



January 24, 2019

Mr. Tim Hager  
Blue Chip Oil, Inc.  
155 E. Boardwalk Drive, Suite 400  
Fort Collins, CO 80525

Via E-Mail: [bluechipoil@msn.com](mailto:bluechipoil@msn.com)

Re: Quarterly Groundwater Monitoring Report  
Blue Chip Oil, Inc. (COGCC Operator #8840)  
Sloan 1 Facility (COGCC Facility ID #326709)  
COGCC Remediation Project #10571

Mr. Hager:

This report documents monitoring activities performed by CGRS, Inc. (CGRS), at the Blue Chip Oil Sloan 1 facility located near Windsor, Colorado, as shown in the Site Location Map. Quarterly groundwater monitoring was performed on December 11, 2018, and consisted of obtaining groundwater levels from all accessible monitoring points and collecting groundwater quality samples for laboratory analyses from all accessible monitoring point locations.

Water quality samples were obtained from six groundwater monitoring points (MP-01, MP-02, MP-03, MP-04, MP-05, MP-06, and MP-07) and submitted to Origins Laboratory in Denver, Colorado for analysis to determine concentrations of benzene, toluene, ethylbenzene, and total xylenes (BTEX). 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 indicates that BTEX analytes from the groundwater quality samples submitted for analyses were below laboratory method detection limits (MDLs) with the exception of the groundwater sample collected from MP-01. The analytical report indicated a presence of xylenes in the sample taken from MP-01, with a concentration of 0.00117 mg/L. Although the concentration of xylenes were above the MDL, they are below the Colorado Oil and Gas Conservation Commission (COGCC) maximum allowable concentrations (MACs).

To calculate groundwater elevation, depth to groundwater was measured in monitoring points MP-01, MP-02, MP-03, MP-05, MP-06, MP-07, and MW-A and subtracted from surveyed reference elevations, as shown in Table 1. Review of the most recent quarterly data shows depth to groundwater varied between 8.49 feet below top of well casing (TOC) in monitoring point MP-02 to 10.74 feet below TOC in well MP-07. The inferred groundwater flow direction is to the southeast at a calculated hydraulic gradient of 0.002 ft/ft as measured between wells MP-02 and MP-07. Inferred water table elevation contours are illustrated in the Groundwater Elevation Map.

Based on groundwater laboratory analytical data, it appears that the impacts to groundwater have been adequately defined and abated. At this time, CGRS, on behalf of Blue Chip Oil, respectfully requests closure of Form 27 Remediation Project No. 10571. If you have any questions regarding this report or the project itself, please contact Drezden Kinnaird at [dkinnaird@cgrs.com](mailto:dkinnaird@cgrs.com).



Sincerely,  
**CGRS, Inc.**

**Elizabeth Wilson**  
Staff Geologist III

Reviewed by,

**Dresden Kinnaird**  
Staff Environmental Scientist III

Enclosures:

