

**K35 CDP Pipeline Release (Form 27)**  
**(REM 10527)**

This Form 27 (Site Investigation and Remediation Workplan) was prepared for the purpose of presenting third quarter 2019 groundwater monitoring and air sparge (AS) system data associated with hydrocarbon impacts discovered at the K35 CDP Pipeline Release in Caerus Oil and Gas LLC's North Parachute Mountain area of operation in Garfield County.

On July 2 and 8, 2019, LT Environmental Inc. (LTE) personnel conducted monthly groundwater monitoring activities including, collection of down-well dissolved oxygen (DO) measurements, fluid level gauging in the product recovery sump, fluid level gauging in all existing groundwater monitoring wells, collecting groundwater samples from monitoring wells MW-15, MW-26, MW-29, MW-30, MW-32, MW-33, MW-34, MW-35, MW-38, and MW-46, collecting air samples from monitoring wells MW-17, MW-32, and, MW-39, and monitoring of the AS system.

On August 7 and 14, 2019, LTE personnel conducted monthly groundwater monitoring activities including fluid level gauging in the product recovery sump, fluid level gauging in all existing groundwater monitoring wells, collecting groundwater samples from monitoring wells MW-15, MW-26, MW-29, MW-30, MW-32, MW-33, MW-34, MW-35, MW-38, and MW-46, and monitoring of the AS system.

On September 17 through 20, 2019, LTE personnel conducted quarterly groundwater monitoring activities including fluid level gauging in the product recovery sump, fluid level gauging in all existing groundwater monitoring wells, collecting groundwater samples from 36 of the 44 monitoring well locations, and monitoring of the AS system. Groundwater monitoring well MW-27 produced insufficient water, therefore a sample could not be collected.

All fluid level measurements were collected utilizing an oil-water interface probe. In order to purge the wells prior to sample collection, at least three casing volumes of groundwater were removed from each monitoring well or the well was purged dry. All groundwater samples were submitted for laboratory analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX).

**GROUNDWATER MONITORING**

During the July 2019 groundwater monitoring activities, light non-aqueous phase liquid (LNAPL) was observed in monitoring wells MW-01, MW-06, MW-08, MW-25, and MW-28, with product thicknesses ranging from 0.02 feet in MW-08 to 0.53 feet in MW-06. Three of the 10 samples collected (MW-29, MW-30, and MW-38) exceeded the COGCC Table 910-1 Concentration Level for benzene with concentrations ranging from 11 micrograms per liter (µg/L) in MW-38 to 22 µg/L in MW-30. Of the 10 samples collected, seven were either below the laboratory detection limit or were within the COGCC Concentration Levels for BTEX. Down-well DO measurements were collected in all well locations except wells with measurable LNAPL. Generally, DO concentrations were higher outside the impacted areas. A summary of the DO measurements is in the attached Table 5.

During the August 2019 groundwater monitoring activities, LNAPL was observed in monitoring wells MW-01, MW-02, MW-06, MW-08, MW-25, and MW-28 with product thicknesses ranging from 0.03 feet in MW-01 to 0.49 feet in MW-06. Three of the 11 samples collected (MW-29, MW-30, and MW-38) exceeded the COGCC Table 910-1 Concentration Level for benzene with concentrations ranging from 12 µg/L in MW-38 to 21 µg/L in MW-30. Of the 10 samples collected, seven were either below the laboratory detection limit or were within the COGCC Table 910-1 Concentration Levels for BTEX.

During the September 2019 groundwater monitoring activities, LNAPL was observed in the product recovery sump, monitoring wells MW-01, MW-02, MW-06, MW-08, MW-09, MW-25, MW-28, and MW-41. Product thickness ranged from 0.01 feet in MW-41 and the Sump to 0.44 feet in MW-06. The free-phase estimated plume areas are depicted on Figure 1.

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Laboratory analytical results indicate 14 of the 36 samples collected (MW-03, MW-04, MW-05, MW-07, MW-12, MW-16, MW-17, MW-19, MW-20, MW-22, MW-23, MW-29, MW-30, and MW-38) exceeded the COGCC Table 910-1 Concentration Level for benzene with concentrations ranging from 6.3 µg/L in MW-04 to 2,600 µg/L in MW-03. Of the 36 samples collected, 35 were either below the laboratory detection limit or were within the COGCC 910-1 Concentration Level for toluene. Monitoring well MW-03 exceeded the COGCC Table 910-1 Concentration Level for toluene with a concentration of 690 µg/L. Total xylenes concentrations exceeded the COGCC Table 910-1 Concentration Level in monitoring wells MW-03, MW-16, and MW-23 with concentrations ranging from 1,300 µg/L in MW-23 to 2,700 µg/L in MW-16. Of the 36 groundwater samples collected, 22 were either below the laboratory detection limit or were within the COGCC Concentration Levels for BTEX. The dissolved phase hydrocarbon estimated plume areas are depicted on Figure 1. Groundwater flow remains consistent with previous months, generally flowing from west to east. A summary of groundwater laboratory analytical results is depicted on Figure 1 and is included as Table 1. A relative groundwater elevation map is included as Figure 2. A summary of groundwater elevation and product thickness is included in Table 2. Groundwater laboratory analytical reports are included as an attachment.

**CONTINUED MONITORING**

Groundwater monitoring activities will be conducted on a monthly basis and will be reported on a quarterly basis. Monthly monitoring activities will include gauging fluid levels of the sump and all groundwater monitoring wells and collecting groundwater samples from monitoring wells MW-15, MW-26, MW-29, MW-30, MW-32, MW-33, MW-34, MW-35, MW-38, and MW-46. Quarterly sampling will include groundwater samples collected from all monitoring wells where LNAPL is not observed. All groundwater samples will be submitted for laboratory analysis of BTEX.

**REMEDATION**

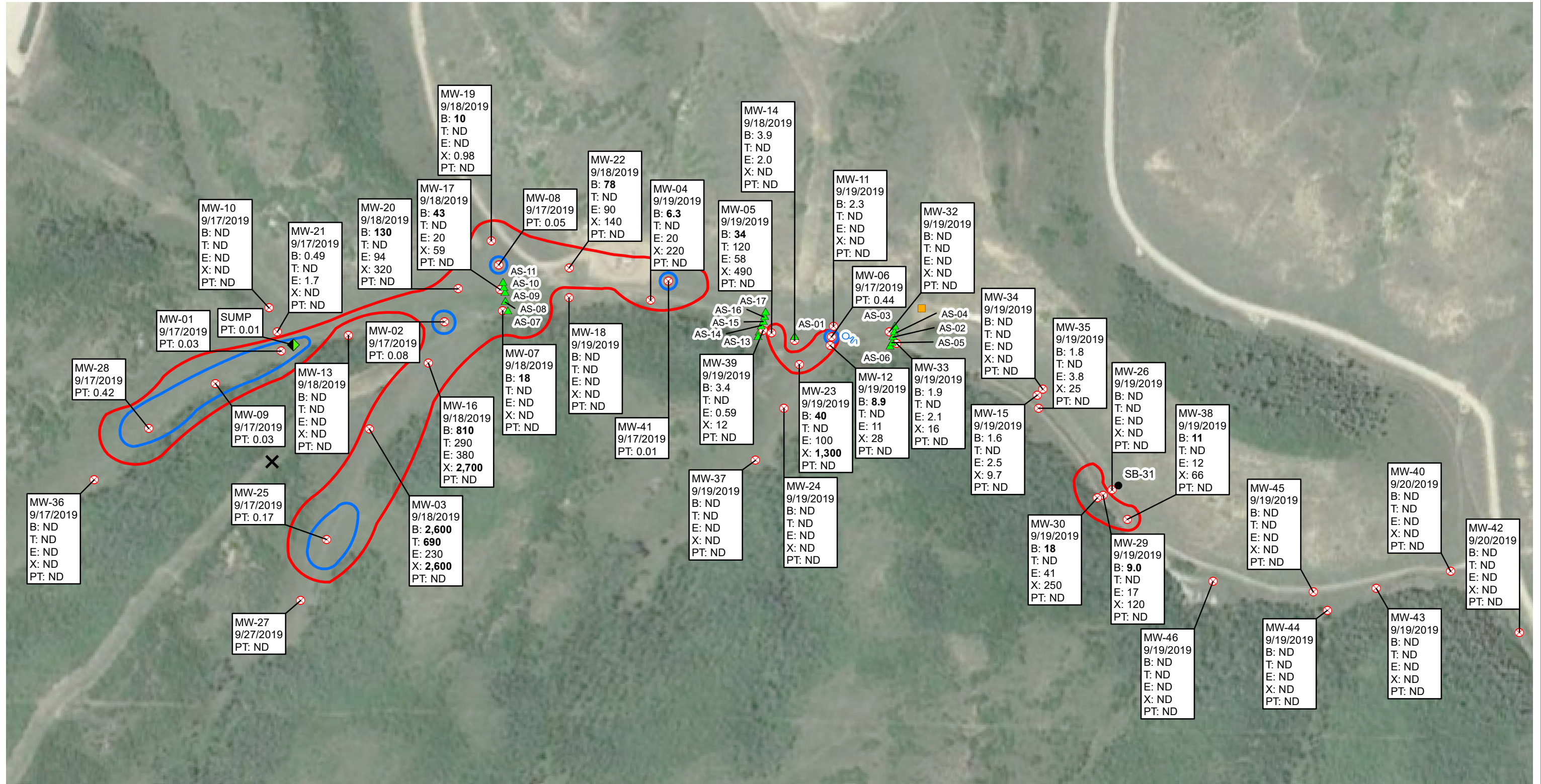
An estimated 320 gallons of LNAPL was recovered from the recovery sump since its installation. The recovery sump no longer collects enough volume of LNAPL to effectively remove free phase product. Since the start-up of the AS system on January 3, 2018, dissolved phase BTEX concentrations and LNAPL thicknesses have generally decreased throughout the site. From September 12, 2018, to September 18, 2019, BTEX concentrations in MW-17 located along the western most sparge curtain remained below the COGCC Table 910-1 Concentration Levels with the exception of benzene which decreased in concentration from 940 µg/L to 43 µg/L. In addition, BTEX concentrations in MW-33, located along the eastern most sparge curtain have remained below laboratory detection limit or within COGCC Table 910-1 Concentration Levels since September 11, 2018. A summary of groundwater analytical results is included as Table 1 and a summary of LNAPL thickness is included as Table 2. An estimated free phase plume (LNAPL) and dissolved phase plume is depicted on Figure 1.

On July 8, August 7, and September 20, 2019, flow and pressure readings were collected from the AS system. The system is divided into two zones: East and West. Flow typically alternates between the zones every hour, for 24 hours a day. During the months of July, August, and September 2019 flow alternated between the zones every hour for 24 hours a day for a total of 372 hours in each zone for July and August, and 360 hours in each zone for September. AS readings are summarized in Table 3.

The air sparging curtains began operation on January 3, 2018. To calculate air emissions, air samples were collected from representative monitoring wells (MW-17, MW-32, and MW-39) along each sparge curtain where influence from the sparge flow was observed. The air samples were collected on July 8, 2019, and shipped to ALS

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Environmental in Simi Valley, California under strict COC procedures for analysis of total volatile petroleum hydrocarbons (TVPH) as gasoline per modified EPA Method TO-3. Flow measurements from January 2019 through September 2019 indicate the total flow of the three sparge curtains is approximately 26,031,312 cubic feet (cf). The estimated TVPH air emissions is 0.10 tons (205 pounds) resulting from volatilization of hydrocarbons during operation of the AS curtains. A summary of quarterly and total air emission estimate calculations is included as Table 4, and the laboratory analytical report is included as an attachment.



LEGEND

- CISTERN
- ⊗ MONITORING WELL
- SOIL BORING
- ◆ SUMP LOCATION
- ▲ AIR SPARGING WELL (AS)
- SPRING
- ✕ RELEASE LOCATION
- ESTIMATED FREE PHASE HYDROCARBON PLUME (LNAPL)
- ESTIMATED DISSOLVED PHASE HYDROCARBON PLUME EXCEEDING COGCC ALLOWABLE CONCENTRATIONS

SAMPLE ID  
SAMPLE DATE  
B: BENZENE IN MICROGRAMS PER LITER (µg/L)  
T: TOLUENE (µg/L)  
E: ETHYLBENZENE (µg/L)  
X: TOTAL XYLENES (µg/L)  
PT: PRODUCT THICKNESS IN FEET  
ND: NON-DETECT  
NS: NOT SAMPLED  
**BOLD: INDICATES RESULT EXCEEDS THE COGCC CONCENTRATION LEVEL**

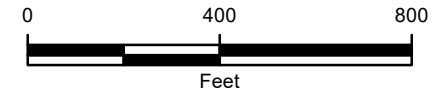
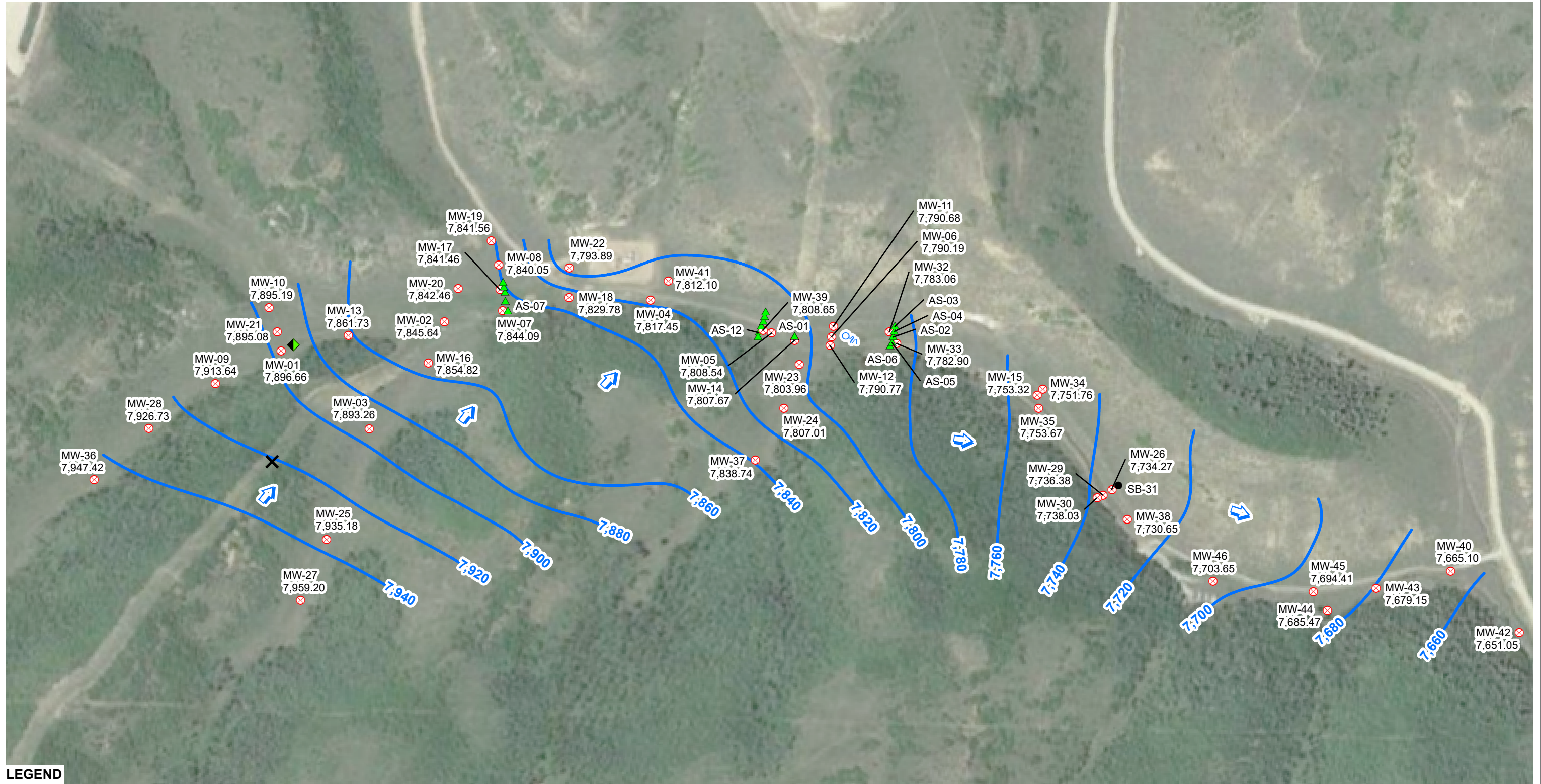


FIGURE 1  
GROUNDWATER ANALYTICAL RESULTS  
SEPTEMBER 2019  
K35 CDP PIPELINE  
GARFIELD COUNTY, COLORADO  
CAERUS OIL AND GAS, LLC



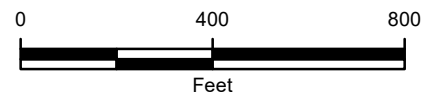




**LEGEND**

- |   |                        |   |  |
|---|------------------------|---|--|
| ⊗ | MONITORING WELL        | ↗ | CALCULATED GROUNDWATER FLOW DIRECTION  |
| ● | SOIL BORING            | — | RELATIVE GROUNDWATER ELEVATION CONTOUR |
| ▲ | AIR SPARGING WELL (AS) |   | CONTOUR INTERVAL = 20 FEET             |
| ◆ | SUMP LOCATION          |   | GRADIENT = 0.059 FEET/FOOT             |
| Ⓐ | SPRING                 |   |  |
| ✕ | RELEASE LOCATION       |   |  |

IMAGE COURTESY OF GOOGLE EARTH 2016



**FIGURE 2**  
**RELATIVE GROUNDWATER ELEVATION MAP**  
**SEPTEMBER 17, 2019**  
**K35 CDP PIPELINE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**



TABLE 1  
GROUNDWATER LABORATORY RESULTS SUMMARY TABLE

K35 CDP PIPELINE RELEASE  
GARFIELD COUNTY, COLORADO  
CAERUS OIL AND GAS, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Calcium mg/L	Magnesium mg/L	Potassium mg/L	Sodium mg/L	Bromide mg/L	Chloride mg/L	Fluoride mg/L	Sulfate mg/L	Nitrogen Nitrate mg/L
ENPR5WW	10/17/2017	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
ENPR30SP	10/17/2017	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
CISTERN	10/31/2017	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-01	3/22/2018	3,400	1,400	490	4,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	2,900	5,700	550	7,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/14/2018	1,600	4,100	450	9,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2018	400	25	150	470	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/18/2019	150	15	130	310	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	280	180	160	890	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-02	10/17/2017	9,700	21,000	760	12,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/21/2018	4,500	11,000	520	9,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	3,600	6,500	550	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	2,600	5,000	410	8,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	2,100	4,200	340	7,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/12/2019	1,800	3,900	530	11,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-03	6/5/2019	980	1,400	380	8,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/17/2017	8,100	11,000	220	3,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/19/2017	9,300	13,000	340	7,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/13/2017	9,900	15,000	320	6,600	610	200	21	110	2.4	230	0.074	100	ND
	3/22/2018	7,200	1,200	290	5,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	6,000	4,200	340	5,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	6,000	3,900	350	5,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	4,600	2,300	350	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/12/2019	3,800	1,600	290	4,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-04	6/5/2019	3,400	1,100	260	3,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/18/2019	2,600	690	230	2,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/17/2017	7,000	19,000	680	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	2,100	3,400	160	9,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	1,600	180	62	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	520	24	35	630	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	100	ND	8.5	220	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	3.5	0.40	0.75	42	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-05	6/4/2019	110	320	160	2,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	6.3	ND	20	220	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	600	4,100	360	6,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	390	1,000	190	3,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	460	560	160	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	53	310	100	1,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	260	400	380	3,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-06	6/4/2019	ND	10	21	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	34	120	58	490	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/18/2017	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	1,900	6,800	440	7,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	780	8,800	500	9,700	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	180	1,500	280	5,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	31	170	150	3,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	25	140	100	1,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	ND	210	260	4,800	NA	NA	NA	NA	NA	NA	NA	NA	NA

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CAERUS OIL AND GAS, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Calcium mg/L	Magnesium mg/L	Potassium mg/L	Sodium mg/L	Bromide mg/L	Chloride mg/L	Fluoride mg/L	Sulfate mg/L	Nitrogen Nitrate mg/L
MW-07	10/18/2017	370	0.59	0.86	5.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/13/2017	20	ND	ND	ND	94	30	11	120	0.093	16	0.25	100	ND
	3/21/2018	500	3.9	1.3	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	96	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	26	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	47	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/12/2019	76	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	9.7	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/18/2019	18	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-08	10/18/2017	9,100	24,000	900	13,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/21/2018	3,700	4,200	650	9,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	2,700	4,600	530	7,200	NA	18	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	1,800	3,300	460	6,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	570	1,100	220	3,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/12/2019	580	1,800	280	3,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	280	800	150	3,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-09	10/24/2017	7,200	7,800	320	5,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/14/2017	5,900	4,100	270	4,000	240	110	21	140	0.48	49	0.11	36	ND
	3/22/2018	3,800	4,200	400	7,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	2,600	210	240	1,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/14/2018	1,600	580	180	2,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2018	800	460	170	2,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/18/2019	340	1,300	160	5,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	250	210	130	1,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-10	10/24/2017	2.7	1.3	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/14/2017	1.7	1.2	ND	ND	320	120	23	170	ND	2.8	0.23	79	ND
	3/22/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/14/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/18/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-11	10/25/2017	16	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/31/2017	650	5.2	15	95	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2017	1,300	ND	ND	100	310	130	31	83	0.088	9.8	0.073	93	ND
	3/20/2018	1,600	11	1.4	110	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	2,400	ND	ND	8.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	250	ND	0.73	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	7.0	ND	0.32	0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	2.0	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	2.8	ND	ND	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	2.3	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA

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MW-12	10/25/2017	1,800	4,900	110	4,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/31/2017	1,500	4,200	63	3,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2017	2,100	4,500	130	4,400	200	82	27	99	0.13	13	ND	75	ND
	3/20/2018	2,000	1,900	120	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	1,200	ND	21	570	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	340	ND	6.3	76	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	87	ND	14	85	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	21	ND	10	32	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	1.4	ND	2.4	130	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	8.9	ND	11	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-13	11/8/2017	10	7.2	ND	2.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/14/2017	2.1	2.2	ND	0.97	520	200	34	280	ND	9.3	0.24	230	ND
	3/22/2018	0.61	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	1.9	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/14/2018	1.3	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/18/2019	0.67	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/18/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-14	10/27/2017	170	3.4	2.4	23	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2017	2,000	2.6	1.8	170	120	67	27	53	0.098	10	ND	79	0.041
	3/20/2018	2,200	3.6	4.8	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	2,200	ND	10	72	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	610	ND	1.8	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	18	ND	0.78	0.84	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	1.7	ND	1.2	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	3.0	ND	1.7	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/18/2019	3.9	ND	2.0	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-15	10/27/2017	39	100	1.5	220	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/31/2017	110	280	2.2	430	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2017	860	3,200	140	4,300	140	60	15	61	ND	9.8	0.074	83	ND
	1/17/2018	1,200	4,200	190	4,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/21/2018	720	3,900	190	4,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	570	3,600	220	6,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/17/2018	600	1,100	120	6,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/17/2018	290	87	50	2,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/18/2018	150	2.4	37	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/2018	90	0.61	21	490	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/15/2018	64	0.66	15	370	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/3/2018	32	ND	11	180	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/2018	15	ND	7.8	120	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	9.3	ND	6.4	73	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/4/2019	6.3	ND	5.0	65	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/5/2019	4.5	ND	4.5	45	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	3.3	ND	3.7	42	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/2/2019	1.5	ND	2.1	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/2/2019	0.78	ND	1.2	120	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	1.1	ND	1.5	29	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2019	1.1	ND	1.6	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2019	0.98	ND	1.7	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	1.6	ND	2.5	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA



TABLE 1  
GROUNDWATER LABORATORY RESULTS SUMMARY TABLE

K35 CDP PIPELINE RELEASE  
GARFIELD COUNTY, COLORADO  
CAERUS OIL AND GAS, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Calcium mg/L	Magnesium mg/L	Potassium mg/L	Sodium mg/L	Bromide mg/L	Chloride mg/L	Fluoride mg/L	Sulfate mg/L	Nitrogen Nitrate mg/L
MW-16	10/24/2017	5,900	9,600	510	8,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/13/2017	4,900	9,700	320	5,800	290	110	15	120	0.39	38	0.075	72	ND
	3/21/2018	3,800	7,600	390	7,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	3,000	2,700	390	5,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	3,600	7,200	490	7,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	2,200	3,900	490	4,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/12/2019	1,600	1,600	470	4,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	1,000	550	410	3,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/18/2019	810	290	380	2,700	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-17	10/25/2017	5,700	10,000	280	4,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/13/2017	5,600	9,000	280	3,900	110	56	10	63	0.32	31	0.084	80	ND
	3/21/2018	2,600	200	230	3,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	240	0.91	13	180	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	930	ND	100	490	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	420	0.51	93	280	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/12/2019	490	ND	120	340	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	81	ND	28	120	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/18/2019	43	ND	20	59	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-18	10/27/2017	4.4	5.7	0.42	3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/13/2017	1.8	2.4	0.81	2.7	760	260	55	380	ND	32	0.59	110	ND
	3/21/2018	3.7	2.6	0.48	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	2.2	0.79	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	2.8	1.5	ND	0.87	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	3.2	1.9	0.43	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/12/2019	2.1	0.74	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	1.9	1.60	ND	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-19	10/27/2017	0.86	1.2	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/13/2017	ND	ND	ND	ND	550	200	33	280	ND	5.3	ND	140	ND
	3/21/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	2.1	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	7.2	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	1.6	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/12/2019	7.8	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	2.1	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/18/2019	10	ND	ND	0.98	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-20	10/31/2017	5,300	16,000	580	8,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/13/2017	5,500	8,000	340	5,300	280	110	15	130	0.20	21	0.12	92	ND
	3/21/2018	3,100	1,400	340	3,700	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	1,600	8.2	240	1,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	850	16	210	850	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	530	4.6	160	870	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/12/2019	300	ND	130	360	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	140	9.6	130	540	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/18/2019	130	ND	94	320	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1  
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K35 CDP PIPELINE RELEASE  
GARFIELD COUNTY, COLORADO  
CAERUS OIL AND GAS, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Calcium mg/L	Magnesium mg/L	Potassium mg/L	Sodium mg/L	Bromide mg/L	Chloride mg/L	Fluoride mg/L	Sulfate mg/L	Nitrogen Nitrate mg/L
MW-21	10/31/2017	7,400	11,000	110	2,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/14/2017	7,100	5,100	300	1,600	180	130	27	63	0.46	45	ND	92	ND
	3/22/2018	5,500	81	260	720	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	3,100	ND	200	150	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/14/2018	620	0.37	96	8.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2018	7.2	ND	61	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/18/2019	ND	ND	5.8	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	ND	ND	12	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/2019	0.49	ND	1.7	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-22	11/1/2017	6,800	7,300	290	1,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/13/2017	8,300	1,000	300	2,100	220	110	28	68	0.29	28	0.087	88	ND
	3/21/2018	3,700	85	240	1,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	3,100	100	200	750	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	1,100	73	190	950	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	450	190	190	2,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	210	ND	300	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	110	ND	140	570	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/18/2019	78	ND	90	140	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-23	3/21/2018	2,300	12,000	780	14,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	2,100	7,600	860	16,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	720	2,600	660	16,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	390	1,600	770	7,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	200	210	210	4,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	23	15	78	1,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	40	ND	100	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-24	12/13/2017	ND	ND	ND	ND	230	94	24	150	ND	2.7	0.16	74	ND
	3/21/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-25	3/22/2018	12,000	27,000	1,600	17,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	11,000	36,000	2,200	31,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	9,000	29,000	1,300	21,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	7,600	25,000	1,200	16,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/12/2019	6,000	22,000	1,100	16,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	5,700	22,000	940	15,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

