



January 23, 2018

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: Drilling & Groundwater Monitoring Report  
Blue Chip Oil, Inc.  
Sloan 1 Facility  
NENE, Sec. 25, T6N, R67W  
Greeley, Colorado 80631  
COGCC Spill/Release Point ID: 452462  
COGCC Form 19 Doc Tracking No. 401441910  
COGCC Form 27 Remediation Project No. 10571

Mr. Hager:

This report presents the recent site history and findings of the groundwater investigation performed by CGRS, Inc. (CGRS) for Blue Chip Oil, Inc. (Blue Chip) at the Sloan 1 Facility (site), located in Greeley, Colorado. The site location is illustrated in Figure 1 (Site Location Map).

### Recent Site History

Upon removal of the produced water tank at the site as part of facility abandonment procedures, Blue Chip discovered visual and olfactory evidence of potentially impacted soil. CGRS mobilized to the site on September 14, 2017, to screen soil around the former produced water tank location with a photoionization detector (PID) to inspect for the presence of organic compounds and collect a confirmation soil sample (SS-4A @ 1'). Laboratory analysis revealed soil sample SS-4A @ 1' contained hydrocarbon concentrations above COGCC Table 910-1 maximum allowable concentrations (MACs). After the confirmation laboratory analytical results were received, a Colorado Oil & Gas Conservation Commission (COGCC) Initial Form 19 was filed on October 3, 2017. Excavation of the impacted soil commenced on October 16, 2017, and continued until November 1, 2017, when soil laboratory analytical results revealed that the impacted soil above the groundwater table had been adequately removed and the extent of soil impacts defined. The excavation was backfilled and compacted on November 3, 2017. Soil analytical results are summarized in Table 2 (Soil Analytical Data) and in Figure 2 (Excavation Details Map). All soil laboratory reports and chain-of-custody documents are included in Attachment A.

On October 19, 2017, a grab groundwater quality sample (Sloan 1) was collected from the bottom of the excavation at approximately 8 feet below ground surface (bgs). Laboratory analytical results confirmed that groundwater had been impacted above COGCC MACs. The Sloan 1 grab groundwater quality sample analytical results are summarized in Table 1 (Groundwater Elevation and Analytical Data) and Figure 2 (Excavation Details Map), and the laboratory analytical report and chain-of-custody documentation are included in Attachment B. On November 21, 2017, COGCC Supplemental Form 27 was submitted to COGCC along with the excavation report, and on December 1, 2017, Supplemental Form 27 was approved with the request to define the extent of groundwater impacts.



### **Monitoring Point Installation**

On December 19, 2017, and January 17, 2018, CGRS returned to the site to define the extent of impacted groundwater. Drill Pro Services, Inc. of Denver, Colorado was contracted to advanced seven (7) soil borings to 15 feet bgs by employing direct-push technology. One monitoring point was installed in the source area (MP-4) with the other six wells installed to define the extent of water impacts. Soil samples were collected continuously using 4-foot direct-push sampling equipment with an internal PVC sample sleeve. Once the groundwater level was identified, the direct-push rods were advanced to a depth approximately seven feet below the estimated groundwater table. One-inch groundwater monitoring points, identified as MP-01 through MP-07, were installed in the borings to allow for collection of groundwater quality samples. The monitoring wells were completed with 10/20 silica sand to a minimum of two feet above the water table and finished with hydrated bentonite to surface. The monitoring points stick up approximately two feet above the ground surface.

Soil samples obtained from each boring were screened with a PID to determine the presence or absence of organic compounds. Soil samples were also visually inspected for discoloration and/or potential hydrocarbon staining and classified according to the Unified Soil Classification System (USCS). The native soil at the site consists of well sorted, fine to medium grained silty sand to an average depth of 8 to 10 feet bgs. Soil from 10 to 15 feet bgs was observed as medium to coarse grained, poorly sorted, sub-rounded, gravelly sand. Soil boring logs are included as Attachment C.

### **Groundwater Quality Sampling**

After installing MP-01 through MP-07, the monitoring points were surveyed to a common reference elevation and depth to groundwater measurements were obtained in order to determine groundwater flow direction and gradient. Review of the January 17, 2018, data shows depth to groundwater varied between 8.20 feet below top of well casing (TOC) in MP-02 to 10.46 feet below TOC in MP-07. The inferred groundwater flow direction is to the east-southeast at a calculated hydraulic gradient of 0.002 ft./ft. as measured between wells MP-02 and MP-07. The original east-southeast groundwater flow direction measured on December 19, 2017, revealed the need for an additional monitoring point (MP-07) in order to adequately define the extent of groundwater impacts. Inferred water table elevation contours are illustrated in Figure 4 (Groundwater Elevation Map).

A pre-existing, unincorporated monitoring well, "MW-A", was also identified during the sampling event. Located approximately 20 feet west of the previous western oil tank location, MW-A is a 2-inch, PVC stickup monitoring well with a total depth of 10.10 feet. The depth to groundwater was gauged, but a sample was not collected, as the monitoring well was encumbered with sediment.

On December 19, 2017 (MP-01 through MP-06), and January 17, 2018 (MP-07), groundwater quality samples were collected from the monitoring points and submitted to Origins Laboratory, Inc. in Denver, Colorado for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), total dissolved solids (TDS), chloride, and sulfate. Analytical results from the sampling event revealed traces of BTEX analytes in MP-01, MP-03, and MP-04, though organic analytes in all monitoring points (MP-01 through MP-07) were below MACs for groundwater. Analytical results are summarized in Table 1 (Groundwater Elevation and Analytical Data) and illustrated in Figure 3 (Groundwater Sample Map). The groundwater laboratory analytical reports and chain-of-custody documentation are included in Attachment B.



**Conclusion & Recommendations**

Based on groundwater laboratory analytical data, it appears that the extent of groundwater impacts has been adequately defined. In order to ensure that elevated groundwater concentrations discovered during the excavation phase of the project have been abated, and to evaluate groundwater quality and flow conditions through potential seasonal groundwater elevation fluctuations, CGRS recommends quarterly groundwater monitoring for a period of one year. This may also confirm that residual BTEX analytes will remain below the COGCC MACs. Should you have any questions or require any additional information regarding this drilling and groundwater monitoring report, please call Craig Mulica at (800) 288-2657.

Sincerely,

**Elizabeth Wilson**  
CGRS, Inc.  
Staff Geologist II

Reviewed by:

**Craig S. Mulica**  
CGRS, Inc.  
Energy Services Manager  
Associate Geologist

Enclosures:

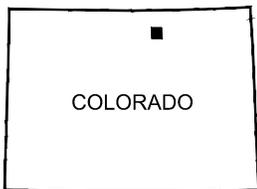
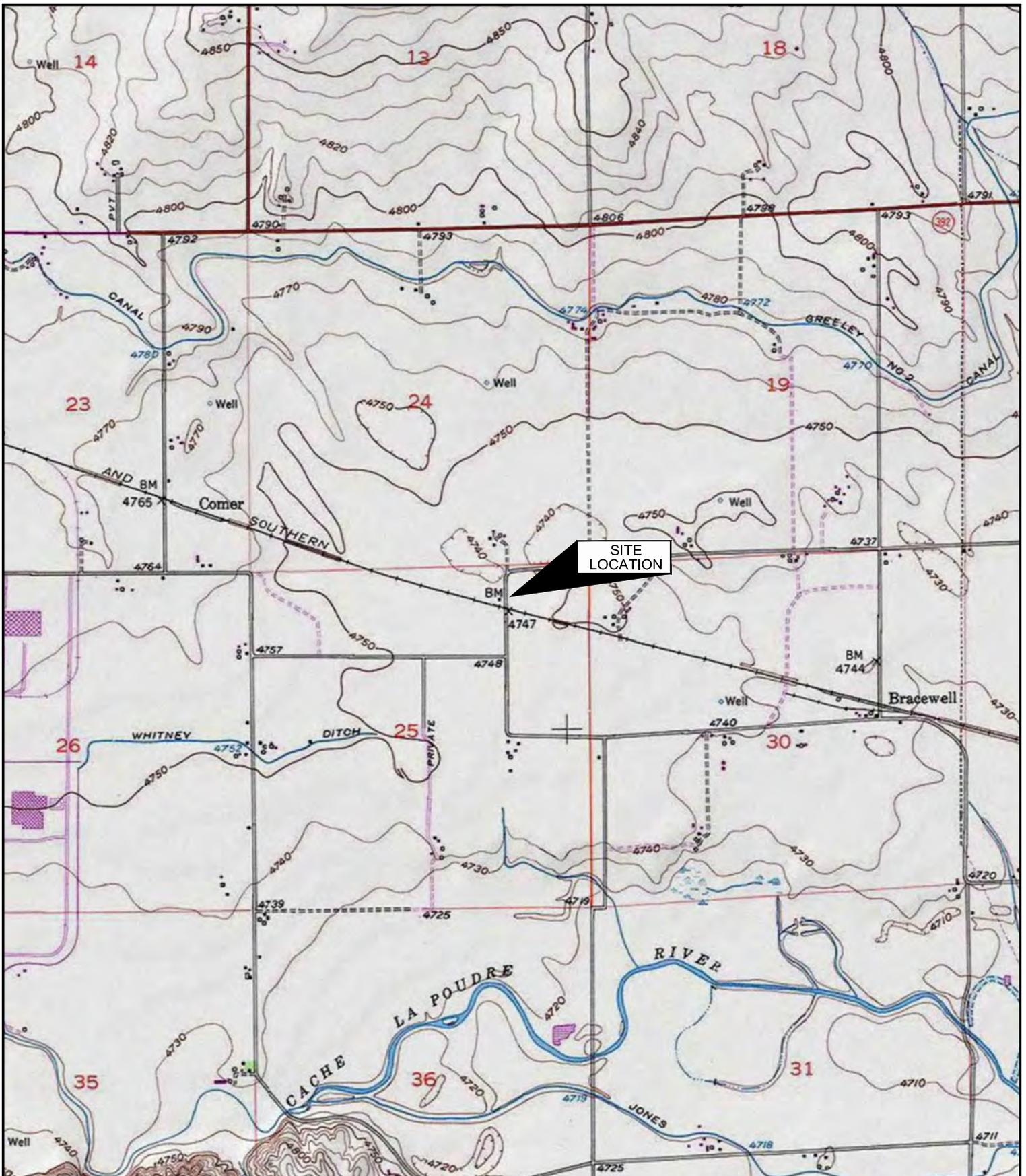
- Figure 1 – Site Location Map
- Figure 2 – Excavation Details Map
- Figure 3 – Groundwater Sample Map
- Figure 4 – Groundwater Elevation Map
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Soil Analytical Data
- Attachment A – Soil Laboratory Analytical Reports & Chain-of-Custody Documentation
- Attachment B – Groundwater Laboratory Analytical Reports and Chain-of-Custody Documentation
- Attachment C – Soil Boring Logs



## Figures

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- Figure 1 – Site Location Map
- Figure 2 – Excavation Details Map
- Figure 3 – Groundwater Sample Map
- Figure 4 – Groundwater Elevation Map

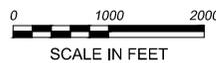


COLORADO

■ QUADRANGLE LOCATION



NORTH



SCALE IN FEET

**FIGURE 1**  
SITE LOCATION MAP

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

PROJECT:  
1-12696-16926aa  
DATE:  
10/6/2017

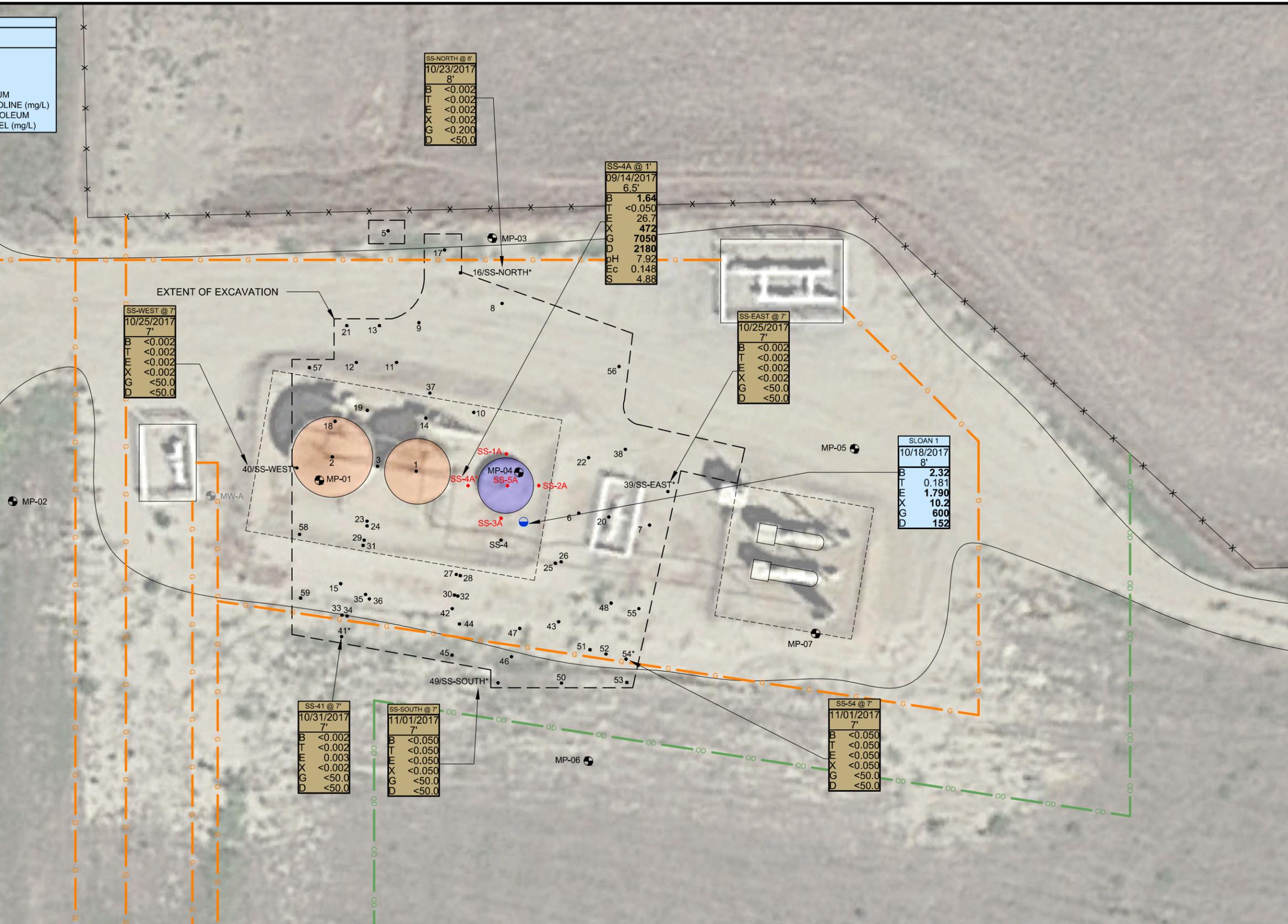
DRAFT:  
DRS  
REVIEW:



SAMPLE ID
SAMPLE DATE
SAMPLE DEPTH
B BENZENE (mg/kg)
T TOLUENE (mg/kg)
E ETHYLBENZENE (mg/kg)
X TOTAL XYLENES (mg/kg)
G TOTAL VOLATILE PETROLEUM HYDROCARBONS AS GASOLINE (mg/kg)
D TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS AS DIESEL (mg/kg)
pH POTENTIAL OF HYDROGEN
Ec ELECTRICAL CONDUCTIVITY (mmhos/cm)
S SODIUM ADSORPTION RATIO (ratio)

