-01.

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



CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-East	Y911073-01	Soil	November 5, 2019 13:45	11/06/2019 10:02
SS-Center	Y911073-02	Soil	November 5, 2019 14:00	11/06/2019 10:02
SS-West	Y911073-03	Soil	November 5, 2019 14:15	11/06/2019 10:02
SS-BG	Y911073-04	Soil	November 5, 2019 14:30	11/06/2019 10:02

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.

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

www.originslaboratory.com

page 1 of 1




17728aa

ORIGINS
LABORATORY, INC

Client: CGRS
Address: 1301 Academy Ct, Fort Collins
Telephone Number:
Email Address: Drezden, Elizabeth, John

Project Manager: Drezden Kinnaird
Project Name: Impetro - Walters-Calhoun
Project Number: 17728aa
Samples Collected By: John Acker

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative					Matrix				Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #	Other			
SS-East	11/05/19	1345	2	X					X				TPH	Hold EC, pH, SAR 1
SS-Center	11/05/19	1400	2	X					X				TPH	Hold EC, pH, SAR 2
SS-West	11/05/19	1415	2	X					X				TPH	Hold EC, pH, SAR 3
SS-BG	11/05/19	1430	1	X					X				SAR	4
														5
														6
														7
														8
														9
														10
Relinquished By: 	Date: 11/5/19	Time: 18:00		Received By: 	Date: 11-6-19	Time: 10:02	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard							
Relinquished By: 	Date: 11/6/19	Time: 10:02		Received By:	Date:	Time:								

Date Results Needed

Origins Laboratory, Inc.

Jefe Pellegrini

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.

CGRS, Inc

1301 Academy Court

Fort Collins CO 80524

Drezden Kinnaird

Project Number: 17728aa

Project: Impetro - Walters-Calhoun

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y911073

Client: SRC

Client Project ID: Impetro - Walters - Calhoun

Checklist Completed by: JG

Shipped Via: HD

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

Date/time completed: 11/6/19

Airbill #: N/A

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

(Describe)

Cooler Number/Temperature: 1 / 1.3 °C 1 / _____ °C 1 / _____ °C 1 / _____ °C

Thermometer ID: _____

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

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

Reviewed by (Project Manager) JP

Date/Time Reviewed 11/7/19

Origins Laboratory, Inc.

Jefe Pellegrini

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.

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

SS-East

11/5/2019 1:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y911073-01 (Soil)

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B9K0606	KDK	11/06/2019	11/07/2019	U
Diesel (C10-C28)	1370	50.0	"	"	"	KDK	"	"	
Residual Range Organics (C28-C40)	2670	200	"	"	"	KDK	"	"	

Surrogate: o-Terphenyl	126 %	50-150			"	"	"	
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Origins Laboratory, Inc.



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

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

SS-Center

11/5/2019 2:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y911073-02 (Soil)

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B9K0706	KDK	11/07/2019	11/08/2019	U
Diesel (C10-C28)	1160	50.0	"	"	"	KDK	"	"	
Residual Range Organics (C28-C40)	1970	200	"	"	"	KDK	"	"	

Surrogate: o-Terphenyl	60.4 %	50-150			"	"	"		
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Origins Laboratory, Inc.



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CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

SS-West

11/5/2019 2:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y911073-03 (Soil)

TPH-Carbon Chain by EPA 8015D

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B9K0606	KDK	11/06/2019	11/07/2019	U
Diesel (C10-C28)	653	50.0	"	"	"	KDK	"	"	
Residual Range Organics (C28-C40)	1230	200	"	"	"	KDK	"	"	

Surrogate: o-Terphenyl 43.8 % 50-150 " " " S-04

Origins Laboratory, Inc.



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CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

SS-BG

11/5/2019 2:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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AAL, Inc.
Y911073-04 (Soil)

Metals (Saturated Paste Prep)

Calcium	2.65	me/L	1	[none]	11/07/2019	11/12/2019
Magnesium	0.53	"	"	"	"	"
Sodium	7.45	"	"	"	"	"

SAR by 20B Saturated Paste

SAR	5.91		1	[none]	"	11/12/2019
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Origins Laboratory, Inc.