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K35 CDP PIPELINE RELEASE  
GARFIELD COUNTY, COLORADO  
CAERUS OIL AND GAS, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Calcium mg/L	Magnesium mg/L	Potassium mg/L	Sodium mg/L	Bromide mg/L	Chloride mg/L	Fluoride mg/L	Sulfate mg/L	Nitrogen Nitrate mg/L
MW-26	11/1/2017	22	39	2.7	17	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2017	ND	ND	ND	ND	300	100	11	58	ND	8.1	0.080	84	ND
	1/17/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/21/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/17/2018	0.87	1.0	0.31	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/17/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/18/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/15/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/3/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/6/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/4/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/5/2019	ND	ND	ND	0.76	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/2/2019	ND	ND	ND	0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/2/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/3/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-28	11/2/2017	190	150	16	210	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/22/2018	460	1,100	150	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	220	1,000	210	3,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/14/2018	540	4,000	360	6,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2018	320	2,200	330	5,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/18/2019	170	1,400	360	6,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	78	520	140	2,200	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Calcium mg/L	Magnesium mg/L	Potassium mg/L	Sodium mg/L	Bromide mg/L	Chloride mg/L	Fluoride mg/L	Sulfate mg/L	Nitrogen Nitrate mg/L
MW-29	11/3/2017	3.2	8.1	0.91	5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2017	ND	ND	ND	ND	310	100	9.4	60	ND	8.4	ND	79	ND
	1/17/2018	550	5,100	160	4,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/21/2018	410	3,500	160	4,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	440	4,000	190	6,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/17/2018	240	1,500	110	4,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/17/2018	250	840	65	3,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/18/2018	160	390	32	2,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/2018	90	65	26	2,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/15/2018	55	22	17	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	41	5.5	13	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/3/2018	58	5.8	17	970	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/2018	37	5.3	23	830	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/6/2018	38	2.6	44	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/4/2019	20	3.9	23	860	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/5/2019	16	4.8	22	710	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	12	5.6	15	380	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/2/2019	11	1.4	20	920	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/2/2019	7.4	ND	13	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	7.9	5.4	15	240	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-30	7/8/2019	14	ND	23	250	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2019	13	ND	20	160	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	9.0	ND	17	120	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/3/2017	13	14	1.1	6.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2017	0.98	2.0	ND	ND	320	110	13	71	ND	8.5	0.068	80	ND
	1/17/2018	210	540	9.3	160	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/21/2018	460	1,600	34	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	700	3,000	72	3,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/17/2018	460	1,800	55	2,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/17/2018	510	1,500	56	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	330	760	40	2,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/2018	270	360	40	2,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/15/2018	240	180	66	3,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	190	120	82	3,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/3/2018	130	41	54	2,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/2018	100	27	66	2,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/6/2018	120	7.8	120	2,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/4/2019	65	2.2	67	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/5/2019	40	1.8	53	630	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	33	1.2	36	420	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/2/2019	30	0.78	60	980	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/2/2019	18	ND	51	970	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	21	ND	64	660	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2019	22	ND	48	510	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2019	21	ND	52	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	18	ND	41	250	NA	NA	NA	NA	NA	NA	NA	NA	NA

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MW-32	11/3/2017	26	39	4.2	93	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/21/2018	220	1,400	110	8,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	880	2,900	380	22,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/17/2018	120	83	9.6	2,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/17/2018	92	4.0	3.2	750	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	3.9	0.75	ND	180	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/2018	17	ND	ND	27	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/15/2018	130	0.43	13	210	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	4.5	ND	0.71	19	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/3/2018	1.1	ND	ND	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/2018	ND	ND	ND	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	ND	ND	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/4/2019	ND	ND	ND	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/5/2019	ND	ND	ND	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	2.0	ND	3.7	36	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/2/2019	2.5	ND	9.4	52	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/2/2019	1.2	ND	15	72	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	ND	ND	ND	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2019	ND	ND	ND	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-33	2/21/2018	490	5,400	570	12,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	360	3,900	520	11,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/17/2018	1,500	2,300	160	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/17/2018	230	99	14	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	98	85	18	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/2018	23	50	21	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/15/2018	100	14	11	660	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	4.8	2.6	1.9	410	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/3/2018	1.8	0.71	5.9	320	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/2018	ND	ND	3.0	380	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	ND	1.2	2.6	170	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/4/2019	ND	0.71	6.0	110	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/5/2019	ND	ND	2.9	37	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	ND	ND	ND	7.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/2/2019	ND	ND	1.2	16	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/2/2019	ND	ND	1.5	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	ND	ND	1.1	16	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2019	ND	ND	1.3	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2019	ND	ND	1.0	7.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	1.9	ND	2.1	16	NA	NA	NA	NA	NA	NA	NA	NA	NA



TABLE 1  
GROUNDWATER LABORATORY RESULTS SUMMARY TABLE

K35 CDP PIPELINE RELEASE  
GARFIELD COUNTY, COLORADO  
CAERUS OIL AND GAS, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Calcium mg/L	Magnesium mg/L	Potassium mg/L	Sodium mg/L	Bromide mg/L	Chloride mg/L	Fluoride mg/L	Sulfate mg/L	Nitrogen Nitrate mg/L
MW-34	11/3/2017	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2017	ND	ND	ND	ND	280	120	29	92	ND	8.6	ND	84	ND
	1/17/2018	470	15	13	440	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/21/2018	560	28	33	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	69	37	1.8	460	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/17/2018	480	110	100	5,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/17/2018	310	ND	29	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/18/2018	190	ND	22	770	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/2018	110	ND	13	440	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/15/2018	74	ND	6.7	99	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	43	ND	3.7	4.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/3/2018	25	ND	3.1	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/2018	8.2	ND	2.2	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	2.4	ND	1.3	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/4/2019	1.8	ND	1.3	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/5/2019	0.90	ND	0.98	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	ND	ND	0.60	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/2/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/2/2019	ND	ND	ND	6.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-35	11/8/2017	470	1,500	13	1,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2017	1,300	6,100	150	6,500	350	120	32	120	0.098	11	ND	82	ND
	2/21/2018	730	9,500	750	18,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	790	5,800	360	11,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/17/2018	570	1,600	120	6,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/17/2018	330	450	47	4,600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	130	85	38	3,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/2018	81	310	78	3,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/15/2018	50	96	31	2,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	32	36	20	2,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/3/2018	22	31	20	1,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/2018	13	13	18	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	6.6	ND	5.4	4,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/4/2019	6.1	ND	4.4	930	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/5/2019	4.8	ND	2.7	450	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	3.0	ND	2.0	490	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/2/2019	1.7	ND	1.5	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/2/2019	1.2	ND	1.3	210	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	ND	ND	1.9	110	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2019	ND	ND	3.2	58	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2019	1.3	ND	2.3	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	1.8	ND	3.8	25	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1  
GROUNDWATER LABORATORY RESULTS SUMMARY TABLE

K35 CDP PIPELINE RELEASE  
GARFIELD COUNTY, COLORADO  
CAERUS OIL AND GAS, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Calcium mg/L	Magnesium mg/L	Potassium mg/L	Sodium mg/L	Bromide mg/L	Chloride mg/L	Fluoride mg/L	Sulfate mg/L	Nitrogen Nitrate mg/L
MW-36	11/8/2017	0.51	2.2	ND	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/14/2017	ND	ND	ND	ND	250	86	18	53	ND	5.5	0.096	91	ND
	3/22/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/21/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/14/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/18/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-37	11/8/2017	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/13/2017	ND	ND	ND	ND	230	88	15	91	ND	3.0	0.11	55	ND
	3/21/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-38	11/15/2017	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2017	ND	ND	ND	ND	210	92	18	57	ND	7.7	ND	81	0.098
	1/17/2018	250	1,700	26	1,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/21/2018	400	2,000	82	3,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	220	1,500	72	3,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/17/2018	120	530	50	3,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/17/2018	190	170	31	2,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/18/2018	150	45	18	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/2018	100	1.5	16	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/15/2018	81	ND	11	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2018	70	ND	12	310	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/3/2018	64	ND	12	190	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/2018	56	ND	13	220	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/6/2018	65	ND	16	260	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/3/2019	42	ND	14	190	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/5/2019	34	ND	16	170	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	30	ND	18	160	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/2/2019	6.8	ND	4.2	130	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/2/2019	3.9	ND	1.9	38	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/3/2019	6.6	ND	3.4	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2019	11	ND	6.4	75	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2019	12	ND	9.3	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	11	ND	12	66	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-39	11/15/2017	340	280	21	340	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	210	1,100	95	1,800	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	38	160	44	920	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	5.1	7.8	6.0	170	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	13	ND	1.6	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	ND	ND	ND	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	ND	ND	2.2	210	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	3.4	ND	0.59	12	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1  
GROUNDWATER LABORATORY RESULTS SUMMARY TABLE

K35 CDP PIPELINE RELEASE  
GARFIELD COUNTY, COLORADO  
CAERUS OIL AND GAS, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Calcium mg/L	Magnesium mg/L	Potassium mg/L	Sodium mg/L	Bromide mg/L	Chloride mg/L	Fluoride mg/L	Sulfate mg/L	Nitrogen Nitrate mg/L
MW-40	11/15/2017	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/12/2017	ND	ND	ND	ND	330	110	22	100	ND	4.8	0.11	83	0.63
	1/17/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/21/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/17/2018	ND	0.41	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/17/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/18/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/15/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/6/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/3/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/20/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-41	11/21/2017	<b>3,800</b>	<b>6,200</b>	400	<b>6,200</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/13/2017	<b>5,500</b>	<b>640</b>	410	<b>2,100</b>	560	99	18	67	0.16	19	0.11	93	ND
	3/20/2018	<b>5,500</b>	<b>3,700</b>	540	<b>6,600</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/20/2018	<b>3,200</b>	27	160	620	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/12/2018	<b>830</b>	110	240	<b>2,000</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/11/2018	<b>240</b>	ND	65	67	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/8/2019	<b>120</b>	260	370	<b>5,800</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/4/2019	<b>140</b>	ND	540	<b>6,800</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-42	9/17/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/6/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/3/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/20/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-43	9/17/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/6/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/3/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-44	9/18/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/6/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/3/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-45	9/18/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/6/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/3/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1  
GROUNDWATER LABORATORY RESULTS SUMMARY TABLE

K35 CDP PIPELINE RELEASE  
GARFIELD COUNTY, COLORADO  
CAERUS OIL AND GAS, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Calcium mg/L	Magnesium mg/L	Potassium mg/L	Sodium mg/L	Bromide mg/L	Chloride mg/L	Fluoride mg/L	Sulfate mg/L	Nitrogen Nitrate mg/L
MW-46	9/18/2018	ND	ND	ND	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/3/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/6/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/3/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/5/2018	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/5/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/2/2019	0.61	ND	0.41	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/2/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/3/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/2019	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Spring	5/2/2019	3.5	4.4	2.9	190	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2019	ND	ND	1.9	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
COGCC CONCENTRATION LEVELS		5	560	700	1,400	--	--	--	--	--	--	--	--	--

Notes:

ND - analyte not detected

**BOLD** - indicates result exceeds the COGCC concentration level

COGCC - Colorado Oil and Gas Conservation Commission

µg/L - micrograms per liter

mg/L - milligrams per liter

SU - standard unit

highlighted - preliminary results

-- no established standard

NA - not analyzed

**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-01	10/16/2017	18.07	17.82	0.25	27.10	7914.67	7896.60
	10/25/2017	18.10	17.84	0.26	27.10	7914.67	7896.57
	12/14/2017	18.10	17.99	0.11	27.10	7914.67	7896.57
	1/18/2018	18.11	18.02	0.09	NM	7914.67	7896.56
	2/20/2018	18.24	18.15	0.09	NM	7914.67	7896.43
	3/19/2018	18.01	17.94	0.07	NM	7914.67	7896.66
	4/16/2018	17.52	17.46	0.06	NM	7914.67	7897.15
	5/9/2018	18.06	18.00	0.06	NM	7914.67	7896.61
	6/11/2018	18.34	18.28	0.06	NM	7914.67	7896.33
	7/19/2018	18.53	18.49	0.04	NM	7914.67	7896.14
	8/15/2018	18.64	18.58	0.06	NM	7914.67	7896.03
	9/11/2018	18.73	18.67	0.06	NM	7914.67	7895.94
	10/2/2018	18.82	18.71	0.11	NM	7914.67	7895.85
	11/7/2018	18.85	18.75	0.10	NM	7914.67	7895.82
	12/5/2018	18.87	18.78	0.09	NM	7914.67	7895.80
	1/3/2019	18.91	18.82	0.09	NM	7914.67	7895.76
	2/4/2019	18.95	18.86	0.09	NM	7914.67	7895.72
	3/4/2019	19.00	18.92	0.08	NM	7914.67	7895.67
	4/1/2019	18.40	18.35	0.05	NM	7914.67	7896.27
	5/1/2019	16.70	16.54	0.16	NM	7914.67	7897.97
	6/3/2019	17.23	17.20	0.03	NM	7914.67	7897.44
	7/2/2019	17.35	17.32	0.03	NM	7914.67	7897.32
	8/7/2019	17.63	17.60	0.03	NM	7914.67	7897.04
	9/17/2019	18.01	17.98	0.03	NM	7914.67	7896.66
MW-02	10/16/2017	29.91	29.90	0.01	35.61	7874.64	7844.73
	10/25/2016	30.00	29.95	0.05	35.61	7874.64	7844.64
	12/13/2017	30.10	30.02	0.08	35.61	7874.64	7844.54
	1/18/2018	30.07	30.02	0.05	NM	7874.64	7844.57
	2/20/2018	30.15	30.09	0.06	NM	7874.64	7844.49
	3/19/2018	29.56	29.47	0.09	NM	7874.64	7845.08
	4/16/2018	28.60	28.59	0.01	NM	7874.64	7846.04
	5/9/2018	29.63	29.60	0.03	NM	7874.64	7845.01
	6/11/2018	30.02	29.97	0.05	NM	7874.64	7844.62
	7/19/2018	30.24	30.23	0.01	NM	7874.64	7844.40
	8/15/2018	30.45	30.38	0.07	NM	7874.64	7844.19
	9/11/2018	30.62	30.40	0.22	NM	7874.64	7844.02
	10/2/2018	30.69	30.50	0.19	NM	7874.64	7843.95
	11/7/2018	30.77	30.58	0.19	NM	7874.64	7843.87
	12/5/2018	30.76	30.56	0.20	NM	7874.64	7843.88
	1/3/2019	30.69	30.58	0.11	NM	7874.64	7843.95
	2/4/2019	30.78	30.62	0.16	NM	7874.64	7843.86
	3/4/2019	30.86	30.71	0.15	NM	7874.64	7843.78
	4/1/2019	29.74	29.67	0.07	NM	7874.64	7844.90
	5/1/2019	26.98	ND	ND	NM	7874.64	7847.66
	6/3/2019	28.71	28.70	0.01	NM	7874.64	7845.93
	7/2/2019	27.98	ND	ND	NM	7874.64	7846.66
	8/7/2019	28.73	28.67	0.06	NM	7874.64	7845.91
	9/17/2019	29.00	28.92	0.08	NM	7874.64	7845.64





**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-03	10/16/2017	18.00	ND	ND	32.89	7913.02	7895.02
	10/25/2017	18.38	ND	ND	32.89	7913.02	7894.64
	12/13/2017	18.80	ND	ND	35.10	7913.02	7894.22
	1/18/2018	19.02	ND	ND	NM	7913.02	7894.00
	2/20/2018	19.24	ND	ND	NM	7913.02	7893.78
	3/19/2018	19.40	ND	ND	NM	7913.02	7893.62
	4/16/2018	18.97	ND	ND	NM	7913.02	7894.05
	5/9/2018	19.35	ND	ND	NM	7913.02	7893.67
	6/11/2018	19.61	ND	ND	NM	7913.02	7893.41
	7/19/2018	19.71	ND	ND	NM	7913.02	7893.31
	8/15/2018	19.76	ND	ND	NM	7913.02	7893.26
	9/11/2018	19.69	ND	ND	NM	7913.02	7893.33
	10/2/2018	19.74	ND	ND	NM	7913.02	7893.28
	11/7/2018	19.84	ND	ND	NM	7913.02	7893.18
	12/5/2018	19.93	ND	ND	NM	7913.02	7893.09
	1/3/2019	20.05	ND	ND	NM	7913.02	7892.97
	2/4/2019	20.14	ND	ND	NM	7913.02	7892.88
	3/4/2019	20.20	ND	ND	NM	7913.02	7892.82
	4/1/2019	19.95	ND	ND	NM	7913.02	7893.07
	5/1/2019	17.82	ND	ND	NM	7913.02	7895.20
	6/3/2019	18.36	ND	ND	NM	7913.02	7894.66
	7/2/2019	18.60	ND	ND	NM	7913.02	7894.42
	8/7/2019	19.32	ND	ND	NM	7913.02	7893.70
	9/17/2019	19.76	ND	ND	NM	7913.02	7893.26
MW-04	10/17/2017	34.50	34.49	0.01	40.59	7852.28	7817.78
	10/25/2017	34.49	ND	ND	40.59	7852.28	7817.79
	12/13/2017	34.52	34.48	0.04	40.62	7852.28	7817.76
	1/17/2018	34.49	34.45	0.04	NM	7852.28	7817.79
	2/20/2018	34.49	34.46	0.03	NM	7852.28	7817.79
	3/19/2018	34.50	ND	ND	NM	7852.28	7817.78
	4/16/2018	34.52	ND	ND	NM	7852.28	7817.76
	5/9/2018	34.51	ND	ND	NM	7852.28	7817.77
	6/11/2018	34.55	ND	ND	NM	7852.28	7817.73
	7/19/2018	35.75	ND	ND	NM	7852.28	7816.53
	8/15/2018	34.72	ND	ND	NM	7852.28	7817.56
	9/11/2018	34.75	ND	ND	NM	7852.28	7817.53
	10/2/2018	34.89	ND	ND	NM	7852.28	7817.39
	11/7/2018	34.78	ND	ND	NM	7852.28	7817.50
	12/5/2018	34.72	ND	ND	NM	7852.28	7817.56
	1/3/2019	34.82	ND	ND	NM	7852.28	7817.46
	2/4/2019	36.29	ND	ND	NM	7852.28	7815.99
	3/4/2019	35.24	ND	ND	NM	7852.28	7817.04
	4/1/2019	35.77	ND	ND	NM	7852.28	7816.51
	5/1/2019	34.60	ND	ND	NM	7852.28	7817.68
	6/3/2019	34.61	ND	ND	NM	7852.28	7817.67
	7/2/2019	34.70	ND	ND	NM	7852.28	7817.58
	8/7/2019	34.86	ND	ND	NM	7852.28	7817.42
	9/17/2019	34.83	ND	ND	NM	7852.28	7817.45



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-05	10/17/2017	9.35	9.11	0.24	17.65	7818.14	7808.79
	10/25/2017	9.35	9.10	0.25	17.65	7818.14	7808.79
	12/12/2017	9.61	9.24	0.37	17.95	7818.14	7808.53
	1/17/2018	9.70	9.40	0.30	NM	7818.14	7808.44
	2/20/2018	9.75	9.48	0.27	NM	7818.14	7808.39
	3/19/2018	8.12	8.10	0.02	NM	7818.14	7810.02
	4/16/2018	8.02	7.98	0.04	NM	7818.14	7810.12
	5/9/2018	8.82	8.77	0.05	NM	7818.14	7809.32
	6/11/2018	9.43	9.32	0.11	NM	7818.14	7808.71
	7/19/2018	9.96	9.87	0.09	NM	7818.14	7808.18
	8/15/2018	10.23	10.13	0.10	NM	7818.14	7807.91
	9/11/2018	10.35	10.25	0.10	NM	7818.14	7807.79
	10/2/2018	10.52	10.37	0.15	NM	7818.14	7807.62
	11/7/2018	10.63	10.47	0.16	NM	7818.14	7807.51
	12/5/2018	10.71	10.61	0.10	NM	7818.14	7807.43
	1/3/2019	10.86	10.72	0.14	NM	7818.14	7807.28
	2/4/2019	10.94	10.80	0.14	17.90	7818.14	7807.20
	3/4/2019	11.11	10.95	0.16	NM	7818.14	7807.03
	4/1/2019	8.10	ND	ND	NM	7818.14	7810.04
	5/1/2019	6.89	ND	ND	NM	7818.14	7811.25
	6/3/2019	8.05	ND	ND	NM	7818.14	7810.09
	7/2/2019	8.10	ND	ND	NM	7818.14	7810.04
	8/7/2019	8.02	ND	ND	NM	7818.14	7810.12
	9/17/2019	9.60	ND	ND	NM	7818.14	7808.54
MW-06	10/18/2017	5.00	ND	ND	27.65	7811.80	7806.80
	10/25/2017	21.73	ND	ND	27.65	7811.80	7790.07
	10/31/2017	22.02	21.63	0.39	27.15	7811.80	7789.78
	12/12/2017	22.60	21.33	1.27	27.10	7811.80	7789.20
	1/17/2018	22.79	21.25	1.54	NM	7811.80	7789.01
	2/20/2018	22.85	21.19	1.66	NM	7811.80	7788.95
	3/19/2018	21.87	21.12	0.75	NM	7811.80	7789.93
	4/16/2018	21.68	20.95	0.73	NM	7811.80	7790.12
	5/9/2018	21.85	21.17	0.68	NM	7811.80	7789.95
	6/11/2018	21.82	21.28	0.54	NM	7811.80	7789.98
	7/19/2018	21.80	21.35	0.45	NM	7811.80	7790.00
	8/15/2018	22.08	21.13	0.95	NM	7811.80	7789.72
	9/11/2018	22.12	21.35	0.77	NM	7811.80	7789.68
	10/2/2018	21.20	20.38	0.82	NM	7811.80	7790.60
	11/7/2018	22.18	21.41	0.77	NM	7811.80	7789.62
	12/5/2018	22.20	21.50	0.70	NM	7811.80	7789.60
	1/3/2019	22.10	21.55	0.55	NM	7811.80	7789.70
	2/4/2019	22.15	21.61	0.54	27.09	7811.80	7789.65
	3/4/2019	22.20	21.60	0.60	NM	7811.80	7789.60
	4/1/2019	21.05	ND	ND	NM	7811.80	7790.75
	5/1/2019	20.77	20.08	0.69	NM	7811.80	7791.03
	6/3/2019	21.10	20.40	0.70	NM	7811.80	7790.70
	7/2/2019	21.17	20.64	0.53	NM	7811.80	7790.63
	8/7/2019	21.40	20.91	0.49	NM	7811.80	7790.40
	9/17/2019	21.61	21.17	0.44	NM	7811.80	7790.19



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-07	10/18/2017	25.31	ND	ND	41.70	7868.82	7843.51
	10/25/2017	25.30	ND	ND	41.70	7868.82	7843.52
	12/13/2017	25.37	ND	ND	41.55	7868.82	7843.45
	1/18/2018	25.42	ND	ND	NM	7868.82	7843.40
	2/20/2018	25.55	ND	ND	NM	7868.82	7843.27
	3/19/2018	25.08	ND	ND	NM	7868.82	7843.74
	4/16/2018	23.98	ND	ND	NM	7868.82	7844.84
	5/9/2018	25.01	ND	ND	NM	7868.82	7843.81
	6/11/2018	25.41	ND	ND	NM	7868.82	7843.41
	7/19/2018	25.66	ND	ND	NM	7868.82	7843.16
	8/15/2018	25.86	ND	ND	NM	7868.82	7842.96
	9/11/2018	25.94	ND	ND	NM	7868.82	7842.88
	10/2/2018	25.92	ND	ND	NM	7868.82	7842.90
	11/7/2018	26.08	ND	ND	NM	7868.82	7842.74
	12/5/2018	26.06	ND	ND	NM	7868.82	7842.76
	1/3/2019	26.10	ND	ND	NM	7868.82	7842.72
	2/4/2019	26.19	ND	ND	NM	7868.82	7842.63
	3/4/2019	26.25	ND	ND	NM	7868.82	7842.57
	4/1/2019	25.39	ND	ND	NM	7868.82	7843.43
	5/1/2019	22.41	ND	ND	NM	7868.82	7846.41
	6/3/2019	23.32	ND	ND	NM	7868.82	7845.50
	7/2/2019	23.64	ND	ND	NM	7868.82	7845.18
	8/7/2019	24.42	ND	ND	NM	7868.82	7844.40
	9/17/2019	24.73	ND	ND	NM	7868.82	7844.09
MW-08	10/18/2017	41.28	ND	ND	52.15	7880.72	7839.44
	10/25/2017	41.38	ND	ND	52.15	7880.72	7839.34
	12/13/2017	41.74	41.44	0.30	50.90	7880.72	7838.98
	1/18/2018	41.57	41.35	0.22	NM	7880.72	7839.15
	2/20/2018	41.70	41.49	0.21	NM	7880.72	7839.02
	3/19/2018	41.08	40.92	0.16	NM	7880.72	7839.64
	4/16/2018	40.04	39.94	0.10	NM	7880.72	7840.68
	5/9/2018	41.21	41.06	0.15	NM	7880.72	7839.51
	6/11/2018	41.71	41.50	0.21	NM	7880.72	7839.01
	7/19/2018	41.98	41.68	0.30	NM	7880.72	7838.74
	8/15/2018	41.23	40.81	0.42	NM	7880.72	7839.49
	9/11/2018	42.16	41.82	0.34	NM	7880.72	7838.56
	10/2/2018	42.20	41.92	0.28	NM	7880.72	7838.52
	11/7/2018	42.31	42.00	0.31	NM	7880.72	7838.41
	12/5/2018	42.38	42.06	0.32	NM	7880.72	7838.34
	1/3/2019	42.25	42.08	0.17	NM	7880.72	7838.47
	2/4/2019	42.36	42.13	0.23	NM	7880.72	7838.36
	3/4/2019	42.16	42.11	0.05	NM	7880.72	7838.56
	4/1/2019	41.16	41.08	0.08	NM	7880.72	7839.56
	5/1/2019	37.76	37.60	0.16	NM	7880.72	7842.96
	6/3/2019	39.39	ND	ND	NM	7880.72	7841.33
	7/2/2019	39.63	39.61	0.02	NM	7880.72	7841.09
	8/7/2019	40.40	40.35	0.05	NM	7880.72	7840.32
	9/17/2019	40.67	40.62	0.05	NM	7880.72	7840.05



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-09	10/24/2017	11.82	ND	ND	21.72	7926.23	7914.41
	10/25/2017	11.82	ND	ND	21.72	7926.23	7914.41
	12/14/2017	11.99	ND	ND	21.69	7926.23	7914.24
	1/18/2018	12.14	ND	ND	NM	7926.23	7914.09
	2/20/2018	12.65	12.28	0.37	NM	7926.23	7913.58
	3/19/2018	12.70	12.35	0.35	NM	7926.23	7913.53
	4/16/2018	12.04	11.73	0.31	NM	7926.23	7914.19
	5/9/2018	12.62	12.32	0.30	NM	7926.23	7913.61
	6/11/2018	12.95	12.62	0.33	NM	7926.23	7913.28
	7/19/2018	13.12	12.92	0.20	NM	7926.23	7913.11
	8/15/2018	13.32	13.08	0.24	NM	7926.23	7912.91
	9/11/2018	13.46	13.20	0.26	NM	7926.23	7912.77
	10/2/2018	13.48	13.33	0.15	NM	7926.23	7912.75
	11/7/2018	13.52	13.38	0.14	NM	7926.23	7912.71
	12/5/2018	13.55	13.40	0.15	NM	7926.23	7912.68
	1/3/2019	13.58	13.47	0.11	NM	7926.23	7912.65
	2/4/2019	13.74	13.60	0.14	NM	7926.23	7912.49
	3/4/2019	13.85	13.69	0.16	NM	7926.23	7912.38
	4/1/2019	13.22	13.18	0.04	NM	7926.23	7913.01
	5/1/2019	11.11	ND	ND	NM	7926.23	7915.12
	6/3/2019	11.86	11.85	0.01	NM	7926.23	7914.37
	7/2/2019	11.89	ND	ND	NM	7926.23	7914.34
	8/7/2019	12.26	ND	ND	NM	7926.23	7913.97
	9/17/2019	12.59	12.56	0.03	NM	7926.23	7913.64
MW-10	10/24/2017	34.28	ND	ND	41.40	7930.01	7895.73
	10/25/2017	34.60	ND	ND	41.40	7930.01	7895.41
	12/14/2017	34.68	ND	ND	41.25	7930.01	7895.33
	1/18/2018	34.75	ND	ND	NM	7930.01	7895.26
	2/20/2018	34.85	ND	ND	NM	7930.01	7895.16
	3/19/2018	34.75	ND	ND	NM	7930.01	7895.26
	4/16/2018	34.49	ND	ND	NM	7930.01	7895.52
	5/9/2018	34.79	ND	ND	NM	7930.01	7895.22
	6/11/2018	35.09	ND	ND	NM	7930.01	7894.92
	7/19/2018	35.30	ND	ND	NM	7930.01	7894.71
	8/15/2018	35.43	ND	ND	NM	7930.01	7894.58
	9/11/2018	35.48	ND	ND	NM	7930.01	7894.53
	10/2/2018	35.51	ND	ND	NM	7930.01	7894.50
	11/7/2018	35.52	ND	ND	NM	7930.01	7894.49
	12/5/2018	35.51	ND	ND	NM	7930.01	7894.50
	1/3/2019	35.50	ND	ND	NM	7930.01	7894.51
	2/4/2019	35.56	ND	ND	NM	7930.01	7894.45
	3/4/2019	35.66	ND	ND	NM	7930.01	7894.35
	4/1/2019	35.15	ND	ND	NM	7930.01	7894.86
	5/1/2019	34.15	ND	ND	NM	7930.01	7895.86
	6/3/2019	34.15	ND	ND	NM	7930.01	7895.86
	7/2/2019	34.15	ND	ND	NM	7930.01	7895.86
	8/7/2019	34.55	ND	ND	NM	7930.01	7895.46
	9/17/2019	34.82	ND	ND	NM	7930.01	7895.19



