



March 23, 2020

Mr. Jim Goddard
Expedition Water Solutions
2015 Clubhouse Drive, Suite 201
Greeley, Colorado 80634

Via E-Mail: jgoddard@expedition-water.com

Subject: Quarterly Groundwater Monitoring Report – 1st Quarter 2020
Expedition Water Solutions
EWS #13
23360 County Road 54
Greeley, Colorado 80631
CGRS Project #: 1-12456-18304aa

Mr. Goddard:

This report documents the groundwater monitoring activities performed by CGRS, Inc. (CGRS), at the Expedition Water Solutions (EWS) #13 facility located in Greeley, Colorado, as shown in the Site Location Map. Quarterly groundwater monitoring was performed on January 8, 2020 and consisted of obtaining groundwater levels from all accessible monitoring wells, measuring in-situ water quality parameters, and collection of groundwater quality samples for laboratory analyses from monitoring well locations.

Water quality samples were obtained from seven groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7) and submitted to Origins Laboratory in Denver, Colorado for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), total dissolved solids (TDS), chloride, and sulfate. In-situ field parameters consisting of temperature, specific conductance, dissolved oxygen (DO), pH, and oxidation-reduction potential (ORP) were measured and documented after sampling each monitoring well. Water quality analytical results and Chain of Custody documentation are included in Attachment A, summarized with historical data in Table 1, and depicted in the Groundwater Sample Location Map.

A review of groundwater analytical data indicate that all BTEX analytes from the groundwater quality samples submitted for analysis were below laboratory method detection limits (MDLs) and Colorado Oil and Gas Conservation Commission (COGCC) maximum allowable concentrations (MACs). Additionally, the inorganic analytes represent normal background water quality conditions historically observed at this facility.

To calculate groundwater elevation, depth to groundwater was measured in monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7 and subtracted from surveyed reference elevations, as shown in Table 1. Review of the most recent sample data shows depth to groundwater varied between 4.65 feet below top of well casing (TOC) in monitoring well MW-7 and 8.75 feet below TOC in monitoring well MW-3. The inferred groundwater flow direction is to the north-northeast at a calculated hydraulic gradient of 0.002 ft/ft, as measured between wells MW-7 and MW-2. Inferred water table elevation contours are illustrated in the Groundwater Elevation Map.

At the request of EWS, CGRS will continue to perform groundwater monitoring activities, which will include obtaining water level measurements, obtaining in-situ field measurements, and collecting groundwater quality samples from



project monitoring wells on a quarterly basis. The next monitoring event is scheduled for April 2020. If you have any questions regarding this report, or the project itself, please contact Drezden Kinnaird at dkinnaird@cgrs.com.

Sincerely,
CGRS, Inc.

Joshua Belanger
Staff Geologist

Reviewed by,

Drezden Kinnaird
Project Manager
Environmental Scientist

Enclosures:

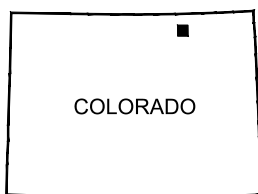
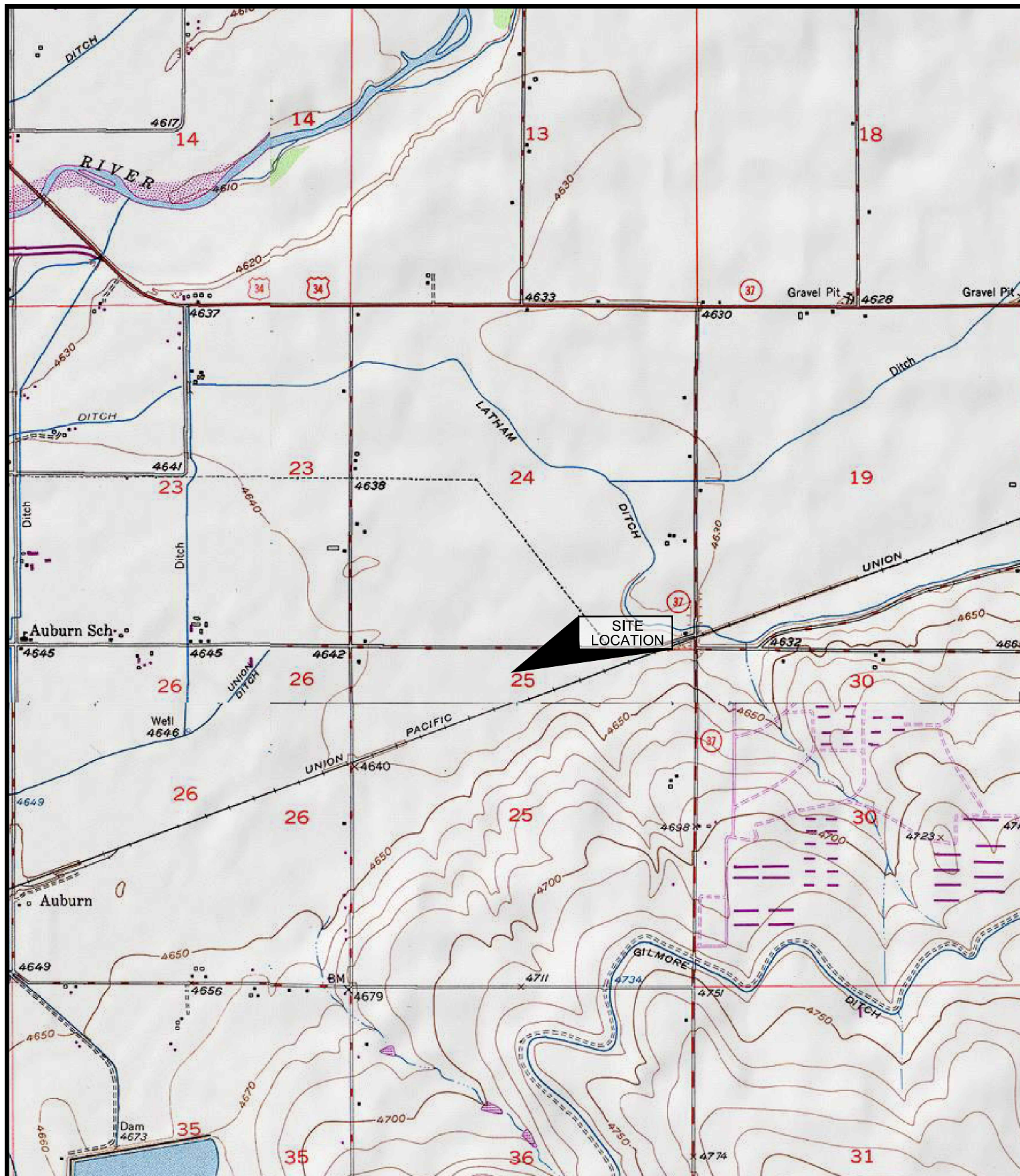
- Site Location Map
- Groundwater Sample Map
- Groundwater Elevation Map
- Table 1 – Groundwater Elevation and Analytical Data
- Attachment A – Groundwater Laboratory Report and Chain of Custody Documentation

