

**CAMECO RESOURCES
CROW BUTTE OPERATION**



**86 Crow Butte Road
P.O. Box 169
Crawford, Nebraska 69339-0169**

**(308) 665-2215
(308) 665-2341 – FAX**

December 17, 2018

**USPS PRIORITY MAIL
SIGNATURE CONFIRMATION**

Marty Link, Water Quality Division Administrator
Nebraska Department of Environmental Quality
P.O. Box 98922
Lincoln, NE 68509-8922

Class III UIC Permit NE0122611
November 2018 Monthly Restoration Report

Dear Ms. Link:

Please find enclosed the November 2018 Monthly Restoration Reports for Mine Units 2, 3, 4, 5, 6 and 7. The reverse osmosis (RO) units continue to inject permeate and reductant into Mine Unit 6 as well as Mine Unit 7. Composite guideline 8 samples were collected from Mine Units 3, 4, and 5 to continue with stability monitoring in those Mine Units. Concurrent with composite guideline 8 samples in Mine Units 3, 4, and 5, in-house samples were collected, and these results are included in this report.

Mine Unit 2 remained in stability monitoring.

If you have any questions regarding this submittal, please feel free to contact me at (308) 665-2215, ext. 117.

Sincerely,
Cameco Resources
Crow Butte Operation

Walter D. Nelson
SHEQ Coordinator

Enclosures: As Stated

cc: Ron Burrows – NRC
CBO - File
ec: CR – Electronic File
Kory Winters – NDEQ Field Office
Amanda Jones – NDEQ Program Coordinator

CROW BUTTE MINE

MONTHLY RESTORATION REPORT

November 2018

MINE UNIT 2

1. RESTORATION ACTIVITY DURING MONTH:

	YES	NO	
a. Groundwater Transfer		X	(if yes, complete part 2)
b. Groundwater Sweep		X	(if yes, complete part 3)
c. Groundwater Treatment		X	
d. Wellfield Recirculation		X	
e. Other (explain):	X		The Mine Unit is in Stability Monitoring.

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

No wells were sampled during the month.

CROW BUTTE MINE
MONTHLY RESTORATION REPORT

November 2018

MINE UNIT 3

1. RESTORATION ACTIVITY DURING MONTH:

	YES	NO	
a. Groundwater Transfer		X	(if yes, complete part 2)
b. Groundwater Sweep		X	(if yes, complete part 3)
c. Groundwater Treatment		X	
d. Wellfield Recirculation		X	
e. Other (explain):	X		Composite G-8 sample collected October 8.

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

CM1-1, CM1-10, CM1-11, IJ13P, P217, P224, P246, I288, I298P, I304, I315, I320P, I326, I372P

Mine Unit 3 Restoration Data

Well ID	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
CM1-1	11/13/2018	228	8.43	53	1.82	163	100	784	8.44	486	0.01	1.06	0.208
CM1-10	11/13/2018	288	8.04	67	1.63	203	104	956	7.92	593	0.15	0.46	0.018
CM1-11	11/13/2018	540	62.12	244	12.67	500	421	2399	7.47	1487	0.08	0.24	0.045
I288	11/13/2018	415	12.98	115	2.22	339	217	1372	7.33	851	0.20	9.61	0.045
I298P	11/13/2018	218	5.54	71	0.63	173	97	762	7.92	472	0.04	0.18	0.029
I304	11/13/2018	252	4.66	64	0.66	181	89	831	7.79	515	0.15	0.65	0.046
I315	11/13/2018	329	14.04	134	3.12	297	203	1430	8.09	887	0.02	1.00	0.034
I320P	11/13/2018	263	28.85	206	5.89	324	297	1662	8.02	1030	0.22	0.88	0.028
I326	11/13/2018	302	6.70	64	1.38	204	97	931	7.99	577	0.02	1.15	0.531
I372P	11/13/2018	200	5.74	48	1.01	158	106	714	7.51	443	0.06	0.04	0.007
I113P	11/13/2018	318	9.08	109	2.43	270	168	1187	7.68	736	0.13	1.08	0.009
P217	11/13/2018	198	6.70	64	0.61	174	127	811	7.68	503	0.23	0.10	0.029
P224	11/13/2018	242	5.45	90	1.09	218	149	1016	7.55	630	0.05	1.16	0.06
P246	11/13/2018	189	7.94	61	1.33	146	92	725	7.98	450	0.03	0.26	0.042