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CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

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 B9K0606 - EPA 3580										
Blank (B9K0606-BLK1)					Prepared: 11/06/2019 Analyzed: 11/06/2019					
Gasoline (C6-C10)	ND	25.0	mg/kg							U
Diesel (C10-C28)	ND	25.0	"							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	18.6		"	25.0		74.4	50-150			

Origins Laboratory, Inc.



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CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

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 B9K0606 - EPA 3580

LCS (B9K0606-BS1)

Prepared: 11/06/2019 Analyzed: 11/06/2019

Gasoline (C6-C10)	855	50.0	mg/kg	1000		85.5	70-130			
Diesel (C10-C28)	804	50.0	"	1000		80.4	70-130			
Residual Range Organics (C28-C40)	787	200	"	1000		78.7	70-130			
Surrogate: o-Terphenyl	44.9		"	50.0		89.8	50-150			

Origins Laboratory, Inc.



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CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

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 B9K0606 - EPA 3580

Matrix Spike (B9K0606-MS1)		Source: Y911082-01			Prepared: 11/06/2019 Analyzed: 11/06/2019					
Gasoline (C6-C10)	985	50.0	mg/kg	1000	ND	98.5	70-130			
Diesel (C10-C28)	922	50.0	"	1000	ND	92.2	70-130			
Residual Range Organics (C28-C40)	893	200	"	1000	9.93	88.3	70-130			
Surrogate: o-Terphenyl	51.7		"	50.0		103	50-150			

Origins Laboratory, Inc.



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CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

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 B9K0606 - EPA 3580

Matrix Spike Dup (B9K0606-MSD1)		Source: Y911082-01			Prepared: 11/06/2019 Analyzed: 11/06/2019					
Gasoline (C6-C10)	893	50.0	mg/kg	1000	ND	89.3	70-130	9.80	35	
Diesel (C10-C28)	956	50.0	"	1000	ND	95.6	70-130	3.63	35	
Residual Range Organics (C28-C40)	906	200	"	1000	9.93	89.6	70-130	1.47	35	
Surrogate: o-Terphenyl	50.3		"	50.0		101	50-150			

Origins Laboratory, Inc.



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CGRS, Inc
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Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

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 B9K0706 - EPA 3580										
Blank (B9K0706-BLK1)					Prepared: 11/07/2019 Analyzed: 11/07/2019					
Gasoline (C6-C10)	ND	50.0	mg/kg							U
Diesel (C10-C28)	ND	50.0	"							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	49.2		"	50.0		98.4	50-150			

Origins Laboratory, Inc.



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CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

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 B9K0706 - EPA 3580

LCS (B9K0706-BS1)

Prepared: 11/07/2019 Analyzed: 11/07/2019

Gasoline (C6-C10)	1010	50.0	mg/kg	1000		101	70-130			
Diesel (C10-C28)	946	50.0	"	1000		94.6	70-130			
Residual Range Organics (C28-C40)	845	200	"	1000		84.5	70-130			
Surrogate: o-Terphenyl	53.6		"	50.0		107	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.

Jen Pellegrini For Noelle Doyle Mathis, President

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

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 B9K0706 - EPA 3580

Matrix Spike (B9K0706-MS1)		Source: Y911092-01			Prepared: 11/07/2019 Analyzed: 11/07/2019					
Gasoline (C6-C10)	1090	50.0	mg/kg	1000	ND	109	70-130			
Diesel (C10-C28)	1030	50.0	"		20.8		70-130			
Residual Range Organics (C28-C40)	922	200	"		33.8		70-130			
Surrogate: o-Terphenyl	56.4		"	50.0		113	50-150			

Origins Laboratory, Inc.



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CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

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 B9K0706 - EPA 3580

Matrix Spike Dup (B9K0706-MSD1)		Source: Y911092-01			Prepared: 11/07/2019 Analyzed: 11/07/2019					
Gasoline (C6-C10)	1000	50.0	mg/kg	1000	ND	100	70-130	8.24	35	
Diesel (C10-C28)	917	50.0	"		20.8		70-130	11.4	35	
Residual Range Organics (C28-C40)	853	200	"		33.8		70-130	7.81	35	
Surrogate: o-Terphenyl	49.6		"	50.0		99.1	50-150			

Origins Laboratory, Inc.



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CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 17728aa
Project: Impetro - Walters-Calhoun

Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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.