Ec: Mr. Dave Gage; Expedition Water Solutions; dgage@expedition-water.com
Mr. Ben Frissell; Weld County Department of Public Health & Environment; bfrissell-durley@weldgov.com
Ms. Danielle Serna – Weld County Department of Public Health & Environment; dserna@weldgov.com



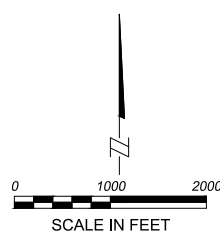
Maps

Site Location Map
Groundwater Sample Location Map
Groundwater Elevation Map



COLORADO

■ QUADRANGLE LOCATION



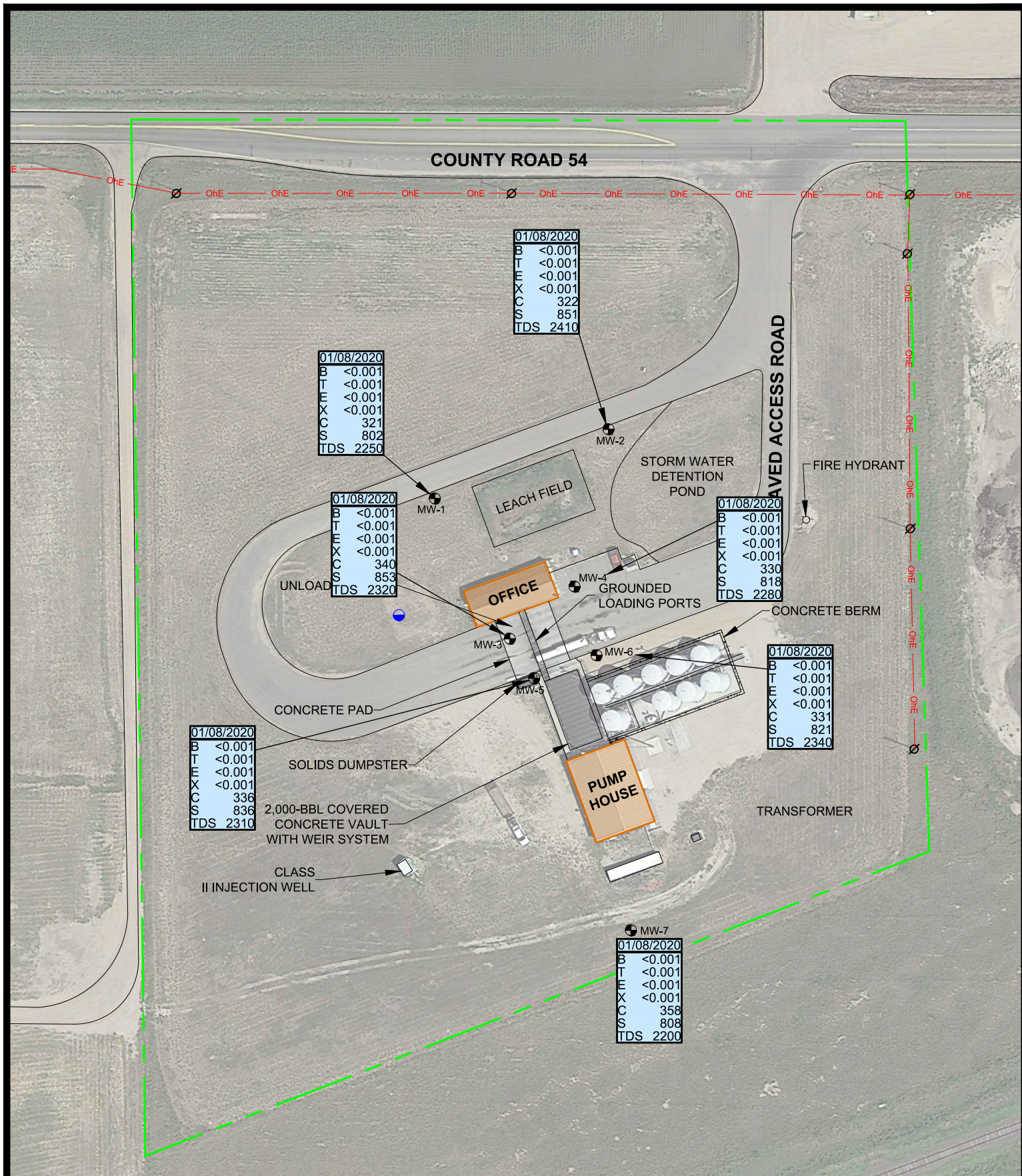
SITE LOCATION MAP

EXPEDITION WATER SOLUTIONS
EWS #13
23360 COUNTY ROAD 54
GREELEY, COLORADO 80631

PROJECT:
1-12456-18304aa
DATE:
01/28/2020

DRAFT:
CLB
REVIEW:



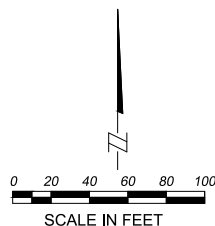


LEGEND

- MW-1 MONITORING WELL
- DOMESTIC WATER WELL
- UTILITY POLE
- OVERHEAD ELECTRIC
- APPROXIMATE PROPERTY BOUNDARY

SAMPLE DATE

B	BENZENE (mg/L)
T	TOLUENE (mg/L)
E	ETHYLBENZENE (mg/L)
X	TOTAL XYLENES (mg/L)
C	CHLORIDE (mg/L)
S	SULFATE (mg/L)
TDS	TOTAL DISSOLVED SOLIDS (mg/L)



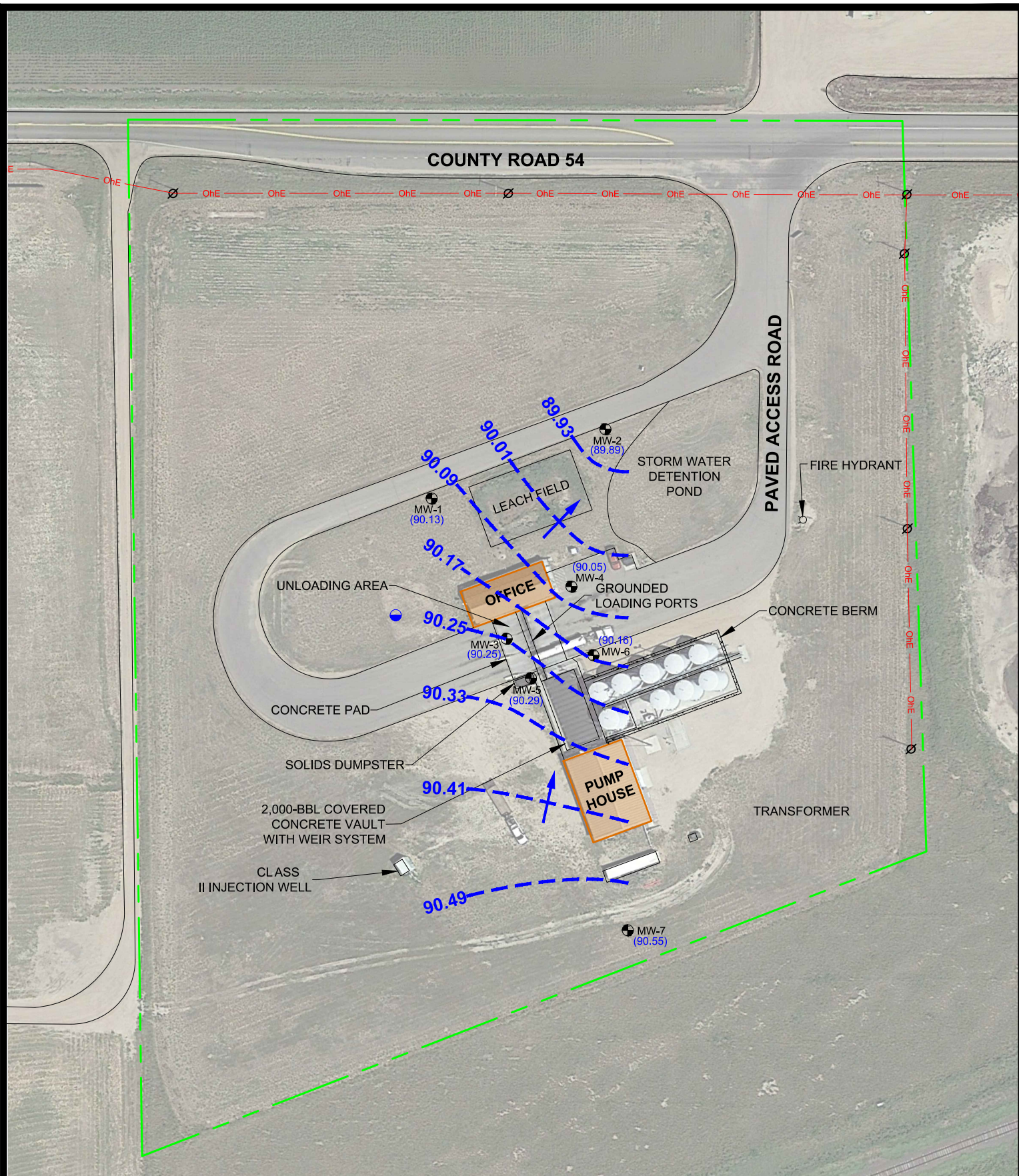
GROUNDWATER SAMPLE MAP

January 8, 2020
 EXPEDITION WATER SOLUTIONS
 EWS #13
 23360 COUNTY ROAD 54
 GREELEY, COLORADO 80631

PROJECT:
1-12456-18304aa
 DATE:
01/28/2020

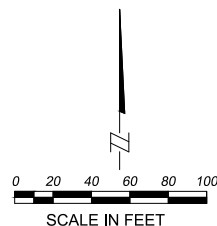
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LEGEND