SAMPLE ID
SAMPLE DATE
SAMPLE DEPTH
B BENZENE (mg/L)
T TOLUENE (mg/L)
E ETHYLBENZENE (mg/L)
X TOTAL XYLENES (mg/L)
G TOTAL VOLATILE PETROLEUM HYDROCARBONS AS GASOLINE (mg/L)
D TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS AS DIESEL (mg/L)

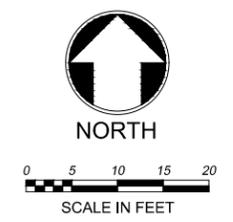
Sample ID	Depth (ft.)	Photo-ionization Detector Reading (ppm)	Date	Sample ID	Depth (ft.)	Photo-ionization Detector Reading (ppm)	Date
SS-1	1	0.1	10/16/2017	SS-31	5	1,180	10/24/2017
SS-1	2	2,188	10/16/2017	SS-32	6.5	87.3	10/24/2017
SS-1A	5.5	2.2	9/14/2017	SS-33	3	5.2	10/24/2017
SS-2	2	0.6	10/16/2017	SS-34	5	2.3	10/24/2017
SS-2	3	0.5	10/16/2017	SS-35	2	698.5	10/24/2017
SS-2	6	0.8	10/16/2017	SS-36	4	1,866	10/24/2017
SS-2	8	0.2	10/16/2017	SS-37	2	115.7	10/22/2017
SS-2A	5.5	0.7	9/14/2017	SS-38	6	1.4	10/22/2017
SS-3	3	0.2	10/16/2017	SS-38	8	1,982	10/22/2017
SS-3	4	150.8	10/16/2017	SS-39	4	0.1	10/25/2017
SS-3A	5.5	2.1	9/14/2017	SS-39*	7	0.0	10/25/2017
SS-4	4	521.7	10/16/2017	SS-39	8	11.1	10/25/2017
SS-4	5	21.2	10/16/2017	SS-40	4	5.7	10/25/2017
SS-4A	5.5	1,877	9/14/2017	SS-40	6	11.4	10/25/2017
SS-4A	6.5	2,172	9/14/2017	SS-40*	7	1.0	10/25/2017
SS-4A	7.5	1,949	9/14/2017	SS-40	8	955.4	10/25/2017
SS-4A	8.5	1,521	9/14/2017	SS-41	4	4.1	10/31/2017
SS-4A	9.5	1,352	9/14/2017	SS-41	6	4.3	10/31/2017
SS-5	2	0.2	10/18/2017	SS-41*	7	4.8	10/31/2017
SS-5	4	0.0	10/18/2017	SS-41	8	1,251	10/31/2017
SS-5	6	0.0	10/18/2017	SS-42	4	2,249	10/31/2017
SS-5	8	0.0	10/18/2017	SS-42	8	2,071	10/31/2017
SS-5A	5.5	40.3	9/14/2017	SS-43	3	1.8	10/31/2017
SS-6	4	187.5	10/18/2017	SS-43	4	0.1	10/31/2017
SS-7	8	0.0	10/18/2017	SS-43	6	1,434	10/31/2017
SS-8	3	9.7	10/20/2017	SS-44	3	36.0	11/1/2017
SS-8	9	769.0	10/20/2017	SS-44	4	194.6	11/1/2017
SS-9	4	1.5	10/23/2017	SS-44	6	798.2	11/1/2017
SS-10	8	52.1	10/23/2017	SS-44	8	1,212	11/1/2017
SS-11	8	46.2	10/23/2017	SS-45	3	322.1	11/1/2017
SS-12	6	103	10/23/2017	SS-45	6	5.0	11/1/2017
SS-13	8	22	10/23/2017	SS-45	7	8.7	11/1/2017
SS-14	6	274.5	10/23/2017	SS-46	6	461.0	11/1/2017
SS-15	8	2,671	10/23/2017	SS-46	7	946.2	11/1/2017
SS-16	6	0.0	10/23/2017	SS-47	7	1,523	11/1/2017
SS-16*	8	0.2	10/23/2017	SS-47	8	160.0	11/1/2017
SS-17	6	0.0	10/23/2017	SS-48	4	2.2	11/1/2017
SS-17	8	0.3	10/23/2017	SS-48	6	7.6	11/1/2017
SS-18	4	8.4	10/23/2017	SS-49	3	4.0	11/1/2017
SS-18	5	0.2	10/23/2017	SS-49	6	0.5	11/1/2017
SS-19	6	140.5	10/23/2017	SS-49*	7	7.1	11/1/2017
SS-19	7	833.6	10/23/2017	SS-50	6	2.2	11/1/2017
SS-20	8	1,914	10/23/2017	SS-50	6.5	785.2	11/1/2017
SS-16	8	0.2	10/23/2017	SS-50	7	1,976	11/1/2017
SS-17	6	0.0	10/23/2017	SS-51	7	85.6	11/1/2017
SS-17	8	0.3	10/23/2017	SS-52	5	1,830	11/1/2017
SS-18	4	8.4	10/23/2017	SS-53	6	2.2	11/1/2017
SS-18	5	0.2	10/23/2017	SS-54*	7	3.2	11/1/2017
SS-19	6	140.5	10/23/2017	SS-55	7	4.1	11/1/2017
SS-19	7	833.6	10/23/2017	SS-56	7	0.8	11/1/2017
SS-20	8	1,914	10/23/2017	SS-56	6	1.3	11/1/2017
SS-21	6	712.2	10/23/2017	SS-56	7	2.5	11/1/2017
SS-21	8	2,191	10/23/2017	SS-57	8	7.6	11/1/2017
SS-22	8	2,840	10/23/2017	SS-57	6	8.0	11/1/2017
SS-23	6	1,821	10/24/2017	SS-57	7	1,030	11/1/2017
SS-24	8	1,627	10/24/2017	SS-58	6	2.3	11/1/2017
SS-25	6	12.6	10/24/2017	SS-58	7	1.8	11/1/2017
SS-26	8	1,379	10/24/2017	SS-58	8	1,732	11/1/2017
SS-27	6	215.3	10/24/2017	SS-59	6	3.1	11/1/2017
SS-28	8	1,566	10/24/2017	SS-59	7	7.2	11/1/2017
SS-29	2	184.3	10/24/2017	SS-59	8	1,524	11/1/2017
SS-30	2.5	64.7	10/24/2017				



● SS-1A	PRELIMINARY SOIL SAMPLE LOCATION	-----	FORMER SOIL SECONDARY CONTAINMENT BERM
● SS-1	SOIL SAMPLE LOCATION	-x-	FENCE LINE
●	WATER SAMPLE LOCATION	---o---	12" OIL LINE
● MP-01	MONITORING POINT	---o---	NATURAL GAS LINE

NOTE: **BOLD** VALUES INDICATE CONCENTRATION EXCEEDS THE COGCC MAXIMUM ALLOWABLE CONCENTRATION  
 NOTE: \* DENOTES SAMPLE RETAINED FOR ANALYSIS

□ REMOVED SEPARATOR  
 ○ REMOVED OIL TANK  
 ○ REMOVED PRODUCED WATER TANK

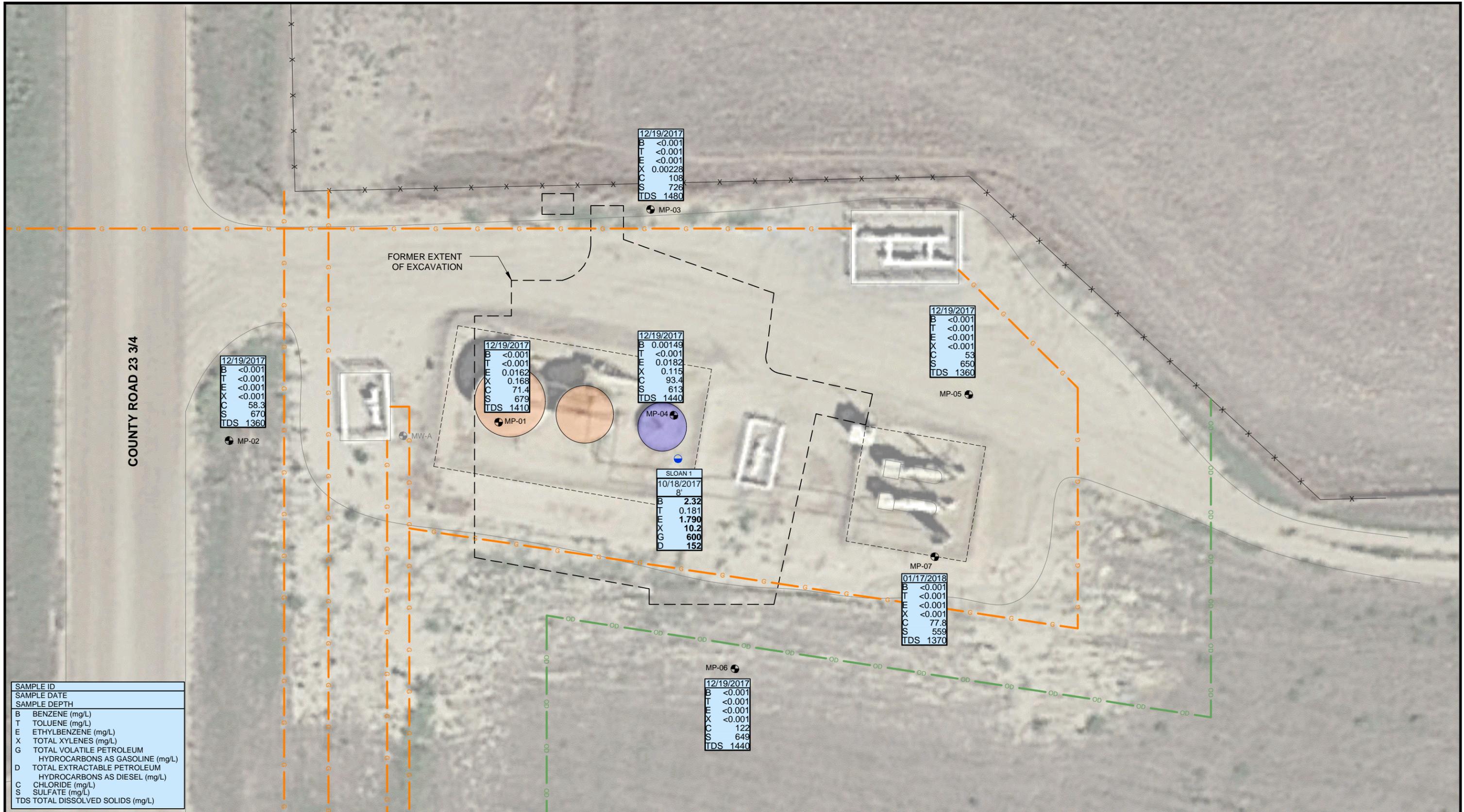


**FIGURE 2**  
 EXCAVATION DETAILS MAP

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

PROJECT: 1-12696-16926aa	DRAFT: SJK
DATE: 1/23/2018	REVIEW:

**CGRS**  
 SOLUTIONS DELIVERED



SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH
B	BENZENE (mg/L)	
T	TOLUENE (mg/L)	
E	ETHYLBENZENE (mg/L)	
X	TOTAL XYLENES (mg/L)	
G	TOTAL VOLATILE PETROLEUM HYDROCARBONS AS GASOLINE (mg/L)	
D	TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS AS DIESEL (mg/L)	
C	CHLORIDE (mg/L)	
S	SULFATE (mg/L)	
TDS	TOTAL DISSOLVED SOLIDS (mg/L)	

LEGEND	
	MP-01 MONITORING POINT
	WATER SAMPLE LOCATION
	12" OIL LINE
	NATURAL GAS LINE
	FORMER SOIL SECONDARY CONTAINMENT BERM
	FENCE LINE
	FORMER SEPARATOR
	REMOVED OIL TANK
	REMOVED PRODUCED WATER TANK

NOTE: **BOLD** VALUES INDICATE CONCENTRATION EXCEEDS THE COGCC MAXIMUM ALLOWABLE CONCENTRATION

NORTH  
  
 SCALE IN FEET

**FIGURE 3**  
**GROUNDWATER SAMPLE MAP**  
 BLUE CHIP OIL  
 SLOAN 1  
 NENE, SEC. 25, T6N, R67W  
 GREELEY, COLORADO 80631

PROJECT: 1-12696-16926aa	DRAFT: SJK	 <b>CGRS</b> <small>SOLUTIONS DELIVERED</small>
DATE: 1/23/2018	REVIEW:	



COUNTY ROAD 23 3/4

FORMER EXTENT OF EXCAVATION

LEGEND	
MP-01	MONITORING POINT
	INFERRED GROUNDWATER CONTOUR
(5280.10)	GROUNDWATER ELEVATION (FEET)
	INFERRED FLOW DIRECTION
	FORMER SOIL SECONDARY CONTAINMENT BERM
	FENCE LINE
	FORMER SEPARATOR
	REMOVED OIL TANK
	REMOVED PRODUCED WATER TANK

**NORTH**  
  
 SCALE IN FEET

**FIGURE 4**  
**GROUNDWATER ELEVATION MAP**  
 January 17, 2018  
 BLUE CHIP OIL  
 SLOAN 1  
 NENE, SEC. 25, T6N, R67W  
 GREELEY, COLORADO 80631

PROJECT: 1-12696-16926aa	DRAFT: SJK	 SOLUTIONS DELIVERED
DATE: 1/23/2018	REVIEW:	



## Tables

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Table 1 – Groundwater Elevation and Analytical Data

Table 2 – Soil 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	Depth To Water **	Groundwater Elevation	Benzene	Toluene	Ethyl-Benzene	Xylenes	TPH-GRO	TPH-DRO	Chloride	Sulfate	TDS
		(ft)	(ft)	(ft)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MAC		-	-	-	0.005	1	0.7	10	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		<b>2.320</b>	0.181	<b>1.790</b>	<b>10.200</b>	152	<b>600</b>			
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-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-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-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-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-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-07	01/17/18	100.99	10.46	90.53	< 0.001	< 0.001	< 0.001	< 0.001			77.8	559	1370
MW-A	12/19/17	99.33	8.30	91.03									
MW-A	01/17/18	99.33	8.51	90.82									

**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

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

\*\* 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.

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

**Table 2**  
**Soil Analytical Data**  
 Groundwater Monitoring Report  
 Blue Chip Oil, Inc - Sloan 1  
 NESE, Sec. 25, T6N, R67W  
 Greeley, Colorado

Sample ID	Sample Date	Depth	Benzene	Toluene	Ethyl-Benzene	Xylenes	TPH-GRO	TPH-DRO	pH	EC	SAR
		(ft)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	su	mmhos/cm	(ratio)
MAC		-	0.17	85	100	175	500	500	6 - 9	4	12
* SS-4A @ 1'	09/14/17	6.5	1.64	<0.498	26.7	472	7,050	2,180	7.92	0.148	4.88
SS-NORTH @ 8'	10/23/17	8	<0.002	<0.002	<0.002	<0.002	<0.200	<50.0			
SS-EAST @ 7'	10/25/17	7	<0.002	<0.002	<0.002	<0.002	<50.0	<50.0			
SS-WEST @ 7'	10/25/17	7	<0.002	<0.002	<0.002	<0.002	<50.0	<50.0			
SS-41 @ 7'	10/31/17	7	<0.002	<0.002	0.003	<0.002	<50.0	<50.0			
SS-54 @ 7'	11/01/17	7	<0.050	<0.050	<0.050	<0.050	<50.0	<50.0			
SS-SOUTH @ 7'	11/01/17	7	<0.050	<0.050	<0.050	<0.050	<50.0	<50.0			

**Notes:**

A blank data box indicates that the analysis or measurement was not completed during the specified monitoring event  
 \*Soil sample SS-4 @ 1' obtained at the base of the former production water tank. This is at a depth of 6.5 feet below ground surface.

