

October 24, 2019

CGRS, Inc

Drezden Kinnaird

1301 Academy Court

Fort Collins CO 80524

Project Name - EWS #4

Project Number - 16204aa

Attached are your analytical results for EWS #4 received by Origins Laboratory, Inc. October 17, 2019. This project is associated with Origins project number Y910258-01.

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: 16204aa
Project: EWS #4

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	Y910258-01	Water	October 16, 2019 16:00	10/17/2019 09:35
MW-2	Y910258-02	Water	October 16, 2019 15:00	10/17/2019 09:35
MW-3	Y910258-03	Water	October 16, 2019 15:15	10/17/2019 09:35
MW-4	Y910258-04	Water	October 16, 2019 15:45	10/17/2019 09:35

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

CGRS, Inc
 1301 Academy Court
 Fort Collins CO 80524

Drezden Kinnaird
 Project Number: 16204aa
 Project: EWS #4

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4910258

Client: CGRS, Inc

Client Project ID: EWS #4

Checklist Completed by: Doc Lee

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

Date/time completed: 10-17-19

Airbill #: 219

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

Cooler Number/Temperature: 1 / 2.9 °C 1 / _____ °C 1 / _____ °C 1 / _____ °C

Thermometer ID: EW3

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"/>			
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) OP

Date/Time Reviewed 10/21/19

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: 16204aa
 Project: EWS #4

MW-1

10/16/2019 4:00:00PM

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

GEL Laboratories, LLC
Y910258-01 (Water)

Anions by EPA 300.0

Chloride	541	100	mg/L	500	1929179	LXA2	10/16/2019	10/21/2019	
Sulfate	854	200	"	"	"	LXA2	"	"	

BTEX by EPA 8260D

Benzene	ND	0.00100	mg/L	1	B9J1701	KDK	10/17/2019	10/17/2019	Ua
Toluene	ND	0.00100	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.00100	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.00100	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	125 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"	"	

TDS by EPA 160.1

Total Dissolved Solids	12900	14.3	mg/L	1	1930265	KLP1	10/16/2019	10/23/2019	
------------------------	-------	------	------	---	---------	------	------------	------------	--

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: 16204aa
 Project: EWS #4

MW-2

10/16/2019 3:00:00PM

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

GEL Laboratories, LLC
Y910258-02 (Water)

Anions by EPA 300.0

Chloride	604	100	mg/L	500	1929179	LXA2	10/16/2019	10/21/2019	
Sulfate	1010	200	"	"	"	LXA2	"	"	

BTEX by EPA 8260D

Benzene	ND	0.00100	mg/L	1	B9J1701	KDK	10/17/2019	10/17/2019	Ua
Toluene	ND	0.00100	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.00100	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.00100	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	131 %	70-130			"	"	"	S-07
Surrogate: Toluene-d8	104 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

TDS by EPA 160.1

Total Dissolved Solids	11000	14.3	mg/L	1	1930265	KLP1	10/16/2019	10/23/2019	
------------------------	-------	------	------	---	---------	------	------------	------------	--

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: 16204aa
 Project: EWS #4

MW-3

10/16/2019 3:15:00PM

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

GEL Laboratories, LLC
Y910258-03 (Water)

Anions by EPA 300.0

Chloride	88.4	100	mg/L	500	1929179	LXA2	10/16/2019	10/21/2019	J
Sulfate	964	200	"	"	"	LXA2	"	"	

BTEX by EPA 8260D

Benzene	ND	0.00100	mg/L	1	B9J1701	KDK	10/17/2019	10/17/2019	Ua
Toluene	ND	0.00100	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.00100	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.00100	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	130 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"	"	

TDS by EPA 160.1

Total Dissolved Solids	6120	14.3	mg/L	1	1930265	KLP1	10/16/2019	10/23/2019	
------------------------	------	------	------	---	---------	------	------------	------------	--

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

CGRS, Inc
 1301 Academy Court
 Fort Collins CO 80524

Drezden Kinnaird
 Project Number: 16204aa
 Project: EWS #4

MW-4

10/16/2019 3:45:00PM

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

GEL Laboratories, LLC
Y910258-04 (Water)

Anions by EPA 300.0

Chloride	560	100	mg/L	500	1929179	LXA2	10/16/2019	10/21/2019	
Sulfate	1470	200	"	"	"	LXA2	"	"	

BTEX by EPA 8260D

Benzene	ND	0.00100	mg/L	1	B9J1701	KDK	10/17/2019	10/17/2019	Ua
Toluene	ND	0.00100	"	"	"	KDK	"	"	Ua
Ethylbenzene	ND	0.00100	"	"	"	KDK	"	"	Ua
Xylenes, total	ND	0.00100	"	"	"	KDK	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	131 %	70-130			"	"	"	S-07
Surrogate: Toluene-d8	102 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	70-130			"	"	"	

TDS by EPA 160.1

Total Dissolved Solids	11000	14.3	mg/L	1	1930265	KLP1	10/16/2019	10/23/2019	
------------------------	-------	------	------	---	---------	------	------------	------------	--

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: 16204aa
 Project: EWS #4

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 B9J1701 - EPA 5030B (Water)

Blank (B9J1701-BLK1)

Prepared: 10/17/2019 Analyzed: 10/17/2019

Benzene	ND	0.00100	mg/L							Ua
Toluene	ND	0.00100	"							Ua
Ethylbenzene	ND	0.00100	"							Ua
Xylenes, total	ND	0.00100	"							Ua
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.078</i>		<i>"</i>	<i>0.0625</i>		<i>125</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.062</i>		<i>"</i>	<i>0.0625</i>		<i>99.6</i>	<i>70-130</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.063</i>		<i>"</i>	<i>0.0625</i>		<i>101</i>	<i>70-130</i>			