MW-1	MONITORING WELL		INFERRED FLOW DIRECTION
	DOMESTIC WATER WELL		UTILITY POLE
(90.13)	GROUNDWATER ELEVATION (FEET)		
OhE	OVERHEAD ELECTRIC		
---	APPROXIMATE PROPERTY BOUNDARY		
---	GROUNDWATER ELEVATION CONTOUR		



GROUNDWATER ELEVATION MAP

January 8, 2020

EXPEDITION WATER SOLUTIONS

EWS #13

23360 COUNTY ROAD 54

GREELEY, COLORADO 80631

PROJECT:

1-12456-18304aa

DATE:

01/28/2020

DRAFT:

CLB

REVIEW:





Tables

Groundwater Elevation and Analytical Data

Table 1

Groundwater Elevation and Analytical Data
Groundwater Monitoring Report
Expedition Water Solutions - EWS #13
23360 County Road 54, Greeley, CO 80631

Sample ID	Sample Date	Reference Elevation (ft)	Depth To Water (ft)	Groundwater Elevation (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-Benzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Temperature (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mV)
MAC		-	-	-	0.005	1	0.7	10	1.25 x BG*	1.25 x BG*	1.25 x BG*	-	-	-	-	-
MDL		-	-	-	Various	Various	Various	Various	Various	Various	Various	-	-	-	-	-
MW-1	1/26/2016	96.10	5.66	90.44	<0.001	<0.001	<0.001	<0.001	298	733	2,280	10.13	2,690		7.18	
MW-1	7/26/2016	96.10	4.24	91.86	<0.001	<0.001	<0.001	<0.001	308	845	2,530	17.01	3,322		7.15	
MW-1	1/30/2017	96.10	6.75	89.35	<0.001	<0.001	<0.001	<0.001	340	1,050	1,830	11.74	3,039		7.06	
MW-1	7/24/2017	96.10	4.24	91.86	<0.001	<0.001	<0.001	<0.002	225	617	1,740	16.88	3,289		7.10	
MW-1	1/29/2018	96.10	6.30	89.80	<0.001	<0.001	<0.001	<0.002	382	993	2,320	9.62	3,033		8.50	
MW-1	7/24/2018	96.10	4.95	91.15	<0.001	<0.001	<0.001	<0.002	373	900	1,660	17.95	2,636		7.81	
MW-1	1/30/2019	96.10	6.73	89.37	<0.001	<0.001	<0.001	<0.002	1,280	3,410	1,480	9.40	3,023		7.45	
MW-1	7/29/2019	96.10	5.01	91.09	<0.001	<0.001	<0.001	<0.002	274	670	1,440	16.00	2,938		5.27	
MW-1	1/8/2020	96.10	5.97	90.13	<0.001	<0.001	<0.001	<0.001	321	802	2,250	10.46	3,194	0.38	7.09	151.1
MW-2	1/26/2016	96.40	6.18	90.22	<0.001	<0.001	<0.001	<0.001	330	801	2,250	10.21	2,780		7.03	
MW-2	7/26/2016	96.40	4.60	91.80	<0.001	<0.001	<0.001	<0.001	292	743	2,330	14.80	3,020		7.14	
MW-2	1/30/2017	96.40	7.31	89.09	<0.001	<0.001	<0.001	<0.001	379	1,200	1,890	11.44	3,152		7.01	
MW-2	7/24/2017	96.40	4.49	91.91	<0.001	<0.001	<0.001	<0.002	228	593	1,780	18.37	1,618		7.13	
MW-2	1/29/2018	96.40	6.86	89.54	<0.001	<0.001	<0.001	<0.002	402	1,090	2,560	10.86	3,322		8.77	
MW-2	7/24/2018	96.40	5.24	91.16	<0.001	<0.001	<0.001	<0.002	406	967	1,720	17.18	2,692		7.74	
MW-2	1/30/2019	96.40	4.27	92.13	<0.001	<0.001	<0.001	<0.002	1,220	3,230	1,500	10.57	3,114		7.43	
MW-2	7/29/2019	96.40	5.40	91.00	<0.001	<0.001	<0.001	<0.002	299	692	1,450	15.32	3,028		5.45	
MW-2	1/8/2020	96.40	6.51	89.89	<0.001	<0.001	<0.001	<0.001	322	851	2,410	11.06	3,302	1.95	7.06	132.0
MW-3	1/26/2016	99.00	8.41	90.59	<0.001	<0.001	<0.001	<0.001	335	734	2,310	10.90	2,775		7.28	
MW-3	7/26/2016	99.00	7.14	91.86	<0.001	<0.001	<0.001	<0.001	298	758	2,410	14.39	3,157		7.10	
MW-3	1/30/2017	99.00	9.54	89.46	<0.001	<0.001	<0.001	<0.001	286	1,090	1,800	11.32	2,963		7.06	
MW-3	7/24/2017	99.00	7.20	91.80	<0.001	<0.001	<0.001	<0.002	235	592	1,800	14.20	3,147		7.07	
MW-3	1/29/2018	99.00	9.10	89.90	<0.001	<0.001	<0.001	<0.002	435	1,210	2,270	10.30	3,060		8.76	
MW-3	7/24/2018	99.00	7.78	91.22	<0.001	<0.001	<0.001	<0.002	382	902	1,690	15.15	2,479		7.67	
MW-3	1/30/2019	99.00	9.51	89.49	<0.001	<0.001	<0.001	<0.002	1,230	3,180	1,570	10.28	3,173		7.29	
MW-3	7/29/2019	99.00	7.99	91.01	<0.001	<0.001	<0.001	<0.002	248	620	1,140	13.62	2,938		7.32	
MW-3	1/8/2020	99.00	8.75	90.25	<0.001	<0.001	<0.001	<0.001	340	853	2,320	10.31	3,296	0.50	7.11	168.8
MW-4	1/26/2016	98.70	8.33	90.37	<0.001	<0.001	<0.001	<0.001	322	751	2,250	11.70	2,718		7.29	
MW-4	7/26/2016	98.70	6.97	91.73	<0.001	<0.001	<0.001	<0.001	302	722	2,190	13.80	2,901		7.31	
MW-4	1/30/2017	98.70	9.44	89.26	<0.001	<0.001	<0.001	<0.001	352	1,100	1,770	12.07	2,872		7.12	