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

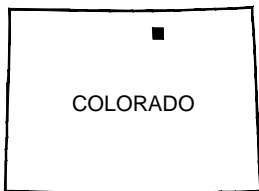
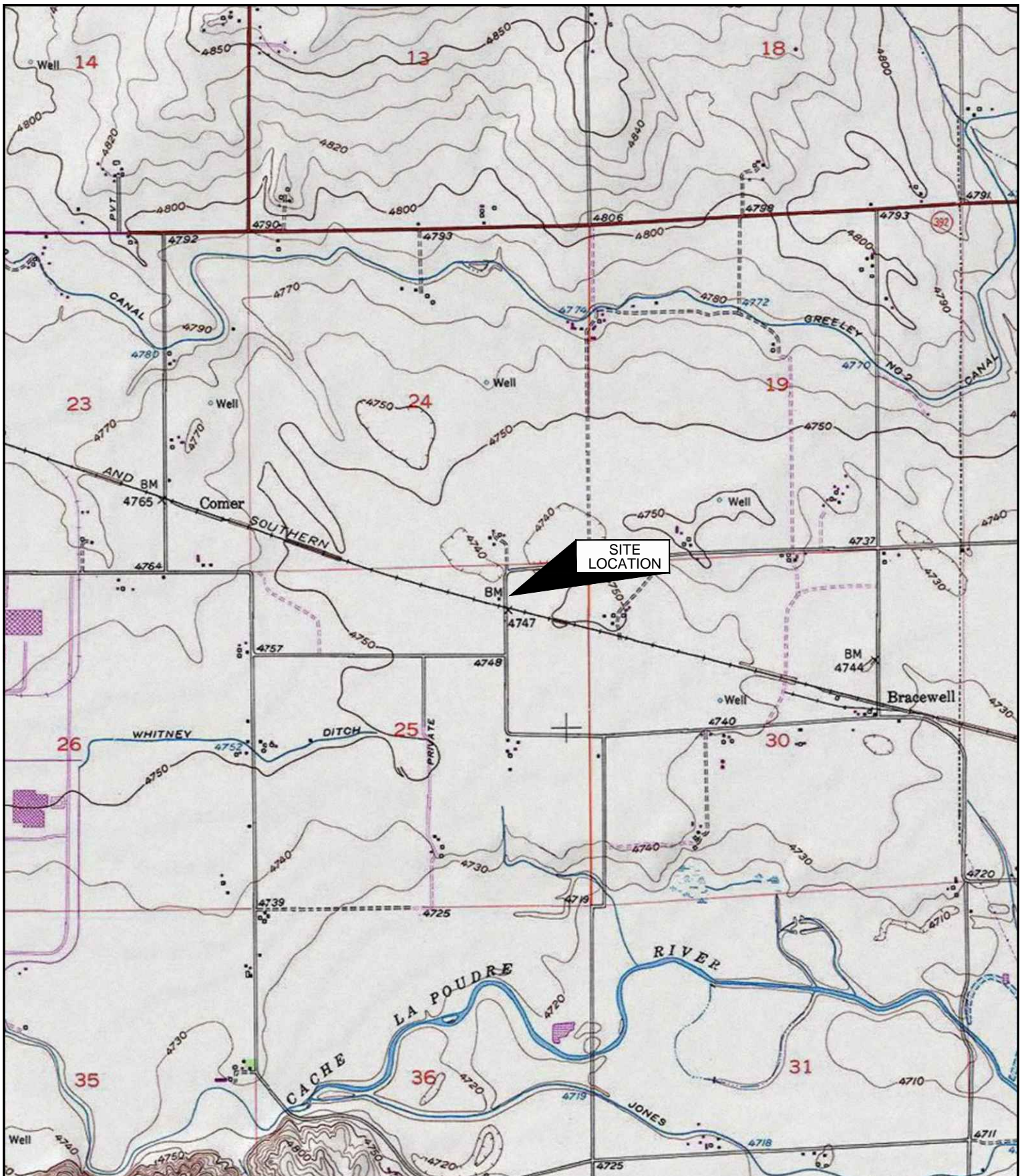
ec: Rick Allison – Colorado Oil & Gas Conservation Commission – [rick.allison@state.com.us](mailto:rick.allison@state.com.us)



## Maps

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Site Location Map  
Groundwater Sample Location Map  
Groundwater Elevation Map