**Acronyms used in Table 2 are drawn from this list as needed**

MAC = COGCC Maximum Allowable Concentration; as indicated, or 1.25 times background concentration levels  
 SS = Soil Sample  
 TPH = Total petroleum hydrocarbons  
 DRO = Diesel Range Organics  
 GRO = Gasoline Range Organics  
 pH = Potential of Hydrogen  
 EC = Electric Conductivity  
 SAR = Sodium Adsorption Ratio



**Attachment A**

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Soil Laboratory Analytical Reports  
Chain-of-Custody Documentation

September 21, 2017

**CGRS, Inc**

**Steve Hockett**

**1301 Academy Court**

**Fort Collins CO 80524**

**Project Name - Blue Chip Oil - 3 Sites**

**Project Number - [none]**

Attached are your analytical results for Blue Chip Oil - 3 Sites received by Origins Laboratory, Inc. September 14, 2017. This project is associated with Origins project number Y709189-01.

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

Steve Hockett  
Project Number: [none]  
Project: Blue Chip Oil - 3 Sites

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Sloan 1 SS4@1'	Y709189-01	Soil	September 14, 2017 14:40	09/14/2017 17:20
N. Poudre SS3@0'	Y709189-02	Soil	September 14, 2017 13:30	09/14/2017 17:20
Sloan 3 SS3@1'	Y709189-03	Soil	September 14, 2017 11:30	09/14/2017 17:20

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Steve Hockett  
 Project Number: [none]  
 Project: Blue Chip Oil - 3 Sites

www.originslaboratory.com

Y709189

page of

Client: CGRS, Inc.  
 Address: 1301 Academy Ct  
 Fort Collins, CO  
 Telephone Number: 930-824-8716  
 Email Address: SHockett@CGRS.com

Project Manager: Steve Hockett  
 Project Name: Blue Chip Oil - 3 Sites  
 Project Number:  
 Samples Collected By: Steve Hockett

Fax: 303.265.9645 | Phone: 303.433.1322 | Denver, CO 80211

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis				Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Ar Summ #	Other	TPH	TOC	SWR	
Slonn 1 553 @ 1'	9/14	2:40	2					X				X	X	X	1
N. Pond 3 53 @ 0'	9/14	1:30	2					X				X	X	X	2
Slonn 3 553 @ 1'	9/14	11:30	2					X				X	X	X	3
															4
															5
															6
															7
															8
															9
															10
Relinquished By: Steve Hockett	Date: 9/14/17	Time: 5:10		Received By: [Signature]	Date: 9-17-17	Time: 17:20		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:	Time:		Received By:	Date:	Time:									

Temp Received: 7.9°C Date Results Needed

Origins Laboratory, Inc.

*Jefe Pellegrini*

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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Steve Hockett  
 Project Number: [none]  
 Project: Blue Chip Oil - 3 Sites

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: 4709189

Client: CGRS, Inc

Client Project ID: Blue Chip Oil

Checklist Completed by: DMW

Shipped Via: HD

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

Date/time completed: 9-15-12 1228

Airbill #: NA

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

Cooler Number/Temperature: 1 / 7.8 °C 1 °C 1 °C 1 °C

Thermometer ID: TC03

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> ?		/		sampled same day
Is there ice present (document if blue ice is used)	/			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		/		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		/		
Were all samples received intact <sup>(1)</sup> ?	/			
Was adequate sample volume provided <sup>(1)</sup> ?	/			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	/			pH
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	/			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	/			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	/			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	/			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			/	
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)		/		
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 [Signature] (Project Manager)

9-15-12 1229  
 Date/Time Reviewed

Origins Laboratory, Inc.

*Jefe Pellegrini*

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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Steve Hockett  
 Project Number: [none]  
 Project: Blue Chip Oil - 3 Sites

**Sloan 1 SS4@1'**  
**9/14/2017 2:40:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y709189-01 (Soil)**

**BTEX by EPA 8260C**

Benzene	1.64	0.498	mg/kg	250	B711502	09/15/2017	09/15/2017	
Toluene	ND	0.498	"	"	"	"	"	U
Ethylbenzene	26.7	0.498	"	"	"	"	"	
Xylenes, total	472	4.98	"	2500	"	"	09/15/2017	

Surrogate: 1,2-Dichloroethane-d4	97.4 %	70-130			"	"	09/15/2017	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	122 %	70-130			"	"	"	

**Metals (Saturated Paste Prep)**

Calcium	1.36		me/L	1	'[none]'	09/18/2017	09/20/2017	
Magnesium	0.48		"	"	"	"	"	
Sodium	4.68		"	"	"	"	"	

**pH in Soil by EPA 9045D**

pH	7.92		pH Units	1	B711504	09/15/2017	09/15/2017	
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**SAR by 20B Saturated Paste**

SAR	4.88			1	'[none]'	09/18/2017	09/20/2017	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.148		mmhos/cm	1	B711505	09/15/2017	09/15/2017	
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Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Steve Hockett  
 Project Number: [none]  
 Project: Blue Chip Oil - 3 Sites

**Sloan 1 SS4@1'**  
**9/14/2017 2:40:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y709189-01 (Soil)**

**TPH-Carbon Chain by EPA Method 8015C**

Gasoline (C6-C10)	<b>7050</b>	50.0	mg/kg	1	B711503	09/15/2017	09/18/2017	
Diesel (C10-C28)	<b>2180</b>	50.0	"	"	"	"	"	
Residual Range Organics (C28-C40)	<b>275</b>	200	"	"	"	"	"	
Surrogate: o-Terphenyl	70.2 %	65-146			"	"	"	

Origins Laboratory, Inc.



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October 27, 2017

**CGRS, Inc**

**Craig Mulica**

**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. October 24, 2017. This project is associated with Origins project number Y710355-01.

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

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-North @ 8'	Y710355-01	Soil	October 23, 2017 15:30	10/24/2017 09:45

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: 7110355

Client: CGRS, Inc.

Client Project ID: Sloan 1

Checklist Completed by: JPM

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

Date/time completed: 10/25/17 9:27

Airbill #: \_\_\_\_\_

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

Cooler Number/Temperature: 1 / 1.6 °C 1 / \_\_\_\_\_ °C 1 / \_\_\_\_\_ °C 1 / \_\_\_\_\_ °C

Thermometer ID: 1003

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"/>			
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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>			<input checked="" 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 checked="" 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: JPM (Project Manager)

Date/Time Reviewed: 10/25/17

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**SS-North @ 8'**  
**10/23/2017 3:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y710355-01 (Soil)**

**Diesel Range Organics (DRO/TEPH) by EPA 8015C**

Diesel (C10-C28)	ND	50.0	mg/kg	1	B7J2603	10/25/2017	10/26/2017	U
<i>Surrogate: o-Terphenyl</i>	94.0 %	59-131			"	"	"	

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7J2504	10/25/2017	10/25/2017	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>	111 %	70-130			"	"	"	
<i>Surrogate: Toluene-d8</i>	106 %	70-130			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	102 %	70-130			"	"	"	

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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
<b>Batch B7J2504 - EPA 5030 (soil)</b>										
<b>Blank (B7J2504-BLK1)</b>										
					Prepared: 10/25/2017 Analyzed: 10/25/2017					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	62		ug/kg	62.5		98.9	70-130			
Surrogate: Toluene-d8	65		"	62.5		104	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J2504 - EPA 5030 (soil)**

**Blank (B7J2504-BLK2)**

Prepared: 10/25/2017 Analyzed: 10/25/2017

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	85		ug/kg	62.5		136	70-130			
Surrogate: Toluene-d8	51		"	62.5		82.2	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.0	70-130			

Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J2504 - EPA 5030 (soil)**

**LCS (B7J2504-BS1)**

Prepared: 10/25/2017 Analyzed: 10/25/2017

Benzene	0.112	0.002	mg/kg	0.100		112	77.1-124			
Toluene	0.120	0.002	"	0.100		120	74.5-128			
Ethylbenzene	0.116	0.002	"	0.100		116	66.4-127			
m,p-Xylene	0.226	0.004	"	0.200		113	76.6-124			
o-Xylene	0.117	0.002	"	0.100		117	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	54		ug/kg	62.5		87.0	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.7	70-130			

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J2504 - EPA 5030 (soil)**

**LCS (B7J2504-BS2)**

Prepared: 10/25/2017 Analyzed: 10/25/2017

Benzene	0.107	0.002	mg/kg	0.100		107	77.1-124			
Toluene	0.120	0.002	"	0.100		120	74.5-128			
Ethylbenzene	0.113	0.002	"	0.100		113	66.4-127			
m,p-Xylene	0.221	0.004	"	0.200		111	76.6-124			
o-Xylene	0.114	0.002	"	0.100		114	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60		ug/kg	62.5		96.0	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.0	70-130			

Origins Laboratory, Inc.



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Craig Mulica  
 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 B7J2504 - EPA 5030 (soil)**

<b>Matrix Spike (B7J2504-MS1)</b>	<b>Source: Y710327-01</b>			<b>Prepared: 10/25/2017 Analyzed: 10/25/2017</b>						
Benzene	0.091	0.002	mg/kg	0.100	ND	91.1	71.8-126			
Toluene	0.117	0.002	"	0.100	0.005	112	65.1-130			
Ethylbenzene	0.095	0.002	"	0.100	ND	94.8	62.2-130			
m,p-Xylene	0.197	0.004	"	0.200	ND	98.7	46.5-137			
o-Xylene	0.092	0.002	"	0.100	ND	92.1	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	30		ug/kg	62.5		47.9	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.0	70-130			

Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J2504 - EPA 5030 (soil)**

<b>Matrix Spike (B7J2504-MS2)</b>	<b>Source: Y710327-02</b>			<b>Prepared: 10/25/2017 Analyzed: 10/25/2017</b>						
Benzene	0.095	0.002	mg/kg	0.100	ND	94.6	71.8-126			
Toluene	0.119	0.002	"	0.100	0.007	113	65.1-130			
Ethylbenzene	0.101	0.002	"	0.100	ND	101	62.2-130			
m,p-Xylene	0.195	0.004	"	0.200	ND	97.7	46.5-137			
o-Xylene	0.098	0.002	"	0.100	ND	97.5	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	55		ug/kg	62.5		88.7	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.3	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.2	70-130			

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J2504 - EPA 5030 (soil)

Matrix Spike Dup (B7J2504-MSD1)	Source: Y710327-01			Prepared: 10/25/2017 Analyzed: 10/25/2017						
Benzene	0.131	0.002	mg/kg	0.100	ND	131	71.8-126	35.6	11.3	QM-07, QR-03
Toluene	0.121	0.002	"	0.100	0.005	116	65.1-130	3.28	15.4	
Ethylbenzene	0.110	0.002	"	0.100	ND	110	62.2-130	14.7	19.6	
m,p-Xylene	0.217	0.004	"	0.200	ND	108	46.5-137	9.40	19.2	
o-Xylene	0.112	0.002	"	0.100	ND	112	54.2-134	19.3	17.9	QR-02
Surrogate: 1,2-Dichloroethane-d4	78		ug/kg	62.5		124	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.3	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	70-130			

Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J2504 - EPA 5030 (soil)

Matrix Spike Dup (B7J2504-MSD2)	Source: Y710327-02			Prepared: 10/25/2017 Analyzed: 10/25/2017						
Benzene	0.094	0.002	mg/kg	0.100	ND	94.2	71.8-126	0.424	11.3	
Toluene	0.116	0.002	"	0.100	0.007	109	65.1-130	2.94	15.4	
Ethylbenzene	0.132	0.002	"	0.100	ND	132	62.2-130	27.3	19.6	QM-07, QR-03
m,p-Xylene	0.265	0.004	"	0.200	ND	133	46.5-137	30.4	19.2	QR-02
o-Xylene	0.131	0.002	"	0.100	ND	131	54.2-134	29.5	17.9	QR-02
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		93.2	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.4	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		96.9	70-130			

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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B7J2603 - EPA 3550B**

**Blank (B7J2603-BLK1)**

Prepared: 10/26/2017 Analyzed: 10/27/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Surrogate: o-Terphenyl	33		"	50.0		65.8	59-131			

**LCS (B7J2603-BS1)**

Prepared: 10/26/2017 Analyzed: 10/27/2017

Diesel (C10-C28)	985	50.0	mg/kg	1000		98.5	64-121			
Surrogate: o-Terphenyl	50		"	50.0		100	59-131			

**Matrix Spike (B7J2603-MS1)**

**Source: Y710322-03**

Prepared: 10/26/2017 Analyzed: 10/27/2017

Diesel (C10-C28)	958	50.0	mg/kg	1000		95.8	53-125			
Surrogate: o-Terphenyl	46		"	50.0		91.4	59-131			

**Matrix Spike Dup (B7J2603-MSD1)**

**Source: Y710322-03**

Prepared: 10/26/2017 Analyzed: 10/27/2017

Diesel (C10-C28)	1040	50.0	mg/kg	1000		104	53-125	8.38	20	
Surrogate: o-Terphenyl	51		"	50.0		103	59-131			

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1301 Academy Court  
Fort Collins CO 80524

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

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### Notes and Definitions

U Sample is Non-Detect.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

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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November 01, 2017

**CGRS, Inc**

**Craig Mulica**

**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. October 26, 2017. This project is associated with Origins project number Y710390-01.

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

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-East@7'	Y710390-01	Soil	October 25, 2017 12:00	10/26/2017 09:55
SS-West@7'	Y710390-02	Soil	October 25, 2017 12:30	10/26/2017 09:55

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 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: Y710390 Client: CGRS, Inc  
 Client Project ID: Sloan 1  
 Checklist Completed by: DML Shipped Via: Pick-up  
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)  
 Date/time completed: 6-26-17 1332 Airbill #: NP  
 Matrix(s) Received: (Check all that apply):  Soil/Solid  Water  Other: \_\_\_\_\_ (Describe)  
 Cooler Number/Temperature: 1 2.1 °C  °C  °C  °C  
 Thermometer ID: 1003

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"/>			
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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>			<input checked="" 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 checked="" 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) [Signature] Date/Time Reviewed 10/27/17

Origins Laboratory, Inc.