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

CGRS, Inc
 1301 Academy Court
 Fort Collins CO 80524

Drezden Kinnaird
 Project Number: 16204aa
 Project: EWS #4

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 B9J1701 - EPA 5030B (Water)

LCS (B9J1701-BS1)

Prepared: 10/17/2019 Analyzed: 10/17/2019

Benzene	0.0447	0.00100	mg/L	0.0500		89.4	70-130			
Toluene	0.0457	0.00100	"	0.0500		91.5	70-130			
Ethylbenzene	0.0485	0.00100	"	0.0500		97.0	70-130			
m,p-Xylene	0.0984	0.00200	"	0.100		98.4	70-130			
o-Xylene	0.0498	0.00100	"	0.0500		99.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.074		"	0.0625		118	70-130			
Surrogate: Toluene-d8	0.062		"	0.0625		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.063		"	0.0625		101	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.

Jen Pellegrini, Project Manager

CGRS, Inc
 1301 Academy Court
 Fort Collins CO 80524

Drezden Kinnaird
 Project Number: 16204aa
 Project: EWS #4

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 B9J1701 - EPA 5030B (Water)

Matrix Spike (B9J1701-MS1)	Source: Y910251-02			Prepared: 10/17/2019 Analyzed: 10/17/2019						
Benzene	0.0468	0.00100	mg/L	0.0500	0.000570	92.4	70-130			
Toluene	0.0470	0.00100	"	0.0500	ND	94.0	70-130			
Ethylbenzene	0.0495	0.00100	"	0.0500	0.000090	98.8	70-130			
m,p-Xylene	0.102	0.00200	"	0.100	ND	102	70-130			
o-Xylene	0.0508	0.00100	"	0.0500	ND	102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.071		"	0.0625		114	70-130			
Surrogate: Toluene-d8	0.063		"	0.0625		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.064		"	0.0625		102	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.

Jen Pellegrini, Project Manager

CGRS, Inc
 1301 Academy Court
 Fort Collins CO 80524

Drezden Kinnaird
 Project Number: 16204aa
 Project: EWS #4

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 B9J1701 - EPA 5030B (Water)

Matrix Spike Dup (B9J1701-MSD1)	Source: Y910251-02			Prepared: 10/17/2019 Analyzed: 10/17/2019						
Benzene	0.0454	0.00100	mg/L	0.0500	0.000570	89.7	70-130	2.84	20	
Toluene	0.0473	0.00100	"	0.0500	ND	94.6	70-130	0.594	20	
Ethylbenzene	0.0484	0.00100	"	0.0500	0.000090	96.6	70-130	2.25	20	
m,p-Xylene	0.0994	0.00200	"	0.100	ND	99.4	70-130	2.05	20	
o-Xylene	0.0504	0.00100	"	0.0500	ND	101	70-130	0.750	20	
Surrogate: 1,2-Dichloroethane-d4	0.072		"	0.0625		116	70-130			
Surrogate: Toluene-d8	0.064		"	0.0625		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.062		"	0.0625		98.4	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.

CGRS, Inc
 1301 Academy Court
 Fort Collins CO 80524

Drezden Kinnaird
 Project Number: 16204aa
 Project: EWS #4

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

Anions by EPA 300.0 - Quality Control
GEL Laboratories, LLC

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

Batch 1929179 -

BLANK (1204409836-BLK)

Prepared: Analyzed: 10/19/2019

Chloride	ND	0.200	mg/L				-			U
Sulfate	ND	0.400	"				-			U

LCS (1204409837-BKS)

Prepared: Analyzed: 10/19/2019

Chloride	5.07	0.200	mg/L	5.00		101	90-110			
Sulfate	10.3	0.400	"	10.0		103	90-110			

DUP (1204409838 D)

Source: 493491003

Prepared: Analyzed: 10/21/2019

Chloride	203	10.0	mg/L		203		0-20	0.0836	20	
Sulfate	195	20.0	"		195		0-20	0.0154	20	

PS (1204409839 S)

Source: 493491003

Prepared: Analyzed: 10/22/2019

Chloride	594	10.0	mg/L	5.00		156	90-110			
Sulfate	939	20.0	"	10.0		149	90-110			

Origins Laboratory, Inc.



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

CGRS, Inc
 1301 Academy Court
 Fort Collins CO 80524

Drezden Kinnaird
 Project Number: 16204aa
 Project: EWS #4

TDS by EPA 160.1 - Quality Control
GEL Laboratories, LLC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1930265 -										
BLANK (1204412320-BLK)					Prepared: Analyzed: 10/23/2019					
Total Dissolved Solids	ND	14.3	mg/L				-			U
LCS (1204412321-BKS)					Prepared: Analyzed: 10/23/2019					
Total Dissolved Solids	294	14.3	mg/L	300		98.1	95-105			
DUP (1204412323 D)					Source: 493502001 Prepared: Analyzed: 10/23/2019					
Total Dissolved Solids	18200	14.3	mg/L		18200		0-5	0.126		5

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: 16204aa
Project: EWS #4

Notes and Definitions

Ua Sample is Non-Detect.

U Result not detected above the detection limit

S-07 High surrogate in sample, however sample is non-detect. High surrogate indicates result values are biased high.

J Greater than the detection limit but less than the reporting limit

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