COLORADO

■ QUADRANGLE LOCATION



NORTH

0 1000 2000  
SCALE IN FEET

# SITE LOCATION MAP

BLUE CHIP OIL  
SLOAN 1  
NENE, SEC. 25, T6N, R67W  
GREELEY, COLORADO 80631

PROJECT:  
1-12696-16926aa

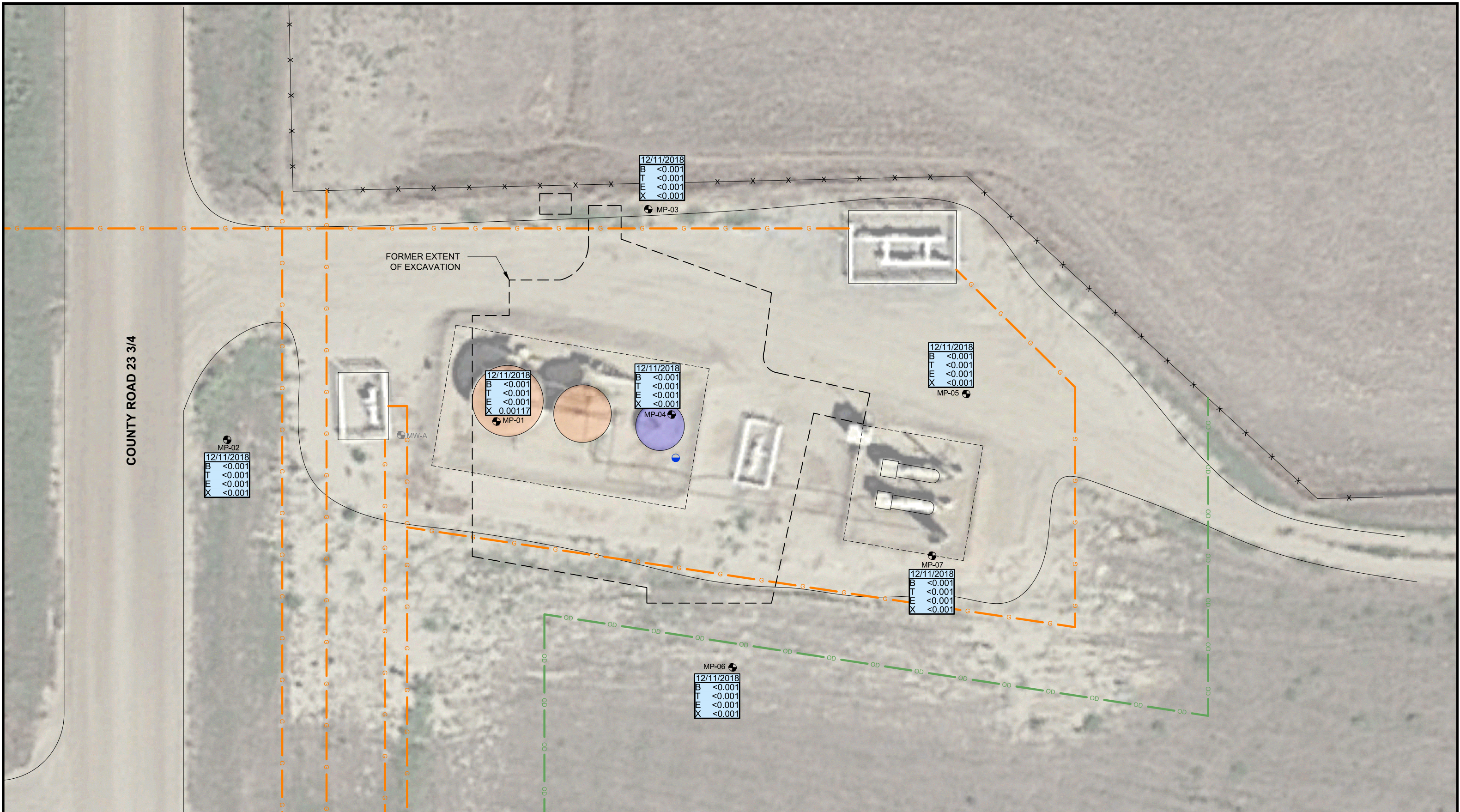
DRAFT:  
TJQ

DATE:  
7/20/2018

REVIEW:







LEGEND

MP-01 MONITORING POINT

12" OIL LINE

NATURAL GAS LINE

FORMER SOIL SECONDARY CONTAINMENT BERM

FENCE LINE

FORMER SEPARATOR

REMOVED OIL TANK

REMOVED PRODUCED WATER TANK

SAMPLE DATE

B BENZENE (mg/L)

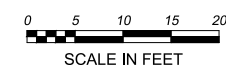
T TOLUENE (mg/L)

E ETHYLBENZENE (mg/L)

X TOTAL XYLENES (mg/L)



NORTH



SCALE IN FEET

GROUNDWATER SAMPLE MAP

December 11, 2018

BLUE CHIP OIL

SLOAN 1

NENE, SEC. 25, T6N, R67W

GREELEY, COLORADO 80631

PROJECT:

1-12696-16926aa

DATE:

12/31/2018

DRAFT:

CLB

REVIEW:







<b>LEGEND</b>		<b>GROUNDWATER ELEVATION MAP</b> December 11, 2018 BLUE CHIP OIL SLOAN 1 NENE, SEC. 25, T6N, R67W GREELEY, COLORADO 80631	
● MP-01 MONITORING POINT	□ FORMER SEPARATOR	PROJECT: 1-12696-16926aa	DRAFT: CLB
----- FORMER SOIL SECONDARY CONTAINMENT BERM	○ REMOVED OIL TANK	DATE: 12/31/2018	REVIEW:
—*— FENCE LINE	● REMOVED PRODUCED WATER TANK		
- - - - INFERRED GROUNDWATER CONTOUR			
(90.45) GROUNDWATER ELEVATION (FEET)			
→ INFERRED FLOW DIRECTION			