*Jefe Pellegrini*

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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**SS-East@7'**  
**10/25/2017 12:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y710390-01 (Soil)**

**BTEX by EPA 8260C**

Benzene	ND	0.002	mg/kg	1	B7J3103	10/31/2017	11/01/2017	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"	
Surrogate: Toluene-d8	97.5 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

**GRO (TVPH)/DRO (TEPH)by EPA 8015C**

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B7J3104	10/31/2017	11/01/2017	U
Diesel (C10-C28)	ND	50.0	"	"	"	"	10/31/2017	U

Surrogate: o-Terphenyl	84.9 %	59-131			"	"	"	
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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**SS-West@7'**  
**10/25/2017 12:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y710390-02 (Soil)**

**BTEX by EPA 8260C**

Benzene	ND	0.002	mg/kg	1	B7J3103	10/31/2017	11/01/2017	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130			"	"	"	
Surrogate: Toluene-d8	95.5 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.5 %	70-130			"	"	"	

**GRO (TVPH)/DRO (TEPH)by EPA 8015C**

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B7J3104	10/31/2017	11/01/2017	U
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	U

Surrogate: o-Terphenyl	59.3 %	59-131			"	"	"	
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Craig Mulica  
 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 B7J3103 - EPA 5030 (soil)**

**Blank (B7J3103-BLK1)**

Prepared: 10/31/2017 Analyzed: 10/31/2017

Benzene	ND	0.002	mg/kg							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	77		ug/kg	62.5		123	70-130			
Surrogate: Toluene-d8	59		"	62.5		95.1	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

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 Fort Collins CO 80524

Craig Mulica  
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 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 B7J3103 - EPA 5030 (soil)**

**Blank (B7J3103-BLK2)**

Prepared: 10/31/2017 Analyzed: 10/31/2017

Benzene	ND	0.002	mg/kg							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	73		ug/kg	62.5		117	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.4	70-130			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	70-130			

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 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 B7J3103 - EPA 5030 (soil)**

**LCS (B7J3103-BS1)**

Prepared: 10/31/2017 Analyzed: 10/31/2017

Benzene	0.097	0.002	mg/kg	0.100		97.1	77.1-124			
Toluene	0.091	0.002	"	0.100		91.0	74.5-128			
Ethylbenzene	0.097	0.002	"	0.100		96.7	66.4-127			
m,p-Xylene	0.198	0.004	"	0.200		99.1	76.6-124			
o-Xylene	0.100	0.002	"	0.100		99.6	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	73		ug/kg	62.5		117	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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 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 B7J3103 - EPA 5030 (soil)**

**LCS (B7J3103-BS2)**

Prepared: 10/31/2017 Analyzed: 10/31/2017

Benzene	0.110	0.002	mg/kg	0.100		110	77.1-124			
Toluene	0.105	0.002	"	0.100		105	74.5-128			
Ethylbenzene	0.111	0.002	"	0.100		111	66.4-127			
m,p-Xylene	0.223	0.004	"	0.200		112	76.6-124			
o-Xylene	0.111	0.002	"	0.100		111	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.0	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.8	70-130			

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Craig Mulica  
 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 B7J3103 - EPA 5030 (soil)**

<b>Matrix Spike (B7J3103-MS1)</b>	<b>Source: Y710386-01</b>			<b>Prepared: 10/31/2017 Analyzed: 10/31/2017</b>						
Benzene	0.093	0.002	mg/kg	0.100	ND	93.0	71.8-126			
Toluene	0.084	0.002	"	0.100	0.002	82.0	65.1-130			
Ethylbenzene	0.084	0.002	"	0.100	ND	83.8	62.2-130			
m,p-Xylene	0.166	0.004	"	0.200	ND	83.2	46.5-137			
o-Xylene	0.084	0.002	"	0.100	ND	83.6	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.6	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	70-130			

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 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 B7J3103 - EPA 5030 (soil)**

<b>Matrix Spike (B7J3103-MS2)</b>	<b>Source: Y710362-01</b>			<b>Prepared: 10/31/2017 Analyzed: 11/01/2017</b>						
Benzene	0.115	0.002	mg/kg	0.100	ND	115	71.8-126			
Toluene	0.108	0.002	"	0.100	ND	108	65.1-130			
Ethylbenzene	0.118	0.002	"	0.100	ND	118	62.2-130			
m,p-Xylene	0.236	0.004	"	0.200	ND	118	46.5-137			
o-Xylene	0.115	0.002	"	0.100	ND	115	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		105	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.4	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.0	70-130			

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 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 B7J3103 - EPA 5030 (soil)**

<b>Matrix Spike Dup (B7J3103-MSD1)</b>	<b>Source: Y710386-01</b>			<b>Prepared: 10/31/2017 Analyzed: 10/31/2017</b>						
Benzene	0.098	0.002	mg/kg	0.100	ND	97.9	71.8-126	5.11	11.3	
Toluene	0.089	0.002	"	0.100	0.002	87.7	65.1-130	6.68	15.4	
Ethylbenzene	0.087	0.002	"	0.100	ND	86.9	62.2-130	3.61	19.6	
m,p-Xylene	0.174	0.004	"	0.200	ND	87.0	46.5-137	4.49	19.2	
o-Xylene	0.088	0.002	"	0.100	ND	88.4	54.2-134	5.58	17.9	
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		103	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.3	70-130			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		103	70-130			

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Craig Mulica  
 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 B7J3103 - EPA 5030 (soil)**

<b>Matrix Spike Dup (B7J3103-MSD2)</b>	<b>Source: Y710362-01</b>			<b>Prepared: 10/31/2017 Analyzed: 10/31/2017</b>						
Benzene	0.102	0.002	mg/kg	0.100	ND	102	71.8-126	12.6	11.3	QR-03
Toluene	0.096	0.002	"	0.100	ND	96.2	65.1-130	11.8	15.4	
Ethylbenzene	0.100	0.002	"	0.100	ND	100	62.2-130	16.3	19.6	
m,p-Xylene	0.203	0.004	"	0.200	ND	102	46.5-137	14.9	19.2	
o-Xylene	0.101	0.002	"	0.100	ND	101	54.2-134	13.5	17.9	
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	60		"	62.5		95.4	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.8	70-130			

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 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B7J3104 - EPA 3550B**

**Blank (B7J3104-BLK1)**

Prepared: 10/31/2017 Analyzed: 11/01/2017

Gasoline (C6-C10)	ND	50.0	mg/kg							U
Diesel (C10-C28)	ND	50.0	"							U
Surrogate: o-Terphenyl	33		"	50.0		66.8	59-131			

**Blank (B7J3104-BLK2)**

Prepared: 10/31/2017 Analyzed: 11/01/2017

Gasoline (C6-C10)	ND	50.0	mg/kg							U
Diesel (C10-C28)	ND	50.0	"							U
Surrogate: o-Terphenyl	40		"	50.0		80.8	59-131			

**LCS (B7J3104-BS1)**

Prepared: 10/31/2017 Analyzed: 10/31/2017

Gasoline (C6-C10)	869	50.0	mg/kg	1000		86.9	59-133			
Diesel (C10-C28)	834	50.0	"	1000		83.4	64-121			
Surrogate: o-Terphenyl	47		"	50.0		93.7	59-131			

**LCS (B7J3104-BS2)**

Prepared: 10/31/2017 Analyzed: 11/01/2017

Gasoline (C6-C10)	762	50.0	mg/kg	1000		76.2	59-133			
Diesel (C10-C28)	744	50.0	"	1000		74.4	64-121			
Surrogate: o-Terphenyl	42		"	50.0		84.8	59-131			

**Matrix Spike (B7J3104-MS1)**

**Source: Y710362-01**

Prepared: 10/31/2017 Analyzed: 10/31/2017

Gasoline (C6-C10)	824	50.0	mg/kg	1000	ND	82.4	57-139			
Diesel (C10-C28)	818	50.0	"	1000	ND	81.8	53-125			

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

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B7J3104 - EPA 3550B</b>										
<b>Matrix Spike (B7J3104-MS1)</b>			<b>Source: Y710362-01</b>		Prepared: 10/31/2017 Analyzed: 10/31/2017					
Surrogate: o-Terphenyl	46		mg/kg	50.0		91.5	59-131			
<b>Matrix Spike (B7J3104-MS2)</b>			<b>Source: Y710386-01</b>		Prepared: 10/31/2017 Analyzed: 11/01/2017					
Gasoline (C6-C10)	646	50.0	mg/kg	1000	ND	64.6	57-139			
Diesel (C10-C28)	853	50.0	"	1000	176	67.7	53-125			
Surrogate: o-Terphenyl	40		"	50.0		79.9	59-131			
<b>Matrix Spike Dup (B7J3104-MSD1)</b>			<b>Source: Y710362-01</b>		Prepared: 10/31/2017 Analyzed: 10/31/2017					
Gasoline (C6-C10)	795	50.0	mg/kg	1000	ND	79.5	57-139	3.65	20	
Diesel (C10-C28)	769	50.0	"	1000	ND	76.9	53-125	6.28	20	
Surrogate: o-Terphenyl	44		"	50.0		88.9	59-131			
<b>Matrix Spike Dup (B7J3104-MSD2)</b>			<b>Source: Y710386-01</b>		Prepared: 10/31/2017 Analyzed: 11/01/2017					
Gasoline (C6-C10)	799	50.0	mg/kg	1000	ND	79.9	57-139	21.2	20	QR-02
Diesel (C10-C28)	973	50.0	"	1000	176	79.7	53-125	13.2	20	
Surrogate: o-Terphenyl	46		"	50.0		91.8	59-131			

Origins Laboratory, Inc.



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CGRS, Inc  
1301 Academy Court  
Fort Collins CO 80524

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

---

### Notes and Definitions

U Sample is Non-Detect.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

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.*



November 01, 2017

**CGRS, Inc**

**Craig Mulica**

**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. October 31, 2017. This project is associated with Origins project number Y710459-01.

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

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-41@7'	Y710459-01	Soil	October 31, 2017 13:30	10/31/2017 15:55

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

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1710459 Client: CGRS, Inc  
 Client Project ID: Sloan 1  
 Checklist Completed by: DM Shipped Via: HD  
 Date/time completed: 10-31-11 1558 (UPS, FedEx, Hand Delivered, Pick-up, etc.)  
 Airbill #: ND  
 Matrix(s) Received: (Check all that apply):  Soil/Solid  Water  Other: \_\_\_\_\_  
 Cooler Number/Temperature:  / 17.3 °C  / \_\_\_\_\_ °C  / \_\_\_\_\_ °C (Describe)  
 Thermometer ID: 203

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"/>		Sampled same Day
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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>			<input checked="" 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 checked="" 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) [Signature]

Date/Time Reviewed 10-31-11 1558

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

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**SS-41@7'**  
**10/31/2017 1:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y710459-01 (Soil)**

**BTEX by EPA 8260C**

Benzene	ND	0.002	mg/kg	1	B7J3103	10/31/2017	10/31/2017	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	<b>0.003</b>	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	115 %	70-130			"	"	"	
Surrogate: Toluene-d8	94.9 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"	

**GRO (TVPH)/DRO (TEPH)by EPA 8015C**

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B7J3104	10/31/2017	10/31/2017	U
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	U

Surrogate: o-Terphenyl	84.9 %	59-131			"	"	"	
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Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J3103 - EPA 5030 (soil)**

**Blank (B7J3103-BLK1)**

Prepared: 10/31/2017 Analyzed: 10/31/2017

Benzene	ND	0.002	mg/kg							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	77		ug/kg	62.5		123	70-130			
Surrogate: Toluene-d8	59		"	62.5		95.1	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J3103 - EPA 5030 (soil)**

**LCS (B7J3103-BS1)**

Prepared: 10/31/2017 Analyzed: 10/31/2017

Benzene	0.097	0.002	mg/kg	0.100		97.1	77.1-124			
Toluene	0.091	0.002	"	0.100		91.0	74.5-128			
Ethylbenzene	0.097	0.002	"	0.100		96.7	66.4-127			
m,p-Xylene	0.198	0.004	"	0.200		99.1	76.6-124			
o-Xylene	0.100	0.002	"	0.100		99.6	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	73		ug/kg	62.5		117	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J3103 - EPA 5030 (soil)**

<b>Matrix Spike (B7J3103-MS1)</b>	<b>Source: Y710386-01</b>			<b>Prepared: 10/31/2017 Analyzed: 10/31/2017</b>						
Benzene	0.093	0.002	mg/kg	0.100	93.0	71.8-126				
Toluene	0.084	0.002	"	0.100	83.7	65.1-130				
Ethylbenzene	0.084	0.002	"	0.100	83.8	62.2-130				
m,p-Xylene	0.166	0.004	"	0.200	83.2	46.5-137				
o-Xylene	0.084	0.002	"	0.100	83.6	54.2-134				
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5	104	70-130				
Surrogate: Toluene-d8	62		"	62.5	98.6	70-130				
Surrogate: 4-Bromofluorobenzene	66		"	62.5	106	70-130				

Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J3103 - EPA 5030 (soil)**

<b>Matrix Spike Dup (B7J3103-MSD1)</b>	<b>Source: Y710386-01</b>			<b>Prepared: 10/31/2017 Analyzed: 10/31/2017</b>						
Benzene	0.098	0.002	mg/kg	0.100	97.9	71.8-126	5.11	11.3		
Toluene	0.089	0.002	"	0.100	89.4	65.1-130	6.68	15.4		
Ethylbenzene	0.087	0.002	"	0.100	86.9	62.2-130	3.61	19.6		
m,p-Xylene	0.174	0.004	"	0.200	87.0	46.5-137	4.49	19.2		
o-Xylene	0.088	0.002	"	0.100	88.4	54.2-134	5.58	17.9		
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5	103	70-130				
Surrogate: Toluene-d8	60		"	62.5	96.3	70-130				
Surrogate: 4-Bromofluorobenzene	65		"	62.5	103	70-130				

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B7J3104 - EPA 3550B**

**Blank (B7J3104-BLK1)**

Prepared: 10/31/2017 Analyzed: 11/01/2017

Gasoline (C6-C10)	ND	50.0	mg/kg							U
Diesel (C10-C28)	ND	50.0	"							U
Surrogate: o-Terphenyl	33		"	50.0		66.8	59-131			

**LCS (B7J3104-BS1)**

Prepared: 10/31/2017 Analyzed: 10/31/2017

Gasoline (C6-C10)	869	50.0	mg/kg	1000		86.9	59-133			
Diesel (C10-C28)	834	50.0	"	1000		83.4	64-121			
Surrogate: o-Terphenyl	47		"	50.0		93.7	59-131			

**Matrix Spike (B7J3104-MS1)**

**Source: Y710362-01**

Prepared: 10/31/2017 Analyzed: 10/31/2017

Gasoline (C6-C10)	824	50.0	mg/kg	1000	ND	82.4	57-139			
Diesel (C10-C28)	818	50.0	"	1000	ND	81.8	53-125			
Surrogate: o-Terphenyl	46		"	50.0		91.5	59-131			

**Matrix Spike Dup (B7J3104-MSD1)**

**Source: Y710362-01**

Prepared: 10/31/2017 Analyzed: 10/31/2017

Gasoline (C6-C10)	795	50.0	mg/kg	1000	ND	79.5	57-139	3.65	20	
Diesel (C10-C28)	769	50.0	"	1000	ND	76.9	53-125	6.28	20	
Surrogate: o-Terphenyl	44		"	50.0		88.9	59-131			

Origins Laboratory, Inc.



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CGRS, Inc  
1301 Academy Court  
Fort Collins CO 80524

Craig Mulica  
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.

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



November 02, 2017

**CGRS, Inc**

**Craig Mulica**

**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. November 01, 2017. This project is associated with Origins project number Y711018-01.

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

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-54@7'	Y711018-01	Soil	November 1, 2017 15:00	11/01/2017 16:50
SS-South@7'	Y711018-02	Soil	November 1, 2017 15:30	11/01/2017 16:50

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

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: 1711012 Client: CGRS, Inc  
 Client Project ID: Sloan 1  
 Checklist Completed by: D. Lee Shipped Via: HD  
 Date/time completed: 11-1-12 1809 (UPS, FedEx, Hand Delivered, Pick-up, etc.)  
 Airbill #: HP  
 Matrix(s) Received: (Check all that apply):  Soil/Solid  Water  Other: \_\_\_\_\_  
 Cooler Number/Temperature: 1 19.6 °C  \_\_\_\_\_ °C  \_\_\_\_\_ °C (Describe)  
 Thermometer ID: 1003

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"/>		Sampled same Day
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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>			<input checked="" 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 HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)		<input checked="" 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) [Signature] Date/Time Reviewed 11-1-12 1817

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

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**SS-54@7'**  
**11/1/2017 3:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y711018-01 (Soil)**

**BTEX by EPA 8260C**

Benzene	ND	0.050	mg/kg	25	B7K0106	11/01/2017	11/01/2017	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"	"	
Surrogate: Toluene-d8	102 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.2 %	70-130			"	"	"	

**GRO (TVPH)/DRO (TEPH)by EPA 8015C**

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B7K0107	"	11/02/2017	U
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	U

Surrogate: o-Terphenyl	59.9 %	59-131			"	"	"	
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Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**SS-South@7'**  
**11/1/2017 3:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y711018-02 (Soil)**

**BTEX by EPA 8260C**

Benzene	ND	0.050	mg/kg	25	B7K0106	11/01/2017	11/01/2017	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"	"	
Surrogate: Toluene-d8	99.8 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.6 %	70-130			"	"	"	

**GRO (TVPH)/DRO (TEPH)by EPA 8015C**

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B7K0107	"	11/02/2017	U
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	U

Surrogate: o-Terphenyl	61.3 %	59-131			"	"	"	
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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7K0106 - EPA 5030 (soil)**

**Blank (B7K0106-BLK1)**

Prepared: 11/01/2017 Analyzed: 11/01/2017

Benzene	ND	0.002	mg/kg							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		100	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.6	70-130			

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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7K0106 - EPA 5030 (soil)**

**LCS (B7K0106-BS1)**

Prepared: 11/01/2017 Analyzed: 11/01/2017

Benzene	0.091	0.002	mg/kg	0.100		90.9	77.1-124			
Toluene	0.092	0.002	"	0.100		92.2	74.5-128			
Ethylbenzene	0.097	0.002	"	0.100		97.4	66.4-127			
m,p-Xylene	0.174	0.004	"	0.200		87.0	76.6-124			
o-Xylene	0.098	0.002	"	0.100		98.2	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60		ug/kg	62.5		96.4	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.8	70-130			

Origins Laboratory, Inc.