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-11	10/25/2017	25.90	ND	ND	35.60	7816.08	7790.18
	10/31/2017	25.91	ND	ND	35.60	7816.08	7790.17
	12/12/2017	25.70	ND	ND	35.49	7816.08	7790.38
	1/17/2018	25.65	ND	ND	NM	7816.08	7790.43
	2/20/2018	25.61	25.60	0.01	NM	7816.08	7790.47
	3/19/2018	25.30	ND	ND	NM	7816.08	7790.78
	4/16/2018	25.15	ND	ND	NM	7816.08	7790.93
	5/9/2018	21.36	ND	ND	NM	7816.08	7794.72
	6/11/2018	25.46	ND	ND	NM	7816.08	7790.62
	7/19/2018	25.55	ND	ND	NM	7816.08	7790.53
	8/15/2018	25.62	ND	ND	NM	7816.08	7790.46
	9/11/2018	25.65	ND	ND	NM	7816.08	7790.43
	10/2/2018	25.69	ND	ND	NM	7816.08	7790.39
	11/7/2018	25.72	ND	ND	NM	7816.08	7790.36
	12/5/2018	25.78	ND	ND	NM	7816.08	7790.30
	1/3/2019	25.85	ND	ND	NM	7816.08	7790.23
	2/4/2019	25.88	ND	ND	35.50	7816.08	7790.20
	3/4/2019	25.92	ND	ND	NM	7816.08	7790.16
	4/1/2019	25.23	ND	ND	NM	7816.08	7790.85
	5/1/2019	24.41	ND	ND	NM	7816.08	7791.67
	6/3/2019	24.88	ND	ND	NM	7816.08	7791.20
	7/2/2019	25.00	ND	ND	NM	7816.08	7791.08
	8/7/2019	25.20	ND	ND	NM	7816.08	7790.88
	9/17/2019	25.40	ND	ND	NM	7816.08	7790.68
MW-12	10/25/2017	21.00	ND	ND	31.33	7811.30	7790.30
	10/31/2017	20.98	20.96	0.02	31.34	7811.30	7790.32
	12/12/2017	20.90	ND	ND	31.13	7811.30	7790.40
	1/17/2018	20.89	ND	ND	NM	7811.30	7790.41
	2/20/2018	20.87	ND	ND	NM	7811.30	7790.43
	3/19/2018	20.68	ND	ND	NM	7811.30	7790.62
	4/16/2018	20.50	ND	ND	NM	7811.30	7790.80
	5/9/2018	20.68	ND	ND	NM	7811.30	7790.62
	6/11/2018	20.75	ND	ND	NM	7811.30	7790.55
	7/19/2018	20.79	ND	ND	NM	7811.30	7790.51
	8/15/2018	20.76	ND	ND	NM	7811.30	7790.54
	9/11/2018	20.76	ND	ND	NM	7811.30	7790.54
	10/2/2018	20.78	ND	ND	NM	7811.30	7790.52
	11/7/2018	20.82	ND	ND	NM	7811.30	7790.48
	12/5/2018	20.84	ND	ND	NM	7811.30	7790.46
	1/3/2019	20.87	ND	ND	NM	7811.30	7790.43
	2/4/2019	20.91	ND	ND	31.33	7811.30	7790.39
	3/4/2019	20.92	ND	ND	NM	7811.30	7790.38
	4/1/2019	20.59	ND	ND	NM	7811.30	7790.71
	5/1/2019	19.79	ND	ND	NM	7811.30	7791.51
	6/3/2019	19.84	ND	ND	NM	7811.30	7791.46
	7/2/2019	20.02	ND	ND	NM	7811.30	7791.28
	8/7/2019	20.30	ND	ND	NM	7811.30	7791.00
	9/17/2019	20.53	ND	ND	NM	7811.30	7790.77





**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-13	11/8/2017	41.66	41.65	0.01	51.42	7897.46	7855.80
	12/14/2017	40.01	ND	ND	51.41	7897.46	7857.45
	1/18/2018	39.45	ND	ND	NM	7897.46	7858.01
	2/20/2018	37.67	ND	ND	NM	7897.46	7859.79
	3/19/2018	37.22	ND	ND	NM	7897.46	7860.24
	4/16/2018	39.78	ND	ND	NM	7897.46	7857.68
	5/9/2018	37.98	ND	ND	NM	7897.46	7859.48
	6/11/2018	37.17	ND	ND	NM	7897.46	7860.29
	7/19/2018	39.14	ND	ND	NM	7897.46	7858.32
	8/15/2018	37.54	ND	ND	NM	7897.46	7859.92
	9/11/2018	37.09	ND	ND	NM	7897.46	7860.37
	10/2/2018	41.45	ND	ND	NM	7897.46	7856.01
	11/7/2018	37.75	ND	ND	NM	7897.46	7859.71
	12/5/2018	37.14	ND	ND	NM	7897.46	7860.32
	1/3/2019	39.88	ND	ND	NM	7897.46	7857.58
	2/4/2019	37.42	ND	ND	NM	7897.46	7860.04
	3/4/2019	36.96	ND	ND	NM	7897.46	7860.50
	4/1/2019	41.35	ND	ND	NM	7897.46	7856.11
	5/1/2019	37.11	ND	ND	NM	7897.46	7860.35
	6/3/2019	33.82	ND	ND	NM	7897.46	7863.64
	7/2/2019	37.00	ND	ND	NM	7897.46	7860.46
	8/7/2019	35.30	ND	ND	NM	7897.46	7862.16
	9/17/2019	35.73	ND	ND	NM	7897.46	7861.73
MW-14	10/25/2017	7.78	ND	ND	17.35	7816.17	7808.39
	10/27/2017	7.75	ND	ND	17.35	7816.17	7808.42
	12/12/2017	7.88	ND	ND	17.13	7816.17	7808.29
	1/17/2018	8.09	ND	ND	NM	7816.17	7808.08
	2/20/2018	8.15	ND	ND	NM	7816.17	7808.02
	3/19/2018	6.82	ND	ND	NM	7816.17	7809.35
	4/16/2018	6.70	ND	ND	NM	7816.17	7809.47
	5/9/2018	7.46	ND	ND	NM	7816.17	7808.71
	6/11/2018	8.05	ND	ND	NM	7816.17	7808.12
	7/19/2018	8.56	ND	ND	NM	7816.17	7807.61
	8/15/2018	8.81	ND	ND	NM	7816.17	7807.36
	9/11/2018	8.92	ND	ND	NM	7816.17	7807.25
	10/2/2018	9.04	ND	ND	NM	7816.17	7807.13
	11/7/2018	9.15	ND	ND	NM	7816.17	7807.02
	12/5/2018	9.28	ND	ND	NM	7816.17	7806.89
	1/3/2019	9.41	ND	ND	NM	7816.17	7806.76
	2/4/2019	9.45	ND	ND	NM	7816.17	7806.72
	3/4/2019	9.66	ND	ND	NM	7816.17	7806.51
	4/1/2019	7.02	ND	ND	NM	7816.17	7809.15
	5/1/2019	6.09	ND	ND	NM	7816.17	7810.08
	6/3/2019	6.94	ND	ND	NM	7816.17	7809.23
	7/2/2019	7.00	ND	ND	NM	7816.17	7809.17
	8/7/2019	7.70	ND	ND	NM	7816.17	7808.47
	9/17/2019	8.50	ND	ND	NM	7816.17	7807.67



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-15	10/25/2017	18.85	ND	ND	27.67	7772.82	7753.97
	10/27/2017	18.85	ND	ND	27.67	7772.82	7753.97
	10/31/2017	18.91	18.90	0.01	27.68	7772.82	7753.91
	12/12/2017	19.00	ND	ND	27.48	7772.82	7753.82
	1/17/2018	19.20	ND	ND	27.57	7772.82	7753.62
	2/20/2018	19.62	ND	ND	NM	7772.82	7753.20
	3/19/2018	17.54	ND	ND	NM	7772.82	7755.28
	4/16/2018	17.19	ND	ND	NM	7772.82	7755.63
	5/9/2018	18.70	ND	ND	NM	7772.82	7754.12
	6/11/2018	19.64	ND	ND	NM	7772.82	7753.18
	7/19/2018	19.88	ND	ND	NM	7772.82	7752.94
	8/15/2018	20.06	ND	ND	NM	7772.82	7752.76
	9/11/2018	20.18	ND	ND	NM	7772.82	7752.64
	10/2/2018	20.19	ND	ND	NM	7772.82	7752.63
	11/7/2018	20.23	ND	ND	NM	7772.82	7752.59
	12/5/2018	20.28	ND	ND	NM	7772.82	7752.54
	1/3/2019	20.26	ND	ND	NM	7772.82	7752.56
	2/4/2019	20.28	ND	ND	27.49	7772.82	7752.54
	3/4/2019	20.65	ND	ND	NM	7772.82	7752.17
	4/1/2019	17.27	ND	ND	NM	7772.82	7755.55
	5/1/2019	16.25	ND	ND	NM	7772.82	7756.57
	6/3/2019	17.67	ND	ND	NM	7772.82	7755.15
	7/2/2019	17.78	ND	ND	NM	7772.82	7755.04
	8/7/2019	18.60	ND	ND	NM	7772.82	7754.22
	9/17/2019	19.50	ND	ND	NM	7772.82	7753.32
MW-16	10/24/2017	23.33	ND	ND	36.45	7883.23	7859.90
	10/25/2017	28.82	ND	ND	36.45	7883.23	7854.41
	12/13/2017	28.88	ND	ND	36.45	7883.23	7854.35
	1/18/2018	28.97	ND	ND	NM	7883.23	7854.26
	2/20/2018	29.10	ND	ND	NM	7883.23	7854.13
	3/19/2018	28.95	ND	ND	NM	7883.23	7854.28
	4/16/2018	28.75	ND	ND	NM	7883.23	7854.48
	5/9/2018	28.95	ND	ND	NM	7883.23	7854.28
	6/11/2018	29.19	29.18	0.01	NM	7883.23	7854.04
	7/19/2018	29.35	ND	ND	NM	7883.23	7853.88
	8/15/2018	29.45	ND	ND	NM	7883.23	7853.78
	9/11/2018	29.45	ND	ND	NM	7883.23	7853.78
	10/2/2018	29.52	ND	ND	NM	7883.23	7853.71
	11/7/2018	29.52	ND	ND	NM	7883.23	7853.71
	12/5/2018	29.49	ND	ND	NM	7883.23	7853.74
	1/3/2019	29.44	ND	ND	NM	7883.23	7853.79
	2/4/2019	29.40	ND	ND	NM	7883.23	7853.83
	3/4/2019	29.45	ND	ND	NM	7883.23	7853.78
	4/1/2019	29.10	ND	ND	NM	7883.23	7854.13
	5/1/2019	28.03	ND	ND	NM	7883.23	7855.20
	6/3/2019	28.28	ND	ND	NM	7883.23	7854.95
	7/2/2019	28.28	ND	ND	NM	7883.23	7854.95
	8/7/2019	28.45	ND	ND	NM	7883.23	7854.78
	9/17/2019	28.41	ND	ND	NM	7883.23	7854.82



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-17	10/25/2017	31.50	ND	ND	42.32	7872.98	7841.48
	12/13/2017	30.87	ND	ND	41.35	7872.98	7842.11
	1/18/2018	31.75	ND	ND	NM	7872.98	7841.23
	2/20/2018	30.28	ND	ND	NM	7872.98	7842.70
	3/19/2018	31.50	ND	ND	NM	7872.98	7841.48
	4/16/2018	29.01	ND	ND	NM	7872.98	7843.97
	5/9/2018	29.96	ND	ND	NM	7872.98	7843.02
	6/11/2018	29.70	ND	ND	NM	7872.98	7843.28
	7/19/2018	30.61	ND	ND	NM	7872.98	7842.37
	8/15/2018	31.82	ND	ND	NM	7872.98	7841.16
	9/11/2018	31.81	ND	ND	NM	7872.98	7841.17
	10/2/2018	31.84	ND	ND	NM	7872.98	7841.14
	11/7/2018	31.95	ND	ND	NM	7872.98	7841.03
	12/5/2018	31.50	ND	ND	NM	7872.98	7841.48
	1/3/2019	32.45	ND	ND	NM	7872.98	7840.53
	2/4/2019	32.19	ND	ND	NM	7872.98	7840.79
	3/4/2019	32.52	ND	ND	NM	7872.98	7840.46
	4/1/2019	31.55	ND	ND	NM	7872.98	7841.43
	5/1/2019	28.51	ND	ND	NM	7872.98	7844.47
	6/3/2019	28.57	ND	ND	NM	7872.98	7844.41
	7/2/2019	30.62	ND	ND	NM	7872.98	7842.36
	8/7/2019	28.71	ND	ND	NM	7872.98	7844.27
	9/17/2019	31.52	ND	ND	NM	7872.98	7841.46
MW-18	10/27/2017	41.82	ND	ND	52.32	7861.04	7819.22
	12/13/2017	31.36	ND	ND	52.31	7861.04	7829.68
	1/17/2018	31.74	ND	ND	NM	7861.04	7829.30
	2/20/2018	31.92	ND	ND	NM	7861.04	7829.12
	3/19/2018	31.36	ND	ND	NM	7861.04	7829.68
	4/16/2018	24.80	ND	ND	NM	7861.04	7836.24
	5/9/2018	30.25	ND	ND	NM	7861.04	7830.79
	6/11/2018	31.75	ND	ND	NM	7861.04	7829.29
	7/19/2018	32.30	ND	ND	NM	7861.04	7828.74
	8/15/2018	32.36	ND	ND	NM	7861.04	7828.68
	9/11/2018	32.44	ND	ND	NM	7861.04	7828.60
	10/2/2018	32.49	ND	ND	NM	7861.04	7828.55
	11/7/2018	32.56	ND	ND	NM	7861.04	7828.48
	12/5/2018	32.70	ND	ND	NM	7861.04	7828.34
	1/3/2019	32.86	ND	ND	NM	7861.04	7828.18
	2/4/2019	32.66	ND	ND	NM	7861.04	7828.38
	3/4/2019	32.69	ND	ND	NM	7861.04	7828.35
	4/1/2019	32.14	ND	ND	NM	7861.04	7828.90
	5/1/2019	21.31	ND	ND	NM	7861.04	7839.73
	6/3/2019	24.04	ND	ND	NM	7861.04	7837.00
	7/2/2019	26.92	ND	ND	NM	7861.04	7834.12
	8/7/2019	29.97	ND	ND	NM	7861.04	7831.07
	9/17/2019	31.26	ND	ND	NM	7861.04	7829.78

**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-19	10/27/2017	49.71	ND	ND	67.40	7890.95	7841.24
	12/13/2017	49.99	ND	ND	67.15	7890.95	7840.96
	1/18/2018	49.91	ND	ND	NM	7890.95	7841.04
	2/20/2018	50.02	ND	ND	NM	7890.95	7840.93
	3/19/2018	49.50	ND	ND	NM	7890.95	7841.45
	4/16/2018	48.89	ND	ND	NM	7890.95	7842.06
	5/9/2018	49.76	ND	ND	NM	7890.95	7841.19
	6/11/2018	50.10	ND	ND	NM	7890.95	7840.85
	7/19/2018	50.31	ND	ND	NM	7890.95	7840.64
	8/15/2018	49.42	ND	ND	NM	7890.95	7841.53
	9/11/2018	50.46	ND	ND	NM	7890.95	7840.49
	10/2/2018	50.60	ND	ND	NM	7890.95	7840.35
	11/7/2018	50.72	ND	ND	NM	7890.95	7840.23
	12/5/2018	50.82	ND	ND	NM	7890.95	7840.13
	1/3/2019	50.82	ND	ND	NM	7890.95	7840.13
	2/4/2019	50.88	ND	ND	NM	7890.95	7840.07
	3/4/2019	50.84	ND	ND	NM	7890.95	7840.11
	4/1/2019	49.51	ND	ND	NM	7890.95	7841.44
	5/1/2019	47.16	ND	ND	NM	7890.95	7843.79
	6/3/2019	48.40	ND	ND	NM	7890.95	7842.55
	7/2/2019	48.61	ND	ND	NM	7890.95	7842.34
	8/7/2019	49.22	ND	ND	NM	7890.95	7841.73
	9/17/2019	49.39	ND	ND	NM	7890.95	7841.56
MW-20	10/31/2017	34.33	34.32	0.01	42.60	7876.41	7842.08
	12/13/2017	34.32	ND	ND	42.40	7876.41	7842.09
	1/18/2018	34.31	ND	ND	NM	7876.41	7842.10
	2/20/2018	34.31	ND	ND	NM	7876.41	7842.10
	3/19/2018	34.14	ND	ND	NM	7876.41	7842.27
	4/16/2018	34.13	ND	ND	NM	7876.41	7842.28
	5/9/2018	34.20	ND	ND	NM	7876.41	7842.21
	6/11/2018	34.24	ND	ND	NM	7876.41	7842.17
	7/19/2018	34.28	ND	ND	NM	7876.41	7842.13
	8/15/2018	34.33	ND	ND	NM	7876.41	7842.08
	9/11/2018	34.35	ND	ND	NM	7876.41	7842.06
	10/2/2018	34.40	ND	ND	NM	7876.41	7842.01
	11/7/2018	34.43	ND	ND	NM	7876.41	7841.98
	12/5/2018	34.38	ND	ND	NM	7876.41	7842.03
	1/3/2019	34.35	ND	ND	NM	7876.41	7842.06
	2/4/2019	34.45	ND	ND	NM	7876.41	7841.96
	3/4/2019	34.41	ND	ND	NM	7876.41	7842.00
	4/1/2019	34.15	ND	ND	NM	7876.41	7842.26
	5/1/2019	33.20	ND	ND	NM	7876.41	7843.21
	6/3/2019	33.92	ND	ND	NM	7876.41	7842.49
	7/2/2019	33.91	ND	ND	NM	7876.41	7842.50
	8/7/2019	33.95	ND	ND	NM	7876.41	7842.46
	9/17/2019	33.95	ND	ND	NM	7876.41	7842.46



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-21	10/31/2017	24.30	ND	ND	27.96	7919.63	7895.33
	12/14/2017	24.40	ND	ND	27.95	7919.63	7895.23
	1/18/2018	24.46	ND	ND	NM	7919.63	7895.17
	2/20/2018	24.57	ND	ND	NM	7919.63	7895.06
	3/19/2018	24.49	ND	ND	NM	7919.63	7895.14
	4/16/2018	24.15	ND	ND	NM	7919.63	7895.48
	5/9/2018	24.50	ND	ND	NM	7919.63	7895.13
	6/11/2018	24.85	ND	ND	NM	7919.63	7894.78
	7/19/2018	25.01	ND	ND	NM	7919.63	7894.62
	8/15/2018	25.13	ND	ND	NM	7919.63	7894.50
	9/11/2018	25.22	ND	ND	NM	7919.63	7894.41
	10/2/2018	25.25	ND	ND	NM	7919.63	7894.38
	11/7/2018	25.26	ND	ND	NM	7919.63	7894.37
	12/5/2018	25.25	ND	ND	NM	7919.63	7894.38
	1/3/2019	25.26	ND	ND	NM	7919.63	7894.37
	2/4/2019	25.31	ND	ND	NM	7919.63	7894.32
	3/4/2019	25.36	ND	ND	NM	7919.63	7894.27
	4/1/2019	24.91	ND	ND	NM	7919.63	7894.72
	5/1/2019	23.93	ND	ND	NM	7919.63	7895.70
	6/3/2019	24.06	ND	ND	NM	7919.63	7895.57
	7/2/2019	24.04	ND	ND	NM	7919.63	7895.59
	8/7/2019	24.32	ND	ND	NM	7919.63	7895.31
	9/17/2019	24.55	ND	ND	NM	7919.63	7895.08
MW-22	11/1/2017	29.35	ND	ND	37.20	7862.43	7833.08
	12/13/2017	29.78	ND	ND	36.57	7862.43	7832.65
	1/17/2018	29.81	ND	ND	NM	7862.43	7832.62
	2/20/2018	29.82	ND	ND	NM	7862.43	7832.61
	3/19/2018	28.91	ND	ND	NM	7862.43	7833.52
	4/16/2018	28.03	ND	ND	NM	7862.43	7834.40
	5/9/2018	29.17	ND	ND	NM	7862.43	7833.26
	6/11/2018	29.86	ND	ND	NM	7862.43	7832.57
	7/19/2018	30.09	ND	ND	NM	7862.43	7832.34
	8/15/2018	30.20	30.10	0.10	NM	7862.43	7832.23
	9/11/2018	30.60	30.06	0.54	NM	7862.43	7831.83
	10/2/2018	30.21	ND	ND	NM	7862.43	7832.22
	11/7/2018	30.58	30.21	0.37	NM	7862.43	7790.44
	12/5/2018	30.72	30.30	0.42	NM	7862.43	7790.30
	1/3/2019	30.42	30.38	0.04	NM	7862.43	7790.60
	2/4/2019	30.46	30.42	0.04	NM	7862.43	7790.56
	3/4/2019	30.28	30.23	0.05	NM	7862.43	7790.74
	4/1/2019	29.18	29.13	0.05	NM	7862.43	7791.84
	5/1/2019	25.80	ND	ND	NM	7862.43	7795.22
	6/3/2019	26.86	26.85	0.01	NM	7862.43	7794.16
	7/2/2019	26.96	ND	ND	NM	7862.43	7794.06
	8/7/2019	27.40	ND	ND	NM	7862.43	7793.62
	9/17/2019	27.13	ND	ND	NM	7862.43	7793.89





**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-23	11/1/2017	16.39	16.38	0.01	22.35	7821.02	7804.63
	12/12/2017	16.54	16.34	0.20	22.00	7821.02	7804.48
	1/17/2017	16.71	16.47	0.24	NM	7821.02	7804.31
	2/20/2018	16.80	16.55	0.25	NM	7821.02	7804.22
	3/19/2018	15.73	15.67	0.06	NM	7821.02	7805.29
	4/16/2018	15.53	15.40	0.13	NM	7821.02	7805.49
	5/9/2018	16.20	16.09	0.11	NM	7821.02	7804.82
	6/11/2018	16.62	16.57	0.05	NM	7821.02	7804.40
	7/19/2018	17.14	16.95	0.19	NM	7821.02	7803.88
	8/15/2018	17.37	17.13	0.24	NM	7821.02	7803.65
	9/11/2018	17.38	17.15	0.23	NM	7821.02	7803.64
	10/2/2018	17.32	17.17	0.15	NM	7821.02	7803.70
	11/7/2018	17.45	17.28	0.17	NM	7821.02	7803.57
	12/5/2018	17.62	17.45	0.17	NM	7821.02	7803.40
	1/3/2019	17.82	17.68	0.14	NM	7821.02	7803.20
	2/4/2019	18.15	17.90	0.25	NM	7821.02	7802.87
	3/4/2019	18.56	18.31	0.25	NM	7821.02	7802.46
	4/1/2019	16.01	ND	ND	NM	7821.02	7805.01
	5/1/2019	14.76	ND	ND	NM	7821.02	7806.26
	6/3/2019	15.63	ND	ND	NM	7821.02	7805.39
	7/2/2019	15.78	ND	ND	NM	7821.02	7805.24
	8/7/2019	16.41	ND	ND	NM	7821.02	7804.61
	9/17/2019	17.06	ND	ND	NM	7821.02	7803.96
MW-24	11/1/2017	31.67	31.66	0.01	44.35	7839.09	7807.42
	12/13/2017	31.68	ND	ND	44.28	7839.09	7807.41
	1/17/2018	31.72	ND	ND	NM	7839.09	7807.37
	2/20/2018	31.78	ND	ND	NM	7839.09	7807.31
	3/19/2018	31.27	ND	ND	NM	7839.09	7807.82
	4/16/2018	31.26	ND	ND	NM	7839.09	7807.83
	5/9/2018	31.70	ND	ND	NM	7839.09	7807.39
	6/11/2018	31.86	ND	ND	NM	7839.09	7807.23
	7/19/2018	32.05	ND	ND	NM	7839.09	7807.04
	8/15/2018	32.16	ND	ND	NM	7839.09	7806.93
	9/11/2018	32.20	ND	ND	NM	7839.09	7806.89
	10/2/2018	32.20	ND	ND	NM	7839.09	7806.89
	11/7/2018	32.22	ND	ND	NM	7839.09	7806.87
	12/5/2018	32.25	ND	ND	NM	7839.09	7806.84
	1/3/2019	32.35	ND	ND	NM	7839.09	7806.74
	2/4/2019	32.42	ND	ND	NM	7839.09	7806.67
	3/4/2019	32.50	ND	ND	NM	7839.09	7806.59
	4/1/2019	31.91	ND	ND	NM	7839.09	7807.18
	5/1/2019	30.31	ND	ND	NM	7839.09	7808.78
	6/3/2019	31.34	ND	ND	NM	7839.09	7807.75
	7/2/2019	31.56	ND	ND	NM	7839.09	7807.53
	8/7/2019	31.80	ND	ND	NM	7839.09	7807.29
	9/17/2019	32.08	ND	ND	NM	7839.09	7807.01



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-25	11/2/2017	24.74	24.61	0.13	27.50	7959.68	7934.94
	12/14/2017	25.19	24.65	0.54	27.55	7959.68	7934.49
	1/18/2018	25.52	24.62	0.90	NM	7959.68	7934.16
	2/20/2018	25.89	24.65	1.24	NM	7959.68	7933.79
	3/19/2018	25.97	24.67	1.30	NM	7959.68	7933.71
	4/26/2018	24.55	24.15	0.40	NM	7959.68	7935.13
	5/9/2018	24.77	24.36	0.41	NM	7959.68	7934.91
	6/11/2018	24.88	24.46	0.42	NM	7959.68	7934.80
	7/19/2018	24.82	24.50	0.32	NM	7959.68	7934.86
	8/15/2018	24.82	24.52	0.30	NM	7959.68	7934.86
	9/11/2018	24.76	24.50	0.26	NM	7959.68	7934.92
	10/2/2018	24.72	24.50	0.22	NM	7959.68	7934.96
	11/7/2018	24.75	24.51	0.24	NM	7959.68	7934.93
	12/5/2018	24.75	24.52	0.23	NM	7959.68	7934.93
	1/3/2019	24.73	24.54	0.19	NM	7959.68	7934.95
	2/4/2019	24.86	24.56	0.30	NM	7959.68	7934.82
	3/4/2019	24.81	24.59	0.22	NM	7959.68	7934.87
	4/1/2019	24.73	24.55	0.18	NM	7959.68	7934.95
	5/1/2019	24.24	24.05	0.19	NM	7959.68	7935.44
	6/3/2019	24.40	24.18	0.22	NM	7959.68	7935.28
	7/2/2019	24.55	24.38	0.17	NM	7959.68	7935.13
	8/7/2019	24.50	24.35	0.15	NM	7959.68	7935.18
	9/17/2019	24.50	24.33	0.17	NM	7959.68	7935.18
MW-26	11/1/2017	18.86	ND	ND	21.98	7754.46	7735.60
	12/12/2017	19.10	ND	ND	21.99	7754.46	7735.36
	1/17/2018	19.30	ND	ND	21.99	7754.46	7735.16
	2/20/2018	19.41	ND	ND	NM	7754.46	7735.05
	3/19/2018	18.15	ND	ND	NM	7754.46	7736.31
	4/16/2018	18.05	ND	ND	NM	7754.46	7736.41
	5/9/2018	19.15	ND	ND	NM	7754.46	7735.31
	6/11/2018	19.42	ND	ND	NM	7754.46	7735.04
	7/19/2018	19.38	ND	ND	NM	7754.46	7735.08
	8/15/2018	19.41	ND	ND	NM	7754.46	7735.05
	9/11/2018	19.39	ND	ND	NM	7754.46	7735.07
	10/2/2018	19.37	ND	ND	NM	7754.46	7735.09
	11/7/2018	19.35	ND	ND	NM	7754.46	7735.11
	12/5/2018	19.27	ND	ND	NM	7754.46	7735.19
	1/3/2019	19.24	ND	ND	NM	7754.46	7735.22
	2/4/2019	19.30	ND	ND	21.99	7754.46	7735.16
	3/4/2019	19.56	ND	ND	NM	7754.46	7734.90
	4/1/2019	18.02	ND	ND	NM	7754.46	7736.44
	5/1/2019	17.86	ND	ND	NM	7754.46	7736.60
	6/3/2019	18.19	ND	ND	NM	7754.46	7736.27
	7/2/2019	18.61	ND	ND	NM	7754.46	7735.85
	8/7/2019	19.79	ND	ND	NM	7754.46	7734.67
	9/17/2019	20.19	ND	ND	NM	7754.46	7734.27