**Table 1**

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Groundwater Elevation and Analytical Data

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Groundwater Monitoring Report  
Blue Chip Oil, Inc - Sloan 1  
NESE, Sec. 25, T6N, R67W  
Greeley, Colorado

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)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	TDS (mg/L)
MAC		-	-	-	0.005	0.560	0.7	1.4	500	500	1.25 x BG	1.25 x BG	1.25 x BG
MDL		-	-	-	<0.001	<0.001	<0.001	<0.001	10.0	50.0	2	20	14.3
SLOAN 1*	10/18/17		~ 8		2.320	0.181	1.790	10.200	152	600			
MP-01	12/19/17	100.00	9.02	90.98	< 0.001	< 0.001	0.0162	0.168			71.4	679	1410
MP-01	01/17/18	100.00	9.20	90.80									
MP-01	03/12/18	100.00	10.47	89.53	< 0.001	< 0.001	< 0.001	< 0.001					1260
MP-01	06/29/18	100.00	9.26	90.74	< 0.001	< 0.001	< 0.001	< 0.001					
MP-01	09/18/18	100.00	9.07	90.93	0.00161	< 0.001	< 0.001	0.116					
MP-01	12/11/18	100.00	9.55	90.45	< 0.001	< 0.001	< 0.001	0.00117					
MP-02	12/19/17	99.08	8.00	91.08	< 0.001	< 0.001	< 0.001	< 0.001			58.3	670	1360
MP-02	01/17/18	99.08	8.20	90.88									
MP-02	03/12/18	99.08	8.46	90.62	< 0.001	< 0.001	< 0.001	< 0.001					1220
MP-02	06/29/18	99.08	8.22	90.86	< 0.001	< 0.001	< 0.001	< 0.001					
MP-02	09/18/18	99.08	8.05	91.03	< 0.001	< 0.001	< 0.001	< 0.001					
MP-02	12/11/18	99.08	8.49	90.59	< 0.001	< 0.001	< 0.001	< 0.001					
MP-03	12/19/17	100.57	9.59	90.98	< 0.001	< 0.001	< 0.001	0.00228			108	726	1480
MP-03	01/17/18	100.57	9.73	90.84									
MP-03	03/12/18	100.57	10.01	90.56	< 0.001	< 0.001	< 0.001	< 0.001					1440
MP-03	06/29/18	100.57	9.78	90.79	< 0.001	< 0.001	< 0.001	< 0.001					
MP-03	09/18/18	100.57	9.60	90.97	< 0.001	< 0.001	< 0.001	< 0.001					
MP-03	12/11/18	100.57	10.06	90.51	< 0.001	< 0.001	< 0.001	< 0.001					
MP-04	12/19/17	100.47	9.55	90.92	0.00149	< 0.001	0.0182	0.115			93.4	613	1440
MP-04	01/17/18	100.47	9.75	90.72									
MP-04 -1	03/12/18	100.47	8.96	91.51	< 0.001	< 0.001	< 0.001	< 0.001					1240
MP-04 -2	06/29/18	100.47	-										
MP-04 -3	09/18/18	99.22	8.3	90.92	< 0.001	< 0.001	< 0.001	< 0.001					
MP-04	12/11/18	99.22	8.78	90.44	< 0.001	< 0.001	< 0.001	< 0.001					
MP-05	12/19/17	100.91	10.12	90.79	< 0.001	< 0.001	< 0.001	< 0.001			53.0	650	1360
MP-05	01/17/18	100.91	10.30	90.61									
MP-05	03/12/18	100.91	10.59	90.32	< 0.001	< 0.001	< 0.001	< 0.001					1360
MP-05	06/29/18	100.91	10.35	90.56	< 0.001	< 0.001	< 0.001	< 0.001					
MP-05	09/18/18	100.91	10.14	90.77	< 0.001	< 0.001	< 0.001	< 0.001					
MP-05	12/11/18	100.91	10.60	90.31	< 0.001	< 0.001	< 0.001	< 0.001					