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 Fort Collins CO 80524

Craig Mulica  
 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 B7K0106 - EPA 5030 (soil)**

<b>Matrix Spike (B7K0106-MS1)</b>	<b>Source: Y711013-01</b>			<b>Prepared: 11/01/2017 Analyzed: 11/01/2017</b>						
Benzene	2.25	0.050	mg/kg	2.50	ND	90.0	71.8-126			
Toluene	2.23	0.050	"	2.50	ND	89.1	65.1-130			
Ethylbenzene	2.38	0.050	"	2.50	ND	95.1	62.2-130			
m,p-Xylene	4.26	0.100	"	5.00	ND	85.1	46.5-137			
o-Xylene	2.46	0.050	"	2.50	ND	98.5	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	61		ug/kg	62.5		97.5	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.2	70-130			

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 Fort Collins CO 80524

Craig Mulica  
 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 B7K0106 - EPA 5030 (soil)**

<b>Matrix Spike Dup (B7K0106-MSD1)</b>	<b>Source: Y711013-01</b>			<b>Prepared: 11/01/2017 Analyzed: 11/01/2017</b>						
Benzene	2.35	0.050	mg/kg	2.50	ND	93.9	71.8-126	4.22	11.3	
Toluene	2.31	0.050	"	2.50	ND	92.3	65.1-130	3.48	15.4	
Ethylbenzene	2.44	0.050	"	2.50	ND	97.5	62.2-130	2.55	19.6	
m,p-Xylene	4.39	0.100	"	5.00	ND	87.8	46.5-137	3.07	19.2	
o-Xylene	2.53	0.050	"	2.50	ND	101	54.2-134	2.84	17.9	
Surrogate: 1,2-Dichloroethane-d4	60		ug/kg	62.5		96.8	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.7	70-130			

Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B7K0107 - EPA 3550B**

**Blank (B7K0107-BLK1)**

Prepared: 11/01/2017 Analyzed: 11/01/2017

Gasoline (C6-C10)	ND	50.0	mg/kg							U
Diesel (C10-C28)	ND	50.0	"							U
Surrogate: o-Terphenyl	33		"	50.0		65.2	59-131			

**LCS (B7K0107-BS1)**

Prepared: 11/01/2017 Analyzed: 11/02/2017

Gasoline (C6-C10)	824	50.0	mg/kg	1000		82.4	59-133			
Diesel (C10-C28)	817	50.0	"	1000		81.7	64-121			
Surrogate: o-Terphenyl	44		"	50.0		88.6	59-131			

**Matrix Spike (B7K0107-MS1)**

**Source: Y711013-01**

Prepared: 11/01/2017 Analyzed: 11/02/2017

Gasoline (C6-C10)	598	50.0	mg/kg	1000	41.4	55.7	57-139			QM-07
Diesel (C10-C28)	605	50.0	"	1000	ND	60.5	53-125			
Surrogate: o-Terphenyl	36		"	50.0		72.3	59-131			

**Matrix Spike Dup (B7K0107-MSD1)**

**Source: Y711013-01**

Prepared: 11/01/2017 Analyzed: 11/02/2017

Gasoline (C6-C10)	611	50.0	mg/kg	1000	41.4	56.9	57-139	2.06	20	QM-07
Diesel (C10-C28)	605	50.0	"	1000	ND	60.5	53-125	0.164	20	
Surrogate: o-Terphenyl	36		"	50.0		72.2	59-131			

Origins Laboratory, Inc.



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CGRS, Inc  
1301 Academy Court  
Fort Collins CO 80524

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

---

**Notes and Definitions**

U Sample is Non-Detect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

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.



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Jen Pellegrini For Noelle Doyle Mathis, President



**Attachment B**

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Groundwater Laboratory Analytical Reports  
Chain-of-Custody Documentation



October 27, 2017

**CGRS, Inc**

**Craig Mulica**

**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. October 20, 2017. This project is associated with Origins project number Y710304-01.

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

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Sloan 1	Y710304-01	Water	October 18, 2017 12:00	10/20/2017 09:24

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: 4710304 Client: CGRS, Inc  
 Client Project ID: Sloan 1  
 Checklist Completed by: DM Shipped Via: Pick-up  
 Date/time completed: 10-20-17 12:51 (UPS, FedEx, Hand Delivered, Pick-up, etc.)  
 Airbill #: NP  
 Matrix(s) Received: (Check all that apply): Soil/Solid  Water  Other: \_\_\_\_\_  
 Cooler Number/Temperature:  3.1 °C  \_\_\_\_\_ °C  \_\_\_\_\_ °C (Describe) \_\_\_\_\_ °C  
 Thermometer ID: 1003

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"/>			
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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>		<input checked="" 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 checked="" 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.

DM  
 Reviewed by (Project Manager)

10/23/17  
 Date/Time Reviewed

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**Sloan 1**  
**10/18/2017 12:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y710304-01 (Water)**

**Diesel Range Organics (DRO/TEPH) by EPA 8015C**

Diesel (C10-C28)	600	50.0	mg/L	10	B7J2009	10/20/2017	10/27/2017	
Surrogate: o-Terphenyl	120 %	54-117			"	"	"	S-04

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	152000	10000	ug/L	100	B7J2703	10/27/2017	10/27/2017	
Benzene	2320	100	"	"	"	"	"	
Toluene	181	100	"	"	"	"	"	
Ethylbenzene	1790	100	"	"	"	"	"	
Xylenes, total	10200	100	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	97.1 %	85.9-113			"	"	"	
Surrogate: Toluene-d8	100 %	89-110			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J2703 - EPA 5030B (Water)**

**Blank (B7J2703-BLK1)**

Prepared: 10/27/2017 Analyzed: 10/27/2017

Gasoline Range Hydrocarbons	ND	100	ug/L							U
Benzene	ND	1.00	"							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	63.5		"	62.5		102	85.9-113			
Surrogate: Toluene-d8	63.1		"	62.5		101	89-110			
Surrogate: 4-Bromofluorobenzene	62.8		"	62.5		100	84-114			

Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7J2703 - EPA 5030B (Water)**

**LCS (B7J2703-BS1)**

Prepared: 10/27/2017 Analyzed: 10/27/2017

Benzene	46.8	1.00	ug/L	50.0		93.7	80-120			
Toluene	50.0	1.00	"	50.0		99.9	80-122			
Ethylbenzene	47.8	1.00	"	50.0		95.7	77-129			
m,p-Xylene	95.4	2.00	"	100		95.4	78.6-126			
o-Xylene	49.6	1.00	"	50.0		99.2	80-121			
Surrogate: 1,2-Dichloroethane-d4	58.3		"	62.5		93.3	85.9-113			
Surrogate: Toluene-d8	63.3		"	62.5		101	89-110			
Surrogate: 4-Bromofluorobenzene	62.1		"	62.5		99.4	84-114			

Origins Laboratory, Inc.



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 Fort Collins CO 80524

Craig Mulica  
 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 B7J2703 - EPA 5030B (Water)**

<b>Matrix Spike (B7J2703-MS1)</b>	<b>Source: Y710340-02</b>			<b>Prepared: 10/27/2017 Analyzed: 10/27/2017</b>						
Benzene	60.2	1.00	ug/L	50.0	120	75.3-128				
Toluene	62.9	1.00	"	50.0	126	74.2-132				
Ethylbenzene	61.8	1.00	"	50.0	124	71.5-138				
m,p-Xylene	114	2.00	"	100	114	70-136				
o-Xylene	56.8	1.00	"	50.0	114	77.2-127				
Surrogate: 1,2-Dichloroethane-d4	63.8		"	62.5	102	85.9-113				
Surrogate: Toluene-d8	61.1		"	62.5	97.8	89-110				
Surrogate: 4-Bromofluorobenzene	61.0		"	62.5	97.6	84-114				

Origins Laboratory, Inc.



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 Fort Collins CO 80524

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 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 B7J2703 - EPA 5030B (Water)**

<b>Matrix Spike Dup (B7J2703-MSD1)</b>	<b>Source: Y710340-02</b>			<b>Prepared: 10/27/2017 Analyzed: 10/27/2017</b>						
Benzene	59.5	1.00	ug/L	50.0	119	75.3-128	1.15	20		
Toluene	62.4	1.00	"	50.0	125	74.2-132	0.782	20		
Ethylbenzene	61.2	1.00	"	50.0	122	71.5-138	1.06	20		
m,p-Xylene	114	2.00	"	100	114	70-136	0.00	20		
o-Xylene	56.5	1.00	"	50.0	113	77.2-127	0.618	20		
Surrogate: 1,2-Dichloroethane-d4	65.8		"	62.5	105	85.9-113				
Surrogate: Toluene-d8	61.5		"	62.5	98.4	89-110				
Surrogate: 4-Bromofluorobenzene	61.0		"	62.5	97.5	84-114				

Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B7J2009 - EPA 3511 Mod.**

**Blank (B7J2009-BLK1)**

Prepared: 10/20/2017 Analyzed: 10/24/2017

Diesel (C10-C28)	ND	5.00	mg/L							U
Surrogate: o-Terphenyl	5.1		"	5.00		102	54-117			

**LCS (B7J2009-BS1)**

Prepared: 10/20/2017 Analyzed: 10/24/2017

Diesel (C10-C28)	112	5.00	mg/L	100		112	61-120			
Surrogate: o-Terphenyl	4.4		"	5.00		88.6	54-117			

**Matrix Spike (B7J2009-MS1)**

**Source: Y710123-01**

Prepared: 10/20/2017 Analyzed: 10/24/2017

Diesel (C10-C28)	123	5.00	mg/L	100	ND	123	54-126			
Surrogate: o-Terphenyl	5.6		"	5.00		113	54-117			

**Matrix Spike Dup (B7J2009-MSD1)**

**Source: Y710123-01**

Prepared: 10/20/2017 Analyzed: 10/24/2017

Diesel (C10-C28)	119	5.00	mg/L	100	ND	119	54-126	4.10	20	
Surrogate: o-Terphenyl	4.9		"	5.00		97.0	54-117			

Origins Laboratory, Inc.



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CGRS, Inc  
1301 Academy Court  
Fort Collins CO 80524

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

---

### 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.



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---

Jen Pellegrini For Noelle Doyle Mathis, President

December 27, 2017

**CGRS, Inc**

**Craig Mulica**

**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 20, 2017. This project is associated with Origins project number Y712359-01.

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

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MP-01	Y712359-01	Water	December 19, 2017 15:10	12/20/2017 12:25
MP-02	Y712359-02	Water	December 19, 2017 15:30	12/20/2017 12:25
MP-03	Y712359-03	Water	December 19, 2017 14:00	12/20/2017 12:25
MP-04	Y712359-04	Water	December 19, 2017 15:45	12/20/2017 12:25
MP-05	Y712359-05	Water	December 19, 2017 14:20	12/20/2017 12:25
MP-06	Y712359-06	Water	December 19, 2017 14:45	12/20/2017 12:25

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y712359

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: 12/20/17

Airbill #: N/A

Matrix(s) Received: (Check all that apply):  Soil/Solid  Water  Other: \_\_\_\_\_

Cooler Number/Temperature: 1 12.1 °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C (Describe)

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> ?	/	/		
Is there ice present (document if blue ice is used)	/			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		/		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		/		
Were all samples received intact <sup>(1)</sup> ?	/			
Was adequate sample volume provided <sup>(1)</sup> ?	/			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	/	/		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	/			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	/			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	/			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	/			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>		/		
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)		/		
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 12/21/17

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**MP-01**

**12/19/2017 3:10:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**GEL Laboratories, LLC**  
**Y712359-01 (Water)**

**Anions by EPA 300.0**

Chloride	71.4	2.00	mg/L	10	1728071		12/21/2017	
Sulfate	679	20.0	"	50	"	"	"	

**BTEX by EPA 8260C**

Benzene	ND	0.00100	mg/L	1	B7L2201	12/22/2017	12/22/2017	Ua
Toluene	ND	0.00100	"	"	"	"	"	Ua
Ethylbenzene	0.0162	0.00100	"	"	"	"	"	
Xylenes, total	0.168	0.00100	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	105 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.1 %	84-114			"	"	"	

**TDS by SM 2540C**

Total Dissolved Solids	1410	14.3	mg/L	1	1728305		12/26/2017	
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Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**MP-02**  
**12/19/2017 3:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**GEL Laboratories, LLC**  
**Y712359-02 (Water)**

**Anions by EPA 300.0**

Chloride	58.3	2.00	mg/L	10	1728071		12/21/2017	
Sulfate	670	20.0	"	50	"	"	"	

**BTEX by EPA 8260C**

Benzene	ND	0.00100	mg/L	1	B7L2201	12/22/2017	12/22/2017	Ua
Toluene	ND	0.00100	"	"	"	"	"	Ua
Ethylbenzene	ND	0.00100	"	"	"	"	"	Ua
Xylenes, total	ND	0.00100	"	"	"	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.6 %	84-114			"	"	"	

**TDS by SM 2540C**

Total Dissolved Solids	1360	14.3	mg/L	1	1728305		12/26/2017	
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Origins Laboratory, Inc.