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-27	11/2/2017	27.41	ND	ND	27.91	7987.08	7959.67
	12/14/2017	NA	ND	ND	27.90	7987.08	NA
	1/18/2018	NA	ND	ND	NM	7987.08	NA
	2/20/2018	NA	ND	ND	NM	7987.08	NA
	3/19/2018	NA	ND	ND	NM	7987.08	NA
	4/16/2018	27.86	ND	ND	27.92	7987.08	7959.22
	5/9/2018	NA	ND	ND	27.90	7987.08	NA
	6/11/2018	27.88	ND	ND	NM	7987.08	7959.20
	7/19/2018	27.89	ND	ND	NM	7987.08	7959.19
	8/15/2018	27.91	ND	ND	NM	7987.08	7959.17
	9/11/2018	NA	ND	ND	27.90	7987.08	NA
	10/2/2018	27.88	ND	ND	27.92	7987.08	7959.20
	11/7/2018	27.88	ND	ND	27.92	7987.08	7959.20
	12/5/2018	27.88	ND	ND	NM	7987.08	7959.20
	1/3/2019	27.87	ND	ND	NM	7987.08	7959.21
	2/4/2019	27.89	ND	ND	27.93	7987.08	7959.19
	3/4/2019	27.86	ND	ND	NM	7987.08	7959.22
	4/1/2019	27.89	ND	ND	27.92	7987.08	7959.19
	5/1/2019	27.89	ND	ND	NM	7987.08	7959.19
	6/3/2019	27.89	ND	ND	NM	7987.08	7959.19
	7/2/2019	27.89	ND	ND	27.91	7987.08	7959.19
	8/7/2019	27.89	ND	ND	NM	7987.08	7959.19
	9/17/2019	27.88	ND	ND	NM	7987.08	7959.20
MW-28	11/2/2017	20.29	20.28	0.01	36.14	7947.65	7927.36
	12/14/2017	22.18	21.14	1.04	35.70	7947.65	7925.47
	1/18/2018	22.51	21.12	1.39	NM	7947.65	7925.14
	2/20/2018	23.00	21.10	1.90	NM	7947.65	7924.65
	3/19/2018	23.25	21.15	2.10	NM	7947.65	7924.40
	4/16/2018	23.18	21.67	1.51	NM	7947.65	7924.47
	5/9/2018	23.26	21.59	1.67	NM	7947.65	7924.39
	6/11/2018	22.95	21.55	1.40	NM	7947.65	7924.70
	7/19/2018	23.63	21.51	2.12	NM	7947.65	7924.02
	8/15/2018	24.40	21.13	3.27	NM	7947.65	7923.25
	9/11/2018	24.56	20.86	3.70	NM	7947.65	7923.09
	10/2/2018	23.23	21.17	2.06	NM	7947.65	7924.42
	11/7/2018	22.97	21.00	1.97	NM	7947.65	7924.68
	12/5/2018	22.95	20.99	1.96	NM	7947.65	7924.70
	1/3/2019	22.30	21.16	1.14	NM	7947.65	7925.35
	2/4/2019	22.40	21.20	1.20	NM	7947.65	7925.25
	3/4/2019	22.36	21.20	1.16	NM	7947.65	7925.29
	4/1/2019	21.88	21.25	0.63	NM	7947.65	7925.77
	5/1/2019	21.24	20.69	0.55	NM	7947.65	7926.41
	6/3/2019	21.15	20.61	0.54	NM	7947.65	7926.50
	7/2/2019	20.99	20.60	0.39	NM	7947.65	7926.66
	8/7/2019	20.81	20.39	0.42	NM	7947.65	7926.84
	9/17/2019	20.92	20.50	0.42	NM	7947.65	7926.73



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-29	11/3/2017	15.91	ND	ND	20.25	7752.37	7736.46
	12/12/2017	16.06	ND	ND	20.04	7752.37	7736.31
	1/17/2018	15.86	ND	ND	20.25	7752.37	7736.51
	2/20/2018	15.87	ND	ND	NM	7752.37	7736.50
	3/19/2018	15.62	ND	ND	NM	7752.37	7736.75
	4/16/2018	15.53	ND	ND	NM	7752.37	7736.84
	5/9/2018	15.63	ND	ND	NM	7752.37	7736.74
	6/11/2018	15.82	ND	ND	NM	7752.37	7736.55
	7/19/2018	15.87	ND	ND	NM	7752.37	7736.50
	8/15/2018	15.88	ND	ND	NM	7752.37	7736.49
	9/11/2018	15.87	ND	ND	NM	7752.37	7736.50
	10/2/2018	15.86	ND	ND	NM	7752.37	7736.51
	11/7/2018	15.85	ND	ND	NM	7752.37	7736.52
	12/5/2018	15.85	ND	ND	NM	7752.37	7736.52
	1/3/2019	15.87	ND	ND	NM	7752.37	7736.50
	2/4/2019	15.98	ND	ND	20.20	7752.37	7736.39
	3/4/2019	16.05	ND	ND	NM	7752.37	7736.32
	4/1/2019	15.69	ND	ND	NM	7752.37	7736.68
	5/1/2019	15.61	ND	ND	NM	7752.37	7736.76
	6/3/2019	15.66	ND	ND	NM	7752.37	7736.71
	7/2/2019	15.68	ND	ND	NM	7752.37	7736.69
	8/7/2019	15.76	ND	ND	NM	7752.37	7736.61
	9/17/2019	15.99	ND	ND	NM	7752.37	7736.38
MW-30	11/3/2017	18.20	ND	ND	20.27	7756.05	7737.85
	12/12/2017	18.26	ND	ND	20.26	7756.05	7737.79
	1/17/2018	18.21	ND	ND	20.29	7756.05	7737.84
	2/20/2018	18.18	ND	ND	NM	7756.05	7737.87
	3/19/2018	18.07	ND	ND	NM	7756.05	7737.98
	4/16/2018	17.99	17.98	0.01	NM	7756.05	7738.06
	5/9/2018	18.03	ND	ND	NM	7756.05	7738.02
	6/11/2018	18.05	ND	ND	NM	7756.05	7738.00
	7/19/2018	18.01	ND	ND	NM	7756.05	7738.04
	8/15/2018	18.01	ND	ND	NM	7756.05	7738.04
	9/11/2018	17.99	ND	ND	NM	7756.05	7738.06
	10/2/2018	17.97	ND	ND	NM	7756.05	7738.08
	11/7/2018	18.01	ND	ND	NM	7756.05	7738.04
	12/5/2018	18.00	ND	ND	NM	7756.05	7738.05
	1/3/2019	18.00	ND	ND	NM	7756.05	7738.05
	2/4/2019	18.26	ND	ND	20.27	7756.05	7737.79
	3/4/2019	18.13	ND	ND	NM	7756.05	7737.92
	4/1/2019	17.98	ND	ND	NM	7756.05	7738.07
	5/1/2019	17.82	ND	ND	NM	7756.05	7738.23
	6/3/2019	17.78	ND	ND	NM	7756.05	7738.27
	7/2/2019	17.76	ND	ND	NM	7756.05	7738.29
	8/7/2019	17.88	ND	ND	NM	7756.05	7738.17
	9/17/2019	18.02	ND	ND	NM	7756.05	7738.03



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-32	11/3/2017	26.32	ND	ND	33.02	7807.65	7781.33
	12/20/2017	26.54	26.27	0.27	32.70	7807.65	7781.11
	1/17/2018	26.40	26.07	0.33	NM	7807.65	7781.25
	2/20/2018	25.80	25.65	0.15	NM	7807.65	7781.85
	3/19/2018	24.59	ND	ND	NM	7807.65	7783.06
	4/16/2018	24.16	ND	ND	NM	7807.65	7783.49
	5/9/2018	24.51	ND	ND	NM	7807.65	7783.14
	6/11/2018	24.54	ND	ND	NM	7807.65	7783.11
	7/19/2018	24.51	ND	ND	NM	7807.65	7783.14
	8/15/2018	24.66	ND	ND	NM	7807.65	7782.99
	9/11/2018	24.70	ND	ND	NM	7807.65	7782.95
	10/2/2018	24.79	ND	ND	NM	7807.65	7782.86
	11/7/2018	23.83	ND	ND	NM	7807.65	7783.82
	12/5/2018	24.85	ND	ND	NM	7807.65	7782.80
	1/4/2019	25.01	ND	ND	NM	7807.65	7782.64
	2/4/2019	25.21	ND	ND	32.24	7807.65	7782.44
	3/4/2019	24.81	ND	ND	NM	7807.65	7782.84
	4/1/2019	23.36	ND	ND	NM	7807.65	7784.29
	5/1/2019	21.03	ND	ND	NM	7807.65	7786.62
	6/3/2019	22.95	ND	ND	NM	7807.65	7784.70
	7/2/2019	23.16	ND	ND	NM	7807.65	7784.49
	8/7/2019	23.99	ND	ND	NM	7807.65	7783.66
	9/17/2019	24.59	ND	ND	NM	7807.65	7783.06
MW-33	11/3/2017	23.05	22.92	0.13	33.05	7804.45	7781.40
	12/12/2017	23.20	22.91	0.29	32.90	7804.45	7781.25
	1/17/2018	23.00	22.70	0.30	NM	7804.45	7781.45
	2/20/2018	22.40	22.15	0.25	NM	7804.45	7782.05
	3/19/2018	21.70	21.33	0.37	NM	7804.45	7782.75
	4/16/2018	21.10	20.87	0.23	NM	7804.45	7783.35
	5/9/2018	21.78	21.54	0.24	NM	7804.45	7782.67
	6/11/2018	21.71	21.57	0.14	NM	7804.45	7782.74
	7/19/2018	21.86	21.73	0.13	NM	7804.45	7782.59
	8/15/2018	21.95	21.83	0.12	NM	7804.45	7782.50
	9/11/2018	21.66	21.62	0.04	NM	7804.45	7782.79
	10/2/2018	21.65	21.60	0.05	NM	7804.45	7782.80
	11/7/2018	21.97	21.87	0.10	NM	7804.45	7782.48
	12/5/2018	22.35	22.20	0.15	NM	7804.45	7782.10
	1/3/2019	22.44	22.32	0.12	NM	7804.45	7782.01
	2/4/2019	22.43	22.35	0.08	32.56	7804.45	7782.02
	3/4/2019	21.97	21.95	0.02	NM	7804.45	7782.48
	4/1/2019	20.65	ND	ND	NM	7804.45	7783.80
	5/1/2019	18.78	ND	ND	NM	7804.45	7785.67
	6/3/2019	20.30	ND	ND	NM	7804.45	7784.15
	7/2/2019	24.30	ND	ND	NM	7804.45	7780.15
	8/7/2019	21.08	ND	ND	NM	7804.45	7783.37
	9/17/2019	21.55	ND	ND	NM	7804.45	7782.90



**TABLE 2**  
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**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-34	11/3/2017	22.18	ND	ND	26.45	7774.38	7752.20
	12/12/2017	22.21	ND	ND	26.35	7774.38	7752.17
	1/17/2018	22.27	ND	ND	26.25	7774.38	7752.11
	2/20/2018	22.68	ND	ND	NM	7774.38	7751.70
	3/19/2018	20.88	ND	ND	NM	7774.38	7753.50
	4/16/2018	20.38	ND	ND	NM	7774.38	7754.00
	5/9/2018	21.77	ND	ND	NM	7774.38	7752.61
	6/11/2018	22.42	ND	ND	NM	7774.38	7751.96
	7/19/2018	22.54	ND	ND	NM	7774.38	7751.84
	8/15/2018	22.66	ND	ND	NM	7774.38	7751.72
	9/11/2018	22.75	ND	ND	NM	7774.38	7751.63
	10/2/2018	22.74	ND	ND	NM	7774.38	7751.64
	11/7/2018	22.78	ND	ND	NM	7774.38	7751.60
	12/5/2018	22.88	ND	ND	NM	7774.38	7751.50
	1/3/2019	22.91	ND	ND	NM	7774.38	7751.47
	2/4/2019	22.96	ND	ND	26.20	7774.38	7751.42
	3/4/2019	23.33	ND	ND	NM	7774.38	7751.05
	4/1/2019	20.40	ND	ND	NM	7774.38	7753.98
	5/1/2019	19.54	ND	ND	NM	7774.38	7754.84
	6/3/2019	20.86	ND	ND	NM	7774.38	7753.52
	7/2/2019	21.16	ND	ND	NM	7774.38	7753.22
	8/7/2019	21.91	ND	ND	NM	7774.38	7752.47
	9/17/2019	22.62	ND	ND	NM	7774.38	7751.76
MW-35	11/8/2017	17.40	17.39	0.01	22.91	7771.48	7754.08
	12/12/2017	17.42	ND	ND	22.88	7771.48	7754.06
	1/17/2018	17.92	17.59	0.33	22.82	7771.48	7753.56
	2/20/2018	17.59	17.30	0.29	NM	7771.48	7753.89
	3/19/2018	16.01	16.00	0.01	NM	7771.48	7755.47
	4/16/2018	15.68	15.67	0.01	NM	7771.48	7755.80
	5/9/2018	16.91	16.85	0.06	NM	7771.48	7754.57
	6/11/2018	17.69	17.68	0.01	NM	7771.48	7753.79
	7/19/2018	18.05	17.92	0.13	NM	7771.48	7753.43
	8/15/2018	18.19	18.01	0.18	NM	7771.48	7753.29
	9/11/2018	18.41	18.26	0.15	NM	7771.48	7753.07
	10/2/2018	18.40	18.28	0.12	NM	7771.48	7753.08
	11/7/2018	18.46	18.33	0.13	NM	7771.48	7753.02
	12/5/2018	18.62	18.42	0.20	NM	7771.48	7752.86
	1/3/2019	18.58	18.50	0.08	NM	7771.48	7752.90
	2/4/2019	18.57	18.55	0.02	22.48	7771.48	7752.91
	3/4/2019	18.88	18.77	0.11	NM	7771.48	7752.60
	4/1/2019	15.71	ND	ND	NM	7771.48	7755.77
	5/1/2019	14.65	ND	ND	NM	7771.48	7756.83
	6/3/2019	16.08	ND	ND	NM	7771.48	7755.40
	7/2/2019	16.14	ND	ND	NM	7771.48	7755.34
	8/7/2019	16.90	ND	ND	NM	7771.48	7754.58
	9/17/2019	17.81	ND	ND	NM	7771.48	7753.67

**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-36	11/8/2017	18.71	18.70	0.01	31.15	7966.10	7947.39
	12/14/2017	18.80	ND	ND	31.10	7966.10	7947.30
	1/18/2018	18.89	ND	ND	NM	7966.10	7947.21
	2/20/2018	18.90	ND	ND	NM	7966.10	7947.20
	3/19/2018	18.92	ND	ND	NM	7966.10	7947.18
	4/16/2018	18.76	ND	ND	NM	7966.10	7947.34
	5/9/2018	18.98	ND	ND	NM	7966.10	7947.12
	6/11/2018	19.04	ND	ND	NM	7966.10	7947.06
	7/19/2018	19.10	ND	ND	NM	7966.10	7947.00
	8/15/2018	19.18	ND	ND	NM	7966.10	7946.92
	9/11/2018	19.30	ND	ND	NM	7966.10	7946.80
	10/2/2018	19.28	ND	ND	NM	7966.10	7946.82
	11/7/2018	19.30	ND	ND	NM	7966.10	7946.80
	12/5/2018	19.35	ND	ND	NM	7966.10	7946.75
	1/3/2019	19.41	ND	ND	NM	7966.10	7946.69
	2/4/2019	19.48	ND	ND	NM	7966.10	7946.62
	3/4/2019	19.51	ND	ND	NM	7966.10	7946.59
	4/1/2019	19.55	ND	ND	NM	7966.10	7946.55
	5/1/2019	18.50	ND	ND	NM	7966.10	7947.60
	6/3/2019	18.91	ND	ND	NM	7966.10	7947.19
	7/2/2019	18.60	ND	ND	NM	7966.10	7947.50
	8/7/2019	18.63	ND	ND	NM	7966.10	7947.47
	9/17/2019	18.68	ND	ND	NM	7966.10	7947.42
MW-37	11/8/2017	28.54	28.53	0.01	42.28	7866.39	7837.85
	12/13/2017	27.95	ND	ND	42.25	7866.39	7838.44
	1/17/2018	28.04	ND	ND	NM	7866.39	7838.35
	2/20/2018	28.20	ND	ND	NM	7866.39	7838.19
	3/19/2018	28.12	ND	ND	NM	7866.39	7838.27
	4/16/2018	27.80	ND	ND	NM	7866.39	7838.59
	5/9/2018	28.14	ND	ND	NM	7866.39	7838.25
	6/11/2018	28.32	ND	ND	NM	7866.39	7838.07
	7/19/2018	28.40	ND	ND	NM	7866.39	7837.99
	8/15/2018	28.46	ND	ND	NM	7866.39	7837.93
	9/11/2018	28.09	ND	ND	NM	7866.39	7838.30
	10/2/2018	27.70	ND	ND	NM	7866.39	7838.69
	11/7/2018	27.85	ND	ND	NM	7866.39	7838.54
	12/5/2018	27.89	ND	ND	NM	7866.39	7838.50
	1/3/2019	27.85	ND	ND	NM	7866.39	7838.54
	2/4/2019	27.71	ND	ND	NM	7866.39	7838.68
	3/4/2019	27.92	ND	ND	NM	7866.39	7838.47
	4/1/2019	27.80	ND	ND	NM	7866.39	7838.59
	5/1/2019	26.95	ND	ND	NM	7866.39	7839.44
	6/3/2019	27.30	ND	ND	NM	7866.39	7839.09
	7/2/2019	27.37	ND	ND	NM	7866.39	7839.02
	8/7/2019	27.35	ND	ND	NM	7866.39	7839.04
	9/17/2019	27.65	ND	ND	NM	7866.39	7838.74





**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-38	11/15/2017	16.15	ND	ND	20.95	7746.83	7730.68
	12/12/2017	16.18	ND	ND	20.88	7746.83	7730.65
	1/17/2018	16.19	ND	ND	20.90	7746.83	7730.64
	2/20/2018	16.10	ND	ND	NM	7746.83	7730.73
	3/19/2018	15.78	ND	ND	NM	7746.83	7731.05
	4/16/2018	15.50	ND	ND	NM	7746.83	7731.33
	5/9/2018	15.72	ND	ND	NM	7746.83	7731.11
	6/11/2018	15.87	ND	ND	NM	7746.83	7730.96
	7/19/2018	15.81	ND	ND	NM	7746.83	7731.02
	8/15/2018	15.81	ND	ND	NM	7746.83	7731.02
	9/11/2018	15.79	ND	ND	NM	7746.83	7731.04
	10/2/2018	15.84	ND	ND	NM	7746.83	7730.99
	11/7/2018	15.94	ND	ND	NM	7746.83	7730.89
	12/5/2018	15.97	ND	ND	NM	7746.83	7730.86
	1/3/2019	16.01	ND	ND	NM	7746.83	7730.82
	2/4/2019	16.08	ND	ND	20.92	7746.83	7730.75
	3/4/2019	16.14	ND	ND	NM	7746.83	7730.69
	4/1/2019	15.53	ND	ND	NM	7746.83	7731.30
	5/1/2019	15.28	ND	ND	NM	7746.83	7731.55
	6/3/2019	15.57	ND	ND	NM	7746.83	7731.26
	7/2/2019	15.65	ND	ND	NM	7746.83	7731.18
	8/7/2019	15.89	ND	ND	NM	7746.83	7730.94
	9/17/2019	16.18	ND	ND	NM	7746.83	7730.65
MW-39	11/15/2017	10.10	ND	ND	17.89	7819.07	7808.97
	12/12/2017	10.17	10.14	0.03	17.47	7819.07	7808.90
	1/17/2018	10.31	ND	ND	NM	7819.07	7808.76
	2/20/2018	10.39	ND	ND	NM	7819.07	7808.68
	3/19/2018	8.92	ND	ND	NM	7819.07	7810.15
	4/16/2018	8.85	ND	ND	NM	7819.07	7810.22
	5/9/2018	9.67	9.62	0.05	NM	7819.07	7809.40
	6/11/2018	10.21	10.16	0.05	NM	7819.07	7808.86
	7/19/2018	10.80	10.72	0.08	NM	7819.07	7808.27
	8/15/2018	11.01	10.96	0.05	NM	7819.07	7808.06
	9/11/2018	11.14	11.10	0.04	NM	7819.07	7807.93
	10/2/2018	11.24	ND	ND	NM	7819.07	7807.83
	11/7/2018	11.33	11.32	0.01	NM	7819.07	7807.74
	12/5/2018	11.46	ND	ND	NM	7819.07	7807.61
	1/3/2019	11.59	ND	ND	NM	7819.07	7807.48
	2/4/2019	11.62	ND	ND	NM	7819.07	7807.45
	3/4/2019	11.81	ND	ND	NM	7819.07	7807.26
	4/1/2019	9.01	ND	ND	NM	7819.07	7810.06
	5/1/2019	7.76	ND	ND	NM	7819.07	7811.31
	6/3/2019	9.90	ND	ND	NM	7819.07	7809.17
	7/2/2019	8.96	ND	ND	NM	7819.07	7810.11
	8/7/2019	9.65	ND	ND	NM	7819.07	7809.42
	9/17/2019	10.42	ND	ND	NM	7819.07	7808.65

**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-40	11/15/2017	27.45	ND	ND	32.50	7692.25	7664.80
	12/12/2017	27.44	ND	ND	32.40	7692.25	7664.81
	1/17/2018	27.55	ND	ND	32.30	7692.25	7664.70
	2/20/2018	27.64	ND	ND	NM	7692.25	7664.61
	3/19/2018	27.20	ND	ND	NM	7692.25	7665.05
	4/16/2018	25.60	ND	ND	NM	7692.25	7666.65
	5/9/2018	27.00	ND	ND	NM	7692.25	7665.25
	6/11/2018	27.45	ND	ND	NM	7692.25	7664.80
	7/19/2018	26.66	ND	ND	NM	7692.25	7665.59
	8/15/2018	27.81	ND	ND	NM	7692.25	7664.44
	9/11/2018	27.85	ND	ND	NM	7692.25	7664.40
	10/2/2018	27.90	ND	ND	NM	7692.25	7664.35
	11/7/2018	27.92	ND	ND	NM	7692.25	7664.33
	12/5/2018	28.00	ND	ND	NM	7692.25	7664.25
	1/3/2019	28.10	ND	ND	NM	7692.25	7664.15
	2/4/2019	28.19	ND	ND	32.20	7692.25	7664.06
	3/4/2019	28.26	ND	ND	NM	7692.25	7663.99
	4/1/2019	26.33	ND	ND	NM	7692.25	7665.92
	5/1/2019	25.23	ND	ND	NM	7692.25	7667.02
	6/3/2019	25.91	ND	ND	NM	7692.25	7666.34
	7/2/2019	26.16	ND	ND	NM	7692.25	7666.09
	8/7/2019	26.60	ND	ND	NM	7692.25	7665.65
	9/17/2019	27.15	ND	ND	NM	7692.25	7665.10
MW-41	11/21/2017	44.37	ND	ND	48.49	7856.30	7811.93
	12/13/2017	44.45	ND	ND	48.22	7856.30	7811.85
	1/17/2018	44.44	ND	ND	NM	7856.30	7811.86
	2/20/2018	44.45	44.42	0.03	NM	7856.30	7811.85
	3/19/2018	43.77	43.73	0.04	NM	7856.30	7812.53
	4/16/2018	43.48	ND	ND	NM	7856.30	7812.82
	5/9/2018	44.06	44.05	0.01	NM	7856.30	7812.24
	6/11/2018	44.32	ND	ND	NM	7856.30	7811.98
	7/19/2018	44.50	ND	ND	NM	7856.30	7811.80
	8/15/2018	44.58	44.51	0.07	NM	7856.30	7811.72
	9/11/2018	44.63	44.56	0.07	NM	7856.30	7811.67
	10/2/2018	44.63	44.62	0.01	NM	7856.30	7811.67
	11/7/2018	44.72	ND	ND	NM	7856.30	7811.58
	12/5/2018	44.75	44.74	0.01	NM	7856.30	7811.55
	1/3/2019	44.77	ND	ND	NM	7856.30	7811.53
	2/4/2019	45.10	44.80	0.30	NM	7856.30	7811.20
	3/4/2019	45.12	44.80	0.32	NM	7856.30	7811.18
	4/1/2019	43.62	43.61	0.01	NM	7856.30	7812.68
	5/1/2019	42.69	ND	ND	NM	7856.30	7813.61
	6/3/2019	43.28	ND	ND	NM	7856.30	7813.02
	7/2/2019	43.34	ND	ND	NM	7856.30	7812.96
	8/7/2019	43.89	ND	ND	NM	7856.30	7812.41
	9/17/2019	44.20	44.19	0.01	NM	7856.30	7812.10



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-42	9/17/2018	32.46	ND	ND	38.81	7680.72	7648.26
	10/2/2018	31.96	ND	ND	NM	7680.72	7648.76
	11/7/2018	32.05	ND	ND	NM	7680.72	7648.67
	12/5/2018	32.25	ND	ND	NM	7680.72	7648.47
	1/3/2019	32.50	ND	ND	NM	7680.72	7648.22
	2/4/2019	33.10	ND	ND	38.58	7680.72	7647.62
	3/4/2019	32.87	ND	ND	NM	7680.72	7647.85
	4/1/2019	28.01	ND	ND	NM	7680.72	7652.71
	5/1/2019	26.00	ND	ND	NM	7680.72	7654.72
	6/3/2019	27.05	ND	ND	NM	7680.72	7653.67
	7/2/2019	27.42	ND	ND	NM	7680.72	7653.30
	8/7/2019	28.35	ND	ND	NM	7680.72	7652.37
	9/17/2019	29.67	ND	ND	NM	7680.72	7651.05
MW-43	9/26/2018	19.88	ND	ND	26.81	7698.38	7678.50
	10/2/2018	19.92	ND	ND	NM	7698.38	7678.46
	11/7/2018	19.94	ND	ND	NM	7698.38	7678.44
	12/5/2018	20.01	ND	ND	NM	7698.38	7678.37
	1/3/2019	20.02	ND	ND	NM	7698.38	7678.36
	2/4/2019	20.01	ND	ND	22.57	7698.38	7678.37
	3/4/2019	20.08	ND	ND	NM	7698.38	7678.30
	4/1/2019	18.93	ND	ND	NM	7698.38	7679.45
	5/1/2019	18.41	ND	ND	NM	7698.38	7679.97
	6/3/2019	18.71	ND	ND	NM	7698.38	7679.67
	7/2/2019	18.86	ND	ND	NM	7698.38	7679.52
	8/7/2019	19.03	ND	ND	NM	7698.38	7679.35
	9/17/2019	19.23	ND	ND	NM	7698.38	7679.15
MW-44	9/18/2018	29.35	ND	ND	34.57	7714.34	7684.99
	10/2/2018	29.51	ND	ND	NM	7714.34	7684.83
	11/7/2018	29.58	ND	ND	NM	7714.34	7684.76
	12/5/2018	29.62	ND	ND	NM	7714.34	7684.72
	1/3/2019	29.85	ND	ND	NM	7714.34	7684.49
	2/4/2019	29.92	ND	ND	34.89	7714.34	7684.42
	3/4/2019	29.57	ND	ND	NM	7714.34	7684.77
	4/1/2019	28.43	ND	ND	NM	7714.34	7685.91
	5/1/2019	26.03	ND	ND	NM	7714.34	7688.31
	6/3/2019	27.30	ND	ND	NM	7714.34	7687.04
	7/2/2019	27.79	ND	ND	NM	7714.34	7686.55
	8/7/2019	28.38	ND	ND	NM	7714.34	7685.96
	9/17/2019	28.87	ND	ND	NM	7714.34	7685.47
MW-45	9/18/2018	15.32	ND	ND	20.31	7709.46	7694.14
	10/2/2018	15.42	ND	ND	NM	7709.46	7694.04
	11/7/2018	15.55	ND	ND	NM	7709.46	7693.91
	12/5/2018	15.68	ND	ND	NM	7709.46	7693.78
	1/3/2019	15.78	ND	ND	NM	7709.46	7693.68
	2/4/2019	16.31	ND	ND	20.74	7709.46	7693.15
	3/4/2019	15.81	ND	ND	NM	7709.46	7693.65
	4/1/2019	13.89	ND	ND	NM	7709.46	7695.57
	5/1/2019	11.84	ND	ND	NM	7709.46	7697.62
	6/3/2019	13.27	ND	ND	NM	7709.46	7696.19
	7/2/2019	13.83	ND	ND	NM	7709.46	7695.63
	8/7/2019	14.41	ND	ND	NM	7709.46	7695.05
	9/17/2019	15.05	ND	ND	NM	7709.46	7694.41