**Table 1**  
**Groundwater Elevation and Analytical Data**

Groundwater Monitoring Report  
Blue Chip Oil, Inc - Sloan 1  
NESE, Sec. 25, T6N, R67W  
Greeley, Colorado

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)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	TDS (mg/L)
<b>MAC</b>		-	-	-	<b>0.005</b>	<b>0.560</b>	<b>0.7</b>	<b>1.4</b>	<b>500</b>	<b>500</b>	<b>1.25 x BG</b>	<b>1.25 x BG</b>	<b>1.25 x BG</b>
<b>MDL</b>		-	-	-	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>10.0</b>	<b>50.0</b>	<b>2</b>	<b>20</b>	<b>14.3</b>
MP-06	12/19/17	101.06	10.21	90.85	< 0.001	< 0.001	< 0.001	< 0.001			122	649	1440
MP-06	01/17/18	101.06	10.39	90.67									
MP-06	03/12/18	101.06	10.68	90.38	< 0.001	< 0.001	< 0.001	< 0.001					1370
MP-06	06/29/18	101.06	10.43	90.63	< 0.001	< 0.001	< 0.001	< 0.001					
MP-06	09/18/18	101.06	10.22	90.84	< 0.001	< 0.001	< 0.001	< 0.001					
MP-06	12/11/18	101.06	10.71	90.35	< 0.001	< 0.001	< 0.001	< 0.001					
MP-07	01/17/18	100.99	10.46	90.53	< 0.001	< 0.001	< 0.001	< 0.001			77.8	559	1370
MP-07	03/12/18	100.99	10.73	90.26	< 0.001	< 0.001	< 0.001	< 0.001					1220
MP-07	06/29/18	100.99	10.50	90.49	< 0.001	< 0.001	< 0.001	< 0.001					
MP-07	09/18/18	100.99	10.28	90.71	< 0.001	< 0.001	< 0.001	< 0.001					
MP-07	12/11/18	100.99	10.74	90.25	< 0.001	< 0.001	< 0.001	< 0.001					
MW-A	12/19/17	99.33	8.30	91.03									
MW-A	01/17/18	99.33	8.51	90.82									
MW-A	03/12/18	99.33	8.79	90.54									
MW-A	06/29/18	99.33	8.52	90.81									
MW-A	09/18/18	99.33	8.34	90.99									
MW-A	12/11/18	99.33	8.83	90.50									

**Notes:**

A blank data box indicates that the analysis or measurement was not completed during the specified monitoring event

Organic data in bold text indicate concentrations at or in excess of COGCC MACs

Monitoring points MP-01 through MP-07 include an estimated two-foot PVC stick-up above the ground surface. Depth to water includes the measured depth below the top of well casing.

\*Grab water sample collected from the bottom of the excavation area; not sampled from an established monitoring point

\*1 MP-4 damaged 1st Quarter 2018 and needs to be resurveyed.

\*2 Not sampled due to wasp nest on MP casing

\*3 Well resurveyed during Q3 monitoring

MP = Monitoring Point

TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics

TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics

MAC = COGCC Maximum Allowable Concentration; as indicated, or 1.25 times background concentration levels

MDL = Laboratory Method Detection Limit

TDS = Total Dissolved Solids



## Attachment A

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### Laboratory Reports and Chain of Custody Documentation

December 17, 2018

CGRS, Inc

Drezden Kinnaird

1301 Academy Court

Fort Collins CO 80524

**Project Name - Sloan 1****Project Number - 16926aa**

Attached are your analytical results for Sloan 1 received by Origins Laboratory, Inc. December 12, 2018. This project is associated with Origins project number Y812157-01.

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: 16926aa  
Project: Sloan 1

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MP-1	Y812157-01	Water	December 11, 2018 14:17	12/12/2018 09:00
MP-2	Y812157-02	Water	December 11, 2018 14:23	12/12/2018 09:00
MP-3	Y812157-03	Water	December 11, 2018 14:30	12/12/2018 09:00
MP-4	Y812157-04	Water	December 11, 2018 14:37	12/12/2018 09:00
MP-5	Y812157-05	Water	December 11, 2018 14:44	12/12/2018 09:00
MP-6	Y812157-06	Water	December 11, 2018 14:50	12/12/2018 09:00
MP-7	Y812157-07	Water	December 11, 2018 14:57	12/12/2018 09:00