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 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**MP-03**  
**12/19/2017 2:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**GEL Laboratories, LLC**  
**Y712359-03 (Water)**

**Anions by EPA 300.0**

Chloride	108	10.0	mg/L	50	1728071		12/22/2017	
Sulfate	726	20.0	"	"	"	"	"	

**BTEX by EPA 8260C**

Benzene	ND	0.00100	mg/L	1	B7L2201	12/22/2017	12/22/2017	Ua
Toluene	ND	0.00100	"	"	"	"	"	Ua
Ethylbenzene	ND	0.00100	"	"	"	"	"	Ua
Xylenes, total	0.00228	0.00100	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.0 %	84-114			"	"	"	

**TDS by SM 2540C**

Total Dissolved Solids	1480	14.3	mg/L	1	1728305		12/26/2017	
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 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**MP-04**  
**12/19/2017 3:45:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**GEL Laboratories, LLC**  
**Y712359-04 (Water)**

**Anions by EPA 300.0**

Chloride	93.4	10.0	mg/L	50	1728071		12/22/2017	
Sulfate	613	20.0	"	"	"	"	"	

**BTEX by EPA 8260C**

Benzene	0.00149	0.00100	mg/L	1	B7L2201	12/22/2017	12/22/2017	
Toluene	ND	0.00100	"	"	"	"	"	Ua
Ethylbenzene	0.0182	0.00100	"	"	"	"	"	
Xylenes, total	0.115	0.00100	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	105 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.1 %	84-114			"	"	"	

**TDS by SM 2540C**

Total Dissolved Solids	1440	14.3	mg/L	1	1728305		12/26/2017	
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 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**MP-05**  
**12/19/2017 2:20:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**GEL Laboratories, LLC**  
**Y712359-05 (Water)**

**Anions by EPA 300.0**

Chloride	53.0	2.00	mg/L	10	1728071		12/21/2017	
Sulfate	650	20.0	"	50	"	"	12/22/2017	

**BTEX by EPA 8260C**

Benzene	ND	0.00100	mg/L	1	B7L2201	12/22/2017	12/22/2017	Ua
Toluene	ND	0.00100	"	"	"	"	"	Ua
Ethylbenzene	ND	0.00100	"	"	"	"	"	Ua
Xylenes, total	ND	0.00100	"	"	"	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.3 %	84-114			"	"	"	

**TDS by SM 2540C**

Total Dissolved Solids	1360	14.3	mg/L	1	1728305		12/26/2017	
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Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**MP-06**  
**12/19/2017 2:45:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**GEL Laboratories, LLC**  
**Y712359-06 (Water)**

**Anions by EPA 300.0**

Chloride	122	10.0	mg/L	50	1728071		12/22/2017	
Sulfate	649	20.0	"	"	"	"	"	

**BTEX by EPA 8260C**

Benzene	ND	0.00100	mg/L	1	B7L2201	12/22/2017	12/22/2017	Ua
Toluene	ND	0.00100	"	"	"	"	"	Ua
Ethylbenzene	ND	0.00100	"	"	"	"	"	Ua
Xylenes, total	ND	0.00100	"	"	"	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.0 %	84-114			"	"	"	

**TDS by SM 2540C**

Total Dissolved Solids	1440	14.3	mg/L	1	1728305		12/26/2017	
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Origins Laboratory, Inc.



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 Fort Collins CO 80524

Craig Mulica  
 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 B7L2201 - EPA 5030B (Water)**

**Blank (B7L2201-BLK1)**

Prepared: 12/22/2017 Analyzed: 12/22/2017

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>	62		<i>ug/L</i>	62.5		98.5	84-121			
<i>Surrogate: Toluene-d8</i>	63		"	62.5		101	85-115			
<i>Surrogate: 4-Bromofluorobenzene</i>	60		"	62.5		96.1	84-114			

Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7L2201 - EPA 5030B (Water)**

**Blank (B7L2201-BLK2)**

Prepared: 12/22/2017 Analyzed: 12/22/2017

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>	64		ug/L	62.5		102	84-121			
<i>Surrogate: Toluene-d8</i>	62		"	62.5		99.8	85-115			
<i>Surrogate: 4-Bromofluorobenzene</i>	61		"	62.5		97.1	84-114			

Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7L2201 - EPA 5030B (Water)**

**LCS (B7L2201-BS1)**

Prepared: 12/22/2017 Analyzed: 12/22/2017

Benzene	0.0503	0.00100	mg/L	0.0500		101	73.3-129			
Toluene	0.0477	0.00100	"	0.0500		95.4	76.2-123			
Ethylbenzene	0.0484	0.00100	"	0.0500		96.7	73.6-130			
m,p-Xylene	0.0938	0.00200	"	0.100		93.8	76.1-126			
o-Xylene	0.0468	0.00100	"	0.0500		93.5	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	57		ug/L	62.5		91.3	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.2	84-114			

Origins Laboratory, Inc.



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 Fort Collins CO 80524

Craig Mulica  
 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 B7L2201 - EPA 5030B (Water)**

**LCS (B7L2201-BS2)**

Prepared: 12/22/2017 Analyzed: 12/22/2017

Benzene	0.0516	0.00100	mg/L	0.0500		103	73.3-129			
Toluene	0.0491	0.00100	"	0.0500		98.3	76.2-123			
Ethylbenzene	0.0509	0.00100	"	0.0500		102	73.6-130			
m,p-Xylene	0.0996	0.00200	"	0.100		99.6	76.1-126			
o-Xylene	0.0496	0.00100	"	0.0500		99.2	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	66		ug/L	62.5		106	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.3	84-114			

Origins Laboratory, Inc.



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 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 B7L2201 - EPA 5030B (Water)**

<b>Matrix Spike (B7L2201-MS1)</b>	<b>Source: Y712339-01</b>			<b>Prepared: 12/22/2017 Analyzed: 12/22/2017</b>						
Benzene	0.0513	0.00100	mg/L	0.0500	ND	103	74-130			
Toluene	0.0491	0.00100	"	0.0500	ND	98.2	73-131			
Ethylbenzene	0.0507	0.00100	"	0.0500	ND	101	76-132			
m,p-Xylene	0.0987	0.00200	"	0.100	0.000590	98.1	69-139			
o-Xylene	0.0481	0.00100	"	0.0500	0.000240	95.7	74-131			
Surrogate: 1,2-Dichloroethane-d4	66		ug/L	62.5		106	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.3	84-114			

Origins Laboratory, Inc.



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 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 B7L2201 - EPA 5030B (Water)**

<b>Matrix Spike (B7L2201-MS2)</b>	<b>Source: Y712339-02</b>			<b>Prepared: 12/22/2017 Analyzed: 12/22/2017</b>						
Benzene	0.0465	0.00100	mg/L	0.0500	ND	92.9	74-130			
Toluene	0.0458	0.00100	"	0.0500	0.000350	90.9	73-131			
Ethylbenzene	0.0466	0.00100	"	0.0500	0.000640	91.9	76-132			
m,p-Xylene	0.0919	0.00200	"	0.100	0.00266	89.3	69-139			
o-Xylene	0.0464	0.00100	"	0.0500	0.000760	91.4	74-131			
Surrogate: 1,2-Dichloroethane-d4	66		ug/L	62.5		106	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.3	84-114			

Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7L2201 - EPA 5030B (Water)**

<b>Matrix Spike Dup (B7L2201-MSD1)</b>	<b>Source: Y712339-01</b>			<b>Prepared: 12/22/2017 Analyzed: 12/22/2017</b>						
Benzene	0.0468	0.00100	mg/L	0.0500	ND	93.5	74-130	9.22	20	
Toluene	0.0455	0.00100	"	0.0500	ND	91.0	73-131	7.57	20	
Ethylbenzene	0.0482	0.00100	"	0.0500	ND	96.4	76-132	5.03	20	
m,p-Xylene	0.0943	0.00200	"	0.100	0.000590	93.7	69-139	4.48	20	
o-Xylene	0.0465	0.00100	"	0.0500	0.000240	92.5	74-131	3.36	20	
Surrogate: 1,2-Dichloroethane-d4	67		ug/L	62.5		107	84-121			
Surrogate: Toluene-d8	63		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.7	84-114			

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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 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 B7L2201 - EPA 5030B (Water)**

<b>Matrix Spike Dup (B7L2201-MSD2)</b>	<b>Source: Y712339-02</b>			<b>Prepared: 12/22/2017 Analyzed: 12/22/2017</b>						
Benzene	0.0491	0.00100	mg/L	0.0500	ND	98.1	74-130	5.42	20	
Toluene	0.0478	0.00100	"	0.0500	0.000350	94.9	73-131	4.23	20	
Ethylbenzene	0.0487	0.00100	"	0.0500	0.000640	96.2	76-132	4.45	20	
m,p-Xylene	0.0966	0.00200	"	0.100	0.00266	93.9	69-139	4.92	20	
o-Xylene	0.0480	0.00100	"	0.0500	0.000760	94.6	74-131	3.41	20	
Surrogate: 1,2-Dichloroethane-d4	59		ug/L	62.5		94.5	84-121			
Surrogate: Toluene-d8	65		"	62.5		104	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.3	84-114			

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 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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**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 1728071 -

**BLANK (1203943171-BLK)**

Prepared: Analyzed: 12/21/2017

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

**LCS (1203943172-BKS)**

Prepared: Analyzed: 12/21/2017

Sulfate	10.5	0.400	mg/L	10.0		105	90-110			
Chloride	5.11	0.200	"	5.00		102	90-110			

**DUP (1203943173 D)**

Source: Y712359-06

Prepared: Analyzed: 12/22/2017

Chloride	122	10.0	mg/L		122		0-20	0.102	20	
Sulfate	647	20.0	"		649		0-20	0.284	20	

**PS (1203943174 S)**

Source: Y712359-06

Prepared: Analyzed: 12/22/2017

Chloride	394	10.0	mg/L	5.00		109	90-110			
Sulfate	1220	20.0	"	10.0		114	90-110			

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 Fort Collins CO 80524

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 Project: Sloan 1

**TDS by SM 2540C - Quality Control**  
**GEL Laboratories, LLC**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1728305 -</b>										
<b>BLANK (1203943838-BLK)</b>					Prepared: Analyzed: 12/26/2017					
Total Dissolved Solids	4.29	14.3	mg/L				-			J
<b>LCS (1203943839-BKS)</b>					Prepared: Analyzed: 12/26/2017					
Total Dissolved Solids	306	14.3	mg/L	300		102	95-105			
<b>DUP (1203943843 D)</b>					Source: 440519003 Prepared: Analyzed: 12/26/2017					
Total Dissolved Solids	886	14.3	mg/L		884		0-5	0.161		5

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Fort Collins CO 80524

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

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**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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January 22, 2018

**CGRS, Inc**

**Craig Mulica**

**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. January 17, 2018. This project is associated with Origins project number Y801232-01.

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

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MP-7	Y801232-01	Water	January 17, 2018 10:00	01/17/2018 13:26

Origins Laboratory, Inc.



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CGRS, Inc  
 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: Y901232

Client: CGRS, Inc

Client Project ID: Sloan 1

Checklist Completed by: Don Lee

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

Date/time completed: 1-17-12

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 122 °C 1 / \_\_\_\_\_ °C 1 / \_\_\_\_\_ °C 1 / \_\_\_\_\_ °C

Thermometer ID: 603

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"/>		Sampled same Day
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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<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 <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 HNO3, HCL, H2SO4 / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)		<input checked="" 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: JM (Project Manager)

Date/Time Reviewed: 1/18/12

Origins Laboratory, Inc.



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 1301 Academy Court  
 Fort Collins CO 80524

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**MP-7**

**1/17/2018 10:00:00AM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**GEL Laboratories, LLC**  
**Y801232-01 (Water)**

**Anions by EPA 300.0**

Chloride	77.8	10.0	mg/L	50	1732981		01/19/2018	
Sulfate	559	20.0	"	"	"	"	"	

**BTEX by EPA 8260C**

Benzene	ND	0.00100	mg/L	1	B8A1706	01/17/2018	01/18/2018	Ua
Toluene	ND	0.00100	"	"	"	"	"	Ua
Ethylbenzene	ND	0.00100	"	"	"	"	"	Ua
Xylenes, total	ND	0.00100	"	"	"	"	"	Ua

Surrogate: 1,2-Dichloroethane-d4	98.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.9 %	84-114			"	"	"	

**TDS by EPA 160.1**

Total Dissolved Solids	1370	14.3	mg/L	1	1733124		01/19/2018	
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 Fort Collins CO 80524

Craig Mulica  
 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 B8A1706 - EPA 5030B (Water)**

**Blank (B8A1706-BLK1)**

Prepared: 01/17/2018 Analyzed: 01/17/2018

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>	63		<i>ug/L</i>	62.5		101	84-121			
<i>Surrogate: Toluene-d8</i>	61		"	62.5		98.0	85-115			
<i>Surrogate: 4-Bromofluorobenzene</i>	62		"	62.5		99.6	84-114			

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 Fort Collins CO 80524

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 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 B8A1706 - EPA 5030B (Water)**

**Blank (B8A1706-BLK2)**

Prepared: 01/17/2018 Analyzed: 01/17/2018

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>	65		<i>ug/L</i>	62.5		104	84-121			
<i>Surrogate: Toluene-d8</i>	62		"	62.5		99.6	85-115			
<i>Surrogate: 4-Bromofluorobenzene</i>	61		"	62.5		97.4	84-114			

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**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 B8A1706 - EPA 5030B (Water)**

**LCS (B8A1706-BS1)**

Prepared: 01/17/2018 Analyzed: 01/17/2018

Benzene	0.0486	0.00100	mg/L	0.0500		97.2	73.3-129			
Toluene	0.0478	0.00100	"	0.0500		95.7	76.2-123			
Ethylbenzene	0.0493	0.00100	"	0.0500		98.6	73.6-130			
m,p-Xylene	0.0981	0.00200	"	0.100		98.1	76.1-126			
o-Xylene	0.0499	0.00100	"	0.0500		99.8	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60		ug/L	62.5		96.3	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

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**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 B8A1706 - EPA 5030B (Water)**

**LCS (B8A1706-BS2)**

Prepared: 01/17/2018 Analyzed: 01/17/2018

Benzene	0.0458	0.00100	mg/L	0.0500		91.6	73.3-129			
Toluene	0.0450	0.00100	"	0.0500		90.0	76.2-123			
Ethylbenzene	0.0464	0.00100	"	0.0500		92.9	73.6-130			
m,p-Xylene	0.0920	0.00200	"	0.100		92.0	76.1-126			
o-Xylene	0.0463	0.00100	"	0.0500		92.5	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	61		ug/L	62.5		97.6	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.2	84-114			

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**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 B8A1706 - EPA 5030B (Water)**

<b>Matrix Spike (B8A1706-MS1)</b>	<b>Source: Y801190-01</b>			<b>Prepared: 01/17/2018 Analyzed: 01/17/2018</b>						
Benzene	0.0565	0.00100	mg/L	0.0500	ND	113	74-130			
Toluene	0.0554	0.00100	"	0.0500	0.000130	111	73-131			
Ethylbenzene	0.0586	0.00100	"	0.0500	0.000110	117	76-132			
m,p-Xylene	0.115	0.00200	"	0.100	0.000240	115	69-139			
o-Xylene	0.0565	0.00100	"	0.0500	ND	113	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		ug/L	62.5		96.0	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.9	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	84-114			

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**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 B8A1706 - EPA 5030B (Water)**

<b>Matrix Spike (B8A1706-MS2)</b>	<b>Source: Y801190-04</b>			<b>Prepared: 01/17/2018 Analyzed: 01/17/2018</b>						
Benzene	0.0570	0.00100	mg/L	0.0500	0.000240	113	74-130			
Toluene	0.0565	0.00100	"	0.0500	ND	113	73-131			
Ethylbenzene	0.0590	0.00100	"	0.0500	ND	118	76-132			
m,p-Xylene	0.117	0.00200	"	0.100	0.000190	117	69-139			
o-Xylene	0.0580	0.00100	"	0.0500	ND	116	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		ug/L	62.5		95.4	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.2	84-114			

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**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 B8A1706 - EPA 5030B (Water)

Matrix Spike Dup (B8A1706-MSD1)	Source: Y801190-01			Prepared: 01/17/2018 Analyzed: 01/17/2018						
Benzene	0.0582	0.00100	mg/L	0.0500	ND	116	74-130	2.97	20	
Toluene	0.0576	0.00100	"	0.0500	0.000130	115	73-131	3.75	20	
Ethylbenzene	0.0602	0.00100	"	0.0500	0.000110	120	76-132	2.73	20	
m,p-Xylene	0.119	0.00200	"	0.100	0.000240	119	69-139	3.48	20	
o-Xylene	0.0587	0.00100	"	0.0500	ND	117	74-131	3.77	20	
Surrogate: 1,2-Dichloroethane-d4	60		ug/L	62.5		96.5	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.4	84-114			

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**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 B8A1706 - EPA 5030B (Water)**

<b>Matrix Spike Dup (B8A1706-MSD2)</b>	<b>Source: Y801190-04</b>		<b>Prepared: 01/17/2018 Analyzed: 01/17/2018</b>							
Benzene	0.0559	0.00100	mg/L	0.0500	0.000240	111	74-130	1.91	20	
Toluene	0.0555	0.00100	"	0.0500	ND	111	73-131	1.84	20	
Ethylbenzene	0.0579	0.00100	"	0.0500	ND	116	76-132	1.98	20	
m,p-Xylene	0.114	0.00200	"	0.100	0.000190	114	69-139	2.19	20	
o-Xylene	0.0565	0.00100	"	0.0500	ND	113	74-131	2.60	20	
Surrogate: 1,2-Dichloroethane-d4	60		ug/L	62.5		96.4	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

Origins Laboratory, Inc.