CROW BUTTE MINE

MONTHLY RESTORATION REPORT

November 2018

MINE UNIT 4

1. RESTORATION ACTIVITY DURING MONTH:

	YES	NO	
a. Groundwater Transfer		X	(if yes, complete part 2)
b. Groundwater Sweep		X	(if yes, complete part 3)
c. Groundwater Treatment		X	IX and RO
d. Wellfield Recirculation		X	
e. Other (explain):	X		Composite G-8 sample collected November 8.

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

BL-8, BL-9, BL-10, BL-18, BL-19, BL-20, CM1-7, CM2-1, CM2-2, CM2-3, CM2-4, CM3-9, CM3-10, PM-3, P390, P391, P392, P393, P394, P456, I508P, I526P, I533P, I534P, I535P, I536P, I537P, I538P, I539P, I540P, I541P, I542P, I543P, I544P, I545P, I546P, I547P, I548P, I549P, I550P, I551P, I552P

Mine Unit 4 Restoration Data

Well ID	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
BL-10	11/13/2018	357	12.23	117	3.07	293	186	1425	7.98	884	0.03	1.97	0.222
BL-18	11/13/2018	286	3.76	50	0.63	182	76	897	8.48	556	0.02	0.82	1.183
BL-19	11/13/2018	294	3.78	54	0.72	193	81	936	8.38	580	0.02	1.89	0.254
BL-20	11/13/2018	299	5.85	81	0.75	228	129	1123	8.28	696	0.06	0.55	0.05
BL-8	11/13/2018	226	2.25	31	0.37	129	33	609	8.46	378	0.04	0.61	0.371
BL-9	11/13/2018	312	10.77	120	2.82	275	187	1342	7.62	832	0.23	0.57	0.078
CM1-7	11/13/2018	389	9.62	103	2.46	304	185	1421	7.92	881	0.01	1.05	0.089
CM2-1	11/13/2018	425	22.83	86	5.65	294	183	1430	7.63	887	0.09	1.35	0.065
CM2-2	11/13/2018	283	10.67	77	2.47	210	119	1029	8.16	638	0.05	0.21	0.258
CM2-3	11/13/2018	238	5.87	58	1.09	166	82	811	8.11	503	0.02	0.19	0.106
CM2-4	11/13/2018	357	10.57	138	2.76	326	209	1527	7.91	947	0.04	0.50	0.019
CM3-10	11/13/2018	377	8.64	72	1.77	248	125	1230	8.36	763	0.09	0.35	0.052
CM3-9	11/13/2018	539	35.75	180	8.46	432	307	2176	8.3	1349	0.11	1.00	0.413
I508P	11/13/2018	295	6.45	91	1.16	217	106	1088	8.02	675	0.03	1.61	0.068
I526P	11/13/2018	150	7.45	32	1.11	86	36	473	8.07	293	0.04	0.22	0.033
I533P	11/13/2018	561	29.34	210	7.39	481	330	2278	8.09	1412	0.03	2.62	0.215
I534P	11/13/2018	401	11.65	142	3.09	349	217	1659	7.95	1029	0.02	2.14	0.276
I535P	11/13/2018	481	29.21	97	5.02	292	133	1496	7.33	928	0.93	0.75	0.106
I536P	11/13/2018	404	15.78	131	4.02	338	217	1680	8.17	1042	0.01	2.53	0.068