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION AND PRODUCT THICKNESS GAUGING DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Wells</b>	<b>Date</b>	<b>DTW TOC (feet)</b>	<b>DTP TOC (feet)</b>	<b>Product Thickness (feet)</b>	<b>TD TOC (feet)</b>	<b>TOC Elevation (feet)</b>	<b>GW Elevation (feet)</b>
MW-46	9/18/2018	26.55	ND	ND	32.34	7729.78	7703.23
	10/2/2018	26.68	ND	ND	NM	7729.78	7703.10
	11/7/2018	26.55	ND	ND	NM	7729.78	7703.23
	12/5/2018	26.82	ND	ND	NM	7729.78	7702.96
	1/3/2019	26.90	ND	ND	NM	7729.78	7702.88
	2/4/2019	27.39	ND	ND	32.53	7729.78	7702.39
	3/4/2019	27.02	ND	ND	NM	7729.78	7702.76
	4/1/2019	25.10	ND	ND	NM	7729.78	7704.68
	5/1/2019	23.60	ND	ND	NM	7729.78	7706.18
	6/3/2019	24.98	ND	ND	NM	7729.78	7704.80
	7/2/2019	25.27	ND	ND	NM	7729.78	7704.51
	8/7/2019	25.70	ND	ND	NM	7729.78	7704.08
	9/17/2019	26.13	ND	ND	NM	7729.78	7703.65
Sump	11/3/2017	16.60	16.56	0.04	NM	--	--
	1/18/2018	16.35	16.30	0.05	NM	--	--
	2/20/2018	16.50	16.45	0.05	NM	--	--
	3/19/2018	16.25	16.22	0.03	NM	--	--
	4/16/2018	15.80	15.77	0.03	NM	--	--
	5/9/2018	16.78	16.32	0.46	NM	--	--
	6/11/2018	16.67	16.55	0.12	NM	--	--
	7/19/2018	16.80	16.74	0.06	NM	--	--
	8/15/2018	16.86	16.83	0.03	NM	--	--
	9/11/2018	16.97	16.93	0.04	NM	--	--
	10/2/2018	17.08	17.04	0.04	NM	--	--
	11/7/2018	17.11	17.08	0.03	NM	--	--
	12/5/2018	17.13	17.11	0.02	NM	--	--
	1/3/2019	17.13	17.12	0.01	NM	--	--
	2/4/2019	17.21	17.20	0.01	NM	--	--
	3/4/2019	17.33	17.28	0.05	NM	--	--
	4/1/2019	16.60	ND	ND	NM	--	--
	5/1/2019	14.90	14.89	0.01	NM	--	--
	6/3/2019	15.51	15.50	0.01	NM	--	--
	7/2/2019	15.60	ND	ND	NM	--	--
	8/7/2019	15.90	ND	ND	NM	--	--
	9/17/2019	16.24	16.23	0.01	NM	--	--

**Notes:**

DTW - Depth to Water  
DTP - Depth to Product  
TOC - Top of Casing  
TD - Total Depth  
GW - Groundwater  
BGS - Below Ground Surface  
ND - No Free Product Detected in Well  
NM - Not Measured  
-- - No Survey Data  
NA - Dry



**TABLE 3**  
**AIR SPARGE OPERATION AND MAINTENANCE FIELD PARAMETERS**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

Well ID	Date	Manifold Pressure (psi)	Well Pressure (psi)	Flow (cfm)	Monthly Hours (hrs)	Monthly Total Flow (cf)	Total Flow (cf) (September 2018-September 2019)
AS-02	9/26/2018	6.7	4.5	>10.0*	360.0	216,000	216,000
	10/2/2018	8.4	4.4	>10.0*	372.0	223,200	439,200
	11/7/2018	8.4	4.2	>10.0*	360.0	216,000	655,200
	12/5/2018	9.5	4.3	>10.0*	372.0	223,200	878,400
	1/3/2019	8.0	4.0	>10.0	372.0	223,200	1,101,600
	2/4/2019	8.9	3.7	9.1	336.0	183,456	1,285,056
	3/5/2019	6.6	3.6	9.0	744.0	401,760	1,686,816
	4/1/2019	7.5	4.2	8.5	540.0	275,400	1,962,216
	5/1/2019	8.9	5.3	4.3	372.0	95,976	2,058,192
	6/3/2019	6.0	4.3	2.9	360.0	62,640	2,120,832
	7/8/2019	7.0	4.2	3.7	372.0	82,584	2,203,416
	8/7/2019	6.2	4.4	5.1	372.0	113,832	2,317,248
	9/20/2019	8.1	4.2	5.0	360.0	108,000	2,425,248
AS-03	9/26/2018	6.7	7.3	3.0	360.0	64,800	64,800
	10/2/2018	8.4	6.8	4.7	372.0	104,904	169,704
	11/7/2018	8.4	7.0	5.0	360.0	108,000	277,704
	12/5/2018	9.5	6.8	5.9	372.0	131,688	409,392
	1/3/2019	8.0	6.8	4.0	372.0	89,280	498,672
	2/4/2019	8.9	6.6	2.9	336.0	58,464	557,136
	3/5/2019	6.6	6.2	2.1	744.0	93,744	650,880
	4/1/2019	7.5	6.8	2.5	540.0	81,000	731,880
	5/1/2019	8.9	7.3	1.0	372.0	22,320	754,200
	6/3/2019	6.0	7.1	4.5	360.0	97,200	851,400
	7/8/2019	7.0	7.0	4.1	372.0	91,512	942,912
	8/7/2019	6.2	7.6	2.5	372.0	55,800	998,712
	9/20/2019	8.1	8.9	1.5	360.0	32,400	1,031,112

**TABLE 3**  
**AIR SPARGE OPERATION AND MAINTENANCE FIELD PARAMETERS**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

Well ID	Date	Manifold Pressure (psi)	Well Pressure (psi)	Flow (cfm)	Monthly Hours (hrs)	Monthly Total Flow (cf)	Total Flow (cf) (September 2018-September 2019)
AS-04	9/26/2018	6.7	7.3	3.1	360.0	66,960	66,960
	10/2/2018	8.4	6.8	6.0	372.0	133,920	200,880
	11/7/2018	8.4	6.9	7.5	360.0	162,000	362,880
	12/5/2018	9.5	6.6	7.2	372.0	160,704	523,584
	1/3/2019	8.0	6.6	8.1	372.0	180,792	704,376
	2/4/2019	8.9	6.2	7.5	336.0	151,200	855,576
	3/5/2019	6.6	5.5	>10.0	744.0	446,400	1,301,976
	4/1/2019	7.5	5.7	7.4	540.0	239,760	1,541,736
	5/1/2019	8.9	6.9	8.5	372.0	189,720	1,731,456
	6/3/2019	6.0	6.7	8.4	360.0	181,440	1,912,896
	7/8/2019	7.0	6.8	8.4*	372.0	187,488	2,100,384
	8/7/2019	6.2	7.2	8.4*	372.0	187,488	2,287,872
	9/20/2019	8.1	7.5	3.8	360.0	81,000	2,368,872
AS-05	9/26/2018	6.7	3.5	>10.0	360.0	216,000	216,000
	10/2/2018	8.4	3.5	>10.0	372.0	223,200	439,200
	11/7/2018	8.4	3.5	>10.0	360.0	216,000	655,200
	12/5/2018	9.5	3.3	>10.0	372.0	223,200	878,400
	1/3/2019	8.0	3.4	>10.0	372.0	223,200	1,101,600
	2/4/2019	8.9	4.6	>10.0	336.0	201,600	1,303,200
	3/5/2019	6.6	4.4	>10.0	744.0	446,400	1,749,600
	4/1/2019	7.5	3.9	6.7	540.0	217,080	1,966,680
	5/1/2019	8.9	5.0	8.0	372.0	178,560	2,145,240
	6/3/2019	6.0	4.5	8.5	360.0	183,600	2,328,840
	7/8/2019	7.0	4.3	8.8	372.0	196,416	2,525,256
	8/7/2019	6.2	4.2	9.5	372.0	212,040	2,737,296
	9/20/2019	8.1	4.6	8.6	360.0	185,760	2,923,056

**TABLE 3**  
**AIR SPARGE OPERATION AND MAINTENANCE FIELD PARAMETERS**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

Well ID	Date	Manifold Pressure (psi)	Well Pressure (psi)	Flow (cfm)	Monthly Hours (hrs)	Monthly Total Flow (cf)	Total Flow (cf) (September 2018-September 2019)
AS-06	9/26/2018	6.7	7.8	2.0*	360.0	43,200	43,200
	10/2/2018	8.4	7.4	2.0*	372.0	44,640	87,840
	11/7/2018	8.4	7.6	2.0*	360.0	43,200	131,040
	12/5/2018	9.5	7.2	2.0*	372.0	44,640	175,680
	1/3/2019	8.0	7.4	2.0	372.0	44,640	220,320
	2/4/2019	8.9	7.1	0.8	336.0	16,128	236,448
	3/5/2019	6.6	6.7	0.5	744.0	22,320	258,768
	4/1/2019	7.5	6.8	>10.0	540.0	324,000	582,768
	5/1/2019	8.9	7.2	9.0	372.0	200,880	783,648
	6/3/2019	6.0	7.3	3.0	360.0	64,800	848,448
	7/8/2019	7.0	7.2	4.3	372.0	95,976	944,424
	8/7/2019	6.2	7.7	3.0	372.0	66,960	1,011,384
	9/20/2019	8.1	7.5	5.8	360.0	124,200	1,135,584
AS-07	9/26/2018	7.0	7.5	0.0	360.0	-	-
	10/2/2018	7.9	7.0	0.0	372.0	-	-
	11/7/2018	8.5	8.0	0.0	360.0	-	-
	12/5/2018	9.0	0.0	0.0	360.0	-	-
	1/3/2019	9.4	6.5	0.0	372.0	-	-
	2/4/2019	9.0	7.3	0.0	336.0	-	-
	3/5/2019	--	--	--	--	--	--
	4/1/2019	10.1*	10.2*	0.0*	180.0	-	-
	5/1/2019	10.1	10.2	0.0	372.0	-	-
	6/3/2019	6.6	9.8	0.0	360.0	-	-
	7/8/2019	9.5	9.4	0.0	372.0	-	-
	8/7/2019	7.0	8.0	0.0	372.0	-	-
	9/20/2019	8.0	7.5	0.0	360.0	-	-

**TABLE 3**  
**AIR SPARGE OPERATION AND MAINTENANCE FIELD PARAMETERS**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

Well ID	Date	Manifold Pressure (psi)	Well Pressure (psi)	Flow (cfm)	Monthly Hours (hrs)	Monthly Total Flow (cf)	Total Flow (cf) (September 2018-September 2019)
AS-08	9/26/2018	7.0	7.8	5.0*	360.0	108,000	108,000
	10/2/2018	7.9	7.1	5.0*	372.0	111,600	219,600
	11/7/2018	8.5	7.7	5.0*	360.0	108,000	327,600
	12/5/2018	9.0	6.8	5.0*	372.0	111,600	439,200
	1/3/2019	9.4	7.8	5.0	372.0	111,600	550,800
	2/4/2019	9.0	7.8	0.1	336.0	2,016	552,816
	3/5/2019	--	--	--	--	--	552,816
	4/1/2019	10.1*	10.0*	5.0*	180.0	54,000	606,816
	5/1/2019	10.1	10.0	5.0*	372.0	111,600	718,416
	6/3/2019	6.6	7.5	5.0*	360.0	108,000	826,416
	7/8/2019	9.5	9.2	5.0*	372.0	111,600	938,016
	8/7/2019	7.0	7.9	5.0*	372.0	111,600	1,049,616
	9/20/2019	8.0	7.8	0.5	360.0	10,800	1,060,416
AS-09	9/26/2018	6.6	1.5	>10.0*	360.0	216,000	216,000
	10/2/2018	8.2	1.4	>10.0*	372.0	223,200	439,200
	11/7/2018	8.2	1.5	>10.0*	360.0	216,000	655,200
	12/5/2018	9.0	1.4	>10.0*	372.0	223,200	878,400
	1/3/2019	9.0	3.6	>10.0	372.0	223,200	1,101,600
	2/4/2019	8.7	2.7	>10.0	336.0	201,600	1,303,200
	3/5/2019	--	--	--	--	--	1,303,200
	4/1/2019	11.0*	2.8*	>10.0*	180.0	108,000	1,411,200
	5/1/2019	11.0	2.8	>10.0	372.0	223,200	1,634,400
	6/3/2019	9.0	2.9	9.1	360.0	196,560	1,830,960
	7/8/2019	9.4	2.7	8.8	372.0	196,416	2,027,376
	8/7/2019	7.0	2.2	8.2	372.0	183,024	2,210,400
	9/20/2019	9.5	2.1	3.0	360.0	64,800	2,275,200



**TABLE 3**  
**AIR SPARGE OPERATION AND MAINTENANCE FIELD PARAMETERS**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

Well ID	Date	Manifold Pressure (psi)	Well Pressure (psi)	Flow (cfm)	Monthly Hours (hrs)	Monthly Total Flow (cf)	Total Flow (cf) (September 2018-September 2019)
AS-10	9/26/2018	6.6	7.6	0.8*	360.0	17,280	17,280
	10/2/2018	8.2	7.4	0.8*	372.0	17,856	35,136
	11/7/2018	8.2	7.5	0.8*	360.0	17,280	52,416
	12/5/2018	9.0	7.3	0.8*	372.0	17,856	70,272
	1/3/2019	9.0	8.2	0.8	372.0	17,856	88,128
	2/4/2019	8.7	7.8	1.0	336.0	20,160	108,288
	3/5/2019	--	--	--	--	--	108,288
	4/1/2019	11.0*	10.1*	3.2*	180.0	34,560	142,848
	5/1/2019	11.0	10.1	3.2	372.0	71,424	214,272
	6/3/2019	9.0	9.8	3.2	360.0	69,120	283,392
	7/8/2019	9.4	9.0	4.2	372.0	93,744	377,136
	8/7/2019	7.0	7.5	7.7	372.0	171,864	549,000
	9/20/2019	9.5	7.8	10.0	360.0	216,000	765,000
AS-11	9/26/2018	6.6	8.0	2.8*	360.0	60,480	60,480
	10/2/2018	8.2	8.0	2.8*	372.0	62,496	122,976
	11/7/2018	8.2	8.0	2.8*	360.0	60,480	183,456
	12/5/2018	9.0	7.8	2.8*	372.0	62,496	245,952
	1/3/2019	9.0	8.3	2.8	372.0	62,496	308,448
	2/4/2019	8.7	7.9	1.0	336.0	20,160	328,608
	3/5/2019	--	--	--	--	--	328,608
	4/1/2019	11.0*	10.4*	2.8*	180.0	30,240	358,848
	5/1/2019	11.0	10.4	2.8*	372.0	62,496	421,344
	6/3/2019	9.0	10.2	2.8*	360.0	60,480	481,824
	7/8/2019	9.4	9.4	2.8*	372.0	62,496	544,320
	8/7/2019	7.0	8.2	2.8*	372.0	62,496	606,816
	9/20/2019	9.5	8.8	2.0	360.0	60,480	667,296

**TABLE 3**  
**AIR SPARGE OPERATION AND MAINTENANCE FIELD PARAMETERS**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

Well ID	Date	Manifold Pressure (psi)	Well Pressure (psi)	Flow (cfm)	Monthly Hours (hrs)	Monthly Total Flow (cf)	Total Flow (cf) (September 2018- September 2019)
AS-12	9/26/2018	7.3	3.1	18.0*	360.0	388,800	388,800
	10/2/2018	8.1	3.1	18.0*	372.0	401,760	790,560
	11/7/2018	7.9	3.0	18.0*	360.0	388,800	1,179,360
	12/5/2018	9.1	3.4	18.0*	372.0	401,760	1,581,120
	1/3/2019	7.7	3.8	18.0	372.0	401,760	1,982,880
	2/4/2019	8.4	3.5	20.5	336.0	413,280	2,396,160
	3/5/2019	7.2	3.5	21.4	744.0	955,296	3,351,456
	4/1/2019	7.1	4.4	19.1	540.0	618,840	3,970,296
	5/1/2019	8.0	5	19.1*	372.0	426,312	4,396,608
	6/3/2019	6.5	4.6	19.1*	360.0	412,560	4,809,168
	7/8/2019	7.0	4.5	19.1*	372.0	426,312	5,235,480
	8/7/2019	6.0	4.4	19.1*	372.0	426,312	5,661,792
	9/20/2019	8.0	4.3	25.0	360.0	412,560	6,074,352
AS-13	9/26/2018	7.3	0.6	17.9*	360.0	386,640	386,640
	10/2/2018	8.1	0.5	17.9*	372.0	399,528	786,168
	11/7/2018	7.9	0.2	17.9*	360.0	386,640	1,172,808
	12/5/2018	9.1	0.2	17.9*	372.0	399,528	1,572,336
	1/3/2019	7.7	1.2	17.9	372.0	399,528	1,971,864
	2/4/2019	8.4	0.8	19.5	336.0	393,120	2,364,984
	3/5/2019	7.2	0.8	16.1	744.0	718,704	3,083,688
	4/1/2019	7.1	2.9	16.1*	540.0	521,640	3,605,328
	5/1/2019	8.0	2.8	25.0	372.0	558,000	4,163,328
	6/3/2019	6.5	2.6	25.0	360.0	540,000	4,703,328
	7/8/2019	7.0	2.6	25.0	372.0	558,000	5,261,328
	8/7/2019	6.0	2.6	>25.0	372.0	558,000	5,819,328
	9/20/2019	8.0	2.45	25.0	360.0	540,000	6,359,328

**TABLE 3**  
**AIR SPARGE OPERATION AND MAINTENANCE FIELD PARAMETERS**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

Well ID	Date	Manifold Pressure (psi)	Well Pressure (psi)	Flow (cfm)	Monthly Hours (hrs)	Monthly Total Flow (cf)	Total Flow (cf) (September 2018-September 2019)
AS-14	9/26/2018	7.3	7.3	5.0*	360.0	108,000	108,000
	10/2/2018	8.1	7.3	5.0*	372.0	111,600	219,600
	11/7/2018	7.9	7.6	5.0*	360.0	108,000	327,600
	12/5/2018	9.1	7.6	15.5	372.0	345,960	673,560
	1/3/2019	7.7	7.3	5.0	372.0	111,600	785,160
	2/4/2019	8.4	7.3	5.5	336.0	110,880	896,040
	3/5/2019	7.2	7.4	6.9	744.0	308,016	1,204,056
	4/1/2019	7.1	7.6	7.0	540.0	226,800	1,430,856
	5/1/2019	8.0	7.6	6.5	372.0	145,080	1,575,936
	6/3/2019	6.5	7.6	6.5	360.0	140,400	1,716,336
	7/8/2019	7.0	7.4	6.5	372.0	145,080	1,861,416
	8/7/2019	6.0	7.7	6.5	372.0	145,080	2,006,496
	9/20/2019	8.0	8.0	7.0	360.0	151,200	2,157,696
AS-15	9/26/2018	7.0	4.2	>15.0	360.0	324,000	324,000
	10/2/2018	7.9	3.8	15.0	372.0	334,800	658,800
	11/7/2018	8.2	3.9	15.0	360.0	324,000	982,800
	12/5/2018	26.5	4.0	>15.0	372.0	334,800	1,317,600
	1/30/2019	26.5	3.4	>15.0	276.0	248,400	1,566,000
	2/4/2019	8.8	3.4	13.4	336.0	270,144	1,836,144
	3/5/2019	0.0	6.4	4.0	744.0	178,560	2,014,704
	4/1/2019	--	--	--	--	--	2,014,704
	5/1/2019	--	--	--	--	--	2,014,704
	6/3/2019	--	--	--	--	--	2,014,704
	7/8/2019	--	--	--	--	--	2,014,704
	8/7/2019	--	--	--	--	--	2,014,704
	9/20/2019	--	--	--	--	--	2,014,704

**TABLE 3**  
**AIR SPARGE OPERATION AND MAINTENANCE FIELD PARAMETERS**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

Well ID	Date	Manifold Pressure (psi)	Well Pressure (psi)	Flow (cfm)	Monthly Hours (hrs)	Monthly Total Flow (cf)	Total Flow (cf) (September 2018- September 2019)
AS-16	9/26/2018	7.0	4.6	14.9	360.0	321,840	321,840
	10/2/2018	7.9	4.2	14.5	372.0	323,640	645,480
	11/7/2018	8.2	4.5	13.0	360.0	280,800	926,280
	12/5/2018	26.5	5.4	>15.0	372.0	334,800	1,261,080
	1/30/2019	26.5	4.7	>15.0	276.0	248,400	1,509,480
	2/4/2019	8.8	4.6	14.0	336.0	282,240	1,791,720
	3/5/2019	0.0	6.7	1.0	744.0	44,640	1,836,360
	4/1/2019	28.1	7.6	0.0	540.0	-	1,836,360
	5/1/2019	8.8*	6.8	4.5	372.0	100,440	1,936,800
	6/3/2019	8.8*	7.1	14.0	360.0	302,400	2,239,200
	7/8/2019	8.8*	7.2	>15.0	372.0	334,800	2,574,000
	8/7/2019	8.8*	7.3	>15.0	372.0	334,800	2,908,800
	9/20/2019	8.8*	7.5	5.8	360.0	124,200	3,033,000
AS-17	9/26/2018	7.0	0.8	11.3	360.0	244,080	244,080
	10/2/2018	7.9	0.8	10.5	372.0	234,360	478,440
	11/7/2018	8.2	1.2	3.5	360.0	75,600	554,040
	12/5/2018	26.5	0.8	>15	372.0	334,800	888,840
	1/30/2019	26.5	1.0	>15.0	276.0	248,400	1,137,240
	2/4/2019	8.8	0.9	>15.0	336.0	302,400	1,439,640
	3/5/2019	0.0	5.0	0.0	744.0	-	1,439,640
	4/1/2019	28.1	6.9	14.2	540.0	460,080	1,899,720
	5/1/2019	8.8*	4.8	14.2*	372.0	316,944	2,216,664
	6/3/2019	8.8*	4.3	>15.0	360.0	324,000	2,540,664
	7/8/2019	8.8*	4.7	>15.0	372.0	334,800	2,875,464
	8/7/2019	8.8*	5.9	>15.0	372.0	334,800	3,210,264
	9/20/2019	8.8*	7.5	8.5	360.0	324,000	3,534,264

**Notes:**

cf - cubic feet

cfm - cubic feet per minute

psi - pounds per square inch

\* - values estimated

-- system not operational

- not applicable



**TABLE 4**  
**AIR EMISSIONS ESTIMATE**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

Sample Laboratory Results		
Sample ID	Date	TVPH (ug/l)
MW-32	11/8/2018	72
	2/5/2019	110
	5/2/2019	ND
	7/8/2019	47
MW-39	2/5/2019	22
	5/2/2019	ND
	7/8/2019	33
MW-17	2/5/2019	26
	5/2/2019	180
	7/8/2019	720

Quarterly Emission Calculations January 1, 2019 to September 30, 2019			
Total Air Sparge Flow* (cf)	Average TVPH Concentration (ug/l)	Total TVPH** (lbs)	Total TVPH (tons)
26,031,312	126	205	0.10

Total Emission Calculations September 1, 2018 to September 30, 2019			
Total Air Sparge Flow* (cf)	Average TVPH Concentration (ug/l)	Total TVPH** (lbs)	Total TVPH (tons)
37,825,128	121	285	0.14

**NOTES:**

ND - analyte not detected

cf - cubic feet

ug/l - micrograms per liter

TVPH - total volatile petroleum hydrocarbons

cfm - cubic feet per minute

lbs - pounds

\*Total Air Sparge Flow is from Operation and Maintenance Field Parameters (Table 3)

\*\*Total TVPH is total air sparge flow multiplied by the average TVPH concentration

**TABLE 5**  
**SUMMARY OF GROUNDWATER DISSOLVED OXYGEN DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

<b>Well ID</b>	<b>Date</b>	<b>D.O. (mg/L)</b>
MW-01	7/2/2019	NM
MW-02	7/2/2019	2.76
MW-03	7/2/2019	0.14
MW-04	7/2/2019	0.71
MW-05	7/2/2019	0.26
MW-06	7/2/2019	NM
MW-07	7/2/2019	4.01
MW-08	7/2/2019	NM
MW-09	7/2/2019	0.45
MW-10	7/2/2019	2.84
MW-11	7/2/2019	0.57
MW-12	7/2/2019	0.24
MW-13	7/2/2019	4.65
MW-14	7/2/2019	0.63
MW-15	7/2/2019	0.11
MW-16	7/2/2019	0.15
MW-17	7/2/2019	1.03
MW-18	7/2/2019	3.78
MW-19	7/2/2019	2.50
MW-20	7/2/2019	0.49
MW-21	7/2/2019	0.24
MW-22	7/2/2019	0.60
MW-23	7/2/2019	1.49
MW-24	7/2/2019	0.72
MW-25	7/2/2019	NM
MW-26	7/2/2019	4.45
MW-27	7/2/2019	ND
MW-28	7/2/2019	NM
MW-29	7/2/2019	0.06
MW-30	7/2/2019	0.36
MW-32	7/2/2019	6.74
MW-33	7/2/2019	0.23
MW-34	7/2/2019	1.00



**TABLE 5**  
**SUMMARY OF GROUNDWATER DISSOLVED OXYGEN DATA**

**K35 CDP PIPELINE RELEASE**  
**GARFIELD COUNTY, COLORADO**  
**CAERUS OIL AND GAS, LLC**

MW-35	7/2/2019	2.43
MW-36	7/2/2019	3.79
MW-37	7/2/2019	4.19
MW-38	7/2/2019	0.42
MW-39	7/2/2019	1.28
MW-40	7/2/2019	6.31
MW-41	7/2/2019	0.23
MW-42	7/2/2019	1.38
MW-43	7/2/2019	3.23
MW-44	7/2/2019	4.67
MW-45	7/2/2019	4.03
MW-46	7/2/2019	1.14

**Notes:**

NM - Not measured due to LNAPL detected  
in well

ND - Insufficient groundwater in well

D.O. - Dissolved oxygen

mg/L - Milligrams per liter





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2655 Park Center Dr., Suite A  
Simi Valley, CA 93065  
T: +1 805 526 7161  
[www.alsglobal.com](http://www.alsglobal.com)

## LABORATORY REPORT

July 16, 2019

Brett Middleton  
Caerus Oil and Gas LLC  
143 Diamond Ave.  
Parachute, CO 81635

### RE: K35 CDP Pipeline Release

Dear Brett:

Enclosed are the results of the samples submitted to our laboratory on July 9, 2019. For your reference, these analyses have been assigned our service request number P1904012.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

**ALS | Environmental**

*By Sue Anderson at 6:02 pm, Jul 16, 2019*

Sue Anderson  
Project Manager





2655 Park Center Dr., Suite A  
Simi Valley, CA 93065  
T: +1 805 526 7161  
[www.alsglobal.com](http://www.alsglobal.com)

Client: Caerus Oil and Gas LLC  
Project: K35 CDP Pipeline Release

Service Request No: P1904012

---

## CASE NARRATIVE

The samples were received intact under chain of custody on July 9, 2019 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

### Total Petroleum Hydrocarbons as Gasoline Analysis

The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline per modified EPA Method TO-3 using a gas chromatograph equipped with a flame ionization detector (FID). This procedure is described in laboratory SOP VOA-TPHG\_TO3. This method is included on the laboratory's DoD-ELAP scope of accreditation, however it is not part of the NELAP accreditation.

Manual integration of the chromatographic range in samples with a reported concentration was required to correct the integration performed by the automated data processing program. The raw data states the rationale for the manual integration.