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 Fort Collins CO 80524

Craig Mulica  
 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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**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 1732981 -

**BLANK (1203955740-BLK)**

Prepared: Analyzed: 01/19/2018

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

**LCS (1203955741-BKS)**

Prepared: Analyzed: 01/19/2018

Sulfate	9.67	0.400	mg/L	10.0		96.7	90-110			
Chloride	4.65	0.200	"	5.00		92.9	90-110			

**DUP (1203955742 D)**

Source: Y801232-01

Prepared: Analyzed: 01/19/2018

Sulfate	562	20.0	mg/L		559		0-20	0.509	20	
Chloride	76.2	10.0	"		77.8		0-20	1.99	20	

**PS (1203955743 S)**

Source: Y801232-01

Prepared: Analyzed: 01/19/2018

Chloride	320	10.0	mg/L	5.00		97	90-110			
Sulfate	1110	20.0	"	10.0		110	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

Craig Mulica  
 Project Number: 16926aa  
 Project: Sloan 1

**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
<b>Batch 1733124 -</b>										
<b>BLANK (1203956120-BLK)</b>					Prepared: Analyzed: 01/19/2018					
Total Dissolved Solids	ND	14.3	mg/L				-			U
<b>LCS (1203956121-BKS)</b>					Prepared: Analyzed: 01/19/2018					
Total Dissolved Solids	306	14.3	mg/L	300		102	95-105			
<b>DUP (1203956122 D)</b>					Prepared: Analyzed: 01/19/2018					
Total Dissolved Solids	321	14.3	mg/L		329		0-5	1.76	5	

Origins Laboratory, Inc.



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CGRS, Inc  
1301 Academy Court  
Fort Collins CO 80524

Craig Mulica  
Project Number: 16926aa  
Project: Sloan 1

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**Notes and Definitions**

Ua Sample is Non-Detect.

U Result not detected above the detection 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.*

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Jen Pellegrini For Noelle Doyle Mathis, President



**Attachment C**

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Soil Boring Logs



# BOREHOLE LOG

BOREHOLE NUMBER

**MP-01**

PROJECT NUMBER: 1-12696-16926aa  
 PROJECT NAME: Sloan 1  
 PROJECT LOCATION: Windsor Colorado  
 OPS EVENT ID: -

DRILLING COMPANY: DrillPro Services  
 DRILLING METHOD: Direct Push  
 DRILL OPERATOR: Terrance

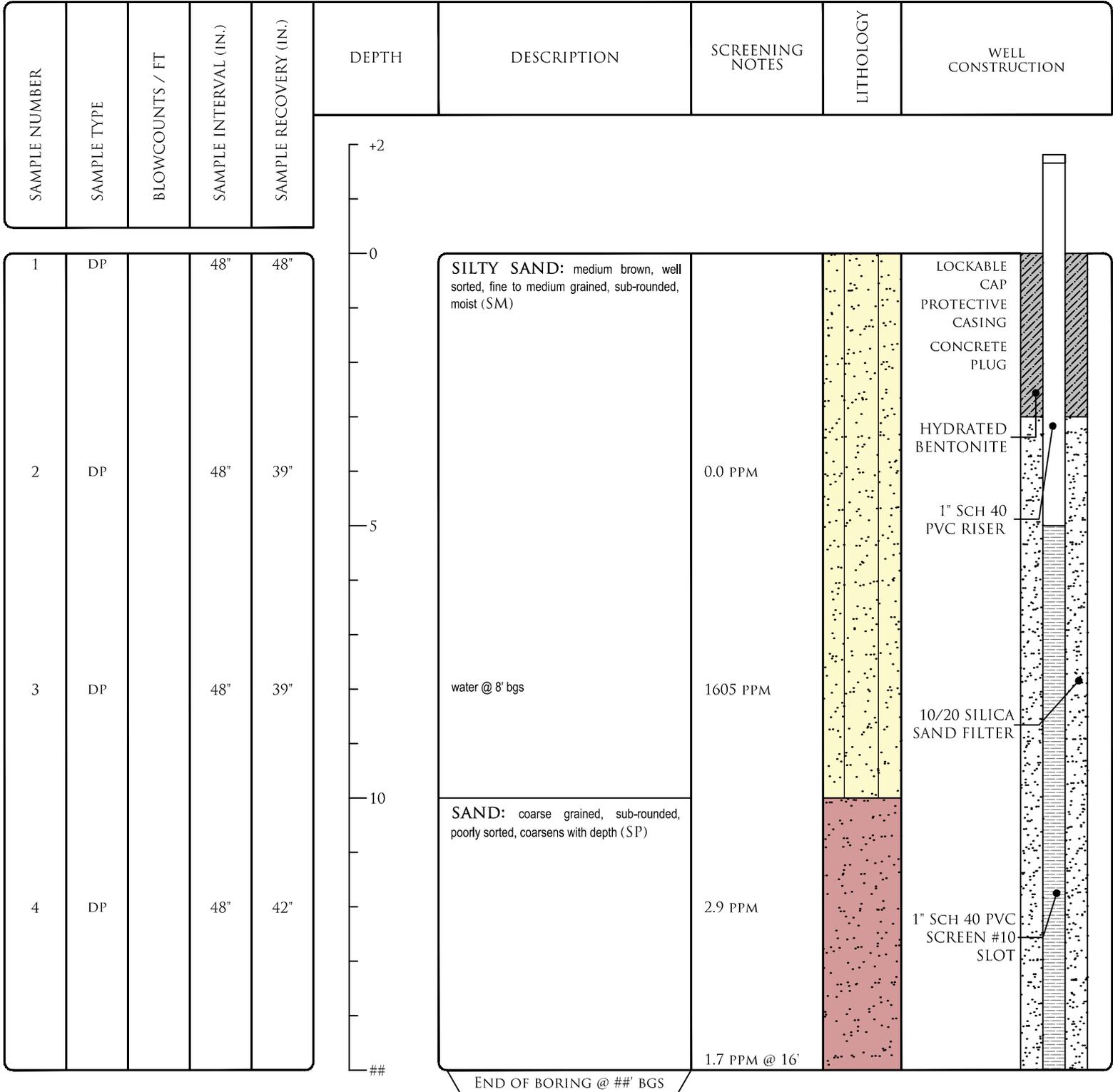
TOTAL DEPTH: 14.97 ft  
 TOP OF RISER: 100.00  
(with cap removed)

STATIC WATER LEVELS (BGS)		
TIME	12:40	13:50
DATE	12/19/17	12/19/17
WATER LEVEL	9.02'	9.02'
CASING DEPTH		

BORE DATA LOGGED BY: Elizabeth Wilson

START: 12/19/2017

COMPLETED: 12/19/2017





# BOREHOLE LOG

BOREHOLE NUMBER

**MP-02**

PROJECT NUMBER: 1-12696-16926aa  
 PROJECT NAME: Sloan 1  
 PROJECT LOCATION: Windsor Colorado  
 OPS EVENT ID: -

DRILLING COMPANY: DrillPro Services  
 DRILLING METHOD: Direct Push  
 DRILL OPERATOR: Terrance

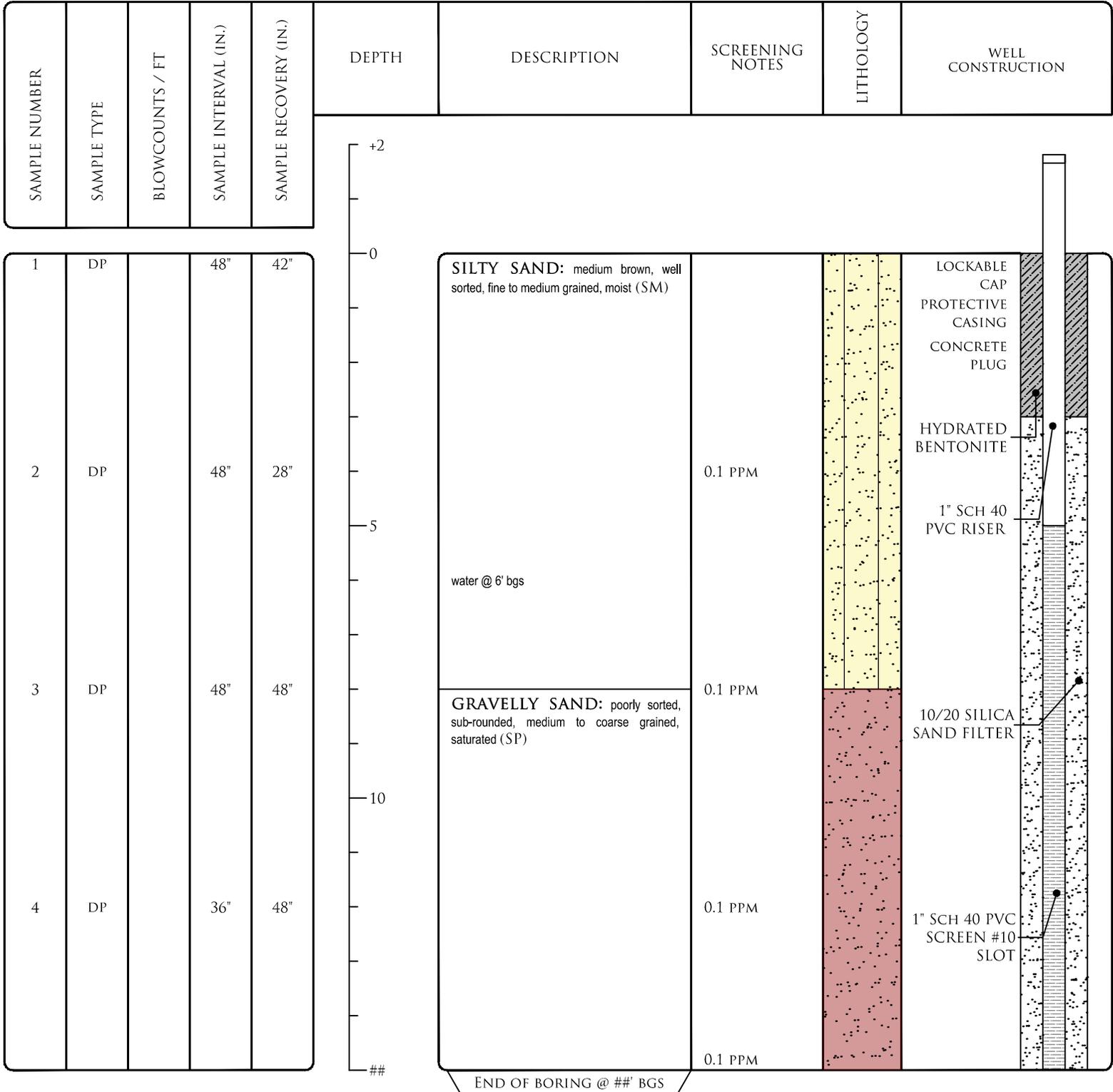
TOTAL DEPTH: 14.90 ft  
 TOP OF RISER: 99.08  
(with cap removed)

STATIC WATER LEVELS (BGS)		
TIME	12:45	14:50
DATE	12/19/17	12/19/17
WATER LEVEL	8.00'	8.00'
CASING DEPTH		

BORE DATA LOGGED BY: Elizabeth Wilson

START: 12/19/2017

COMPLETED: 12/19/2017





# BOREHOLE LOG

BOREHOLE NUMBER

**MP-03**

PROJECT NUMBER: 1-12696-16926aa  
 PROJECT NAME: Sloan 1  
 PROJECT LOCATION: Windsor Colorado  
 OPS EVENT ID: -

DRILLING COMPANY: DrillPro Services  
 DRILLING METHOD: Direct Push  
 DRILL OPERATOR: Terrance

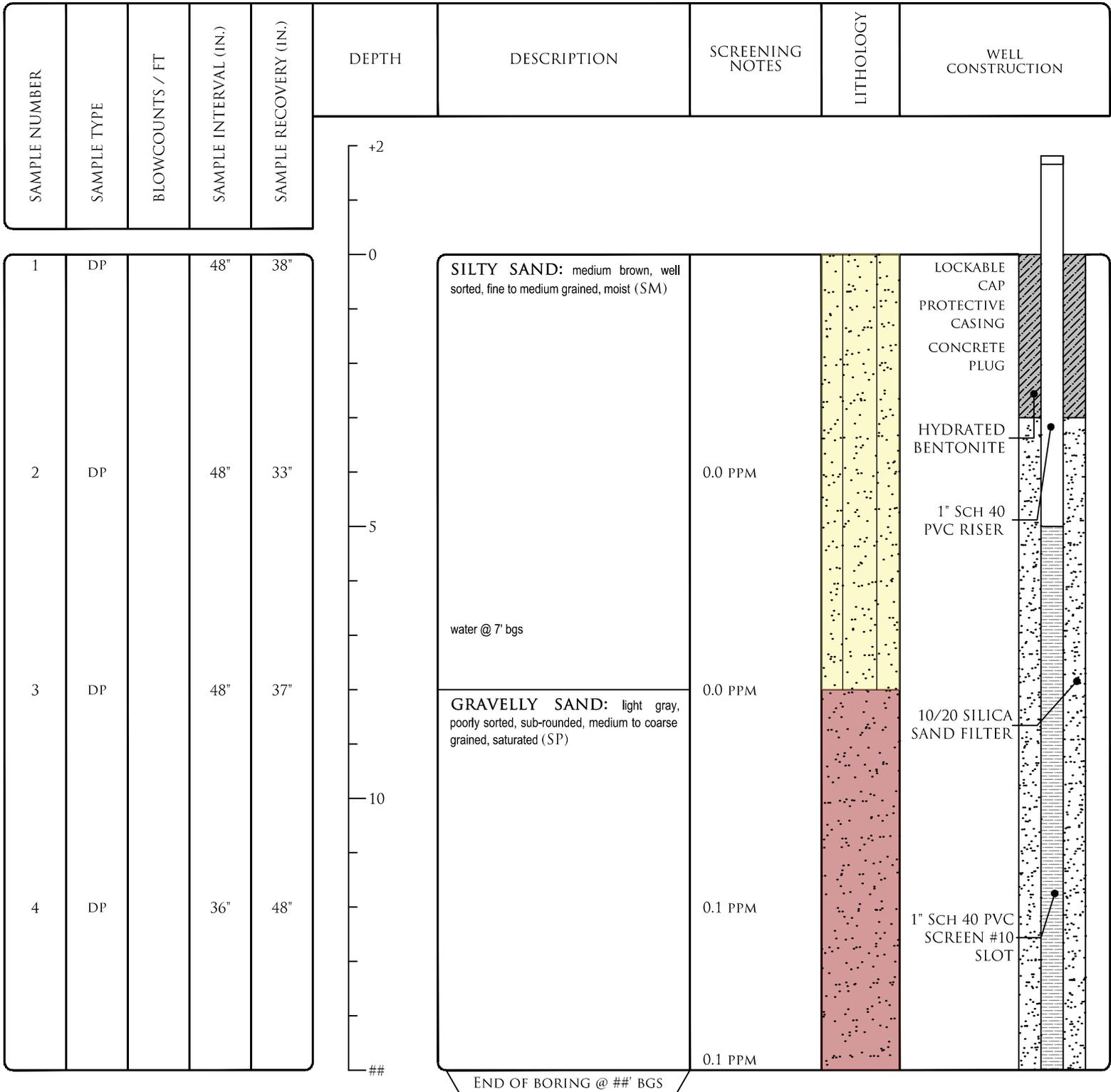
TOTAL DEPTH: 14.75 ft  
 TOP OF RISER: 100.57  
(with cap removed)