MW-4	7/24/2017	98.70	6.98	91.72	<0.001	<0.001	<0.001	<0.002	248	620	1,770	13.50	2,909		7.27	
MW-4	1/29/2018	98.70	8.98	89.72	<0.001	<0.001	<0.001	<0.002	428	1,180	2,400	11.20	3,138		8.40	
MW-4	7/24/2018	98.70	8.10	90.60	0.0017	0.0015	<0.001	<0.002	439	1,020	1,730	15.42	2,484		7.62	
MW-4	1/30/2019	98.70	9.41	89.29	<0.001	<0.001	<0.001	<0.002	1,300	3,340	1,580	10.78	3,220		7.31	
MW-4	7/29/2019	98.70	7.82	90.88	<0.001	<0.001	<0.001	<0.002	276	670	1,450	12.64	3,013		6.98	
MW-4	1/8/2020	98.70	8.65	90.05	<0.001	<0.001	<0.001	<0.001	330	818	2,280	11.94	3,182	0.16	7.04	174.8
MW-5	1/26/2016	99.00	8.41	90.59	<0.001	<0.001	<0.001	<0.001	313	722	2,110	9.31	2,658		7.20	
MW-5	4/26/2016	99.00	10.07	88.93	<0.001	<0.001	<0.001	<0.001	371	725	2,290	8.33	2,991		6.68	
MW-5	7/26/2016	99.00	7.16	91.84	<0.001	<0.001	<0.001	<0.001	270	650	2,250	15.29	2,939		7.21	
MW-5	10/31/2016	99.00	6.87	92.13	<0.001	<0.001	<0.001	<0.001	382	1,050	1,800	16.20	3,364		7.39	
MW-5	1/30/2017	99.00	9.50	89.50	<0.001	<0.001	<0.001	<0.001	362	1,070	1,760	11.29	2,960		7.09	
MW-5	4/27/2017	99.00	11.21	87.79	<0.001	<0.001	<0.001	<0.002	423	933	2,410	8.95	3,146		7.26	
MW-5	7/24/2017	99.00	7.22	91.78	<0.001	<0.001	<0.001	<0.002	207	498	1,780	14.65	2,950		7.17	
MW-5	10/27/2017	99.00	5.48	93.52	<0.001	<0.001	<0.001	<0.002	283	830	2,510	14.81	3,317		7.68	
MW-5	1/29/2018	99.00	9.09	89.91	<0.001	<0.001	<0.001	<0.002	454	1,270	2,460	9.78	3,243		8.30	
MW-5	4/12/2018	99.00	11.00	88.00	<0.001	<0.001	<0.001	<0.002	362	1,100	2,570	8.41	3,337		7.34	
MW-5	7/24/2018	99.00	8.00	91.00	0.0012	<0.001	<0.001	<0.002	505	1,160	1,780	15.96	2,648		7.64	
MW-5	10/29/2018	99.00	6.10	92.90	<0.001	<0.001	<0.001	<0.002	316	683	1,720	16.21	3,061		7.26	
MW-5	1/30/2019	99.00	9.46	89.54	0.0019	0.0021	<0.001	<0.002	1,130	2,910	1,580	10.27	3,190		7.70	
MW-5	4/29/2019	99.00	11.30	87.70	<0.001	<0.001	<0.001	<0.002	227	488	1,580	7.41	3,240		7.19	
MW-5	7/29/2019	99.00	8.03	90.97	<0.001	<0.001	<0.001	<0.002	< 6.00	319	1,400	13.55	2,935		7.33	
MW-5	1/8/2020	99.00	8.71	90.29	<0.001	<0.001	<0.001	<0.001	336	836	2,310	10.66	3,301	0.71	7.08	172.5
MW-6	1/26/2016	98.80	8.28	90.52	0.0039	0.0022	<0.001	<0.001	312	718	2,250	11.78	2,692		7.24	
MW-6	4/26/2016	98.80	9.98	88.82	<0.001	<0.001	<0.001	<0.001	371	751	2,200	9.80	3,059		7.45	
MW-6	7/26/2016	98.80	7.00	91.80	<0.001	<0.001	<0.001	<0.001	264	550	2,340	13.40	3,068		7.16	
MW-6	10/31/2016	98.80	6.72	92.08	<0.001	<0.001	<0.001	<0.001	60	204	1,700	15.38	3,283		7.38	
MW-6	1/30/2017	98.80	9.42	89.38	0.0018	0.0018	<0.001	<0.001	387	1,110	1,780	12.26	2,957		7.17	
MW-6	4/27/2017	98.80	11.12	87.68	<0.001	<0.001	<0.001	<0.002	358	812	2,350	10.69	3,030		7.35	
MW-6	7/24/2017	98.80	7.03	91.77	<0.001	<0.001	<0.001	<0.002	236	564	1,800	13.18	3,014		7.09	
MW-6	10/27/2017	98.80	5.38	93.42	0.0019	0.0012	<0.001	<0.002	69	167	2,510	16.91	3,338		7.73	
MW-6	1/29/2018	98.80	9.00	89.80	<0.001	<0.001	<0.001	<0.002	526	1,470	2,510	13.65	3,294		8.45	
MW-6	4/12/2018	98.80	10.97	87.83	<0.001	<0.001	<0.001	<0.002	390	1,130	2,540	11.86	3,347		7.27	
MW-6	7/24/2018	98.80	7.92	90.88	0.015	0.014	<0.001	0.0028	451	1,070	1,840	16.80	2,790		7.73	
MW-6	10/29/2018	98.80	6.00	92.80	<0.001	<0.001	<0.001	<0.002	269	602	1,720	19.39	3,026		7.26	
MW-6	1/30/2019	98.80	9.38	89.42	0.001	<0.001	<0.001	<0.002	989	2,520	1,560	13.82	3,219		7.30	
MW-6	4/29/2019	98.80	11.24	87.56	<0.001	<0.001	<0.001	<0.002	233	570	1,570	9.66	3,211		7.16	
MW-6	7/29/2019	98.80	7.88	90.92	<0.001	<0.001	<0.001	<0.002	258	647	1,540	14.99	2,999		7.38	
MW-6	1/8/2020	98.80	8.64	90.16	<0.001	<0.001	<0.001	<0.001	331	821	2,340	12.38	3,299	0.65	7.04	173.2
MW-7	7/26/2016	95.20	3.45	91.75	<0.001	<0.001	<0.001	<0.001	306	674	2,630	13.50	3,424		6.60	
MW-7	1/30/2017	95.20	5.43	89.77	<0.001	<0.001	<0.001	<0.001	318	988	1,730	8.60	2,912		6.85	
MW-7	7/24/2017	95.20	3.68	91.52	<0.001	<0.001	<0.001	<0.002	267	573	1,800	13.				