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*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*



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[www.alsglobal.com](http://www.alsglobal.com)

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	<a href="http://dec.alaska.gov/eh/lab.aspx">http://dec.alaska.gov/eh/lab.aspx</a>	17-019
Arizona DHS	<a href="http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home">http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home</a>	AZ0694
Florida DOH (NELAP)	<a href="http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html">http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html</a>	E871020
Louisiana DEQ (NELAP)	<a href="http://www.deq.louisiana.gov/page/la-lab-accreditation">http://www.deq.louisiana.gov/page/la-lab-accreditation</a>	05071
Maine DHHS	<a href="http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml">http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml</a>	2018027
Minnesota DOH (NELAP)	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	1521096
New Jersey DEP (NELAP)	<a href="http://www.nj.gov/dep/enforcement/oqa.html">http://www.nj.gov/dep/enforcement/oqa.html</a>	CA009
New York DOH (NELAP)	<a href="http://www.wadsworth.org/labcert/elap/elap.html">http://www.wadsworth.org/labcert/elap/elap.html</a>	11221
Oregon PHD (NELAP)	<a href="http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	4068-006
Pennsylvania DEP	<a href="http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx">http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx</a>	68-03307 (Registration)
PJLA (DoD ELAP)	<a href="http://www.pjlabs.com/search-accredited-labs">http://www.pjlabs.com/search-accredited-labs</a>	65818 (Testing)
Texas CEQ (NELAP)	<a href="http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html</a>	T104704413-19-10
Utah DOH (NELAP)	<a href="http://health.utah.gov/lab/lab_cert_env">http://health.utah.gov/lab/lab_cert_env</a>	CA016272019-10
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C946
<p>Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at <a href="http://www.alsglobal.com">www.alsglobal.com</a>, or at the accreditation body's website.</p> <p>Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.</p>		

# ALS ENVIRONMENTAL

## DETAIL SUMMARY REPORT

Client: Caerus Oil and Gas LLC  
Project ID: K35 CDP Pipeline Release

Service Request: P1904012

Date Received: 7/9/2019  
Time Received: 09:15

TO-3 Modified - TPHG Bag

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	
20190708-K35 CDP (MW-17)	P1904012-001	Air	7/8/2019	11:00	X
20190708-K35 CDP (MW-39)	P1904012-002	Air	7/8/2019	11:30	X
20190708-K35 CDP (MW-32)	P1904012-003	Air	7/8/2019	11:45	X



**Failure to complete all section of this form may delay analysis.**

COC number (for client tracking)

[illegible]

Note: (a) **DW** (Drinking water), **SW** (Surface water), **GW** (Ground water), **WW** (Waste water), **S** (Soil), **SL** (Sludge), **SE** (Sediment), **OS** (Other solid material)

Address: 11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T., Hong Kong  
Tel: +852 2610 1044 Fax: +852 2610 2021

# ALS Environmental Sample Acceptance Check Form

Client: Caerus Oil and Gas LLC Work order: P1904012  
 Project: K35 CDP Pipeline Release  
 Sample(s) received on: 7/9/19 Date opened: 7/9/19 by: DENISE.POSADA

**Note:** This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- |   | <b>Yes</b>                          | <b>No</b>                | <b>N/A</b>                          |
|---|-------------------------------------|--------------------------|-------------------------------------|
| 1 Were <b>sample containers</b> properly marked with client sample ID?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 2 Did <b>sample containers</b> arrive in good condition?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 3 Were <b>chain-of-custody</b> papers used and filled out?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 4 Did <b>sample container labels</b> and/or tags agree with custody papers?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 5 Was <b>sample volume</b> received adequate for analysis?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 6 Are samples within specified holding times?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 7 Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?                         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8 Were <b>custody seals</b> on outside of cooler/Box/Container?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact?  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9 Do containers have appropriate <b>preservation</b> , according to method/SOP or Client specified information? | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are <b>pH</b> preserved?                                | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were <b>VOA vials</b> checked for presence/absence of air bubbles?  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10 <b>Tubes:</b> Are the tubes capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 <b>Badges:</b> Are the badges properly capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1904012-001.01	1.0 L Tedlar Bag					
P1904012-002.01	1.0 L Tedlar Bag					
P1904012-003.01	1.0 L Tedlar Bag					

Explain any discrepancies: (include lab sample ID numbers): \_\_\_\_\_

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Caerus Oil and Gas LLC

**Client Project ID:** K35 CDP Pipeline Release

ALS Project ID: P1904012

### Total Petroleum Hydrocarbons (TPH) as Gasoline

Test Code: EPA TO-3 Modified  
Instrument ID: HP 5890 II/GC21/FID  
Analyst: Wade Henton/Gilbert Gutierrez  
Sampling Media: 1.0 L Tedlar Bag(s)  
Test Notes:

Date(s) Collected: 7/8/19

Date Received: 7/9/19

Date Analyzed: 7/9/19

Client Sample ID	ALS Sample ID	Injection Volume ml(s)	Result mg/m <sup>3</sup>	MRL mg/m <sup>3</sup>	Result ppmV	MRL ppmV	Data Qualifier
20190708-K35 CDP (MW-17)	P1904012-001	1.0	720	18	200	5.1	
20190708-K35 CDP (MW-39)	P1904012-002	1.0	33	18	9.3	5.1	
20190708-K35 CDP (MW-32)	P1904012-003	1.0	47	18	13	5.1	
Method Blank	P190709-MB	1.0	ND	18	ND	5.1	

Parts Per Million results are based on a Molecular Weight of 86.18.

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

# ALS ENVIRONMENTAL

## LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

**Client:** Caerus Oil and Gas LLC  
**Client Sample ID:** Lab Control Sample  
**Client Project ID:** K35 CDP Pipeline Release

ALS Project ID: P1904012  
ALS Sample ID: P190709-LCS

**Test Code:** EPA TO-3 Modified  
**Instrument ID:** HP 5890 II/GC21/FID  
**Analyst:** Wade Henton/Gilbert Gutierrez  
**Sampling Media:** 1.0 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 7/9/19  
**Volume(s) Analyzed:** NA ml(s)

Compound	Spike Amount mg/m <sup>3</sup>	Result mg/m <sup>3</sup>	% Recovery	ALS	Data Qualifier
				Acceptance Limits	
TPH as Gasoline	7,060	7,610	108	86-117	



25-Sep-2019

Brett Middleton  
Caerus Oil and Gas LLC  
143 Diamond Ave.  
Parachute, CO 81635

Re: **K35 CDP Pipeline Release**

Work Order: **19091229**

Dear Brett,

ALS Environmental received 3 samples on 18-Sep-2019 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 10.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA  
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink, appearing to read "Chad Whelton".

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager

### Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER



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**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Work Order:** 19091229

---

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
19091229-01	20190917-K35 CDP (MW-36)	Groundwater		9/17/2019 14:15	9/18/2019 10:00	<input type="checkbox"/>
19091229-02	20190917-K35 CDP (MW-10)	Groundwater		9/17/2019 15:15	9/18/2019 10:00	<input type="checkbox"/>
19091229-03	20190917-K35 CDP (MW-21)	Groundwater		9/17/2019 15:45	9/18/2019 10:00	<input type="checkbox"/>

---

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**WorkOrder:** 19091229

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
µg/L	Micrograms per Liter

**ALS Group, USA****Date:** 25-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190917-K35 CDP (MW-36)  
**Collection Date:** 9/17/2019 02:15 PM

**Work Order:** 19091229  
**Lab ID:** 19091229-01  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
Benzene	U		1.0	µg/L	1	9/25/2019 10:38 AM
Ethylbenzene	U		1.0	µg/L	1	9/25/2019 10:38 AM
m,p-Xylene	U		2.0	µg/L	1	9/25/2019 10:38 AM
o-Xylene	U		1.0	µg/L	1	9/25/2019 10:38 AM
Toluene	U		1.0	µg/L	1	9/25/2019 10:38 AM
Xylenes, Total	U		3.0	µg/L	1	9/25/2019 10:38 AM
Surr: 1,2-Dichloroethane-d4	99.6		75-120	%REC	1	9/25/2019 10:38 AM
Surr: 4-Bromofluorobenzene	99.4		80-110	%REC	1	9/25/2019 10:38 AM
Surr: Dibromofluoromethane	94.4		85-115	%REC	1	9/25/2019 10:38 AM
Surr: Toluene-d8	97.1		85-110	%REC	1	9/25/2019 10:38 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 25-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190917-K35 CDP (MW-10)  
**Collection Date:** 9/17/2019 03:15 PM

**Work Order:** 19091229  
**Lab ID:** 19091229-02  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
Benzene	U		1.0	µg/L	1	9/25/2019 11:00 AM
Ethylbenzene	U		1.0	µg/L	1	9/25/2019 11:00 AM
m,p-Xylene	U		2.0	µg/L	1	9/25/2019 11:00 AM
o-Xylene	U		1.0	µg/L	1	9/25/2019 11:00 AM
Toluene	U		1.0	µg/L	1	9/25/2019 11:00 AM
Xylenes, Total	U		3.0	µg/L	1	9/25/2019 11:00 AM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	9/25/2019 11:00 AM
Surr: 4-Bromofluorobenzene	98.8		80-110	%REC	1	9/25/2019 11:00 AM
Surr: Dibromofluoromethane	95.9		85-115	%REC	1	9/25/2019 11:00 AM
Surr: Toluene-d8	96.9		85-110	%REC	1	9/25/2019 11:00 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 25-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190917-K35 CDP (MW-21)  
**Collection Date:** 9/17/2019 03:45 PM

**Work Order:** 19091229  
**Lab ID:** 19091229-03  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
<b>Benzene</b>	<b>0.49</b>	J	<b>1.0</b>	<b>µg/L</b>	1	9/25/2019 11:23 AM
<b>Ethylbenzene</b>	<b>1.7</b>		<b>1.0</b>	<b>µg/L</b>	1	9/25/2019 11:23 AM
m,p-Xylene	U		2.0	µg/L	1	9/25/2019 11:23 AM
o-Xylene	U		1.0	µg/L	1	9/25/2019 11:23 AM
Toluene	U		1.0	µg/L	1	9/25/2019 11:23 AM
Xylenes, Total	U		3.0	µg/L	1	9/25/2019 11:23 AM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	9/25/2019 11:23 AM
Surr: 4-Bromofluorobenzene	99.7		80-110	%REC	1	9/25/2019 11:23 AM
Surr: Dibromofluoromethane	94.3		85-115	%REC	1	9/25/2019 11:23 AM
Surr: Toluene-d8	98.3		85-110	%REC	1	9/25/2019 11:23 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 25-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091229  
**Project:** K35 CDP Pipeline Release

## QC BATCH REPORT

Batch ID: **R271316A** Instrument ID **VMS11** Method: **SW8260C**

MBLK		Sample ID: <b>VBKQW2-190924-R271316A</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/25/2019 03:40 AM</b>		
Client ID:		Run ID: <b>VMS11_190924B</b>				SeqNo: <b>5944108</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
m,p-Xylene	U	2.0								
o-Xylene	U	1.0								
Toluene	0.48	1.0								J
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	20.47	0	20	0	102	75-120	0			
Surr: 4-Bromofluorobenzene	20.01	0	20	0	100	80-110	0			
Surr: Dibromofluoromethane	19.43	0	20	0	97.2	85-115	0			
Surr: Toluene-d8	19.83	0	20	0	99.2	85-110	0			

LCS		Sample ID: <b>VLCSW2-190924-R271316A</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/25/2019 02:35 AM</b>		
Client ID:		Run ID: <b>VMS11_190924B</b>				SeqNo: <b>5944107</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.13	1.0	20	0	90.6	70-130	0			
Ethylbenzene	18.59	1.0	20	0	93	76-123	0			
m,p-Xylene	37.65	2.0	40	0	94.1	75-130	0			
o-Xylene	18.82	1.0	20	0	94.1	76-127	0			
Toluene	17.4	1.0	20	0	87	76-125	0			
Xylenes, Total	56.47	3.0	60	0	94.1	76-127	0			
Surr: 1,2-Dichloroethane-d4	20.27	0	20	0	101	75-120	0			
Surr: 4-Bromofluorobenzene	20.54	0	20	0	103	80-110	0			
Surr: Dibromofluoromethane	21.21	0	20	0	106	85-115	0			
Surr: Toluene-d8	19.95	0	20	0	99.8	85-110	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Caerus Oil and Gas LLC  
 Work Order: 19091229  
 Project: K35 CDP Pipeline Release

## QC BATCH REPORT

Batch ID: **R271316A** Instrument ID **VMS11** Method: **SW8260C**

MS					Sample ID: 19091240-01A MS		Units: µg/L		Analysis Date: 9/25/2019 11:45 AM		
Client ID:			Run ID: VMS11_190924B			SeqNo: 5944119		Prep Date:		DF: 500	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	13100	500	10000	3445	96.6	70-130		0			
Ethylbenzene	9690	500	10000	325	93.6	76-123		0			
m,p-Xylene	24610	1,000	20000	5105	97.5	75-130		0			
o-Xylene	10300	500	10000	975	93.2	76-127		0			
Toluene	17530	500	10000	8075	94.6	76-125		0			
Xylenes, Total	34900	1,500	30000	6080	96.1	76-127		0			
Surr: 1,2-Dichloroethane-d4	10190	0	10000	0	102	75-120		0			
Surr: 4-Bromofluorobenzene	10120	0	10000	0	101	80-110		0			
Surr: Dibromofluoromethane	10270	0	10000	0	103	85-115		0			
Surr: Toluene-d8	9905	0	10000	0	99	85-110		0			

MSD				Sample ID: 19091240-01A MSD			Units: µg/L		Analysis Date: 9/25/2019 12:07 PM		
Client ID:		Run ID: VMS11_190924B			SeqNo: 5944120		Prep Date:		DF: 500		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	13540	500	10000	3445	101	70-130	13100	3.23	30		
Ethylbenzene	10160	500	10000	325	98.4	76-123	9690	4.74	30		
m,p-Xylene	25600	1,000	20000	5105	102	75-130	24610	3.96	30		
o-Xylene	10800	500	10000	975	98.2	76-127	10300	4.79	30		
Toluene	18060	500	10000	8075	99.8	76-125	17530	2.98	30		
Xylenes, Total	36400	1,500	30000	6080	101	76-127	34900	4.21	30		
Surr: 1,2-Dichloroethane-d4	9910	0	10000	0	99.1	75-120	10190	2.79	30		
Surr: 4-Bromofluorobenzene	10040	0	10000	0	100	80-110	10120	0.794	30		
Surr: Dibromofluoromethane	10440	0	10000	0	104	85-115	10270	1.69	30		
Surr: Toluene-d8	9670	0	10000	0	96.7	85-110	9905	2.4	30		

The following samples were analyzed in this batch:

19091229-01A	19091229-02A	19091229-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.



19091229

Page 1 of 1

[illegible]

Note: (a) **DW** (Drinking water), **SW** (Surface water), **GW** (Ground water), **WW** (Waste water), **S** (Soil), **SL** (Sludge), **SE** (Sediment), **OS** (Other solid material)

ALS Technichem (HK) Pty Ltd Address: 11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Tel: +852 2610 1044 Fax: +852 2610 2021 Email: [als@als.com.hk](mailto:als@als.com.hk)



Sample Receipt Checklist

Client Name: **CAERUS**

Date/Time Received: **18-Sep-19 10:00**

Work Order: **19091229**

Received by: **MJG**

Checklist completed by Matthew Gaylord  
eSignature

18-Sep-19  
Date

Reviewed by: Chad Whelton  
eSignature

19-Sep-19  
Date

Matrices: **Groundwater**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.8/3.8C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>9/18/2019 4:10:30 PM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

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Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



30-Sep-2019

Brett Middleton  
Caerus Oil and Gas LLC  
143 Diamond Ave.  
Parachute, CO 81635

Re: **K35 CDP Pipeline Release**

Work Order: **19091499**

Dear Brett,

ALS Environmental received 13 samples on 21-Sep-2019 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 24.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA  
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink, appearing to read "Chad Whelton".

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager

## Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Work Order:** 19091499

**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
19091499-01	20190918-K35 CDP (MW-13)	Groundwater		9/18/2019 11:15	9/21/2019 10:00	<input type="checkbox"/>
19091499-02	20190918-K35 CDP (MW-20)	Groundwater		9/18/2019 11:30	9/21/2019 10:00	<input type="checkbox"/>
19091499-03	20190918-K35 CDP (MW-16)	Groundwater		9/18/2019 12:15	9/21/2019 10:00	<input type="checkbox"/>
19091499-04	20190918-K35 CDP (MW-03)	Groundwater		9/18/2019 12:00	9/21/2019 10:00	<input type="checkbox"/>
19091499-05	20190918-K35 CDP (MW-07)	Groundwater		9/18/2019 12:45	9/21/2019 10:00	<input type="checkbox"/>
19091499-06	20190918-K35 CDP (MW-17)	Groundwater		9/18/2019 13:15	9/21/2019 10:00	<input type="checkbox"/>
19091499-07	20190918-K35 CDP (MW-19)	Groundwater		9/18/2019 13:05	9/21/2019 10:00	<input type="checkbox"/>
19091499-08	20190918-K35 CDP (MW-22)	Groundwater		9/18/2019 14:20	9/21/2019 10:00	<input type="checkbox"/>
19091499-09	20190918-K35 CDP (MW-18)	Groundwater		9/19/2019 14:40	9/21/2019 10:00	<input type="checkbox"/>
19091499-10	20190918-K35 CDP (MW-04)	Groundwater		9/19/2019 15:15	9/21/2019 10:00	<input type="checkbox"/>
19091499-11	20190918-K35 CDP (MW-39)	Groundwater		9/19/2019 15:25	9/21/2019 10:00	<input type="checkbox"/>
19091499-12	20190918-K35 CDP (MW-05)	Groundwater		9/19/2019 15:40	9/21/2019 10:00	<input type="checkbox"/>
19091499-13	20190918-K35 CDP (MW-14)	Groundwater		9/18/2019 16:00	9/21/2019 10:00	<input type="checkbox"/>

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**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Work Order:** 19091499

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**Case Narrative**

Batch R271633A, Method VOC\_8260\_W, Sample 19091499-02A: Surrogate recoveries high due to matrix interference.

Batch R271633A, Method VOC\_8260\_W, Sample 19091499-10A: Surrogate recovery high due to matrix interference.

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**WorkOrder:** 19091499

## QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter

**ALS Group, USA****Date:** 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-13)  
**Collection Date:** 9/18/2019 11:15 AM

**Work Order:** 19091499  
**Lab ID:** 19091499-01  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
Benzene	U		1.0	µg/L	1	9/27/2019 05:17 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 05:17 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 05:17 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 05:17 AM
Toluene	U		1.0	µg/L	1	9/27/2019 05:17 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 05:17 AM
Surr: 1,2-Dichloroethane-d4	99.8		75-120	%REC	1	9/27/2019 05:17 AM
Surr: 4-Bromofluorobenzene	94.5		80-110	%REC	1	9/27/2019 05:17 AM
Surr: Dibromofluoromethane	94.4		85-115	%REC	1	9/27/2019 05:17 AM
Surr: Toluene-d8	97.3		85-110	%REC	1	9/27/2019 05:17 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-20)  
**Collection Date:** 9/18/2019 11:30 AM

**Work Order:** 19091499  
**Lab ID:** 19091499-02  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
Benzene	130		10	µg/L	10	9/27/2019 05:33 AM
Ethylbenzene	94		1.0	µg/L	1	9/27/2019 08:12 PM
m,p-Xylene	310		20	µg/L	10	9/27/2019 05:33 AM
o-Xylene	3.7		1.0	µg/L	1	9/27/2019 08:12 PM
Toluene	U		1.0	µg/L	1	9/27/2019 08:12 PM
Xylenes, Total	320		30	µg/L	10	9/27/2019 05:33 AM
Surr: 1,2-Dichloroethane-d4	99.8		75-120	%REC	10	9/27/2019 05:33 AM
Surr: 1,2-Dichloroethane-d4	97.1		75-120	%REC	1	9/27/2019 08:12 PM
Surr: 4-Bromofluorobenzene	98.8		80-110	%REC	10	9/27/2019 05:33 AM
Surr: 4-Bromofluorobenzene	113	S	80-110	%REC	1	9/27/2019 08:12 PM
Surr: Dibromofluoromethane	100		85-115	%REC	10	9/27/2019 05:33 AM
Surr: Dibromofluoromethane	105		85-115	%REC	1	9/27/2019 08:12 PM
Surr: Toluene-d8	102		85-110	%REC	10	9/27/2019 05:33 AM
Surr: Toluene-d8	145	S	85-110	%REC	1	9/27/2019 08:12 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-16)  
**Collection Date:** 9/18/2019 12:15 PM

**Work Order:** 19091499  
**Lab ID:** 19091499-03  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
Benzene	810		25	µg/L	25	9/27/2019 05:49 AM
Ethylbenzene	380		25	µg/L	25	9/27/2019 05:49 AM
m,p-Xylene	2,500		50	µg/L	25	9/27/2019 05:49 AM
o-Xylene	160		25	µg/L	25	9/27/2019 05:49 AM
Toluene	290		25	µg/L	25	9/27/2019 05:49 AM
Xylenes, Total	2,700		75	µg/L	25	9/27/2019 05:49 AM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	25	9/27/2019 05:49 AM
Surr: 4-Bromofluorobenzene	95.4		80-110	%REC	25	9/27/2019 05:49 AM
Surr: Dibromofluoromethane	102		85-115	%REC	25	9/27/2019 05:49 AM
Surr: Toluene-d8	98.6		85-110	%REC	25	9/27/2019 05:49 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



**ALS Group, USA****Date:** 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-03)  
**Collection Date:** 9/18/2019 12:00 PM

**Work Order:** 19091499  
**Lab ID:** 19091499-04  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
Benzene	2,600		50	µg/L	50	9/27/2019 06:04 AM
Ethylbenzene	230		50	µg/L	50	9/27/2019 06:04 AM
m,p-Xylene	2,300		100	µg/L	50	9/27/2019 06:04 AM
o-Xylene	290		50	µg/L	50	9/27/2019 06:04 AM
Toluene	690		50	µg/L	50	9/27/2019 06:04 AM
Xylenes, Total	2,600		150	µg/L	50	9/27/2019 06:04 AM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	50	9/27/2019 06:04 AM
Surr: 4-Bromofluorobenzene	96.6		80-110	%REC	50	9/27/2019 06:04 AM
Surr: Dibromofluoromethane	101		85-115	%REC	50	9/27/2019 06:04 AM
Surr: Toluene-d8	102		85-110	%REC	50	9/27/2019 06:04 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-07)  
**Collection Date:** 9/18/2019 12:45 PM

**Work Order:** 19091499  
**Lab ID:** 19091499-05  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
<b>Benzene</b>	<b>18</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 06:20 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 06:20 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 06:20 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 06:20 AM
Toluene	U		1.0	µg/L	1	9/27/2019 06:20 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 06:20 AM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	9/27/2019 06:20 AM
Surr: 4-Bromofluorobenzene	94.1		80-110	%REC	1	9/27/2019 06:20 AM
Surr: Dibromofluoromethane	97.2		85-115	%REC	1	9/27/2019 06:20 AM
Surr: Toluene-d8	97.3		85-110	%REC	1	9/27/2019 06:20 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-17)  
**Collection Date:** 9/18/2019 01:15 PM

**Work Order:** 19091499  
**Lab ID:** 19091499-06  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>SJB</b>
<b>Benzene</b>	<b>43</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 10:43 PM
<b>Ethylbenzene</b>	<b>20</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 10:43 PM
<b>m,p-Xylene</b>	<b>59</b>		<b>2.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 10:43 PM
o-Xylene	U		1.0	µg/L	1	9/27/2019 10:43 PM
Toluene	U		1.0	µg/L	1	9/27/2019 10:43 PM
<b>Xylenes, Total</b>	<b>59</b>		<b>3.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 10:43 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	9/27/2019 10:43 PM
Surr: 4-Bromofluorobenzene	99.9		80-110	%REC	1	9/27/2019 10:43 PM
Surr: Dibromofluoromethane	102		85-115	%REC	1	9/27/2019 10:43 PM
Surr: Toluene-d8	95.5		85-110	%REC	1	9/27/2019 10:43 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-19)  
**Collection Date:** 9/18/2019 01:05 PM

**Work Order:** 19091499  
**Lab ID:** 19091499-07  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
<b>Benzene</b>	<b>10</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 06:52 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 06:52 AM
<b>m,p-Xylene</b>	<b>0.98</b>	J	<b>2.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 06:52 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 06:52 AM
Toluene	U		1.0	µg/L	1	9/27/2019 06:52 AM
<b>Xylenes, Total</b>	<b>0.98</b>	J	<b>3.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 06:52 AM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	9/27/2019 06:52 AM
Surr: 4-Bromofluorobenzene	94.6		80-110	%REC	1	9/27/2019 06:52 AM
Surr: Dibromofluoromethane	98.8		85-115	%REC	1	9/27/2019 06:52 AM
Surr: Toluene-d8	99.4		85-110	%REC	1	9/27/2019 06:52 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-22)  
**Collection Date:** 9/18/2019 02:20 PM

**Work Order:** 19091499  
**Lab ID:** 19091499-08  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>SJB</b>
Benzene	78		5.0	µg/L	5	9/27/2019 08:29 PM
Ethylbenzene	90		5.0	µg/L	5	9/27/2019 08:29 PM
m,p-Xylene	140		10	µg/L	5	9/27/2019 08:29 PM
o-Xylene	1.6	J	5.0	µg/L	5	9/27/2019 08:29 PM
Toluene	U		5.0	µg/L	5	9/27/2019 08:29 PM
Xylenes, Total	140		15	µg/L	5	9/27/2019 08:29 PM
Surr: 1,2-Dichloroethane-d4	99.6		75-120	%REC	5	9/27/2019 08:29 PM
Surr: 4-Bromofluorobenzene	100		80-110	%REC	5	9/27/2019 08:29 PM
Surr: Dibromofluoromethane	102		85-115	%REC	5	9/27/2019 08:29 PM
Surr: Toluene-d8	99.8		85-110	%REC	5	9/27/2019 08:29 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-18)  
**Collection Date:** 9/19/2019 02:40 PM

**Work Order:** 19091499  
**Lab ID:** 19091499-09  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
Benzene	U		1.0	µg/L	1	9/27/2019 07:24 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 07:24 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 07:24 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 07:24 AM
Toluene	U		1.0	µg/L	1	9/27/2019 07:24 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 07:24 AM
Surr: 1,2-Dichloroethane-d4	98.8		75-120	%REC	1	9/27/2019 07:24 AM
Surr: 4-Bromofluorobenzene	97.2		80-110	%REC	1	9/27/2019 07:24 AM
Surr: Dibromofluoromethane	99.4		85-115	%REC	1	9/27/2019 07:24 AM
Surr: Toluene-d8	99.2		85-110	%REC	1	9/27/2019 07:24 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-04)  
**Collection Date:** 9/19/2019 03:15 PM

**Work Order:** 19091499  
**Lab ID:** 19091499-10  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>SJB</b>
Benzene	6.3		2.0	µg/L	2	9/27/2019 08:46 PM
Ethylbenzene	20		2.0	µg/L	2	9/27/2019 08:46 PM
m,p-Xylene	210		4.0	µg/L	2	9/27/2019 08:46 PM
o-Xylene	9.0		2.0	µg/L	2	9/27/2019 08:46 PM
Toluene	U		2.0	µg/L	2	9/27/2019 08:46 PM
Xylenes, Total	220		6.0	µg/L	2	9/27/2019 08:46 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	2	9/27/2019 08:46 PM
Surr: 4-Bromofluorobenzene	101		80-110	%REC	2	9/27/2019 08:46 PM
Surr: Dibromofluoromethane	101		85-115	%REC	2	9/27/2019 08:46 PM
Surr: Toluene-d8	118	S	85-110	%REC	2	9/27/2019 08:46 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-39)  
**Collection Date:** 9/19/2019 03:25 PM

**Work Order:** 19091499  
**Lab ID:** 19091499-11  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
Benzene	3.4		1.0	µg/L	1	9/27/2019 07:55 AM
Ethylbenzene	0.59	J	1.0	µg/L	1	9/27/2019 07:55 AM
m,p-Xylene	11		2.0	µg/L	1	9/27/2019 07:55 AM
o-Xylene	1.4		1.0	µg/L	1	9/27/2019 07:55 AM
Toluene	U		1.0	µg/L	1	9/27/2019 07:55 AM
Xylenes, Total	12		3.0	µg/L	1	9/27/2019 07:55 AM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	9/27/2019 07:55 AM
Surr: 4-Bromofluorobenzene	104		80-110	%REC	1	9/27/2019 07:55 AM
Surr: Dibromofluoromethane	98.8		85-115	%REC	1	9/27/2019 07:55 AM
Surr: Toluene-d8	101		85-110	%REC	1	9/27/2019 07:55 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



**ALS Group, USA****Date:** 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-05)  
**Collection Date:** 9/19/2019 03:40 PM