STATIC WATER LEVELS (BGS)		
TIME	12:35	14:00
DATE	12/19/17	12/19/17
WATER LEVEL	9.60'	9.59'
CASING DEPTH		

BORE DATA LOGGED BY: Elizabeth Wilson

START: 12/19/2017

COMPLETED: 12/19/2017





# BOREHOLE LOG

BOREHOLE NUMBER

**MP-04**

PROJECT NUMBER: 1-12696-16926aa  
 PROJECT NAME: Sloan 1  
 PROJECT LOCATION: Windsor Colorado  
 OPS EVENT ID: -

DRILLING COMPANY: DrillPro Services  
 DRILLING METHOD: Direct Push  
 DRILL OPERATOR: Terrance

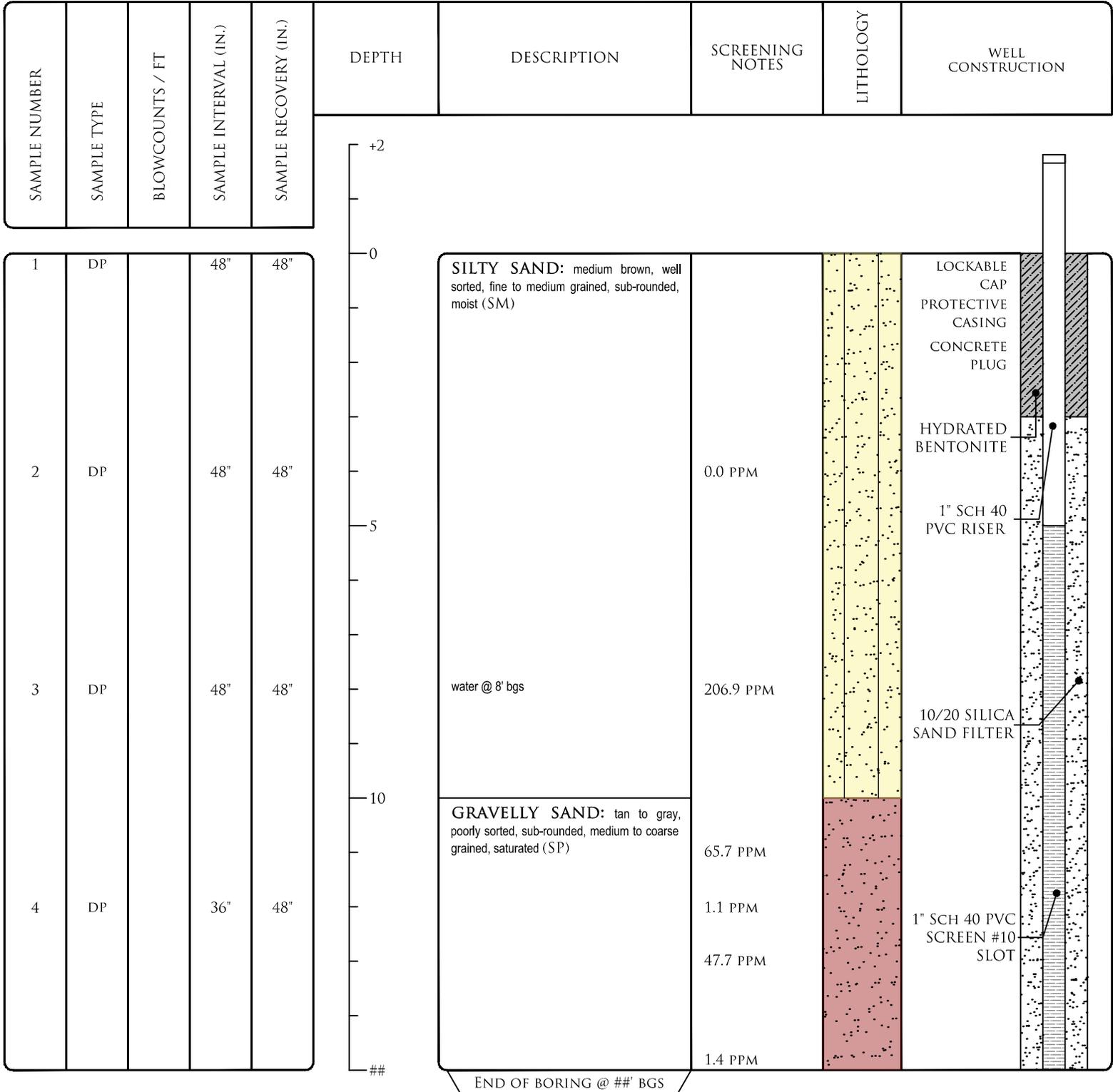
TOTAL DEPTH: 15.38 ft  
 TOP OF RISER: 100.47  
(with cap removed)

STATIC WATER LEVELS (BGS)		
TIME	12:30	14:30
DATE	12/19/17	12/19/17
WATER LEVEL	9.56'	9.55'
CASING DEPTH		

BORE DATA LOGGED BY: Elizabeth Wilson

START: 12/19/2017

COMPLETED: 12/19/2017





# BOREHOLE LOG

BOREHOLE NUMBER

**MP-05**

PROJECT NUMBER: 1-12696-16926aa  
 PROJECT NAME: Sloan 1  
 PROJECT LOCATION: Windsor Colorado  
 OPS EVENT ID: -

DRILLING COMPANY: DrillPro Services  
 DRILLING METHOD: Direct Push  
 DRILL OPERATOR: Terrance

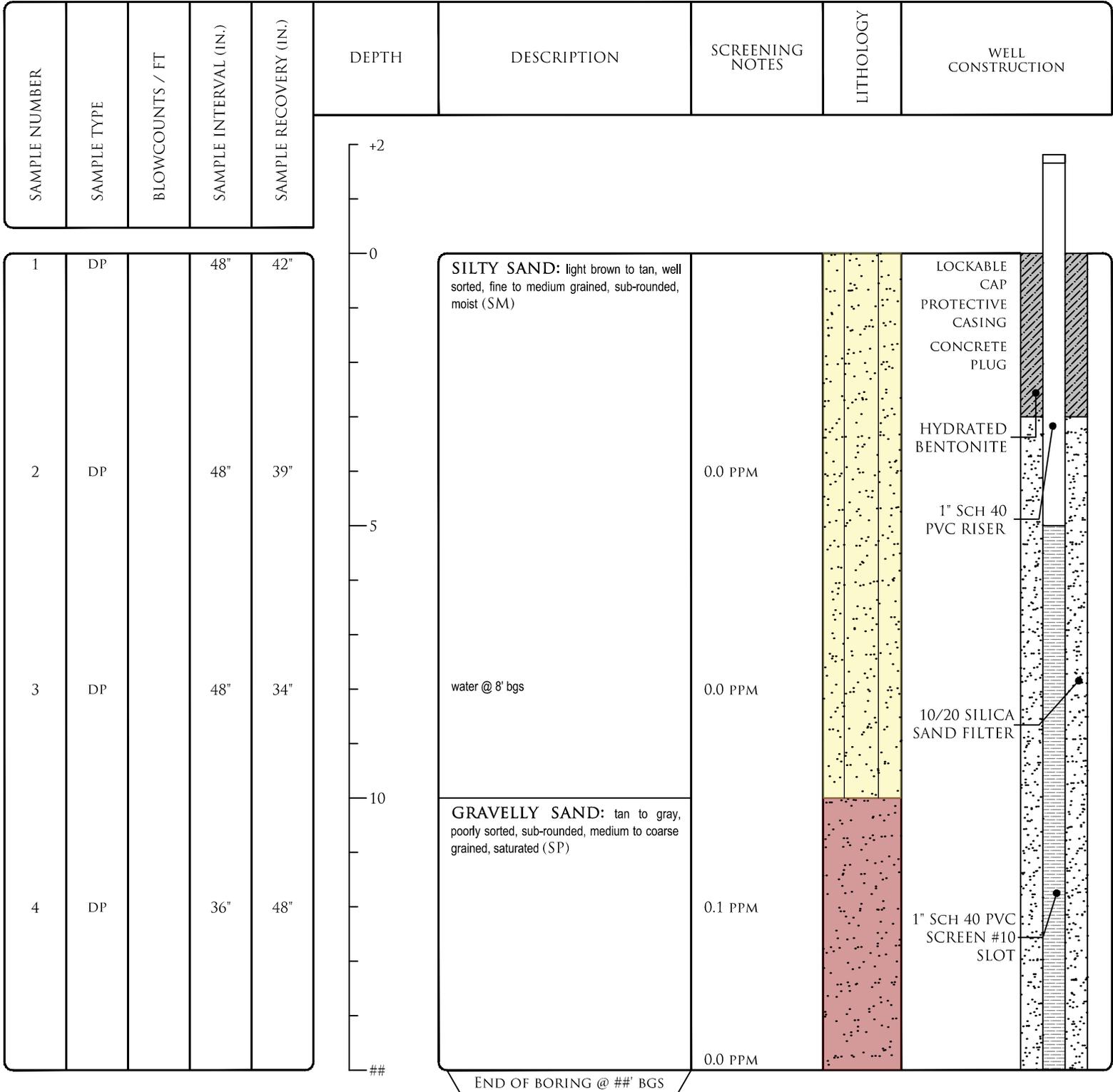
TOTAL DEPTH: 14.89 ft  
 TOP OF RISER: 100.91  
(with cap removed)

STATIC WATER LEVELS (BGS)		
TIME	12:40	14:10
DATE	12/19/17	12/19/17
WATER LEVEL	10.12'	10.12'
CASING DEPTH		

BORE DATA LOGGED BY: Elizabeth Wilson

START: 12/19/2017

COMPLETED: 12/19/2017





# BOREHOLE LOG

BOREHOLE NUMBER

**MP-06**

PROJECT NUMBER: 1-12696-16926aa  
 PROJECT NAME: Sloan 1  
 PROJECT LOCATION: Windsor Colorado  
 OPS EVENT ID: -

DRILLING COMPANY: DrillPro Services  
 DRILLING METHOD: Direct Push  
 DRILL OPERATOR: Terrance

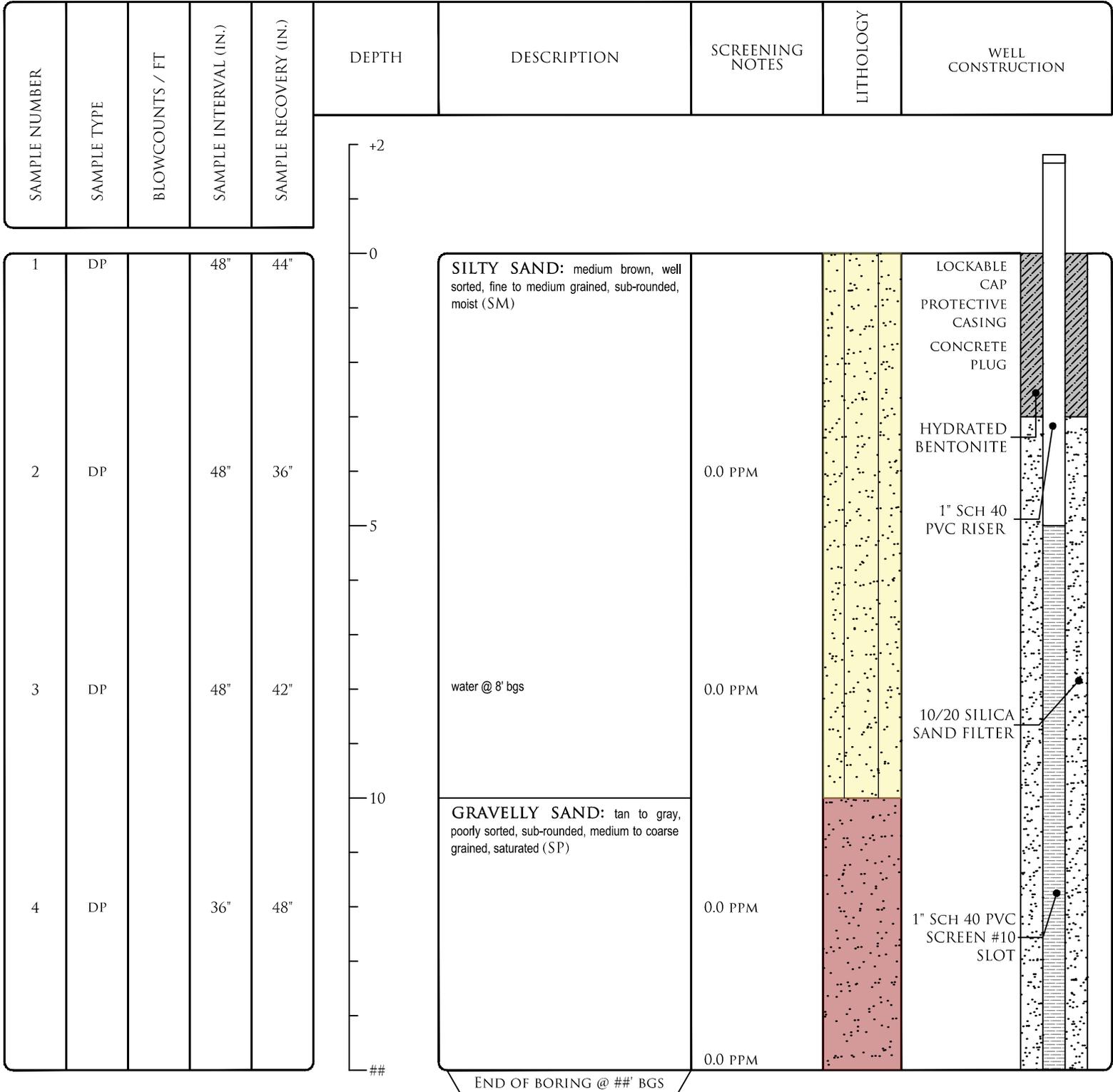
TOTAL DEPTH: 15.03 ft  
 TOP OF RISER: 101.06  
(with cap removed)

STATIC WATER LEVELS (BGS)		
TIME	12:50	14:35
DATE	12/19/17	12/19/17
WATER LEVEL	10.23'	10.21'
CASING DEPTH		

BORE DATA LOGGED BY: Elizabeth Wilson

START: 12/19/2017

COMPLETED: 12/19/2017





# BOREHOLE LOG

BOREHOLE NUMBER

**MP-07**

PROJECT NUMBER: 1-12696-16926aa  
 PROJECT NAME: Sloan 1  
 PROJECT LOCATION: Windsor Colorado  
 OPS EVENT ID:

DRILLING COMPANY: DrillPro Services  
 DRILLING METHOD: Direct Push  
 DRILL OPERATOR: Terrance

TOTAL DEPTH: 14.95 ft  
 TOP OF RISER: 100.99  
(with cap removed)

STATIC WATER LEVELS (BGS)		
TIME	08:50	09:45
DATE	01/18/2018	01/17/2018
WATER LEVEL	10.50'	10.46'
CASING DEPTH		

BORE DATA LOGGED BY: Elizabeth Wilson

START: 01/17/2018

COMPLETED: 01/17/18