Attachments

Laboratory Reports and Chain of Custody Documentation



January 16, 2020

CGRS, Inc

Drezden Kinnaird

1301 Academy Court

Fort Collins CO 80524

Project Name - EWS #13

Project Number - 18304aa

Attached are your analytical results for EWS #13 received by Origins Laboratory, Inc. January 09, 2020. This project is associated with Origins project number Y001106-01.

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

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 18304aa
Project: EWS #13

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	Y001106-01	Water	January 8, 2020 11:00	01/09/2020 10:58
MW-2	Y001106-02	Water	January 8, 2020 11:15	01/09/2020 10:58
MW-3	Y001106-03	Water	January 8, 2020 11:30	01/09/2020 10:58
MW-4	Y001106-04	Water	January 8, 2020 11:45	01/09/2020 10:58
MW-5	Y001106-05	Water	January 8, 2020 12:00	01/09/2020 10:58
MW-6	Y001106-06	Water	January 8, 2020 12:15	01/09/2020 10:58
MW-7	Y001106-07	Water	January 8, 2020 12:30	01/09/2020 10:58

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: 18304aa
Project: EWS #13

www.originslaboratory.com

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ORIGINS
LABORATORY, INC

page 1 of 1

Client: CGRS
Address: 1301 Academy Ct, Fort Collins
Telephone Number: 970-631-1876
Email Address: dkinnaird@cgrs.com, ewilson@cgrs.com

Project Manager: Drezden Kinnaird
Project Name: EWS #13
Project Number: 18304aa
Samples Collected By: dkinnaird@cgrs.com, ewilson@cgrs.com

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative						Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other				
MW-1	11/8/2020	11:00	5	X				X				X	1	BTEX, TDS, Chloride, Sulfate	Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>
MW-2		11:15	5	X				X				X	2		
MW-3		11:30	5	X				X				X	3		
MW-4		11:45	5	X				X				X	4		
MW-5		12:00	5	X				X				X	5		
MW-6		12:15	5	X				X				X	6		
MW-7		12:30	5	X				X				X	7		
Amended Blank			1	X				X				X	8	removed per the	phone call w/ Decade?
Blank			1	X				X				X	9		
Blank													10	on 1/9/2020	
Relinquished By: <i>Justa</i>	Date: 1/8/2020	Time: 17:00												Turnaround Time:	Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>
Relinquished By: <i>[Signature]</i>	Date: 1/9/2020	Time: 11:00												Date: 1-9-20	Time: 1059

Date Results Needed

2.2

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: 18304aa

Project: EWS #13

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: Y001106

Client: CGRS

Client Project ID: EWS #13

Checklist Completed by: JG

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

Date/time completed: 1/9/20

Airbill #: _____

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

Cooler Number/Temperature: 1 / 2-2 °C _____ / _____ °C _____ / _____ °C _____ / _____ °C

Thermometer ID: 7003

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) JG

Date/Time Reviewed 1/10/20

Origins Laboratory, Inc.