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: 16926aa  
Project: Sloan 1

www.originslaboratory.com

page 1 of 1

Y612157

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: Sloan 1  
Project Number: 16926aa  
Samples Collected By: dkinnaird@cgrs.com, ewilson@cgrs.com

1725 Elk Place | Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9445

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 Canister #			Other
MP-1	12/11/18	14:17	3	X				X				X	1
MP-2	12/11/18	14:23	3	X				X				X	2
MP-3	12/11/18	14:30	3	X				X				X	3
MP-4	12/11/18	14:37	3	X				X				X	4
MP-5	12/11/18	14:44	3	X				X				X	5
MP-6	12/11/18	14:50	3	X				X				X	6
MP-7	12/11/18	14:57	3	X				X				X	7
													8
													9
													10

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
W. W. W.	12/12/18	09:10	[Signature]	12-12-18	09:00	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:	Date:	Time:	Received By:	Date:	Time:	

9.1 Data Description

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: 16926aa  
Project: Sloan 1

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: Y812157

Client: CGRS Inc.

Client Project ID: Sloan 1

Checklist Completed by: JG

Shipped Via: HD

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

Date/time completed: 12 / 12 / 2018

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 3.8 °C / °C / °C / °C

Thermometer ID: T003

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? If yes, contact client and note in narrative.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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) JG

Date/Time Reviewed 12/13/18

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: 16926aa  
Project: Sloan 1

## MP-1

12/11/2018 2:17:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y812157-01 (Water)

### BTEX by EPA 8260C

Benzene	ND	0.00100	mg/L	1	B8L1407	JTD	12/14/2018	12/14/2018	U
Toluene	ND	0.00100	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.00100	"	"	"	JTD	"	"	U
Xylenes, total	0.00117	0.00100	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"
Surrogate: Toluene-d8	91.4 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	114 %	84-114			"	"	"

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: 16926aa  
Project: Sloan 1

MP-2

12/11/2018 2:23:00PM

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

Origins Laboratory, Inc.  
Y812157-02 (Water)

BTEX by EPA 8260C

Benzene	ND	0.00100	mg/L	1	B8L1407	JTD	12/14/2018	12/14/2018	U
Toluene	ND	0.00100	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.00100	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.00100	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	84-121	"	"	"
Surrogate: Toluene-d8	95.6 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	99.2 %	84-114	"	"	"

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: 16926aa  
Project: Sloan 1

MP-3

12/11/2018 2:30:00PM

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

Origins Laboratory, Inc.  
Y812157-03 (Water)

BTEX by EPA 8260C

Benzene	ND	0.00100	mg/L	1	B8L1407	JTD	12/14/2018	12/14/2018	U
Toluene	ND	0.00100	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.00100	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.00100	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	84-121	"	"	"
Surrogate: Toluene-d8	96.0 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	98.9 %	84-114	"	"	"

Origins Laboratory, Inc.



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CGRS, Inc  
1301 Academy Court  
Fort Collins CO 80524

Drezden Kinnaird  
Project Number: 16926aa  
Project: Sloan 1

## MP-4

12/11/2018 2:37:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y812157-04 (Water)

### BTEX by EPA 8260C

Benzene	ND	0.00100	mg/L	1	B8L1407	JTD	12/14/2018	12/14/2018	U
Toluene	ND	0.00100	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.00100	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.00100	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	84-121	"	"	"
Surrogate: Toluene-d8	94.8 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	99.3 %	84-114	"	"	"

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Drezden Kinnaird  
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Project: Sloan 1

MP-5

12/11/2018 2:44:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y812157-05 (Water)

BTEX by EPA 8260C

Benzene	ND	0.00100	mg/L	1	B8L1407	JTD	12/14/2018	12/14/2018	U
Toluene	ND	0.00100	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.00100	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.00100	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	84-121	"	"	"
Surrogate: Toluene-d8	95.1 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	99.5 %	84-114	"	"	"

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Project: Sloan 1

## MP-6

12/11/2018 2:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y812157-06 (Water)

### BTEX by EPA 8260C

Benzene	ND	0.00100	mg/L	1	B8L1407	JTD	12/14/2018	12/14/2018	U
Toluene	ND	0.00100	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.00100	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.00100	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	84-121	"	"	"
Surrogate: Toluene-d8	95.7 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	97.5 %	84-114	"	"	"

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MP-7

12/11/2018 2:57:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y812157-07 (Water)

