

TABLE 1
K10-596 GAS LIFT RELEASE
SOIL ANALYTICAL RESULTS
CAERUS OIL AND GAS LLC
PICEANCE BASIN, COLORADO

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	20190927-K10-596- POR@7'	20191009-K10 (N WALL)@11'	20191009-K10 (SWALL)@9'	20191009-K10 (EWALL)@10'	20191009-K10 (WWALL)@9'	20191009-K10 (BOTTOM)@13'	A15-BG-S-051711	A15-BG-E-051711	A15-BG-NE-051711	A15-BG-N-051711	A15-BG-NW-051711
Sample Date			9/27/2019	10/9/2019	10/9/2019	10/9/2019	10/9/2019	10/9/2019	5/17/2011	5/17/2011	5/17/2011	5/17/2011	5/17/2011
Sample Matrix			Point of Release	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Background	Background	Background	Background	Background
Arsenic	0.39	mg/kg	35	12.8	9.33	12.8	7.15	7.91	18	15	11	19	16
Barium	15,000	mg/kg	420	245	1180	223	155	234	NA	NA	NA	NA	NA
Cadmium	70	mg/kg	0.34	<0.500	<0.500	<0.500	<0.500	<0.500	NA	NA	NA	NA	NA
Chromium (III)	120,000	mg/kg	23	17.7	22.4	19	14.8	19	NA	NA	NA	NA	NA
Chromium (VI)	23	mg/kg	1.2	<2.00	<2.00	6.69	<2.00	<2.00	NA	NA	NA	NA	NA
Copper	3,100	mg/kg	35	14.2	14.4	16.1	12.5	13.6	NA	NA	NA	NA	NA
Lead	400	mg/kg	25	9.46	10.8	10.7	8.08	9.05	NA	NA	NA	NA	NA
Mercury	23	mg/kg	1.3	<0.0300	<0.0300	<0.0300	0.112	0.0409	NA	NA	NA	NA	NA
Nickel	1,600	mg/kg	21	14.5	15.6	16.7	11.8	14.2	NA	NA	NA	NA	NA
Selenium	390	mg/kg	1.1	<2.00	<2.00	<2.00	<2.00	<2.00	NA	NA	NA	NA	NA
Silver	390	mg/kg	0.076	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	NA
Zinc	23,000	mg/kg	70	35.9	44	41	33.2	39.6	NA	NA	NA	NA	NA
EC	4 or 2x background	mmhos/cm	1.7	0.288	0.321	0.383	0.364	0.2	NA	NA	NA	NA	NA
pH	6-9	SU	8.49	8.23	8.42	8.08	8.1	8.57	NA	NA	NA	NA	NA
SAR	12	unitless	1.1	0.735	0.744	0.696	1	0.728	NA	NA	NA	NA	NA
TPH-DRO			2300	694	108	74.9	115	397	NA	NA	NA	NA	NA
TPH-GRO			16000	6410	1080	1820	1090	6340	NA	NA	NA	NA	NA
TPH	500	mg/kg	18300	7104	1188	1894.9	1205	6737	NA	NA	NA	NA	NA
Benzene	0.17	mg/kg	22	6.06	1.53	2.49	1.2	10.7	NA	NA	NA	NA	NA
Toluene	85	mg/kg	330	106	19.6	25.3	15.5	188	NA	NA	NA	NA	NA
Ethylbenzene	100	mg/kg	59	14.3	1.92	2.16	1.01	19.1	NA	NA	NA	NA	NA
Total Xylenes	175	mg/kg	820	146	22.2	21.7	28.3	194	NA	NA	NA	NA	NA
Acenaphthene	1,000	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA
Anthracene	1,000	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA
Benz(a)anthracene	0.22	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.22	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	2.2	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.022	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA
Chrysene	22	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.022	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA
Fluoranthene	1,000	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA
Fluorene	1,000	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA
Indeno(1,2,3,c,d)pyrene	0.22	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA
Naphthalene	23	mg/kg	1.8	0.0768	0.0301	<0.0200	<0.0200	0.122	NA	NA	NA	NA	NA
Pyrene	1,000	mg/kg	<0.0052	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	NA	NA	NA	NA	NA

Notes:
< - less than the stated reporting limit
Highlight - indicates result exceeds the COGCC concentration level
COGCC - Colorado Oil and Gas Conservation Commission
EC - electrical conductivity
mg/kg - milligrams per kilogram
mmhos/cm - millimhos per centimeter
NA - not analyzed
ND - non detect
SAR - sodium adsorption ratio
SU - standard unit
TPH-GRO - total petroleum hydrocarbons-gasoline range organics
TPH-DRO - total petroleum hydrocarbons-diesel range organics
TPH - combination of TPH-GRO and TPH-DRO