Jen 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.

Jen Pellegrini, Project Manager

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 18304aa
Project: EWS #13

MW-1

1/8/2020 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y001106-01 (Water)

Anions by EPA 300.0

Chloride	321	20.0	mg/L	100	1957560	LXA2	01/08/2020	01/10/2020	
Sulfate	802	40.0	"	"	"	LXA2	"	"	

BTEX by EPA 8260D

Benzene	ND	0.00100	mg/L	1	B0A0907	KDK	01/09/2020	01/09/2020	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	103 %	70-130			"	"	"	
Surrogate: Toluene-d8	99.9 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.9 %	70-130			"	"	"	

TDS by EPA 160.1

Total Dissolved Solids	2250	14.3	mg/L	1	1958346	KLP1	01/08/2020	01/14/2020	
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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: 18304aa
Project: EWS #13

MW-2

1/8/2020 11:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y001106-02 (Water)

Anions by EPA 300.0

Chloride	322	20.0	mg/L	100	1957560	LXA2	01/08/2020	01/10/2020	
Sulfate	851	40.0	"	"	"	LXA2	"	"	

BTEX by EPA 8260D

Benzene	ND	0.00100	mg/L	1	B0A0907	KDK	01/09/2020	01/09/2020	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	103 %	70-130			"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.4 %	70-130			"	"	"	

TDS by EPA 160.1

Total Dissolved Solids	2410	14.3	mg/L	1	1958346	KLP1	01/08/2020	01/14/2020	
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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: 18304aa
Project: EWS #13

MW-3

1/8/2020 11:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y001106-03 (Water)

Anions by EPA 300.0

Chloride	340	20.0	mg/L	100	1957560	LXA2	01/08/2020	01/10/2020	
Sulfate	853	40.0	"	"	"	LXA2	"	"	

BTEX by EPA 8260D

Benzene	ND	0.00100	mg/L	1	B0A0907	KDK	01/09/2020	01/09/2020	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	100 %	70-130			"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.4 %	70-130			"	"	"	

TDS by EPA 160.1

Total Dissolved Solids	2320	14.3	mg/L	1	1958346	KLP1	01/08/2020	01/14/2020	
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Origins Laboratory, Inc.



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CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 18304aa
Project: EWS #13

MW-4

1/8/2020 11:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y001106-04 (Water)

Anions by EPA 300.0

Chloride	330	20.0	mg/L	100	1957560	LXA2	01/08/2020	01/10/2020	
Sulfate	818	40.0	"	"	"	LXA2	"	"	

BTEX by EPA 8260D

Benzene	ND	0.00100	mg/L	1	B0A0907	KDK	01/09/2020	01/10/2020	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	102 %	70-130			"	"	"	
Surrogate: Toluene-d8	99.8 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

TDS by EPA 160.1

Total Dissolved Solids	2280	14.3	mg/L	1	1958346	KLP1	01/08/2020	01/14/2020	
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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: 18304aa
Project: EWS #13

MW-5

1/8/2020 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y001106-05 (Water)

Anions by EPA 300.0

Chloride	336	20.0	mg/L	100	1957560	LXA2	01/08/2020	01/14/2020	
Sulfate	836	40.0	"	"	"	LXA2	"	"	

BTEX by EPA 8260D

Benzene	ND	0.00100	mg/L	1	B0A0907	KDK	01/09/2020	01/10/2020	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	101 %	70-130			"	"	"	
Surrogate: Toluene-d8	99.9 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.9 %	70-130			"	"	"	

TDS by EPA 160.1

Total Dissolved Solids	2310	14.3	mg/L	1	1958346	KLP1	01/08/2020	01/14/2020	
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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: 18304aa
Project: EWS #13

MW-6

1/8/2020 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y001106-06 (Water)

Anions by EPA 300.0

Chloride	331	20.0	mg/L	100	1957560	LXA2	01/08/2020	01/10/2020	
Sulfate	821	40.0	"	"	"	LXA2	"	"	

BTEX by EPA 8260D

Benzene	ND	0.00100	mg/L	1	B0A0907	KDK	01/09/2020	01/10/2020	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	102 %	70-130			"	"	"	
Surrogate: Toluene-d8	99.9 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

TDS by EPA 160.1

Total Dissolved Solids	2340	14.3	mg/L	1	1958346	KLP1	01/08/2020	01/14/2020	
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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: 18304aa
Project: EWS #13

MW-7

1/8/2020 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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GEL Laboratories, LLC

Y001106-07 (Water)

Anions by EPA 300.0

Chloride	358	20.0	mg/L	100	1957560	LXA2	01/08/2020	01/10/2020	
Sulfate	808	40.0	"	"	"	LXA2	"	"	

BTEX by EPA 8260D

Benzene	ND	0.00100	mg/L	1	B0A0907	KDK	01/09/2020	01/10/2020	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	101 %	70-130			"	"	"	
Surrogate: Toluene-d8	98.3 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.5 %	70-130			"	"	"	

TDS by EPA 160.1

Total Dissolved Solids	2200	14.3	mg/L	1	1958369	KLP1	01/08/2020	01/14/2020	
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Origins Laboratory, Inc.