BTEX by EPA 8260C

Benzene	ND	0.00100	mg/L	1	B8L1407	JTD	12/14/2018	12/14/2018	U
Toluene	ND	0.00100	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.00100	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.00100	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	84-121	"	"	"
Surrogate: Toluene-d8	96.4 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	98.2 %	84-114	"	"	"

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Drezden Kinnaird  
Project Number: 16926aa  
Project: Sloan 1

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8L1407 - EPA 5030B (Water)**

**Blank (B8L1407-BLK1)**

Prepared: 12/14/2018 Analyzed: 12/14/2018

Benzene	ND	0.00100	mg/L							U
Toluene	ND	0.00100	"							U
Ethylbenzene	ND	0.00100	"							U
Xylenes, total	ND	0.00100	"							U
Surrogate: 1,2-Dichloroethane-d4	0.064		"	0.0625	103		84-121			
Surrogate: Toluene-d8	0.060		"	0.0625	96.2		85-115			
Surrogate: 4-Bromofluorobenzene	0.063		"	0.0625	100		84-114			

Origins Laboratory, Inc.



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Drezden Kinnaird  
Project Number: 16926aa  
Project: Sloan 1

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8L1407 - EPA 5030B (Water)**

**LCS (B8L1407-BS1)**

Prepared: 12/14/2018 Analyzed: 12/14/2018

Benzene	0.0480	0.00100	mg/L	0.0500		96.1	73.3-129			
Toluene	0.0443	0.00100	"	0.0500		88.7	76.2-123			
Ethylbenzene	0.0454	0.00100	"	0.0500		90.8	73.6-130			
m,p-Xylene	0.0920	0.00200	"	0.100		92.0	76.1-126			
o-Xylene	0.0465	0.00100	"	0.0500		93.0	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.062		"	0.0625		100	84-121			
Surrogate: Toluene-d8	0.059		"	0.0625		94.9	85-115			
Surrogate: 4-Bromofluorobenzene	0.061		"	0.0625		98.1	84-114			

Origins Laboratory, Inc.



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Drezden Kinnaird  
Project Number: 16926aa  
Project: Sloan 1

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8L1407 - EPA 5030B (Water)**

Matrix Spike (B8L1407-MS1)		Source: Y812206-01			Prepared: 12/14/2018 Analyzed: 12/14/2018					
Benzene	0.0556	0.00100	mg/L	0.0500	ND	111	74-130			
Toluene	0.0528	0.00100	"	0.0500	ND	106	73-131			
Ethylbenzene	0.0556	0.00100	"	0.0500	ND	111	76-132			
m,p-Xylene	0.115	0.00200	"	0.100	ND	115	69-139			
o-Xylene	0.0553	0.00100	"	0.0500	ND	111	74-131			
Surrogate: 1,2-Dichloroethane-d4	0.059		"	0.0625		94.4	84-121			
Surrogate: Toluene-d8	0.061		"	0.0625		96.9	85-115			
Surrogate: 4-Bromofluorobenzene	0.061		"	0.0625		98.1	84-114			

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Drezden Kinnaird  
Project Number: 16926aa  
Project: Sloan 1

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B8L1407 - EPA 5030B (Water)**

Matrix Spike Dup (B8L1407-MSD1)		Source: Y812206-01			Prepared: 12/14/2018 Analyzed: 12/14/2018					
Benzene	0.0569	0.00100	mg/L	0.0500	ND	114	74-130	2.17	20	
Toluene	0.0526	0.00100	"	0.0500	ND	105	73-131	0.285	20	
Ethylbenzene	0.0559	0.00100	"	0.0500	ND	112	76-132	0.610	20	
m,p-Xylene	0.113	0.00200	"	0.100	ND	113	69-139	1.04	20	
o-Xylene	0.0564	0.00100	"	0.0500	ND	113	74-131	1.81	20	
Surrogate: 1,2-Dichloroethane-d4	0.061		"	0.0625		98.0	84-121			
Surrogate: Toluene-d8	0.059		"	0.0625		94.1	85-115			
Surrogate: 4-Bromofluorobenzene	0.062		"	0.0625		98.9	84-114			

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CGRS, Inc

1301 Academy Court

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Drezden Kinnaird

Project Number: 16926aa

Project: Sloan 1

### 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.

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Jen Pellegrini For Noelle Doyle Mathis, President