Mine Unit 4 Restoration Data

Well ID	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
I537P	11/13/2018	424	23.43	187	4.43	386	266	1949	7.72	1208	0.02	0.04	0.015
I538P	11/13/2018	445	21.75	148	5.56	376	248	1863	7.94	1155	0.02	1.69	0.134
I539P	11/13/2018	358	17.14	97	4.35	258	150	1338	8.04	830	0.04	2.39	0.442
I540P	11/13/2018	255	6.19	62	0.94	186	97	941	8.24	583	0.03	1.71	0.19
I541P	11/13/2018	199	2.28	31	0.27	116	34	573	8.8	355	0.03	0.59	0.571
I542P	11/13/2018	385	13.52	108	3.41	305	190	1509	8	936	0.01	1.70	0.15
I543P	11/13/2018	340	10.75	115	2.44	290	185	1437	7.93	891	0.03	0.86	0.031
I544P	11/13/2018	385	13.72	93	3.57	286	178	1417	7.79	879	0.02	1.31	0.19
I545P	11/13/2018	319	13.11	73	3.24	234	144	1160	7.72	719	0.02	0.64	0.205
I546P	11/13/2018	578	38.14	169	9.92	457	344	2291	8.1	1420	0.04	1.48	0.032
I547P	11/13/2018	239	8.26	44	1.00	165	86	808	7.51	501	0.15	0.73	0.026
I548P	11/13/2018	735	54.07	266	14.82	674	560	3213	7.74	1992	0.06	1.29	0.175
I549P	11/13/2018	282	15.90	115	2.84	265	207	1371	7.26	850	0.74	2.06	0.024
I550P	11/13/2018	296	9.38	113	2.21	288	208	1392	7.43	863	0.10	0.41	0.056
I551P	11/13/2018	606	41.27	178	9.84	514	405	2481	7.57	1538	0.03	5.75	0.301
I552P	11/13/2018	774	69.15	281	16.81	750	729	3641	7.92	2257	0.34	7.50	0.198
P390	11/13/2018	403	20.20	117	2.79	323	189	1578	8.02	978	0.08	2.44	0.073
P391	11/13/2018	332	5.37	56	1.12	205	76	1005	8.43	623	0.02	2.88	0.128
P392	11/13/2018	295	5.97	43	1.25	176	63	874	8.28	542	0.02	0.78	0.137

Mine Unit 4 Restoration Data

Well ID	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
P393	11/13/2018	661	73.10	218	13.61	519	420	2694	7.39	1670	0.03	1.28	0.032
P394	11/13/2018	319	23.19	118	4.23	274	196	1423	7.58	882	0.12	0.40	0.031
P456	11/13/2018	311	13.80	76	2.74	224	128	1141	8.01	707	0.07	0.93	0.34
PM-3	11/13/2018	333	16.29	115	4.00	274	190	1420	8.32	880	0.02	0.89	0.056

CROW BUTTE MINE

MONTHLY RESTORATION REPORT

November 2018

MINE UNIT 5

1. RESTORATION ACTIVITY DURING MONTH:

	YES	NO	
a. Groundwater Transfer		X	(if yes, complete part 2)
b. Groundwater Sweep		X	(if yes, complete part 3)
c. Groundwater Treatment		X	
d. Wellfield Recirculation		X	
e. Other (explain):	X		Composite G-8 sample collected on October 1.

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

BL-14, BL-16, BL5-1, BL5-2, BL5-3, BL5-4, BL5-5, CM2-9, CM2-10, CM3-1, CM3-2, CM3-3, CM5-11, CM5-19, CPW-1, I675P, I676P, I678P, P679, P680, P682, P683, I685P, I686P, I687P, I688P, I689P, P690, P691, I692P, I693P, P694, P695, I696P, I698P, P699, P700, P701, P751, P789, I792P, P810, P837, P889, P908, P1003, P1039, P1050, P1060, P1075, P1117, I1126P, P1137, P1155, P1156, P1209, P1216, P1239, P1885

Mine Unit 5 Restoration Data

Well ID	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
BL-14	11/7/2018	198	3.29	47	0.55	156	110	797	8.44	494	0.01	0.06	0.016
BL-16	11/7/2018	317	6.33	70	1.35	235	139	1139	8.18	706	0.03	0.64	0.019
BL5-1	11/7/2018	228	4.25	50	0.77	164	94	829	8.52	514	0.02	0.16	0.019
BL5-2	11/7/2018	317	9.02	104	2.04	274	189	1343	8.35	833	0.02	0.64	0.021
BL5-3	11/7/2018	365	15.14	152	3.75	347	273	1736	8.13	1076	0.04	0.09	0.022
BL5-4	11/7/2018	365	12.01	125	3.00	313	225	1538	8.16	954	0.05	0.16	0.015
BL5-5	11/7/2018	273	8.34	99	1.87	248	185	1257	8.28	779	0.03	0.03	0.027
CM2-10	11/7/2018	284	7.45	69	1.52	210	130	943	8.15	585	0.03	3.53	0.098
CM2-9	11/7/2018	230	2.79	30	0.51	143	60	585	8.68	363	0.14	0.42	0.017
CM3-1	11/7/2018	234	3.80	38	0.61	154	82	690	8.53	428	0.05	0.22	0.115
CM3-2	11/7/2018	179	3.01	33	0.36	127	86	660	8.44	409	0.03	0.02	0.019
CM3-3	11/7/2018	319	8.84	102	2.00	270	190	1332	8.06	826	0.05	3.87	0.322
CM5-11	11/7/2018	308	15.49	188	3.84	377	346	1911	8.2	1185	0.02	0.04	0.03
CM5-19	11/7/2018	299	15.70	181	3.96	360	325	1823	8.22	1130	0.06	0.02	0.026
CPW-1	11/7/2018	307	6.04	80	1.40	227	138	1142	8.41	708	0.02	1.54	0.027
I1126P	11/7/2018	313	6.55	73	1.32	220	125	1107	8.51	686	0.04	1.92	0.498
I675P	11/7/2018	247	3.99	75	0.76	206	143	926	7.73	574	0.10	0.24	0.338
I676P	11/7/2018	383	11.42	120	2.80	325	232	1447	7.86	897	0.03	3.67	0.371
I678P	11/7/2018	417	15.59	133	3.34	352	253	1720	8.2	1066	0.04	4.22	0.284

Mine Unit 5 Restoration Data

Well ID	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
I685P	11/7/2018	388	10.85	115	2.90	321	227	1523	8.14	944	0.02	2.65	0.334
I686P	11/7/2018	308	13.81	197	3.47	379	334	1811	7.72	1123	0.08	2.19	0.153
I687P	11/7/2018	275	8.57	103	1.87	253	185	1229	8.04	762	0.02	3.97	0.308
I688P	11/7/2018	305	13.57	181	2.99	379	330	1812	7.61	1123	0.08	4.18	0.078
I689P	11/7/2018	333	15.27	177	3.44	377	323	1805	7.71	1119	0.17	3.71	0.116
I692P	11/7/2018	545	20.59	202	5.58	480	331	2131	7.79	1321	0.04	7.50	0.415
I693P	11/7/2018	211	2.97	52	0.48	158	92	800	8.38	496	0.06	1.61	0.295
I696P	11/7/2018	304	10.95	185	2.85	374	345	1891	8.17	1172	0.06	1.43	0.217
I698P	11/7/2018	335	13.96	160	3.36	361	303	1781	8.18	1104	0.01	1.09	0.665
I792P	11/7/2018	263	7.36	120	1.78	263	204	1332	7.96	826	0.02	1.61	0.3
P1003	11/7/2018	298	15.04	195	3.79	377	341	1908	8.05	1183	0.03	3.28	0.241
P1039	11/7/2018	272	8.56	124	2.02	273	213	1381	8.46	856	0.01	0.75	2.362
P1050	11/7/2018	284	11.38	175	2.95	355	320	1781	7.9	1104	0.06	0.75	0.721
P1060	11/7/2018	304	7.67	141	1.93	322	254	1563	8.12	969	0.01	0.93	1.104
P1075	11/7/2018	273	11.42	157	2.65	316	286	1634	7.9	1013	0.05	2.13	0.164
P1117	11/7/2018	339	17.93	201	4.83	400	365	1998	8.02	1239	0.06	1.49	0.083
P1137	11/7/2018	311	8.00	15	1.57	243	162	1233	8.37	764	0.07	1.93	0.515
P1155	11/7/2018	421	21.84	194	5.57	428	374	2136	7.9	1324	0.03	4.29	0.174
P1156	11/7/2018	525	18.63	157	4.61	428	294	2076	8	1287	0.02	5.91	0.14

Mine Unit 5 Restoration Data

Well ID	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
P1209	11/7/2018	143	1.65	26	0.22	85	34	445	8.39	276	0.06	0.14	0.723
P1216	11/7/2018	454	8.28	89	2.00	314	168	1494	8.34	926	0.04	3.10	1.25
P1239	11/7/2018	300	10.34	109	2.61	270	208	1389	8.49	861	0.01	2.49	0.417
P1885	11/7/2018	254	7.37	123	1.34	269	224	1369	8	849	0.16	0.75	0.074
P679	11/7/2018	323	6.14	72	1.13	238	145	1077	7.91	668	0.17	1.21	0.284
P680	11/7/2018	294	5.30	86	1.10	236	152	1081	8.03	670	0.03	2.02	0.299
P682	11/7/2018	384	12.42	134	2.58	353	265	1604	8	994	0.14	2.95	0.089
P683	11/7/2018	293	6.12	78	1.34	225	148	1149	8.11	712	0.02	1.44	0.2
P690	11/7/2018	111	1.46	24	0.15	69	28	371	8.26	230	0.35	0.08	0.148
P691	11/7/2018	452	33.79	210	8.02	419	337	2160	7.94	1339	0.03	4.34	0.486
P694	11/7/2018	479	14.91	148	3.81	402	282	1957	8.13	1213	0.06	3.63	0.122
P695	11/7/2018	364	5.95	76	1.44	252	137	1240	8.25	769	0.04	2.42	0.329
P699	11/7/2018	266	4.09	76	1.08	216	137	1057	8.28	655	0.01	0.40	1.72
P700	11/7/2018	251	6.26	81	1.40	207	136	1051	8.46	652	0.01	0.68	0.507
P701	11/7/2018	294	13.74	186	3.35	372	332	1833	8.15	1136	0.01	0.41	1.421
P751	11/7/2018	436	12.43	144	3.23	386	277	1746	7.97	1083	0.01	6.70	0.516
P789	11/7/2018	308	13.48	187	3.45	365	319	1781	7.83	1104	0.02	1.09	0.062
P810	11/7/2018	335	12.20	166	3.07	373	310	1744	8.2	1081	0.04	1.87	0.033
P837	11/7/2018	265	4.53	67	0.96	194	119	992	8.2	615	0.02	0.52	0.064

Mine Unit 5 Restoration Data

Well ID	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
P889													
	11/7/2018	303	15.37	194	3.43	374	328	1813	7.9	1124	0.04	3.94	0.118
P908													
	11/7/2018	305	15.20	192	3.72	369	317	1821	8.02	1129	0.02	1.56	0.089

CROW BUTTE MINE

MONTHLY RESTORATION REPORT

November 2018

MINE UNIT 6

1. RESTORATION ACTIVITY DURING MONTH:

	YES	NO	
a. Groundwater Transfer		X	(if yes, complete part 2)
b. Groundwater Sweep	X		(if yes, complete part 3)
c. Groundwater Treatment	X		IX and RO P1265, I1267P, I1272P, I1285P, P1314, P1315, P1337, I1356P, P1377, P1402, P1428, P1494, P1612, P1625, P1628, P1706, P1800.
d. Wellfield Recirculation		X	
e. Other (explain):		X	

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

P1273, P1461, P1569.