**Work Order:** 19091499  
**Lab ID:** 19091499-12  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
Benzene	34		5.0	µg/L	5	9/27/2019 08:11 AM
Ethylbenzene	58		5.0	µg/L	5	9/27/2019 08:11 AM
m,p-Xylene	460		10	µg/L	5	9/27/2019 08:11 AM
o-Xylene	26		5.0	µg/L	5	9/27/2019 08:11 AM
Toluene	120		5.0	µg/L	5	9/27/2019 08:11 AM
Xylenes, Total	490		15	µg/L	5	9/27/2019 08:11 AM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	5	9/27/2019 08:11 AM
Surr: 4-Bromofluorobenzene	99.4		80-110	%REC	5	9/27/2019 08:11 AM
Surr: Dibromofluoromethane	98.7		85-115	%REC	5	9/27/2019 08:11 AM
Surr: Toluene-d8	101		85-110	%REC	5	9/27/2019 08:11 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190918-K35 CDP (MW-14)  
**Collection Date:** 9/18/2019 04:00 PM

**Work Order:** 19091499  
**Lab ID:** 19091499-13  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>BCM</b>
<b>Benzene</b>	<b>3.9</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 08:27 AM
<b>Ethylbenzene</b>	<b>2.0</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 08:27 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 08:27 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 08:27 AM
Toluene	U		1.0	µg/L	1	9/27/2019 08:27 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 08:27 AM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	9/27/2019 08:27 AM
Surr: 4-Bromofluorobenzene	98.3		80-110	%REC	1	9/27/2019 08:27 AM
Surr: Dibromofluoromethane	99.4		85-115	%REC	1	9/27/2019 08:27 AM
Surr: Toluene-d8	99.2		85-110	%REC	1	9/27/2019 08:27 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091499  
**Project:** K35 CDP Pipeline Release

## QC BATCH REPORT

Batch ID: **R271606a** Instrument ID **VMS9** Method: **SW8260C**

<b>MBLK</b>		Sample ID: <b>VBKWK3-190926-R271606a</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 04:29 AM</b>		
Client ID:		Run ID: <b>VMS9_190926B</b>				SeqNo: <b>5950654</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
m,p-Xylene	U	2.0								
o-Xylene	U	1.0								
Toluene	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	20.17	0	20	0	101	75-120	0			
Surr: 4-Bromofluorobenzene	18.86	0	20	0	94.3	80-110	0			
Surr: Dibromofluoromethane	19.68	0	20	0	98.4	85-115	0			
Surr: Toluene-d8	19.87	0	20	0	99.4	85-110	0			

<b>LCS</b>		Sample ID: <b>VLCSW3-190926-R271606a</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 03:42 AM</b>		
Client ID:		Run ID: <b>VMS9_190926B</b>				SeqNo: <b>5950653</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.08	1.0	20	0	100	70-130	0			
Ethylbenzene	19.71	1.0	20	0	98.6	76-123	0			
m,p-Xylene	40.2	2.0	40	0	100	75-130	0			
o-Xylene	19.31	1.0	20	0	96.6	76-127	0			
Toluene	20.26	1.0	20	0	101	76-125	0			
Xylenes, Total	59.51	3.0	60	0	99.2	76-127	0			
Surr: 1,2-Dichloroethane-d4	19.8	0	20	0	99	75-120	0			
Surr: 4-Bromofluorobenzene	20.37	0	20	0	102	80-110	0			
Surr: Dibromofluoromethane	20.34	0	20	0	102	85-115	0			
Surr: Toluene-d8	20.17	0	20	0	101	85-110	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091499  
**Project:** K35 CDP Pipeline Release

# QC BATCH REPORT

Batch ID: **R271606a** Instrument ID **VMS9** Method: **SW8260C**

MS				Sample ID: 19091499-10A MS			Units: µg/L		Analysis Date: 9/27/2019 10:16 AM	
Client ID: 20190918-K35 CDP (MW-04)				Run ID: VMS9_190926B			SeqNo: 5950672		Prep Date:	
									DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	836.5	50	1000	8	82.8	70-130	0			
Ethylbenzene	822	50	1000	19.5	80.2	76-123	0			
m,p-Xylene	1840	100	2000	203.5	81.8	75-130	0			
o-Xylene	801.5	50	1000	10.5	79.1	76-127	0			
Toluene	842.5	50	1000	0	84.2	76-125	0			
Xylenes, Total	2641	150	3000	203.5	81.2	76-127	0			
Surr: 1,2-Dichloroethane-d4	997.5	0	1000	0	99.8	75-120	0			
Surr: 4-Bromofluorobenzene	980.5	0	1000	0	98	80-110	0			
Surr: Dibromofluoromethane	1026	0	1000	0	103	85-115	0			
Surr: Toluene-d8	1012	0	1000	0	101	85-110	0			

MSD				Sample ID: 19091499-10A MSD			Units: µg/L		Analysis Date: 9/27/2019 10:32 AM	
Client ID: 20190918-K35 CDP (MW-04)				Run ID: VMS9_190926B			SeqNo: 5950673		Prep Date:	
									DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	881	50	1000	8	87.3	70-130	836.5	5.18	30	
Ethylbenzene	862.5	50	1000	19.5	84.3	76-123	822	4.81	30	
m,p-Xylene	1936	100	2000	203.5	86.6	75-130	1840	5.14	30	
o-Xylene	834	50	1000	10.5	82.4	76-127	801.5	3.97	30	
Toluene	891.5	50	1000	0	89.2	76-125	842.5	5.65	30	
Xylenes, Total	2770	150	3000	203.5	85.6	76-127	2641	4.79	30	
Surr: 1,2-Dichloroethane-d4	997	0	1000	0	99.7	75-120	997.5	0.0501	30	
Surr: 4-Bromofluorobenzene	971.5	0	1000	0	97.2	80-110	980.5	0.922	30	
Surr: Dibromofluoromethane	1052	0	1000	0	105	85-115	1026	2.41	30	
Surr: Toluene-d8	996	0	1000	0	99.6	85-110	1012	1.64	30	

The following samples were analyzed in this batch:

19091499-01A	19091499-02A	19091499-03A
19091499-04A	19091499-05A	19091499-06A
19091499-07A	19091499-08A	19091499-09A
19091499-10A	19091499-11A	19091499-12A
19091499-13A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091499  
**Project:** K35 CDP Pipeline Release

# QC BATCH REPORT

Batch ID: **R271633A**      Instrument ID **VMS8**      Method: **SW8260C**

<b>MBLK</b>		Sample ID: <b>VLKWW1-190927-R271633A</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 04:52 PM</b>		
Client ID:		Run ID: <b>VMS8_190927A</b>				SeqNo: <b>5951942</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
m,p-Xylene	U	2.0								
o-Xylene	U	1.0								
Toluene	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	20.22	0	20	0	101	75-120	0			
Surr: 4-Bromofluorobenzene	20.88	0	20	0	104	80-110	0			
Surr: Dibromofluoromethane	21.03	0	20	0	105	85-115	0			
Surr: Toluene-d8	20.34	0	20	0	102	85-110	0			

<b>LCS</b>		Sample ID: <b>VLCSW1-190927-R271633A</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 04:02 PM</b>		
Client ID:		Run ID: <b>VMS8_190927A</b>				SeqNo: <b>5951941</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	17.58	1.0	20	0	87.9	70-130	0			
Ethylbenzene	16.37	1.0	20	0	81.8	76-123	0			
m,p-Xylene	33.01	2.0	40	0	82.5	75-130	0			
o-Xylene	15.93	1.0	20	0	79.6	76-127	0			
Toluene	16.31	1.0	20	0	81.6	76-125	0			
Xylenes, Total	48.94	3.0	60	0	81.6	76-127	0			
Surr: 1,2-Dichloroethane-d4	20.39	0	20	0	102	75-120	0			
Surr: 4-Bromofluorobenzene	20.47	0	20	0	102	80-110	0			
Surr: Dibromofluoromethane	21.19	0	20	0	106	85-115	0			
Surr: Toluene-d8	19.84	0	20	0	99.2	85-110	0			

<b>MS</b>		Sample ID: <b>19091826-01A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 10:59 PM</b>		
Client ID:		Run ID: <b>VMS8_190927A</b>				SeqNo: <b>5951962</b>		Prep Date:		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	182.7	10	200	0	91.4	70-130	0			
Ethylbenzene	172.5	10	200	0	86.2	76-123	0			
m,p-Xylene	355.7	20	400	6.1	87.4	75-130	0			
o-Xylene	169.2	10	200	0	84.6	76-127	0			
Toluene	168.4	10	200	0	84.2	76-125	0			
Xylenes, Total	524.9	30	600	0	87.5	76-127	0			
Surr: 1,2-Dichloroethane-d4	200.9	0	200	0	100	75-120	0			
Surr: 4-Bromofluorobenzene	202.4	0	200	0	101	80-110	0			
Surr: Dibromofluoromethane	211.3	0	200	0	106	85-115	0			
Surr: Toluene-d8	187.7	0	200	0	93.8	85-110	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Caerus Oil and Gas LLC  
 Work Order: 19091499  
 Project: K35 CDP Pipeline Release

# QC BATCH REPORT

Batch ID: **R271633A** Instrument ID **VMS8** Method: **SW8260C**

MSD				Sample ID: <b>19091826-01A MSD</b>			Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 11:16 PM</b>	
Client ID:				Run ID: <b>VMS8_190927A</b>			SeqNo: <b>5951963</b>		Prep Date:	
									DF: <b>10</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	200.1	10	200	0	100	70-130	182.7	9.09	30	
Ethylbenzene	191.8	10	200	0	95.9	76-123	172.5	10.6	30	
m,p-Xylene	381.6	20	400	6.1	93.9	75-130	355.7	7.03	30	
o-Xylene	185.5	10	200	0	92.8	76-127	169.2	9.19	30	
Toluene	191	10	200	0	95.5	76-125	168.4	12.6	30	
Xylenes, Total	567.1	30	600	0	94.5	76-127	524.9	7.73	30	
Surr: 1,2-Dichloroethane-d4	197.3	0	200	0	98.6	75-120	200.9	1.81	30	
Surr: 4-Bromofluorobenzene	201.4	0	200	0	101	80-110	202.4	0.495	30	
Surr: Dibromofluoromethane	202.9	0	200	0	101	85-115	211.3	4.06	30	
Surr: Toluene-d8	188.6	0	200	0	94.3	85-110	187.7	0.478	30	

The following samples were analyzed in this batch:

19091499-02A	19091499-06A	19091499-08A
19091499-10A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



Failure to complete all section of this form may delay analysis.

19091499  
Page 1 of 1

Note: (a) **DW** (Drinking water), **SW** (Surface water), **GW** (Ground water), **WW** (Waste water), **S** (Soil), **SL** (Sludge), **SE** (Sediment), **OS** (Other solid material)

ALS Technichem (HK) Pty Ltd Address: 11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Tel: +852 2610 1044 Fax: +852 2610 2021 Email: [als@als.com.hk](mailto:als@als.com.hk)

SR2 3.2c



**Failure to complete all section of this form may delay analysis.**

14041490

Page 1 of 1

Note: (a) **DW** (Drinking water), **SW** (Surface water), **GW** (Ground water), **WW** (Waste water), **S** (Soil), **SL** (Sludge), **SE** (Sediment), **OS** (Other solid material)

ALS Technichem (HK) Pty Ltd Address: 11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Tel: +852 2610 1044 Fax: +852 2610 2021 Email: [als@als.com.hk](mailto:als@als.com.hk)

SR2 3.2'c



Sample Receipt Checklist

Client Name: **CAERUS**

Date/Time Received: **21-Sep-19 10:00**

Work Order: **19091499**

Received by: **DS**

Checklist completed by Diane Shaw 23-Sep-19  
eSignature Date

Reviewed by: Chad Whelton 24-Sep-19  
eSignature Date

Matrices: **Groundwater**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.2/3.2 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>9/23/2019 11:03:56 AM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



01-Oct-2019

Brett Middleton  
Caerus Oil and Gas LLC  
143 Diamond Ave.  
Parachute, CO 81635

Re: **K35 CDP Pipeline Release**

Work Order: **19091487**

Dear Brett,

ALS Environmental received 18 samples on 21-Sep-2019 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 31.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA  
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink, appearing to read "Chad Whelton".

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager

## Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Work Order:** 19091487

**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
19091487-01	20190919-K35 CDP (MW-37)	Groundwater		9/19/2019 10:05	9/21/2019 10:00	<input type="checkbox"/>
19091487-02	20190919-K35 CDP (MW-24)	Groundwater		9/19/2019 10:40	9/21/2019 10:00	<input type="checkbox"/>
19091487-03	20190919-K35 CDP (MW-23)	Groundwater		9/19/2019 11:05	9/21/2019 10:00	<input type="checkbox"/>
19091487-04	20190919-K35 CDP (MW-12)	Groundwater		9/19/2019 11:25	9/21/2019 10:00	<input type="checkbox"/>
19091487-05	20190919-K35 CDP (MW-11)	Groundwater		9/19/2019 11:45	9/21/2019 10:00	<input type="checkbox"/>
19091487-06	20190919-K35 CDP (MW-32)	Groundwater		9/19/2019 12:05	9/21/2019 10:00	<input type="checkbox"/>
19091487-07	20190919-K35 CDP (MW-33)	Groundwater		9/19/2019 12:30	9/21/2019 10:00	<input type="checkbox"/>
19091487-08	20190919-K35 CDP (MW-35)	Groundwater		9/19/2019 13:05	9/21/2019 10:00	<input type="checkbox"/>
19091487-09	20190919-K35 CDP (MW-29)	Groundwater		9/19/2019 13:20	9/21/2019 10:00	<input type="checkbox"/>
19091487-10	20190919-K35 CDP (MW-30)	Groundwater		9/19/2019 13:40	9/21/2019 10:00	<input type="checkbox"/>
19091487-11	20190919-K35 CDP (MW-38)	Groundwater		9/19/2019 13:55	9/21/2019 10:00	<input type="checkbox"/>
19091487-12	20190919-K35 CDP (MW-26)	Groundwater		9/19/2019 14:15	9/21/2019 10:00	<input type="checkbox"/>
19091487-13	20190919-K35 CDP (MW-34)	Groundwater		9/19/2019 14:25	9/21/2019 10:00	<input type="checkbox"/>
19091487-14	20190919-K35 CDP (MW-15)	Groundwater		9/19/2019 14:40	9/21/2019 10:00	<input type="checkbox"/>
19091487-15	20190919-K35 CDP (MW-46)	Groundwater		9/19/2019 15:00	9/21/2019 10:00	<input type="checkbox"/>
19091487-16	20190919-K35 CDP (MW-45)	Groundwater		9/19/2019 15:20	9/21/2019 10:00	<input type="checkbox"/>
19091487-17	20190919-K35 CDP (MW-44)	Groundwater		9/19/2019 15:40	9/21/2019 10:00	<input type="checkbox"/>
19091487-18	20190919-K35 CDP (MW-43)	Groundwater		9/19/2019 16:00	9/21/2019 10:00	<input type="checkbox"/>

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**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Work Order:** 19091487

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**Case Narrative**

Batch R271575a, Method VOC\_8260\_W, Samples 19091487-03A and -04A: The VOC reporting limits are elevated due to dilution for high concentrations of non-target analytes.

Batch R271575a, Method VOC\_8260\_W, Sample 19091487-09A: VOC surrogate recovery high due to matrix interference.

Batch R271633A, Method VOC\_8260\_W, Sample 19091487-08A: VOC surrogate recovery high due to matrix interference.

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**WorkOrder:** 19091487

## QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-37)  
**Collection Date:** 9/19/2019 10:05 AM

**Work Order:** 19091487  
**Lab ID:** 19091487-01  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	U		1.0	µg/L	1	9/27/2019 06:28 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 06:28 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 06:28 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 06:28 AM
Toluene	U		1.0	µg/L	1	9/27/2019 06:28 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 06:28 AM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	9/27/2019 06:28 AM
Surr: 4-Bromofluorobenzene	95.2		80-110	%REC	1	9/27/2019 06:28 AM
Surr: Dibromofluoromethane	104		85-115	%REC	1	9/27/2019 06:28 AM
Surr: Toluene-d8	98.2		85-110	%REC	1	9/27/2019 06:28 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-24)  
**Collection Date:** 9/19/2019 10:40 AM

**Work Order:** 19091487  
**Lab ID:** 19091487-02  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	U		1.0	µg/L	1	9/27/2019 06:45 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 06:45 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 06:45 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 06:45 AM
Toluene	U		1.0	µg/L	1	9/27/2019 06:45 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 06:45 AM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	9/27/2019 06:45 AM
Surr: 4-Bromofluorobenzene	95.6		80-110	%REC	1	9/27/2019 06:45 AM
Surr: Dibromofluoromethane	94.6		85-115	%REC	1	9/27/2019 06:45 AM
Surr: Toluene-d8	97.3		85-110	%REC	1	9/27/2019 06:45 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-23)  
**Collection Date:** 9/19/2019 11:05 AM

**Work Order:** 19091487  
**Lab ID:** 19091487-03  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>SJB</b>
<b>Benzene</b>	<b>40</b>		<b>5.0</b>	<b>µg/L</b>	5	9/27/2019 10:26 PM
<b>Ethylbenzene</b>	<b>100</b>		<b>5.0</b>	<b>µg/L</b>	5	9/27/2019 10:26 PM
<b>m,p-Xylene</b>	<b>1,100</b>		<b>100</b>	<b>µg/L</b>	50	9/27/2019 07:01 AM
<b>o-Xylene</b>	<b>150</b>		<b>5.0</b>	<b>µg/L</b>	5	9/27/2019 10:26 PM
Toluene	U		5.0	µg/L	5	9/27/2019 10:26 PM
<b>Xylenes, Total</b>	<b>1,300</b>		<b>150</b>	<b>µg/L</b>	50	9/27/2019 07:01 AM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	5	9/27/2019 10:26 PM
Surr: 1,2-Dichloroethane-d4	104		75-120	%REC	50	9/27/2019 07:01 AM
Surr: 4-Bromofluorobenzene	101		80-110	%REC	5	9/27/2019 10:26 PM
Surr: 4-Bromofluorobenzene	100		80-110	%REC	50	9/27/2019 07:01 AM
Surr: Dibromofluoromethane	104		85-115	%REC	5	9/27/2019 10:26 PM
Surr: Dibromofluoromethane	98.3		85-115	%REC	50	9/27/2019 07:01 AM
Surr: Toluene-d8	105		85-110	%REC	5	9/27/2019 10:26 PM
Surr: Toluene-d8	98.5		85-110	%REC	50	9/27/2019 07:01 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-12)  
**Collection Date:** 9/19/2019 11:25 AM

**Work Order:** 19091487  
**Lab ID:** 19091487-04  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	8.9		2.0	µg/L	2	9/27/2019 07:18 AM
Ethylbenzene	11		2.0	µg/L	2	9/27/2019 07:18 AM
m,p-Xylene	28		4.0	µg/L	2	9/27/2019 07:18 AM
o-Xylene	U		2.0	µg/L	2	9/27/2019 07:18 AM
Toluene	U		2.0	µg/L	2	9/27/2019 07:18 AM
Xylenes, Total	28		6.0	µg/L	2	9/27/2019 07:18 AM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	2	9/27/2019 07:18 AM
Surr: 4-Bromofluorobenzene	100		80-110	%REC	2	9/27/2019 07:18 AM
Surr: Dibromofluoromethane	93.2		85-115	%REC	2	9/27/2019 07:18 AM
Surr: Toluene-d8	103		85-110	%REC	2	9/27/2019 07:18 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-11)  
**Collection Date:** 9/19/2019 11:45 AM

**Work Order:** 19091487  
**Lab ID:** 19091487-05  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
<b>Benzene</b>	<b>2.3</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 07:34 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 07:34 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 07:34 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 07:34 AM
Toluene	U		1.0	µg/L	1	9/27/2019 07:34 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 07:34 AM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	9/27/2019 07:34 AM
Surr: 4-Bromofluorobenzene	94.6		80-110	%REC	1	9/27/2019 07:34 AM
Surr: Dibromofluoromethane	99.4		85-115	%REC	1	9/27/2019 07:34 AM
Surr: Toluene-d8	103		85-110	%REC	1	9/27/2019 07:34 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-32)  
**Collection Date:** 9/19/2019 12:05 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-06  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	U		1.0	µg/L	1	9/27/2019 07:51 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 07:51 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 07:51 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 07:51 AM
Toluene	U		1.0	µg/L	1	9/27/2019 07:51 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 07:51 AM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	9/27/2019 07:51 AM
Surr: 4-Bromofluorobenzene	92.6		80-110	%REC	1	9/27/2019 07:51 AM
Surr: Dibromofluoromethane	99.0		85-115	%REC	1	9/27/2019 07:51 AM
Surr: Toluene-d8	98.2		85-110	%REC	1	9/27/2019 07:51 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-33)  
**Collection Date:** 9/19/2019 12:30 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-07  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
<b>Benzene</b>	<b>1.9</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 08:08 AM
<b>Ethylbenzene</b>	<b>2.1</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 08:08 AM
<b>m,p-Xylene</b>	<b>16</b>		<b>2.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 08:08 AM
<b>o-Xylene</b>	<b>U</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 08:08 AM
<b>Toluene</b>	<b>U</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 08:08 AM
<b>Xylenes, Total</b>	<b>16</b>		<b>3.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 08:08 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>103</i>		<i>75-120</i>	<i>%REC</i>	<i>1</i>	9/27/2019 08:08 AM
<i>Surr: 4-Bromofluorobenzene</i>	<i>103</i>		<i>80-110</i>	<i>%REC</i>	<i>1</i>	9/27/2019 08:08 AM
<i>Surr: Dibromofluoromethane</i>	<i>101</i>		<i>85-115</i>	<i>%REC</i>	<i>1</i>	9/27/2019 08:08 AM
<i>Surr: Toluene-d8</i>	<i>109</i>		<i>85-110</i>	<i>%REC</i>	<i>1</i>	9/27/2019 08:08 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-35)  
**Collection Date:** 9/19/2019 01:05 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-08  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>SJB</b>
Benzene	1.8		1.0	µg/L	1	9/27/2019 07:22 PM
Ethylbenzene	3.8		1.0	µg/L	1	9/27/2019 07:22 PM
m,p-Xylene	25		2.0	µg/L	1	9/27/2019 07:22 PM
o-Xylene	U		1.0	µg/L	1	9/27/2019 07:22 PM
Toluene	U		1.0	µg/L	1	9/27/2019 07:22 PM
Xylenes, Total	25		3.0	µg/L	1	9/27/2019 07:22 PM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	9/27/2019 07:22 PM
Surr: 4-Bromofluorobenzene	110	S	80-110	%REC	1	9/27/2019 07:22 PM
Surr: Dibromofluoromethane	105		85-115	%REC	1	9/27/2019 07:22 PM
Surr: Toluene-d8	112	S	85-110	%REC	1	9/27/2019 07:22 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-29)  
**Collection Date:** 9/19/2019 01:20 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-09  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	9.0		1.0	µg/L	1	9/27/2019 08:41 AM
Ethylbenzene	17		1.0	µg/L	1	9/27/2019 08:41 AM
m,p-Xylene	120		2.0	µg/L	1	9/27/2019 08:41 AM
o-Xylene	0.38	J	1.0	µg/L	1	9/27/2019 08:41 AM
Toluene	U		1.0	µg/L	1	9/27/2019 08:41 AM
Xylenes, Total	120		3.0	µg/L	1	9/27/2019 08:41 AM
Surr: 1,2-Dichloroethane-d4	97.6		75-120	%REC	1	9/27/2019 08:41 AM
Surr: 4-Bromofluorobenzene	104		80-110	%REC	1	9/27/2019 08:41 AM
Surr: Dibromofluoromethane	99.2		85-115	%REC	1	9/27/2019 08:41 AM
Surr: Toluene-d8	115	S	85-110	%REC	1	9/27/2019 08:41 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-30)  
**Collection Date:** 9/19/2019 01:40 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-10  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	18		1.0	µg/L	1	9/28/2019 09:46 PM
Ethylbenzene	41		1.0	µg/L	1	9/28/2019 09:46 PM
m,p-Xylene	250		20	µg/L	10	9/27/2019 07:56 PM
o-Xylene	0.44	J	1.0	µg/L	1	9/28/2019 09:46 PM
Toluene	U		1.0	µg/L	1	9/28/2019 09:46 PM
Xylenes, Total	250		30	µg/L	10	9/27/2019 07:56 PM
Surr: 1,2-Dichloroethane-d4	98.2		75-120	%REC	10	9/27/2019 07:56 PM
Surr: 1,2-Dichloroethane-d4	96.2		75-120	%REC	1	9/28/2019 09:46 PM
Surr: 4-Bromofluorobenzene	98.8		80-110	%REC	10	9/27/2019 07:56 PM
Surr: 4-Bromofluorobenzene	103		80-110	%REC	1	9/28/2019 09:46 PM
Surr: Dibromofluoromethane	102		85-115	%REC	10	9/27/2019 07:56 PM
Surr: Dibromofluoromethane	94.0		85-115	%REC	1	9/28/2019 09:46 PM
Surr: Toluene-d8	97.0		85-110	%REC	10	9/27/2019 07:56 PM
Surr: Toluene-d8	103		85-110	%REC	1	9/28/2019 09:46 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA**

Date: 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-38)  
**Collection Date:** 9/19/2019 01:55 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-11  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	11		1.0	µg/L	1	9/27/2019 09:14 AM
Ethylbenzene	12		1.0	µg/L	1	9/27/2019 09:14 AM
m,p-Xylene	66		2.0	µg/L	1	9/27/2019 09:14 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 09:14 AM
Toluene	U		1.0	µg/L	1	9/27/2019 09:14 AM
Xylenes, Total	66		3.0	µg/L	1	9/27/2019 09:14 AM
Surr: 1,2-Dichloroethane-d4	95.9		75-120	%REC	1	9/27/2019 09:14 AM
Surr: 4-Bromofluorobenzene	99.2		80-110	%REC	1	9/27/2019 09:14 AM
Surr: Dibromofluoromethane	99.6		85-115	%REC	1	9/27/2019 09:14 AM
Surr: Toluene-d8	104		85-110	%REC	1	9/27/2019 09:14 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



**ALS Group, USA****Date:** 01-Oct-19**Client:** Caerus Oil and Gas LLC**Project:** K35 CDP Pipeline Release**Work Order:** 19091487**Sample ID:** 20190919-K35 CDP (MW-26)**Lab ID:** 19091487-12**Collection Date:** 9/19/2019 02:15 PM**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	U		1.0	µg/L	1	9/27/2019 09:31 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 09:31 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 09:31 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 09:31 AM
Toluene	U		1.0	µg/L	1	9/27/2019 09:31 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 09:31 AM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	9/27/2019 09:31 AM
Surr: 4-Bromofluorobenzene	97.8		80-110	%REC	1	9/27/2019 09:31 AM
Surr: Dibromofluoromethane	94.8		85-115	%REC	1	9/27/2019 09:31 AM
Surr: Toluene-d8	98.2		85-110	%REC	1	9/27/2019 09:31 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-34)  
**Collection Date:** 9/19/2019 02:25 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-13  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	U		1.0	µg/L	1	9/27/2019 09:47 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 09:47 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 09:47 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 09:47 AM
Toluene	U		1.0	µg/L	1	9/27/2019 09:47 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 09:47 AM
Surr: 1,2-Dichloroethane-d4	99.5		75-120	%REC	1	9/27/2019 09:47 AM
Surr: 4-Bromofluorobenzene	97.2		80-110	%REC	1	9/27/2019 09:47 AM
Surr: Dibromofluoromethane	95.8		85-115	%REC	1	9/27/2019 09:47 AM
Surr: Toluene-d8	101		85-110	%REC	1	9/27/2019 09:47 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-15)  
**Collection Date:** 9/19/2019 02:40 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-14  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>SJB</b>
<b>Benzene</b>	<b>1.6</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 07:39 PM
<b>Ethylbenzene</b>	<b>2.5</b>		<b>1.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 07:39 PM
<b>m,p-Xylene</b>	<b>9.7</b>		<b>2.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 07:39 PM
o-Xylene	U		1.0	µg/L	1	9/27/2019 07:39 PM
Toluene	U		1.0	µg/L	1	9/27/2019 07:39 PM
<b>Xylenes, Total</b>	<b>9.7</b>		<b>3.0</b>	<b>µg/L</b>	<b>1</b>	9/27/2019 07:39 PM
Surr: 1,2-Dichloroethane-d4	98.0		75-120	%REC	1	9/27/2019 07:39 PM
Surr: 4-Bromofluorobenzene	102		80-110	%REC	1	9/27/2019 07:39 PM
Surr: Dibromofluoromethane	98.6		85-115	%REC	1	9/27/2019 07:39 PM
Surr: Toluene-d8	108		85-110	%REC	1	9/27/2019 07:39 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-46)  
**Collection Date:** 9/19/2019 03:00 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-15  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	U		1.0	µg/L	1	9/27/2019 10:21 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 10:21 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 10:21 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 10:21 AM
Toluene	U		1.0	µg/L	1	9/27/2019 10:21 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 10:21 AM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	9/27/2019 10:21 AM
Surr: 4-Bromofluorobenzene	96.6		80-110	%REC	1	9/27/2019 10:21 AM
Surr: Dibromofluoromethane	98.8		85-115	%REC	1	9/27/2019 10:21 AM
Surr: Toluene-d8	96.9		85-110	%REC	1	9/27/2019 10:21 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-45)  
**Collection Date:** 9/19/2019 03:20 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-16  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	U		1.0	µg/L	1	9/27/2019 10:37 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 10:37 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 10:37 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 10:37 AM
Toluene	U		1.0	µg/L	1	9/27/2019 10:37 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 10:37 AM
Surr: 1,2-Dichloroethane-d4	106		75-120	%REC	1	9/27/2019 10:37 AM
Surr: 4-Bromofluorobenzene	98.8		80-110	%REC	1	9/27/2019 10:37 AM
Surr: Dibromofluoromethane	106		85-115	%REC	1	9/27/2019 10:37 AM
Surr: Toluene-d8	100		85-110	%REC	1	9/27/2019 10:37 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-44)  
**Collection Date:** 9/19/2019 03:40 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-17  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	U		1.0	µg/L	1	9/27/2019 10:54 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 10:54 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 10:54 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 10:54 AM
Toluene	U		1.0	µg/L	1	9/27/2019 10:54 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 10:54 AM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	9/27/2019 10:54 AM
Surr: 4-Bromofluorobenzene	99.7		80-110	%REC	1	9/27/2019 10:54 AM
Surr: Dibromofluoromethane	98.6		85-115	%REC	1	9/27/2019 10:54 AM
Surr: Toluene-d8	100		85-110	%REC	1	9/27/2019 10:54 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190919-K35 CDP (MW-43)  
**Collection Date:** 9/19/2019 04:00 PM

