

**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 11, 2015

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

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

Class III UIC Permit NE0122611
November 2015 Monthly Restoration Report

Dear Ms. Link:

Please find enclosed the November 2015 Monthly Restoration Reports for Mine Units 2, 3, 4, 5 and 6. The reverse osmosis (RO) units continue to inject permeate and reductant into Mine Units 4, and 5, with groundwater sweep continuing in portions of the two mine units. IX treatment was suspended on May 11, 2015 in Mine Unit 6 so that piping changes can be made to allow for RO treatment. A small wellfield bleed continues in this mine unit for excursion control.

Mine Units 2 and 3 remain in stability monitoring.

If you have any questions regarding this submittal, please feel free to contact me at (308) 665-2215, ext. 114.

Sincerely,
Cameco Resources
Crow Butte Operation

Larry Teahon
SHEQ Manager

Enclosures: As Stated

cc: Ron Burrows - NRC
CBO - File
ec: CR - Casper
Nancy Harris - NDEQ Program Coordinator
Lena Vishni - NDEQ - Chadron Field Office

CROW BUTTE MINE
MONTHLY RESTORATION REPORT
NOVEMBER 2015
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:

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

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4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

No samples were collected during the month.

CROW BUTTE MINE
MONTHLY RESTORATION REPORT
NOVEMBER 2015
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		The Mine Unit is in Stability Monitoring.

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

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

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4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

No samples were collected during the month.

CROW BUTTE MINE
MONTHLY RESTORATION REPORT
NOVEMBER 2015
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		RO and Reductant CM2-2, I539P, I546P, and I547P.
d. Wellfield Recirculation		X	
e. Other (explain):			

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

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

CM1-7, CM2-4, P372, P391, P392, I535P, I536P, I543P, I544P, I545P, P6023, P6024, and P6029.

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

BL9, BL17, BL19, CM1-7, CM2-1, CM2-2, CM2-4, CM3-9, PM-3, P372, P391, P392, I533P, I534P, I535P, I536P, I537P, I538P, I539P, I540P, I541P, I543P, I544P, I545P, I546P, I547P, I552P, P6016, P6020, P6021, P6022, P6023, P6024 and P6029.

Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
BL-17	11/2/2015		78.43	374.0	20.82	992.2	928.6	4896	7.34	3305	-0.007	5.867	1.576
	11/16/2015		73.63	367.0	20.30	991.1	961.3	4775	7.44	3279	0.004	5.844	1.515
BL-19	11/2/2015	367.0	6.56	95.0	1.48	271.7	149.9	1322	8.22	827	0.010	6.191	0.731
BL-20	11/2/2015	311.0	5.79	79.0	1.04	227.1	126.8	1130	8.09	681	0.056	1.296	0.068
BL-9	11/30/2015		39.84		5.97	417.9	379.4					2.621	0.069
CM1-7	11/2/2015	355.0	14.28	156.0	3.75	312.5	241.0	1655	7.77	1043	-0.004	1.646	0.136
	11/16/2015	376.0	16.27	164.0	4.33	337.0	262.8	1724	7.68	1079	0.004	2.052	0.107
CM2-1	11/30/2015		18.07		3.72	178.9	126.4					0.759	0.072
CM2-2	11/16/2015	641.0	61.18	370.0	15.44	650.9	568.5	3323	7.50	2203	0.014	3.392	0.340
	11/24/2015		57.41		14.17	603.9	530.1					3.405	0.343
	11/30/2015		55.43		13.79	601.7	545.0					3.390	0.349
CM2-4	11/10/2015		67.48		17.33	727.1	646.4					3.177	0.317
	11/16/2015	372.0	14.81	137.0	3.76	306.9	227.1	1587	7.87	1008	0.022	0.690	0.032
	11/24/2015		14.88		3.64	293.1	220.1					0.693	0.068
	11/30/2015		15.22		3.76	297.8	232.1					0.666	0.071
CM3-9	11/2/2015	226.0	15.03	58.0	2.94	138.3	61.0	753	7.83	526	0.065	0.163	0.129
I533P	11/2/2015	379.0	14.15	170.0	3.24	359.1	263.1	1820	8.24	1129	0.014	2.442	0.139
I534P	11/2/2015	267.0	5.89	94.0	1.25	219.3	130.3	1106	8.26	672	-0.002	1.326	0.257
I535P	11/2/2015	531.0	32.90	270.0	8.84	515.3	469.0	2734	7.71	1763	-0.007	2.977	0.124

Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
I536P	11/10/2015		32.66		9.13	525.6	470.7					2.937	0.110
	11/16/2015	524.0	32.65	261.0	8.96	528.2	468.0	2686	7.74	1729	0.003	2.922	0.101
	11/24/2015		32.05		8.53	498.7	454.4					2.881	0.098
	11/30/2015		31.40		8.79	518.8	470.5					2.855	0.116
	11/2/2015	451.0	26.00	166.0	6.98	383.2	313.9	2022	7.74	1245	-0.008	6.873	0.186
	11/10/2015		24.18		6.47	367.9	301.1					6.645	0.166
	11/16/2015	442.0	23.37	162.0	6.26	362.7	298.1	1888	7.80	1166	0.002	6.314	0.160
	11/24/2015		22.98		6.20	354.4	297.0					6.259	0.161
	11/30/2015		21.80		6.08	354.9	288.0					6.013	0.171
	11/2/2015	194.0	7.53	76.0	0.79	157.9	96.4	842	8.16	536	0.000	0.091	0.018
I538P	11/2/2015	268.0	6.38	89.0	1.44	211.8	131.1	1074	8.39	644	-0.005	0.965	0.166
I539P	11/2/2015	487.0	25.10	203.0	6.88	433.4	340.5	2265	7.87	1410	0.008	2.984	0.174
	11/10/2015		24.23		6.78	424.6	326.8					2.872	0.165
	11/16/2015	482.0	23.22	180.0	6.38	411.7	320.2	2116	7.88	1300	0.019	2.824	0.158
	11/24/2015		23.37		6.24	404.5	304.8					2.810	0.158
	11/30/2015		21.68		6.06	399.8	307.1					2.822	0.173
I540P	11/2/2015	298.0	8.77	88.0	1.83	223.1	131.3	1140	7.95	686	0.017	2.992	0.239
I541P	11/2/2015	371.0	13.07	107.0	3.03	281.2	173.5	1389	8.27	872	0.012	3.252	0.291
I543P	11/2/2015		151.40	478.0	38.06	1068.0	1078.0	5525	7.16	3480	-0.009	15.680	0.267
	11/10/2015		146.20		37.97	1051.0	1048.0					15.100	0.269
	11/16/2015		147.10	465.0	38.09	1105.0	1048.0	5283	7.17	3384	0.000	15.040	0.261
	11/24/2015		130.50		33.71	972.1	1040.0					14.450	0.234

Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
I544P	11/30/2015		132.90		34.48	997.8	1031.0					14.200	0.257
	11/2/2015	807.0	86.87	332.0	21.84	677.5	653.1	3658	7.25	2441	-0.004	9.533	0.454
	11/10/2015		84.53		21.99	654.4	639.0					9.319	0.445
	11/16/2015	823.0	90.67	332.0	22.76	687.6	658.2	3664	7.29	2445	0.002	9.772	0.431
	11/24/2015		88.48		22.83	721.7	713.1					10.540	0.429
I545P	11/30/2015		96.47		24.86	734.4	694.9					10.210	0.456
	11/2/2015	724.0	80.59	316.0	20.10	623.5	592.9	3438	7.27	2276	-0.007	4.684	0.475
	11/10/2015		80.35		20.47	628.3	593.4					4.632	0.460
	11/16/2015	725.0	79.28	336.0	20.95	650.7	593.2	3372	7.28	2239	0.001	4.612	0.465
	11/24/2015		76.03		19.07	602.5	600.7					4.558	0.436
I546P	11/30/2015		75.68		19.48	618.7	587.2					4.600	0.453
	11/2/2015	859.0	103.30	490.0	25.82	835.8	779.0	4377	7.28	2908	0.041	3.997	0.096
	11/16/2015	866.0	103.20	492.0	25.45	833.7	768.1	4350	7.28	2895	0.072	3.829	0.086
	11/24/2015		105.30		25.42	831.3	761.4					3.916	0.094
	11/30/2015		106.80		26.78	835.3	801.1					3.934	0.098
I547P	11/2/2015	693.0	49.16	236.0	12.70	581.0	550.9	3094	7.20	2026	0.060	4.018	0.222
	11/10/2015		48.86		13.13	611.0	562.4					4.016	0.215
	11/16/2015	687.0	48.38	243.0	12.94	601.2	565.8	3054	7.20	1993	0.068	4.133	0.207
	11/24/2015		49.64		12.82	580.5	563.6					4.038	0.189
	11/30/2015		52.96		13.88	606.0	604.4					4.257	0.211
I552P	11/2/2015	258.0	19.55	102.0	1.38	183.2	104.1	1013	7.99	609	0.219	0.262	0.220
P372	11/16/2015	584.0	40.74	273.0	9.77	522.2	462.1	2752	7.36	1777	0.056	17.780	0.164
	11/24/2015		41.23		9.88	516.6	454.6					17.190	0.175

Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
P391	11/30/2015		41.76		10.22	530.5	468.3					17.300	0.183
	11/2/2015	406.0	18.28	166.0	4.70	354.5	289.3	1897	8.06	1171	-0.007	1.712	0.162
	11/10/2015		17.95		4.71	351.4	280.2					1.657	0.144
	11/16/2015	398.0	17.98	155.0	4.69	355.7	283.9	1791	8.04	1114	0.003	1.734	0.138
	11/24/2015		17.50		4.41	327.9	273.0					1.652	0.136
	11/30/2015		17.17		4.53	346.0	270.3					1.671	0.156
P392	11/2/2015	899.0	101.50	369.0	24.92	801.2	778.2	4173	7.34	2807	-0.008	4.631	0.371
	11/10/2015		97.35		24.92	777.3	773.5					4.644	0.344
	11/16/2015	891.0	98.14	366.0	24.33	785.3	781.7	4032	7.37	2672	0.001	4.596	0.337
	11/24/2015		94.20		23.40	749.0	755.3					4.626	0.330
	11/30/2015		96.64		24.28	770.1	772.3					4.814	0.348
P6016	11/2/2015	498.0	36.14	205.0	6.91	460.4	406.1	2373	7.85	1499	0.049	0.780	0.027
P6020	11/2/2015	345.0	19.16	210.0	4.39	416.7	397.8	2119	8.15	1302	0.014	0.049	0.015
P6021	11/2/2015	273.0	6.69	63.0	0.98	192.8	109.5	979	8.50	597	0.006	0.889	0.020
P6022	11/2/2015	268.0	14.40	115.0	2.90	263.7	239.4	1378	8.11	867	0.008	0.128	0.010
P6023	11/2/2015	655.0	42.87	215.0	10.61	592.9	574.8	3051	7.07	1991	0.005	1.550	0.034
	11/3/2015		42.87		10.61	592.9	574.8					1.550	0.034
	11/10/2015		42.36		11.40	612.3	597.0					1.618	0.024
	11/16/2015	655.0	42.60	229.0	10.84	601.6	587.6	3046	7.11	1988	0.012	1.802	0.017
	11/24/2015		42.95		11.14	590.8	556.0					1.880	0.021
	11/30/2015		44.11		11.83	628.2	609.7					2.039	0.036
P6024													

Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
P6029	11/2/2015	850.0	78.04	321.0	19.53	748.5	713.2	3852	7.26	2591	0.041	2.291	0.053
	11/10/2015		77.39		19.64	756.0	709.9					2.200	0.042
	11/16/2015	829.0	77.65	335.0	18.59	728.1	711.4	3751	7.24	2514	0.092	2.132	0.038
	11/24/2015		75.70		17.83	674.9	667.9					2.016	0.036
	11/30/2015		78.53		19.67	738.0	715.1					2.019	0.053
	11/2/2015		183.00	451.0	42.19	1103.0	1182.0	5809	7.13	3647	0.144	16.860	0.101
	11/10/2015		175.40		42.45	1102.0	1161.0					15.770	0.084
	11/16/2015		187.00	456.0	42.71	1124.0	1187.0	5689	7.18	3281	0.163	15.870	0.083
	11/24/2015		172.90		39.87	1080.0	1199.0					15.600	0.097
	11/30/2015		165.90		41.87	1090.0	1173.0					14.990	0.102
PM-3	11/2/2015	212.0	6.14	62.0	1.40	157.8	93.3	821	8.07	532	-0.001	0.169	0.070