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CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 18304aa
Project: EWS #13

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 B0A0907 - EPA 5030B (Water)

Blank (B0A0907-BLK1)

Prepared: 01/09/2020 Analyzed: 01/09/2020

Benzene	ND	0.00100	mg/L							Ua
Toluene	ND	0.00100	"							Ua
Ethylbenzene	ND	0.00100	"							Ua
Xylenes, total	ND	0.00100	"							Ua
Surrogate: 1,2-Dichloroethane-d4	0.064		"	0.0625		103	70-130			
Surrogate: Toluene-d8	0.062		"	0.0625		99.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.062		"	0.0625		98.5	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 18304aa
Project: EWS #13

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 B0A0907 - EPA 5030B (Water)										
LCS (B0A0907-BS1)					Prepared: 01/09/2020 Analyzed: 01/09/2020					
Benzene	0.0468	0.00100	mg/L	0.0500		93.6	70-130			
Toluene	0.0468	0.00100	"	0.0500		93.7	70-130			
Ethylbenzene	0.0446	0.00100	"	0.0500		89.1	70-130			
m,p-Xylene	0.0903	0.00200	"	0.100		90.3	70-130			
o-Xylene	0.0461	0.00100	"	0.0500		92.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.062		"	0.0625		98.4	70-130			
Surrogate: Toluene-d8	0.063		"	0.0625		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.063		"	0.0625		101	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 18304aa
Project: EWS #13

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 B0A0907 - EPA 5030B (Water)

Matrix Spike (B0A0907-MS1)		Source: Y001095-01			Prepared: 01/09/2020 Analyzed: 01/09/2020					
Benzene	0.0511	0.00100	mg/L	0.0500	0.00118	99.9	70-130			
Toluene	0.0511	0.00100	"	0.0500	ND	102	70-130			
Ethylbenzene	0.0484	0.00100	"	0.0500	0.000220	96.4	70-130			
m,p-Xylene	0.0992	0.00200	"	0.100	0.000200	99.0	70-130			
o-Xylene	0.0507	0.00100	"	0.0500	ND	101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.061		"	0.0625		97.8	70-130			
Surrogate: Toluene-d8	0.062		"	0.0625		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.063		"	0.0625		101	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 18304aa
Project: EWS #13

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 B0A0907 - EPA 5030B (Water)

Matrix Spike Dup (B0A0907-MSD1)		Source: Y001095-01			Prepared: 01/09/2020 Analyzed: 01/09/2020					
Benzene	0.0492	0.00100	mg/L	0.0500	0.00118	96.0	70-130	3.89	20	
Toluene	0.0503	0.00100	"	0.0500	ND	101	70-130	1.60	20	
Ethylbenzene	0.0501	0.00100	"	0.0500	0.000220	99.8	70-130	3.47	20	
m,p-Xylene	0.101	0.00200	"	0.100	0.000200	101	70-130	1.95	20	
o-Xylene	0.0500	0.00100	"	0.0500	ND	100	70-130	1.41	20	
Surrogate: 1,2-Dichloroethane-d4	0.061		"	0.0625		97.0	70-130			
Surrogate: Toluene-d8	0.062		"	0.0625		98.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.063		"	0.0625		101	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 18304aa
Project: EWS #13

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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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
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Batch 1957560 -

BLANK (1204471832-BLK)

Prepared: Analyzed: 01/10/2020

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

LCS (1204471833-BKS)

Prepared: Analyzed: 01/10/2020

Chloride	4.55	0.200	mg/L	5.00		91.1	90-110			
Sulfate	9.36	0.400	"	10.0		93.6	90-110			

DUP (1204471835 D)

Source: 500805006

Prepared: Analyzed: 01/13/2020

Chloride	2440	80.0	mg/L		2440		0-20	0.0197	20	
Sulfate	60.1	40.0	"		59.0		0-20	1.8	20	

PS (1204471837 S)

Source: 500805006

Prepared: Analyzed: 01/13/2020

Chloride	7370	80.0	mg/L	10.0		123	90-110			
Sulfate	1000	40.0	"	10.0		94.5	90-110			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 18304aa
Project: EWS #13

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 1958346 -										
BLANK (1204473678-BLK)					Prepared: Analyzed: 01/14/2020					
Total Dissolved Solids	ND	14.3	mg/L				-			U
LCS (1204473679-BKS)					Prepared: Analyzed: 01/14/2020					
Total Dissolved Solids	289	14.3	mg/L	300		96.2	95-105			
DUP (1204473681 D)					Source: 500610003 Prepared: Analyzed: 01/14/2020					
Total Dissolved Solids	166	14.3	mg/L		166		0-5	0	5	
Batch 1958369 -										
BLANK (1204473703-BLK)					Prepared: Analyzed: 01/14/2020					
Total Dissolved Solids	4.29	14.3	mg/L				-			J
LCS (1204473704-BKS)					Prepared: Analyzed: 01/14/2020					
Total Dissolved Solids	299	14.3	mg/L	300		99.5	95-105			
DUP (1204473706 D)					Source: 500553001 Prepared: Analyzed: 01/14/2020					
Total Dissolved Solids	241	14.3	mg/L		246		0-5	1.76	5	

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

CGRS, Inc
1301 Academy Court
Fort Collins CO 80524

Drezden Kinnaird
Project Number: 18304aa
Project: EWS #13

Notes and Definitions

Ua Sample is Non-Detect.

U Result not detected above the detection limit

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.

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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