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

P1265, I1267P, I1272P, P1273, I1285P, P1314, P1315, P1337, I1356P, P1377, P1402, P1428, P1461, P1494, P1612, P1625, P1628, P1706, and, P1800.

Mine Unit 6 Restoration Data

Well ID	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
I1267P													
	11/27/2018	442	24.31	232	6.93	464	381	2328	7.72	1443	0.01	1.00	0.32
I1272P													
	11/27/2018	514	31.01	222	8.40	495	401	2500	7.75	1550	0.04	1.85	0.063
I1285P													
	11/27/2018	345	5.07	96	1.45	268	156	1299	8.3	805	0.01	2.01	0.758
I1356P													
	11/27/2018	309	12.49	115	3.50	265	175	1328	7.78	823	0.04	4.55	0.265
P1265													
	11/27/2018	421	20.89	172	5.65	399	312	1986	7.95	1231	0.02	0.69	0.037
P1273													
	11/27/2018	385	10.60	134	2.83	331	221	1635	7.85	1014	0.04	2.38	0.136
P1314													
	11/27/2018	541	15.82	154	4.61	418	251	2000	8.03	1240	0.02	4.11	1.295
P1315													
	11/27/2018	458	23.89	211	6.44	471	374	2272	7.89	1409	0.03	0.53	0.195
P1337													
	11/27/2018	368	8.24	81	2.22	268	147	1280	8.11	794	0.05	2.16	0.63
P1377													
	11/27/2018	362	17.79	155	4.34	344	271	1771	7.93	1098	0.02	0.92	0.072
P1402													
	11/27/2018	429	13.74	130	3.55	350	232	1725	7.81	1070	0.05	1.99	0.319
P1428													
	11/27/2018	341	18.21	203	4.62	414	366	2062	7.92	1278	0.02	2.56	0.116
P1461													
	11/27/2018	371	19.19	30	5.21	430	372	2175	8.02	1349	0.02	1.89	0.446
P1494													
	11/27/2018	397	14.03	149	3.70	365	262	1808	7.87	1121	0.04	2.73	0.244
P1612													
	11/27/2018	260	3.22	47	0.72	169	76	824	8.66	511	0.01	1.14	1.714
P1625													
	11/27/2018	430	18.02	172	5.09	380	261	1870	8.09	1159	0.02	2.63	1.606
P1628													
	11/27/2018	335	7.81	141	2.44	322	233	1595	8.38	989	0.01	1.12	1.006
P1706													
	11/27/2018	377	4.21	86	1.41	270	142	1289	8.42	799	0.02	2.41	2.329
P1800													
	11/27/2018	444	15.80	157	4.37	388	259	1890	7.94	1172	0.01	2.06	0.294

CROW BUTTE MINE
MONTHLY RESTORATION REPORT

November 2018

MINE UNIT 7

1. RESTORATION ACTIVITY DURING MONTH:

	YES	NO	
a. Groundwater Transfer		X	(if yes, complete part 2)
b. Groundwater Sweep		X	(if yes, complete part 3)
c. Groundwater Treatment	X		IX and RO BL-17, P1957, P1972, P1986, P2014, P2035, P2038, P2040, P2108, P2188, P2219, P2264, P2303, P2316, P2340, P2359, P2361, P2384, P2395, P2399, P2401, I2429P, P2476, P2510, P2523, P2588, P2601, P2610, P2612, P2660, and P5283.
d. Wellfield Recirculation		X	
e. Other (explain):		X	

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

BL-17, P1569, P1957, P1972, P1986, P2014, P2035, P2038, P2040, P2108, P2188, P2219,
P2264, P2303, P2316, P2340, P2359, P2361, P2384, P2395, P2399, P2401, I2429P, P2476,
P2510, P2523, P2588, P2601, P2610, P2612, P2614, P2660

Mine Unit 7 Restoration Data

Well ID	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
BL-17	11/27/2018	781	33.59	229	9.67	635	466	2996	7.96	1858	0.01	1.94	1.611
I2429P	11/27/2018	978	81.87	343	22.97	895	865	4308	7.34	2671	0.05	14.89	0.678
P1569	11/27/2018	474	33.13	230	8.78	483	400	2425	7.87	1504	0.03	0.42	0.095
P1957	11/27/2018		93.52	398	27.15	1152	1039	5288	7.29	3279	0.01	12.74	0.736
P1972	11/27/2018		91.23	365	26.27	1098	1068	5004	7.28	3102	0.04	18.71	0.634
P1986	11/27/2018	714	39.68	285	12.47	688	598	3322	7.73	2060	0.01	4.64	0.702
P2014	11/27/2018		102.80	432	28.64	1101	1038	5362	7.29	3324	0.02	5.75	0.584
P2035	11/27/2018	992	66.70	323	18.17	884	759	4119	7.41	2554	0.04	11.91	0.414
P2038	11/27/2018		123.00	462	34.71	1241	1235	5779	7.04	3583	0.01	9.85	0.403
P2040	11/27/2018		134.10	497	42.76	1343	1335	6164	7.21	3822	0.02	12.27	0.205
P2108	11/27/2018		115.70	430	31.35	1218	1196	5620	7.24	3484	0.02	8.66	0.288
P2188	11/27/2018	752	45.35	304	13.16	708	629	3456	7.76	2143	0.01	17.10	0.955
P2219	11/27/2018	984	81.70	324	21.56	908	859	4279	7.22	2653	0.03	3.58	0.351
P2264	11/27/2018	505	18.66	192	5.89	464	366	2269	8.18	1407	0.03	1.59	0.626
P2303	11/27/2018	1101	86.21	352	25.44	1017	990	4787	7.2	2968	0.05	2.40	0.348
P2316	11/27/2018		120.70	446	37.17	1222	1183	5855	7.36	3630	0.01	5.38	1.317
P2340	11/27/2018	1089	92.06	346	25.25	963	902	4500	7.29	2790	0.13	3.60	0.207
P2359	11/27/2018		124.80	450	36.21	1327	1376	6116	7.09	3792	0.03	14.01	0.466
P2361	11/27/2018		121.20	447	31.58	1161	1212	5405	7.58	3351	0.01	5.66	0.61

Mine Unit 7 Restoration Data

Well ID	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
P2384	11/27/2018	107.10	385	32.75	1115	1148	5369	7.21	3329	0.01	5.83	1.034	
P2395	11/27/2018	119.10	444	31.77	1103	1132	5445	7.29	3376	0.01	6.83	0.681	
P2399	11/27/2018	100.70	358	26.38	1046	1007	4929	7.83	3056	0.08	24.09	1.017	
P2401	11/27/2018	1090	100.00	391	26.32	968	961	4875	7.26	3023	0.01	3.06	0.588
P2476	11/27/2018	91.38	419	29.04	1102	1042	5279	7.38	3273	0.02	4.41	1.404	
P2510	11/27/2018	634	43.92	246	10.64	563	509	2938	7.6	1822	0.01	4.70	0.603
P2523	11/27/2018	940	76.98	347	21.07	897	895	4313	7.48	2674	0.01	8.36	0.63
P2588	11/27/2018	107.60	445	32.38	1146	1150	5577	7.51	3458	0.01	4.34	1.201	
P2601	11/27/2018	602	38.18	271	10.46	579	501	2966	7.76	1839	0.05	1.46	0.834
P2610	11/27/2018	104.10	408	27.49	1061	998	5052	7.48	3132	0.03	6.71	1.29	
P2612	11/27/2018	107.30	404	31.91	1181	1224	5382	7.37	3337	0.01	9.65	1.295	
P2614	11/27/2018	806	43.22	305	13.68	725	597	3473	7.96	2153	0.05	1.78	0.222
P2660	11/27/2018	994	87.71	322	22.38	912	896	4375	7.46	2713	0.02	2.48	0.559