CROW BUTTE MINE
MONTHLY RESTORATION REPORT
NOVEMBER 2015
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		RO and Reductant P693, P796, P789, I854P, P859, P1156, and P1259.
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:
BL5-3, BL5-4, BL5-5, CPW-1, P837, P1117, and P1213.

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

BL5-3, BL5-4, BL5-5, BL-14, CM2-9, CM3-1, CPW1, I676P, P679, P680, P682, P683, I685P, I686P, I689P, P691, P692, P693, I696P, P751, P789, P796, P837, P854, P859, P889, P1050, P1117, I1126P, P1155, P1156, P1209, P1213, P1216, and P1259,

Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
BL-14	11/2/2015	204	2.18	24	0.39	130.3	76.8	638	8.55	404	0.000	0.108	0.013
BL5-3	11/2/2015	447	34.21	234	8.11	461.9	450.9	2467	7.82	1568	0.078	0.081	0.005
	11/10/2015		31.97		7.72	442.4	426.3					0.090	0.021
	11/16/2015	421	30.20	214	7.34	436.4	421.8	2241	7.85	1390	0.070	0.084	0.006
	11/24/2015		28.53		6.76	403.1	393.9					0.123	-0.010
	11/30/2015		27.18		6.64	399.2	387.2					0.091	0.015
BL5-4	11/2/2015	424	23.35	180	5.64	402.1	355.9	2069	7.87	1273	0.047	0.246	0.047
	11/10/2015		22.23		5.37	387.9	336.9					0.259	0.039
	11/16/2015	416	21.71	157	5.36	410.1	356.6	1944	7.92	1199	0.044	0.265	0.014
	11/30/2015		19.96		4.86	372.1	326.1					0.267	0.019
BL5-5	11/2/2015	404	30.98	248	7.49	475.7	486.2	2490	7.95	1585	0.036	0.172	0.017
	11/10/2015		28.31		6.88	453.5	457.0					0.164	-0.010
	11/16/2015	380	27.14	233	6.59	442.1	444.4	2274	8.00	1418	0.039	0.220	0.039
	11/24/2015		25.85		6.16	418.4	416.8					0.218	-0.004
	11/30/2015		24.63		5.90	409.2	418.8					0.196	0.000
CM2-9	11/16/2015	246	4.76	63	1.00	189.7	135.9	985	8.48	598	0.040	0.501	0.002
CM3-1	11/2/2015	206	3.85	38	0.59	140.4	79.7	690	8.63	484	0.067	0.243	0.284
CPW-1	11/2/2015	515	35.54	266	8.67	523.6	475.9	2730	7.88	1761	0.083	2.072	0.093
	11/10/2015		34.30		8.45	500.8	456.4					1.967	0.093
	11/16/2015	505	34.51	255	8.42	506.5	467.5	2592	7.89	1660	0.089	2.010	0.101
	11/24/2015		33.43		8.28	507.2	464.2					2.066	0.105
	11/30/2015		32.60		8.02	485.9	443.0					1.976	0.103
I1126P	11/30/2015		6.76		1.40	190.5	141.7					1.645	0.576
I676P	11/16/2015	351	12.36	125	2.78	312.3	254.7	1587	8.04	1008	0.028	2.934	0.319
I685P	11/30/2015		30.31		8.19	566.9	543.5					5.100	0.502
I686P													

Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
I689P	11/16/2015	307	13.65	163	2.88	348.8	316.5	1742	7.91	1088	0.159	1.839	0.137
	11/2/2015	343	14.76	134	2.76	329.8	277.6	1629	8.02	1029	0.151	2.533	0.320
I692P	11/2/2015	204	3.69	45	0.76	149.7	81.8	726	8.43	508	0.083	0.984	0.598
I693P	11/2/2015	361	14.58	199	3.30	394.1	377.6	2076	8.05	1277	-0.003	6.660	0.796
	11/10/2015		14.28		3.24	384.4	362.2					6.187	0.839
I696P	11/16/2015	356	14.33	182	3.23	394.2	371.6	1974	8.08	1216	0.043	6.405	0.842
	11/24/2015		14.20		3.15	372.8	355.8					6.415	0.880
	11/30/2015		14.54		3.35	406.4	375.5					6.780	0.957
	11/16/2015	256	10.78	162	2.13	315.6	300.4	1610	8.29	1020	0.091	1.051	0.138
I854P	11/2/2015		13.39		3.30	349.7	316.7				0.003	0.869	0.021
	11/10/2015		13.28		3.28	350.0	317.6					0.867	0.013
	11/16/2015		13.25		3.24	348.1	316.4				0.019	0.882	0.009
	11/24/2015		13.32		3.23	339.5	313.7					0.865	0.017
	11/30/2015		13.63		3.36	346.9	321.5					0.870	0.022
	11/2/2015	177	4.04	72	0.70	187.6	164.5	946	8.17	586	-0.001	0.258	0.928
P1050	11/16/2015	203	5.00	108	1.11	229.0	212.0	1186	8.35	712	0.007	0.308	1.853
P1060	11/2/2015	340	15.44	184	4.06	389.4	380.8	2041	7.93	1257	0.045	1.889	0.133
P1117	11/10/2015		14.99		4.00	378.7	371.1					1.793	0.123
	11/16/2015	339	15.21	180	3.99	387.3	374.6	1976	7.94	1318	0.078	1.884	0.117
P1155	11/30/2015		14.69		3.90	375.3	364.7					1.900	0.123
	11/2/2015	132	2.18	33	0.39	95.1	49.2	472	8.69	314	0.007	0.132	0.117
P1156	11/2/2015	397	15.57	151	3.86	366.2	294.6	1863	7.98	1152	-0.005	2.566	0.282
	11/10/2015		15.62		3.89	352.9	287.7					2.537	0.267
	11/16/2015	395	15.80	148	3.98	366.1	293.0	1802	7.96	1120	0.007	2.674	0.277
	11/24/2015		16.66		4.08	359.1	294.9					2.668	0.267
	11/30/2015		16.42		4.17	363.9	301.7					2.828	0.282

Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
P1209	11/16/2015	392	26.32	257	6.62	450.3	425.1	2388	7.87	1510	0.037	6.841	0.214
P1213	11/2/2015		17.15		4.32	399.3	327.4				-0.007	1.831	1.276
P1216	11/2/2015	945	55.82	377	14.36	810.1	618.4	3905	7.69	2615	-0.001	13.260	1.485
P1259	11/2/2015	494	14.20	138	3.91	387.1	255.1	1896	7.95	1171	-0.003	6.960	1.401
	11/10/2015		13.39		3.74	369.9	240.5					6.553	1.319
	11/16/2015	492	12.96	144	3.63	374.8	248.0	1827	8.01	1133	0.005	7.178	1.239
	11/24/2015		12.92		3.55	354.0	233.1					6.731	1.185
	11/30/2015		13.02		3.63	365.2	236.8					6.764	1.214
P1885	11/2/2015	244	6.91	65	0.85	198.5	134.9	962	8.10	589	0.106	0.810	0.080
P679	11/2/2015	203	3.92	42	0.60	148.6	89.7	745	8.24	522	0.095	0.542	0.399
P680	11/2/2015	298	4.30	62	0.92	224.6	144.2	1094	8.34	659	0.037	2.347	0.635
P682	11/16/2015	164	3.57	35	0.40	98.8	44.8	514	8.65	354	0.207	0.327	0.759
P683	11/30/2015		3.90		0.83	116.6	80.2					0.729	0.405
P691	11/16/2015	357	28.16	121	5.73	286.9	230.8	1535	7.99	978	0.029	1.846	0.168
P694	11/16/2015	169	3.96	50	0.74	128.2	78.5	656	8.17	412	0.167	0.261	0.108
P751	11/16/2015	283	6.27	72	1.14	211.3	134.4	1065	8.28	639	0.024	5.168	0.284
P789	11/2/2015	309	14.02	167	3.29	346.2	332.1	1830	7.72	1134	0.001	1.387	0.114
	11/30/2015		13.40		2.85	296.7	328.0					1.076	0.085
P796	11/2/2015	355	21.12	168	4.86	366.2	339.2	1902	7.83	1174	0.026	0.699	0.035
	11/16/2015	358	20.55	165	4.70	363.5	328.8	1849	7.89	1143	0.021	0.711	0.016
	11/24/2015		20.28		4.49	337.1	315.8					0.716	0.018
	11/30/2015		18.91		4.36	343.4	318.4					0.716	0.022

Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	Fe	U	V
P837													
	11/2/2015	363	21.65	155	5.43	353.1	309.3	1823	7.87	1130	0.761	1.327	0.184
	11/10/2015		23.99		6.03	381.3	343.7					1.454	0.135
	11/16/2015	402	23.21	170	5.85	381.3	342.5	1973	7.91	1216	0.012	1.452	0.131
	11/24/2015		23.02		5.76	336.4	309.1					1.327	0.123
	11/30/2015		22.40		5.66	361.6	330.1					1.456	0.146
P859													
	11/2/2015	365	20.00	200	4.96	403.3	370.1	2074	8.10	1276	0.051	1.814	0.585
	11/10/2015		18.85		4.80	389.8	363.3					1.761	0.568
	11/16/2015	354	17.76	194	4.44	370.2	357.3	1962	8.14	1212	0.026	1.717	0.525
	11/24/2015		17.12		4.28	353.2	338.6					1.642	0.508
	11/30/2015		17.18		4.37	368.5	335.6					1.621	0.558
P889													
	11/30/2015		20.69		2.86	327.1	346.3					3.980	0.142

CROW BUTTE MINE
MONTHLY RESTORATION REPORT
NOVEMBER 2015
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	
d. Wellfield Recirculation		X	
e. Other (explain):	X		IX treatment was suspended on May 11, 2015 so that piping changes can be made to the mine unit to allow for RO treatment. A small wellfield bleed continues for excursion control.

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

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

P1312 is being used to maintain an inward hydraulic gradient.

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

P1312, P1318, P1336, P1337, P1374, P1377, P1399, P1402, P1404, P1421, P1428, P1439, and P1449.

MU6 Restoration Data

Well Name	Date	Alk	Cl	Ca	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
P1312	11/2/2015			62.47	16.89	963.9	791.8					-0.01	15.020	0.902
	11/10/2015			60.41	16.81	964.5	786.8						15.320	0.89
	11/16/2015			60.49	16.78	982.1	798					0.02	15.520	0.875
	11/24/2015			61.68	16.53	956.9	760.2						15.300	0.948
	11/30/2015			59.16	16.00	901.0	768.4						15.430	0.89
P1318	11/30/2015			49.02	15.20	976.2	808.6						6.609	1.282
P1336	11/30/2015			77.00	21.95	1157.0	934.5						21.510	0.746
P1337	11/30/2015			64.04	19.76	1118.0	928.4						19.320	1.421
P1374	11/30/2015			56.33	17.10	1049.0	843.7						23.820	1.356
P1377	11/30/2015			87.42	19.45	876.5	827.8						12.940	0.24
P1399	11/30/2015			91.69	21.30	920.4	892.9						9.570	0.335
P1402	11/30/2015			85.32	20.49	1071.0	918.6						19.840	0.11
P1404	11/30/2015			74.88	19.39	1021.0	869						9.597	0.147
P1421	11/16/2015			30.12	6.21	518.4	520.7					0.39	3.684	0.027
	11/24/2015			30.05	7.47	527.2	529.1						4.326	0.205
	11/30/2015			35.11	8.92	575.5	579.3						4.483	0.286
P1428	11/16/2015			28.86	4.91	472.7	486.6					0.32	13.000	0.054
	11/24/2015			28.99	6.60	502.6	517.8						10.030	0.079
	11/30/2015			29.16	6.84	506.9	541.3						10.950	0.095
P1439	11/30/2015			65.26	19.30	1141.0	956.2						10.230	1.225
P1449	11/30/2015			70.47	19.30	1128.0	926.6						20.990	0.273