**Work Order:** 19091487  
**Lab ID:** 19091487-18  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	U		1.0	µg/L	1	9/27/2019 11:10 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 11:10 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 11:10 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 11:10 AM
Toluene	U		1.0	µg/L	1	9/27/2019 11:10 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 11:10 AM
Surr: 1,2-Dichloroethane-d4	97.6		75-120	%REC	1	9/27/2019 11:10 AM
Surr: 4-Bromofluorobenzene	95.8		80-110	%REC	1	9/27/2019 11:10 AM
Surr: Dibromofluoromethane	101		85-115	%REC	1	9/27/2019 11:10 AM
Surr: Toluene-d8	99.6		85-110	%REC	1	9/27/2019 11:10 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 01-Oct-19

**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091487  
**Project:** K35 CDP Pipeline Release

## QC BATCH REPORT

Batch ID: **R271575a** Instrument ID **VMS8** Method: **SW8260C**

<b>MBLK</b>		Sample ID: <b>VBKQW2-190926-R271575a</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 05:21 AM</b>		
Client ID:		Run ID: <b>VMS8_190926B</b>				SeqNo: <b>5950308</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
m,p-Xylene	U	2.0								
o-Xylene	U	1.0								
Toluene	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	20.82	0	20	0	104	75-120	0			
Surr: 4-Bromofluorobenzene	19.87	0	20	0	99.4	80-110	0			
Surr: Dibromofluoromethane	20.15	0	20	0	101	85-115	0			
Surr: Toluene-d8	20.33	0	20	0	102	85-110	0			

<b>LCS</b>		Sample ID: <b>VLCSW3-190926-R271575a</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 04:32 AM</b>		
Client ID:		Run ID: <b>VMS8_190926B</b>				SeqNo: <b>5950306</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.62	1.0	20	0	93.1	70-130	0			
Ethylbenzene	18.6	1.0	20	0	93	76-123	0			
m,p-Xylene	38.09	2.0	40	0	95.2	75-130	0			
o-Xylene	18.62	1.0	20	0	93.1	76-127	0			
Toluene	18.2	1.0	20	0	91	76-125	0			
Xylenes, Total	56.71	3.0	60	0	94.5	76-127	0			
Surr: 1,2-Dichloroethane-d4	19.39	0	20	0	97	75-120	0			
Surr: 4-Bromofluorobenzene	19.95	0	20	0	99.8	80-110	0			
Surr: Dibromofluoromethane	20.53	0	20	0	103	85-115	0			
Surr: Toluene-d8	20.05	0	20	0	100	85-110	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



Client: Caerus Oil and Gas LLC  
 Work Order: 19091487  
 Project: K35 CDP Pipeline Release

# QC BATCH REPORT

Batch ID: **R271575a** Instrument ID **VMS8** Method: **SW8260C**

MS				Sample ID: 19091487-03A MS			Units: µg/L		Analysis Date: 9/27/2019 11:27 AM	
Client ID: 20190919-K35 CDP (MW-23)				Run ID: VMS8_190926B			SeqNo: 5950328		Prep Date:	
									DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	972	50	1000	36	93.6	70-130	0			
Ethylbenzene	994.5	50	1000	87	90.8	76-123	0			
m,p-Xylene	3103	100	2000	1138	98.2	75-130	0			
o-Xylene	982.5	50	1000	126.5	85.6	76-127	0			
Toluene	902.5	50	1000	0	90.2	76-125	0			
Xylenes, Total	4086	150	3000	1265	94	76-127	0			
Surr: 1,2-Dichloroethane-d4	997	0	1000	0	99.7	75-120	0			
Surr: 4-Bromofluorobenzene	979	0	1000	0	97.9	80-110	0			
Surr: Dibromofluoromethane	1021	0	1000	0	102	85-115	0			
Surr: Toluene-d8	992	0	1000	0	99.2	85-110	0			

MSD				Sample ID: 19091487-03A MSD			Units: µg/L		Analysis Date: 9/27/2019 11:44 AM	
Client ID: 20190919-K35 CDP (MW-23)				Run ID: VMS8_190926B			SeqNo: 5950329		Prep Date:	
									DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	941.5	50	1000	36	90.6	70-130	972	3.19	30	
Ethylbenzene	1004	50	1000	87	91.7	76-123	994.5	0.951	30	
m,p-Xylene	3014	100	2000	1138	93.8	75-130	3103	2.89	30	
o-Xylene	1025	50	1000	126.5	89.8	76-127	982.5	4.23	30	
Toluene	912.5	50	1000	0	91.2	76-125	902.5	1.1	30	
Xylenes, Total	4040	150	3000	1265	92.5	76-127	4086	1.13	30	
Surr: 1,2-Dichloroethane-d4	964.5	0	1000	0	96.4	75-120	997	3.31	30	
Surr: 4-Bromofluorobenzene	1000	0	1000	0	100	80-110	979	2.12	30	
Surr: Dibromofluoromethane	1036	0	1000	0	104	85-115	1021	1.51	30	
Surr: Toluene-d8	983	0	1000	0	98.3	85-110	992	0.911	30	

The following samples were analyzed in this batch:

19091487-01A	19091487-02A	19091487-03A
19091487-04A	19091487-05A	19091487-06A
19091487-07A	19091487-08A	19091487-09A
19091487-10A	19091487-11A	19091487-12A
19091487-13A	19091487-14A	19091487-15A
19091487-16A	19091487-17A	19091487-18A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091487  
**Project:** K35 CDP Pipeline Release

# QC BATCH REPORT

Batch ID: **R271633A**      Instrument ID **VMS8**      Method: **SW8260C**

<b>MBLK</b>		Sample ID: <b>VLKW1-190927-R271633A</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 04:52 PM</b>		
Client ID:		Run ID: <b>VMS8_190927A</b>				SeqNo: <b>5951942</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
m,p-Xylene	U	2.0								
o-Xylene	U	1.0								
Toluene	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	20.22	0	20	0	101	75-120	0			
Surr: 4-Bromofluorobenzene	20.88	0	20	0	104	80-110	0			
Surr: Dibromofluoromethane	21.03	0	20	0	105	85-115	0			
Surr: Toluene-d8	20.34	0	20	0	102	85-110	0			

<b>LCS</b>		Sample ID: <b>VLCSW1-190927-R271633A</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 04:02 PM</b>		
Client ID:		Run ID: <b>VMS8_190927A</b>				SeqNo: <b>5951941</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	17.58	1.0	20	0	87.9	70-130	0			
Ethylbenzene	16.37	1.0	20	0	81.8	76-123	0			
m,p-Xylene	33.01	2.0	40	0	82.5	75-130	0			
o-Xylene	15.93	1.0	20	0	79.6	76-127	0			
Toluene	16.31	1.0	20	0	81.6	76-125	0			
Xylenes, Total	48.94	3.0	60	0	81.6	76-127	0			
Surr: 1,2-Dichloroethane-d4	20.39	0	20	0	102	75-120	0			
Surr: 4-Bromofluorobenzene	20.47	0	20	0	102	80-110	0			
Surr: Dibromofluoromethane	21.19	0	20	0	106	85-115	0			
Surr: Toluene-d8	19.84	0	20	0	99.2	85-110	0			

<b>MS</b>		Sample ID: <b>19091826-01A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 10:59 PM</b>		
Client ID:		Run ID: <b>VMS8_190927A</b>				SeqNo: <b>5951962</b>		Prep Date:		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	182.7	10	200	0	91.4	70-130	0			
Ethylbenzene	172.5	10	200	0	86.2	76-123	0			
m,p-Xylene	355.7	20	400	6.1	87.4	75-130	0			
o-Xylene	169.2	10	200	0	84.6	76-127	0			
Toluene	168.4	10	200	0	84.2	76-125	0			
Xylenes, Total	524.9	30	600	0	87.5	76-127	0			
Surr: 1,2-Dichloroethane-d4	200.9	0	200	0	100	75-120	0			
Surr: 4-Bromofluorobenzene	202.4	0	200	0	101	80-110	0			
Surr: Dibromofluoromethane	211.3	0	200	0	106	85-115	0			
Surr: Toluene-d8	187.7	0	200	0	93.8	85-110	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091487  
**Project:** K35 CDP Pipeline Release

## QC BATCH REPORT

Batch ID: **R271633A**      Instrument ID **VMS8**      Method: **SW8260C**

MSD				Sample ID: 19091826-01A MSD			Units: µg/L		Analysis Date: 9/27/2019 11:16 PM		
Client ID:			Run ID: VMS8_190927A			SeqNo: 5951963		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	200.1	10	200	0	100	70-130	182.7	9.09	30		
Ethylbenzene	191.8	10	200	0	95.9	76-123	172.5	10.6	30		
m,p-Xylene	381.6	20	400	6.1	93.9	75-130	355.7	7.03	30		
o-Xylene	185.5	10	200	0	92.8	76-127	169.2	9.19	30		
Toluene	191	10	200	0	95.5	76-125	168.4	12.6	30		
Xylenes, Total	567.1	30	600	0	94.5	76-127	524.9	7.73	30		
Surr: 1,2-Dichloroethane-d4	197.3	0	200	0	98.6	75-120	200.9	1.81	30		
Surr: 4-Bromofluorobenzene	201.4	0	200	0	101	80-110	202.4	0.495	30		
Surr: Dibromofluoromethane	202.9	0	200	0	101	85-115	211.3	4.06	30		
Surr: Toluene-d8	188.6	0	200	0	94.3	85-110	187.7	0.478	30		

The following samples were analyzed in this batch:

19091487-03A	19091487-08A	19091487-10A
19091487-14A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091487  
**Project:** K35 CDP Pipeline Release

## QC BATCH REPORT

Batch ID: **R271641A** Instrument ID **VMS6** Method: **SW8260C**

<b>MBLK</b>		Sample ID: <b>VLKWW1-190928-R271641A</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/28/2019 09:22 PM</b>		
Client ID:		Run ID: <b>VMS6_190928A</b>				SeqNo: <b>5952383</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
o-Xylene	U	1.0								
Toluene	U	1.0								
Surr: 1,2-Dichloroethane-d4	20.19	0	20	0	101	75-120	0			
Surr: 4-Bromofluorobenzene	19.5	0	20	0	97.5	80-110	0			
Surr: Dibromofluoromethane	19.25	0	20	0	96.2	85-115	0			
Surr: Toluene-d8	20.17	0	20	0	101	85-110	0			

<b>LCS</b>		Sample ID: <b>VLCSW2-190928-R271641A</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/28/2019 08:35 PM</b>		
Client ID:		Run ID: <b>VMS6_190928A</b>				SeqNo: <b>5952379</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.63	1.0	20	0	93.2	70-130	0			
Ethylbenzene	19.49	1.0	20	0	97.4	76-123	0			
o-Xylene	19.74	1.0	20	0	98.7	76-127	0			
Toluene	20	1.0	20	0	100	76-125	0			
Surr: 1,2-Dichloroethane-d4	19.92	0	20	0	99.6	75-120	0			
Surr: 4-Bromofluorobenzene	20.11	0	20	0	101	80-110	0			
Surr: Dibromofluoromethane	20.76	0	20	0	104	85-115	0			
Surr: Toluene-d8	20.38	0	20	0	102	85-110	0			

<b>MS</b>		Sample ID: <b>19091587-01A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/29/2019 05:20 AM</b>		
Client ID:		Run ID: <b>VMS6_190928A</b>				SeqNo: <b>5952400</b>		Prep Date:		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	2120	100	2000	5	106	70-130	0			
Ethylbenzene	2291	100	2000	56	112	76-123	0			
o-Xylene	2163	100	2000	5	108	76-127	0			
Toluene	2121	100	2000	0	106	76-125	0			
Surr: 1,2-Dichloroethane-d4	1965	0	2000	0	98.2	75-120	0			
Surr: 4-Bromofluorobenzene	2044	0	2000	0	102	80-110	0			
Surr: Dibromofluoromethane	1975	0	2000	0	98.8	85-115	0			
Surr: Toluene-d8	2003	0	2000	0	100	85-110	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091487  
**Project:** K35 CDP Pipeline Release

## QC BATCH REPORT

Batch ID: **R271641A** Instrument ID **VMS6** Method: **SW8260C**


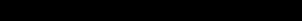

MSD					Sample ID: 19091587-01A MSD			Units: µg/L		Analysis Date: 9/29/2019 05:44 AM	
Client ID:			Run ID: VMS6_190928A			SeqNo: 5952402		Prep Date:		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	2212	100	2000	5	110	70-130	2120	4.25	30		
Ethylbenzene	2382	100	2000	56	116	76-123	2291	3.89	30		
o-Xylene	2312	100	2000	5	115	76-127	2163	6.66	30		
Toluene	2223	100	2000	0	111	76-125	2121	4.7	30		
Surr: 1,2-Dichloroethane-d4	1953	0	2000	0	97.6	75-120	1965	0.613	30		
Surr: 4-Bromofluorobenzene	2024	0	2000	0	101	80-110	2044	0.983	30		
Surr: Dibromofluoromethane	2036	0	2000	0	102	85-115	1975	3.04	30		
Surr: Toluene-d8	1942	0	2000	0	97.1	85-110	2003	3.09	30		

The following samples were analyzed in this batch:

19091487-10A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

[illegible][illegible]

CLIENT SIGNATURES		For lab use only			
Client's Signature: 	Cooler Security Seal <input type="checkbox"/> sealed <input type="checkbox"/> broken <input type="checkbox"/> not available	Sample Temp <input type="checkbox"/> chilled <input type="checkbox"/> ambient	No of Cooler Received carton / cooler box	Received by (lab) 	Date and Time 9/21/19 1000
Client's Date and Time of Completion: 9/19/19 1000			Courier Name: KLB / WMM	Committed by 	Date and Time

Note: (a) **DW** (Drinking water), **SW** (Surface water), **GW** (Ground water), **WW** (Waste water), **S** (Soil), **SL** (Sludge), **SE** (Sediment), **OS** (Other solid material)

ALS Technichem (HK) Pty Ltd      Address: 11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T., Hong Kong      Tel: +852 2610 1044      Fax: +852 2610 2021      Email: [als@als.com.hk](mailto:als@als.com.hk)

SD2 3.8-c



**Failure to complete all section of this form may delay analysis.**

Page 2 of 2

Note: (a) **DW** (Drinking water), **SW** (Surface water), **GW** (Ground water), **WW** (Waste water), **S** (Soil), **SL** (Sludge), **SE** (Sediment), **OS** (Other solid material)

ALS Technichem (HK) Pty Ltd      Address: 11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T., Hong Kong      Tel: +852 2610 1044      Fax: +852 2610 2021      Email: [als@als.com.hk](mailto:als@als.com.hk)

Sr2 3.8-c

Sample Receipt Checklist

Client Name: **CAERUS**

Date/Time Received: **21-Sep-19 10:00**

Work Order: **19091487**

Received by: **DS**

Checklist completed by Diane Shaw  
eSignature

23-Sep-19  
Date

Reviewed by: Chad Whelton  
eSignature

24-Sep-19  
Date

Matrices: **Groundwater**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.8/3.8 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>9/23/2019 10:32:45 AM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:





30-Sep-2019

Jake Janicek  
Caerus Oil and Gas LLC  
143 Diamond Ave.  
Parachute, CO 81635

Re: **K35 CDP Pipeline Release**

Work Order: **19091483**

Dear Jake,

ALS Environmental received 2 samples on 21-Sep-2019 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 11.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA  
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink, appearing to read "Chad Whelton".

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager

### Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Work Order:** 19091483

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
19091483-01	20190920-K35 CDP (MW-42)	Groundwater		9/20/2019 08:45	9/21/2019 10:00	<input type="checkbox"/>
19091483-02	20190920-K35 CDP (MW-40)	Groundwater		9/20/2019 09:05	9/21/2019 10:00	<input type="checkbox"/>

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**WorkOrder:** 19091483

## QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter

**ALS Group, USA****Date:** 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190920-K35 CDP (MW-42)  
**Collection Date:** 9/20/2019 08:45 AM

**Work Order:** 19091483  
**Lab ID:** 19091483-01  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>SJB</b>
Benzene	U		1.0	µg/L	1	9/27/2019 06:32 PM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 06:32 PM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 06:32 PM
o-Xylene	U		1.0	µg/L	1	9/27/2019 06:32 PM
Toluene	U		1.0	µg/L	1	9/27/2019 06:32 PM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 06:32 PM
Surr: 1,2-Dichloroethane-d4	104		75-120	%REC	1	9/27/2019 06:32 PM
Surr: 4-Bromofluorobenzene	99.2		80-110	%REC	1	9/27/2019 06:32 PM
Surr: Dibromofluoromethane	101		85-115	%REC	1	9/27/2019 06:32 PM
Surr: Toluene-d8	98.0		85-110	%REC	1	9/27/2019 06:32 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA****Date:** 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Project:** K35 CDP Pipeline Release  
**Sample ID:** 20190920-K35 CDP (MW-40)  
**Collection Date:** 9/20/2019 09:05 AM

**Work Order:** 19091483  
**Lab ID:** 19091483-02  
**Matrix:** GROUNDWATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>			Analyst: <b>JNS</b>
Benzene	U		1.0	µg/L	1	9/27/2019 06:11 AM
Ethylbenzene	U		1.0	µg/L	1	9/27/2019 06:11 AM
m,p-Xylene	U		2.0	µg/L	1	9/27/2019 06:11 AM
o-Xylene	U		1.0	µg/L	1	9/27/2019 06:11 AM
Toluene	U		1.0	µg/L	1	9/27/2019 06:11 AM
Xylenes, Total	U		3.0	µg/L	1	9/27/2019 06:11 AM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	9/27/2019 06:11 AM
Surr: 4-Bromofluorobenzene	98.8		80-110	%REC	1	9/27/2019 06:11 AM
Surr: Dibromofluoromethane	102		85-115	%REC	1	9/27/2019 06:11 AM
Surr: Toluene-d8	96.8		85-110	%REC	1	9/27/2019 06:11 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 30-Sep-19

**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091483  
**Project:** K35 CDP Pipeline Release

## QC BATCH REPORT

Batch ID: **R271575a** Instrument ID **VMS8** Method: **SW8260C**

MBLK		Sample ID: <b>VBKQW2-190926-R271575a</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 05:21 AM</b>		
Client ID:		Run ID: <b>VMS8_190926B</b>				SeqNo: <b>5950308</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	1.0								
Ethylbenzene	U	1.0								
m,p-Xylene	U	2.0								
o-Xylene	U	1.0								
Toluene	U	1.0								
Xylenes, Total	U	3.0								
Surr: 1,2-Dichloroethane-d4	20.82	0	20	0	104	75-120	0			
Surr: 4-Bromofluorobenzene	19.87	0	20	0	99.4	80-110	0			
Surr: Dibromofluoromethane	20.15	0	20	0	101	85-115	0			
Surr: Toluene-d8	20.33	0	20	0	102	85-110	0			

LCS		Sample ID: <b>VLCSW3-190926-R271575a</b>				Units: <b>µg/L</b>		Analysis Date: <b>9/27/2019 04:32 AM</b>		
Client ID:		Run ID: <b>VMS8_190926B</b>				SeqNo: <b>5950306</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.62	1.0	20	0	93.1	70-130	0			
Ethylbenzene	18.6	1.0	20	0	93	76-123	0			
m,p-Xylene	38.09	2.0	40	0	95.2	75-130	0			
o-Xylene	18.62	1.0	20	0	93.1	76-127	0			
Toluene	18.2	1.0	20	0	91	76-125	0			
Xylenes, Total	56.71	3.0	60	0	94.5	76-127	0			
Surr: 1,2-Dichloroethane-d4	19.39	0	20	0	97	75-120	0			
Surr: 4-Bromofluorobenzene	19.95	0	20	0	99.8	80-110	0			
Surr: Dibromofluoromethane	20.53	0	20	0	103	85-115	0			
Surr: Toluene-d8	20.05	0	20	0	100	85-110	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Caerus Oil and Gas LLC  
 Work Order: 19091483  
 Project: K35 CDP Pipeline Release

## QC BATCH REPORT

Batch ID: **R271575a** Instrument ID **VMS8** Method: **SW8260C**

MS				Sample ID: 19091487-03A MS			Units: µg/L		Analysis Date: 9/27/2019 11:27 AM		
Client ID:			Run ID: VMS8_190926B			SeqNo: 5950328		Prep Date:		DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	972	50	1000	36	93.6	70-130		0			
Ethylbenzene	994.5	50	1000	87	90.8	76-123		0			
m,p-Xylene	3103	100	2000	1138	98.2	75-130		0			
o-Xylene	982.5	50	1000	126.5	85.6	76-127		0			
Toluene	902.5	50	1000	0	90.2	76-125		0			
Xylenes, Total	4086	150	3000	1265	94	76-127		0			
Surr: 1,2-Dichloroethane-d4	997	0	1000	0	99.7	75-120		0			
Surr: 4-Bromofluorobenzene	979	0	1000	0	97.9	80-110		0			
Surr: Dibromofluoromethane	1021	0	1000	0	102	85-115		0			
Surr: Toluene-d8	992	0	1000	0	99.2	85-110		0			

MSD					Sample ID: 19091487-03A MSD		Units: µg/L		Analysis Date: 9/27/2019 11:44 AM	
Client ID:			Run ID: VMS8_190926B			SeqNo: 5950329		Prep Date:		DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	941.5	50	1000	36	90.6	70-130	972	3.19	30	
Ethylbenzene	1004	50	1000	87	91.7	76-123	994.5	0.951	30	
m,p-Xylene	3014	100	2000	1138	93.8	75-130	3103	2.89	30	
o-Xylene	1025	50	1000	126.5	89.8	76-127	982.5	4.23	30	
Toluene	912.5	50	1000	0	91.2	76-125	902.5	1.1	30	
Xylenes, Total	4040	150	3000	1265	92.5	76-127	4086	1.13	30	
Surr: 1,2-Dichloroethane-d4	964.5	0	1000	0	96.4	75-120	997	3.31	30	
Surr: 4-Bromofluorobenzene	1000	0	1000	0	100	80-110	979	2.12	30	
Surr: Dibromofluoromethane	1036	0	1000	0	104	85-115	1021	1.51	30	
Surr: Toluene-d8	983	0	1000	0	98.3	85-110	992	0.911	30	

The following samples were analyzed in this batch:

19091483-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091483  
**Project:** K35 CDP Pipeline Release

# QC BATCH REPORT

Batch ID: **R271633A**      Instrument ID **VMS8**      Method: **SW8260C**

MBLK				Sample ID: VBLKW1-190927-R271633A				Units: µg/L		Analysis Date: 9/27/2019 04:52 PM	
Client ID:			Run ID: VMS8_190927A				SeqNo: 5951942		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	U	1.0									
Ethylbenzene	U	1.0									
m,p-Xylene	U	2.0									
o-Xylene	U	1.0									
Toluene	U	1.0									
Xylenes, Total	U	3.0									
Surr: 1,2-Dichloroethane-d4	20.22	0	20	0	101	75-120		0			
Surr: 4-Bromofluorobenzene	20.88	0	20	0	104	80-110		0			
Surr: Dibromofluoromethane	21.03	0	20	0	105	85-115		0			
Surr: Toluene-d8	20.34	0	20	0	102	85-110		0			

LCS					Sample ID: VLCSW1-190927-R271633A		Units: µg/L		Analysis Date: 9/27/2019 04:02 PM		
Client ID:			Run ID: VMS8_190927A			SeqNo: 5951941		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	17.58	1.0	20	0	87.9	70-130	0				
Ethylbenzene	16.37	1.0	20	0	81.8	76-123	0				
m,p-Xylene	33.01	2.0	40	0	82.5	75-130	0				
o-Xylene	15.93	1.0	20	0	79.6	76-127	0				
Toluene	16.31	1.0	20	0	81.6	76-125	0				
Xylenes, Total	48.94	3.0	60	0	81.6	76-127	0				
Surr: 1,2-Dichloroethane-d4	20.39	0	20	0	102	75-120	0				
Surr: 4-Bromofluorobenzene	20.47	0	20	0	102	80-110	0				
Surr: Dibromofluoromethane	21.19	0	20	0	106	85-115	0				
Surr: Toluene-d8	19.84	0	20	0	99.2	85-110	0				

MS				Sample ID: 19091826-01A MS			Units: µg/L		Analysis Date: 9/27/2019 10:59 PM		
Client ID:			Run ID: VMS8_190927A			SeqNo: 5951962		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	182.7	10	200	0	91.4	70-130	0				
Ethylbenzene	172.5	10	200	0	86.2	76-123	0				
m,p-Xylene	355.7	20	400	6.1	87.4	75-130	0				
o-Xylene	169.2	10	200	0	84.6	76-127	0				
Toluene	168.4	10	200	0	84.2	76-125	0				
Xylenes, Total	524.9	30	600	0	87.5	76-127	0				
Surr: 1,2-Dichloroethane-d4	200.9	0	200	0	100	75-120	0				
Surr: 4-Bromofluorobenzene	202.4	0	200	0	101	80-110	0				
Surr: Dibromofluoromethane	211.3	0	200	0	106	85-115	0				
Surr: Toluene-d8	187.7	0	200	0	93.8	85-110	0				

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** Caerus Oil and Gas LLC  
**Work Order:** 19091483  
**Project:** K35 CDP Pipeline Release

## QC BATCH REPORT

Batch ID: **R271633A** Instrument ID **VMS8** Method: **SW8260C**

MSD				Sample ID: 19091826-01A MSD			Units: µg/L		Analysis Date: 9/27/2019 11:16 PM		
Client ID:			Run ID: VMS8_190927A			SeqNo: 5951963		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	200.1	10	200	0	100	70-130	182.7	9.09	30		
Ethylbenzene	191.8	10	200	0	95.9	76-123	172.5	10.6	30		
m,p-Xylene	381.6	20	400	6.1	93.9	75-130	355.7	7.03	30		
o-Xylene	185.5	10	200	0	92.8	76-127	169.2	9.19	30		
Toluene	191	10	200	0	95.5	76-125	168.4	12.6	30		
Xylenes, Total	567.1	30	600	0	94.5	76-127	524.9	7.73	30		
Surr: 1,2-Dichloroethane-d4	197.3	0	200	0	98.6	75-120	200.9	1.81	30		
Surr: 4-Bromofluorobenzene	201.4	0	200	0	101	80-110	202.4	0.495	30		
Surr: Dibromofluoromethane	202.9	0	200	0	101	85-115	211.3	4.06	30		
Surr: Toluene-d8	188.6	0	200	0	94.3	85-110	187.7	0.478	30		

The following samples were analyzed in this batch:

19091483-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



Sample Receipt Checklist

Client Name: **CAERUS**

Date/Time Received: **21-Sep-19 10:00**

Work Order: **19091483**

Received by: **DS**

Checklist completed by Diane Shaw 23-Sep-19  
eSignature Date

Reviewed by: Chad Whelton 24-Sep-19  
eSignature Date

Matrices: **Groundwater**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.8/3.8 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>9/23/2019 9:57:51 AM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

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Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: