

**CAMECO RESOURCES
CROW BUTTE OPERATION**



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

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

August 14, 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
July 2015 Monthly Restoration Report

Dear Ms. Link:

Please find enclosed the July 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
cc: CR - Casper
Shar Sapp – Chadron Field Office

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 JULY 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:

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

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

No samples were collected during the month.

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 JULY 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:

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

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

No samples were collected during the month.

CROW BUTTE MINE
MONTHLY RESTORATION REPORT
JULY 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 P392, P410, I539P, I543P, I544P, 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:

BL10, CM1-7, CM2-4, PM-3, P372, P391, P430, I535P, I536P, I538P, I545P, P6023, P6024, and P6029.

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

BL10, BL17, CM1-7, CM2-1, CM2-2, CM2-3, PM-3, P372, P391, P392, P410, P430, P456, I526P, I534P, I535P, I536P, I537P, I538P, I539P, I540P, I541P, I542P, I543P, I544P, I545P, I546P, I547P, I552P, P6023, P6024 and P6029.

Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
BL-10	7/7/2015		21.04		5.68	396.7	259.6						3.873	0.325
	7/14/2015	468.0	20.34	163.0	5.35	376.5	249.2	2015	7.83	1241		0.001	3.748	
	7/21/2015		19.69		5.30	378.3	279.3						3.642	0.340
	7/28/2015		19.57		5.21	368.7	271.3						3.606	0.338
BL-17	7/14/2015		88.18	386.0	25.00	1113.0	977.6	5390	7.41	3404		-0.001	5.453	
CM1-7	7/7/2015		18.55		5.59	364.6	242.8						2.819	0.115
	7/14/2015	416.0	18.99	168.0	5.57	352.0	239.1	1946	7.65	1200		0.005	2.832	
	7/21/2015		19.20		5.76	363.8	282.3						2.757	0.117
CM2-1	7/20/2015	364.0	22.57	146.0	6.16	296.1	228.8	1729	7.80	1082	0.009	0.015	1.105	
	7/21/2015		22.57		6.16	296.1	228.8						1.105	0.079
CM2-2	7/20/2015	392.0	24.40	183.0	5.36	342.6	259.9	1901	7.91	1173	0.024	0.218	0.683	
	7/21/2015		24.40		5.36	342.6	259.9						0.683	0.211
CM2-3	7/20/2015	399.0	13.62	136.0	3.66	314.4	224.8	1705	7.69	1068	0.022	0.019	0.209	
	7/21/2015		13.62		3.66	314.4	224.8						0.209	0.262
I526P	7/20/2015	278.0	14.66	77.0	2.76	178.1	122.6	1001	7.44	604		0.080	0.411	
	7/21/2015		14.66		2.76	178.1	122.6						0.411	0.043
I534P	7/20/2015	299.0	4.96	72.0	1.10	195.5	99.5	1043	8.20	630	0.1	0.007	1.443	
I535P	7/7/2015		40.62		12.23	574.6	457.8						3.054	0.100
	7/14/2015	587.0	41.85	303.0	12.39	590.2	477.1	3149	7.71	2069		0.000	3.059	
	7/21/2015		39.95		11.78	573.9	509.3						2.955	0.111
	7/28/2015		39.98		11.72	578.0	509.9						2.957	0.113

Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
I536P	7/7/2015		30.08		8.58	429.4	329.3						8.910	0.140
	7/14/2015	482.0	29.22	188.0	8.30	423.3	329.4	2315	7.75	1448		-0.002	8.581	
	7/21/2015		26.87		7.59	404.4	351.1						7.803	0.135
	7/28/2015		26.98		7.49	409.6	351.4						7.698	0.154
I537P	7/20/2015	253.0	56.94	277.0	2.65	292.7	224.0	1806	7.93	1122	0	0.027	0.209	
I538P	7/7/2015		7.74		2.14	232.2	134.7						1.355	0.170
	7/14/2015	297.0	8.07	101.0	2.21	253.3	146.2	1307	8.33	821		0.000	1.328	
I539P	7/7/2015		31.61		9.55	510.9	385.4						3.609	0.130
	7/14/2015	534.0	32.07	235.0	9.51	521.0	392.7	2706	7.79	1743		0.009	3.557	
	7/21/2015		30.16		9.21	499.0	411.7						3.418	0.132
	7/28/2015		30.77		8.98	493.5	417.6						3.449	0.144
I540P	7/20/2015	397.0	16.61	130.0	3.75	321.3	253.7	1666	7.84	1048	0.045	0.072	6.117	
I541P	7/20/2015	254.0	8.65	95.0	2.16	256.2	155.7	1274	8.34	803	0.028	0.008	1.385	
	7/21/2015		8.65		2.16	256.2	155.7						1.385	0.184
I542P	7/20/2015	782.0	105.90	302.0	30.13	623.0	671.4	3529	7.20	2341	0.024	0.021	3.451	
I543P	7/7/2015		194.80		55.53	1036.0	1070.0						13.320	0.256
	7/14/2015		187.40	467.0	51.55	1022.0	1059.0	5782	7.16	3627		-0.003	14.650	
	7/21/2015		189.30		52.01	1039.0	1109.0						16.060	0.261
	7/28/2015		198.20		53.12	1070.0	1138.0						17.300	0.257
I544P	7/7/2015		62.72		18.87	594.1	507.5						4.605	0.376
	7/14/2015	700.0	68.12	280.0	19.61	601.1	520.9	3346	7.28	2221		0.006	4.948	

Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
	7/21/2015		67.10		18.87	574.1	540.3						4.736	0.389
	7/28/2015		67.39		19.09	581.8	552.8						4.919	0.425
I545P	7/7/2015		52.16		15.02	479.2	376.4						2.897	0.419
	7/14/2015	567.0	56.88	237.0	16.32	506.6	402.1	2688	7.47	1730		0.000	3.087	
	7/21/2015		53.01		14.86	467.2	413.2						2.934	0.416
	7/28/2015		55.91		15.56	483.9	426.5						3.072	0.445
I546P	7/7/2015		83.75		23.14	737.3	611.7						3.713	0.065
	7/14/2015	775.0	85.17	444.0	23.39	738.5	611.9	4094	7.37	2700		0.072	3.634	
	7/21/2015		87.54		24.19	763.6	695.5						3.712	0.074
	7/28/2015		90.43		24.95	786.7	704.6						3.799	0.076
I547P	7/7/2015		65.14		18.93	693.6	617.3						5.496	0.218
	7/14/2015	795.0	62.93	278.0	18.60	706.7	625.7	3737	7.31	2504		0.249	5.393	
	7/21/2015		63.20		18.29	700.6	679.4						5.254	0.233
	7/28/2015		62.17		18.07	693.2	673.7						5.132	0.235
I552P	7/20/2015	348.0	24.90	174.0	4.41	335.5	307.8	1840	7.73	1139	0.061	0.131	1.561	
P372	7/7/2015		41.52		10.95	539.5	409.0						20.010	0.161
	7/14/2015	567.0	39.70	277.0	10.52	521.1	398.6	2832	7.35	1835		0.062	19.410	
	7/21/2015		41.00		10.76	526.3	452.4						18.920	0.168
	7/28/2015		41.74		10.90	531.3	456.9						19.130	0.149
P391	7/7/2015		26.05		7.39	429.2	338.9						2.098	0.170
	7/14/2015	432.0	25.27	205.0	7.09	431.1	337.2	2277	7.91	1420		0.000	2.073	
	7/21/2015		23.44		6.57	410.9	353.8						2.031	0.168
	7/28/2015		23.29		6.60	420.6	356.7						2.065	0.167

Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
P392	7/7/2015		99.08		26.28	719.8	639.6						4.278	0.310
	7/14/2015	840.0	103.00	374.0	27.29	761.7	682.5	4119	7.39	2711	-0.001		4.261	
	7/21/2015		96.98		26.39	732.3	720.8						4.235	0.302
	7/28/2015		103.00		27.03	753.5	747.5						4.372	0.331
P410	7/7/2015		104.30		27.92	742.6	653.1						4.160	0.340
	7/14/2015	901.0	115.90	395.0	30.43	798.5	721.8	4384	7.37	2912	0.002		4.288	
	7/21/2015		117.40		30.53	770.8	773.5						4.198	0.355
	7/28/2015		126.60		32.12	830.8	825.3						4.420	0.364
P430	7/14/2015	426.0	20.54	149.0	5.84	360.1	234.1	1875	7.69	1158	0.003		2.101	
	7/21/2015		18.97		5.53	350.7	256.4						2.085	0.243
	7/28/2015		19.32		5.53	351.2	252.2						2.086	0.238
P456	7/20/2015	423.0	29.16	129.0	5.15	325.9	266.7	1735	7.71	1085	0.036	0.362	0.786	
P6023	7/14/2015	632.0	45.96	231.0	12.40	653.7	592.2	3165	7.24	2081	0.010		1.108	
	7/14/2015		45.96		12.40	653.7	592.2						1.108	0.025
	7/21/2015		38.08		10.44	577.3	571.0						0.995	0.013
	7/28/2015		36.70		9.93	570.3	550.4						0.994	0.013
P6024	7/7/2015		89.03		24.56	850.3	705.2						3.766	0.029
	7/14/2015	918.0	84.30	398.0	22.73	794.1	663.5	4350	7.31	2895	0.069		3.553	
	7/21/2015		85.75		23.19	810.6	732.0						3.350	0.028
	7/28/2015		87.49		23.35	812.8	730.0						3.305	0.030
P6029	7/7/2015		174.90		44.30	1071.0	1072.0						17.480	0.061
	7/14/2015		184.10	458.0	45.80	1101.0	1096.0	5872	7.15	3685	0.267		17.140	

Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
	7/21/2015		176.10		45.43	1104.0	1130.0						17.250	0.065
	7/28/2015		174.90		43.58	1076.0	1162.0						17.640	0.063
PM-3														
	7/7/2015		6.14		1.68	189.4	105.9						0.409	0.070
	7/14/2015		5.79		1.62	183.2	102.5						0.410	0.114
	7/21/2015		5.78		1.55	183.9	117.1						0.420	0.078
	7/28/2015		5.81		1.56	183.4	115.8						0.412	0.105

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 JULY 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 I678P, P683, I685P, P695, P789, P796, P810, I1126P, P1156, P1239, and, I1246P.
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, I676P, I693P, P837, P859, P908, P1002, P1117, P1203, P1213, and P1259.

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

BL5-1, BL5-2, BL5-4, BL5-5, BL-14, BL-16, CM3-1, CM3-2, CM3-3, CPW1, I678P, P683, I675P, I676P, I678P, P679, P680, I685P, I687P, P690, I692P, P693, P695, I698P, P699, P700, P701, P789, I792P, P796, P810, 37837, P859, P908, P1002, P1003, P1039, P1050, P1075, P1117, I1126P, I1137, P1155, P1156, P1203, P1216, P1239, P1246, P1259, P1885, P6016, P6020, P6021, and P6022.

Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
BL-14	7/14/2015	216	2.57	29	0.46	135.0	71.8	700	8.48	490	0.01	0.00	0.108	0.014
BL-16	7/20/2015	342	7.54	91	1.76	260.1	185.5	1324	8.18	828		0.02	1.466	0.005
BL5-1	7/14/2015	281	6.15	67	1.39	215.7	115.9	1115	8.41	675	0.00	0.02	0.308	0.008
BL5-2	7/14/2015	329	8.09	59	1.95	245.5	127.9	1203	8.33	716	0.00	0.04	0.103	0.013
BL5-4	7/20/2015	656	44.13	286	11.79	627.6	566.9	3098	7.74	2029		0.17	0.721	0.017
BL5-5	7/7/2015		55.32		14.52	657.7	613.8						0.317	-0.020
	7/14/2015	551	60.75	378	15.61	729.8	686.7	3685	7.90	2463		0.11	0.3	0.041
	7/21/2015		54.88		14.28	663.7	677.4						0.333	-0.018
	7/28/2015		52.86		13.72	669.1	682.7						0.308	-0.077
CM3-1	7/20/2015	227	8.63	31	0.70	131.6	71.7	687	8.00	481		0.17	0.279	0.628
CM3-2	7/14/2015	151	2.86	25	0.41	107.3	54.9	560	8.54	359	0.00	0.00	0.027	0.012
CM3-3	7/20/2015	457	24.35	200	6.06	432.4	384.3	2235	7.91	1386		0.03	10.35	0.301
CPW-1	7/7/2015		29.90		7.91	494.5	383.3						2.097	0.022
	7/14/2015	515	31.69	221	8.19	516.6	406.8	2678	8.06	1723		0.06	2.068	0.035
	7/21/2015		29.57		8.13	501.2	431.9						2.063	0.037
	7/28/2015		33.73		8.65	520.7	456.9						2.143	0.030
I1126P	7/7/2015		7.75		1.93	207.7	114.8						2.146	0.786
	7/14/2015	284	8.00	70	1.94	223.0	127.9	1164	8.40	701		0.01	2.018	0.598
	7/21/2015		7.81		1.90	208.4	137.6						1.936	0.573
	7/28/2015		8.63		2.07	221.2	147.5						1.967	0.601
I675P	7/14/2015	276	7.34	88	1.57	262.8	182.7	1351	8.01	846	0.12	0.09	0.501	0.279
I676P	7/14/2015	582	33.58	242	8.70	577.5	431.8	2880	7.97	1868	0.03	0.08	8.146	0.234
I678P														

Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
	7/7/2015		20.54		5.15	416.2	298.8						4.592	0.355
	7/14/2015	421	20.42	151	4.80	390.1	289.6	2068	8.07	1273		0.01	4.284	0.402
	7/21/2015		18.63		4.51	362.3	301.6						3.826	0.392
	7/28/2015		18.12		4.32	361.5	303.2						3.804	0.376
I685P														
	7/7/2015		29.19		8.63	564.6	475.4						3.514	0.452
	7/14/2015	638	37.44	344	12.06	712.7	620.9	3694	7.81	2470		0.01	1.937	0.299
	7/21/2015		34.59		11.42	702.8	657.9						1.937	0.282
	7/28/2015		35.04		11.09	677.5	653.7						1.86	0.278
I687P														
	7/14/2015	343	12.07	118	2.59	302.7	193.8	1556	8.32	992	0.10	0.08	7.925	0.302
I692P														
	7/20/2015	245	4.90	63	1.12	175.1	104.2	889	8.32	564	0.09	0.07	1.345	0.488
I693P														
	7/7/2015		16.95		4.08	422.1	358.1						7.562	0.529
	7/14/2015	378	18.14	209	4.20	463.8	396.0	2384	8.08	1507		0.01	7.505	0.571
	7/21/2015		17.33		4.15	429.7	423.3						7.252	0.704
	7/28/2015		16.86		4.06	437.4	426.7						7.422	0.639
I698P														
	7/14/2015	169	5.08	53	0.75	157.4	113.7	861	8.77	540	0.07	0.00	0.335	1.528
I792P														
	7/14/2015	249	14.32	148	3.09	308.6	267.2	1675	8.07	1053	0.04	0.08	0.8	0.077
P1002														
	7/7/2015		17.56		4.81	394.0	336.2						1.61	0.294
	7/14/2015	368	18.22	190	4.97	417.7	360.3	2182	8.06	1344		0.00	1.566	0.321
P1003														
	7/14/2015	235	15.81	158	2.88	320.0	282.5	1708	8.18	1070	0.02	0.03	2.116	0.147
P1039														
	7/20/2015	313	16.87	168	3.18	353.1	343.6	1814	8.23	1126	0.07	0.01	1.075	1.817
P1050														
	7/20/2015	172	4.32	53	0.45	142.2	108.5	760	8.41	526	0.19	0.05	0.339	1.381
P1075														
	7/14/2015	167	4.48	58	0.62	149.6	93.6	782	8.24	527	0.11	0.04	0.354	0.121
P1117														
	7/14/2015	361	22.03	223	6.34	460.5	403.5	2398	8.11	1517	0.07	0.23	0.948	0.082
P1137														

Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
P1155	7/20/2015	333	25.11	183	4.51	369.3	363.3	1959	8.22	1211		0.05	2.889	0.194
P1156	7/20/2015	176	3.34	53	0.67	138.7	94.0	741	8.65	520		0.01	0.277	0.086
	7/7/2015		22.22		6.19	440.7	338.3						3.043	0.264
	7/14/2015	455	24.44	193	6.57	479.0	373.6	2368	7.92	1496		0.00	2.994	0.307
	7/21/2015		21.53		5.84	420.5	364.4						2.814	0.261
	7/28/2015		21.59		5.84	437.7	371.4						2.851	0.274
P1203	7/7/2015		17.74		4.62	374.8	328.5						1.169	0.245
	7/14/2015	331	19.15	178	4.87	414.5	367.3	2090	8.12	1285		0.01	1.171	0.286
	7/21/2015		17.24		4.40	360.3	361.5						1.045	0.247
	7/28/2015		18.15		4.58	389.6	363.3						1.044	0.263
P1216	7/20/2015	670	28.79	235	7.92	537.0	397.7	2757	7.66	1781		0.02	10.61	0.616
P1239	7/7/2015		17.23		5.06	381.7	306.8						3.244	0.596
	7/14/2015	374	18.29	164	5.21	406.4	332.3	2039	8.21	1259		0.00	3.148	0.678
	7/21/2015		17.71		5.00	385.7	342.3						2.985	0.607
	7/28/2015		17.45		4.98	390.8	347.8						3.013	0.629
P1246	7/7/2015		15.50		4.50	377.7	267.7						6.883	1.394
	7/14/2015	420	15.41	140	4.33	386.2	267.9	1911	8.17	1179		0.01	6.745	1.469
	7/21/2015		13.94		3.86	339.2	251.6						6.186	1.711
	7/28/2015		12.92		3.55	325.4	239.7						6.2	2.125
P1259	7/7/2015		29.04		8.70	578.2	391.1						12.91	1.012
	7/14/2015	673	29.64	240	8.80	614.4	413.9	2969	7.82	1935		0.00	12.06	1.218
	7/21/2015		25.72		7.62	538.4	402.0						11.17	1.137
	7/28/2015		24.40		7.31	526.1	384.9						10.8	1.195
P1885	7/20/2015	229	7.15	60	0.72	168.1	115.1	893	8.02	565	0.13	0.08	0.453	0.061
P679	7/20/2015	203	3.33	37	0.52	137.5	83.8	680	8.27	476	0.11	0.07	0.62	0.323
P680	7/20/2015	343	6.88	85	1.51	266.9	196.6	1308	8.21	822	0.07	0.08	3.55	0.245

Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
P683	7/7/2015		20.68		5.72	408.6	288.7						5.597	0.432
	7/14/2015	474	21.30	164	5.64	436.0	305.4	2185	7.96	1347		0.01	5.65	0.494
	7/21/2015		18.98		5.04	390.1	310.8						5.43	0.441
	7/28/2015		18.65		4.97	395.3	312.6						5.521	0.487
P690	7/14/2015	152	3.29	51	0.60	127.2	64.9	662	8.18	437	0.11	0.13	0.201	0.125
	7/14/2015		3.29		0.60	127.2	64.9						0.201	0.125
P695	7/7/2015		23.52		7.29	544.6	386.7						12.58	0.490
	7/14/2015	617	25.91	267	7.83	617.1	442.0	3070	7.90	2006		0.03	12.71	0.557
	7/21/2015		24.90		7.55	564.3	451.3						12.54	0.518
	7/28/2015		26.03		7.60	587.4	467.4						12.94	0.518
P699	7/14/2015	366	11.29	135	3.35	429.7	314.0	1855	8.32	1147	0.04	0.01	1.568	1.347
P700	7/14/2015	309	21.99	144	4.82	337.7	284.6	1776	8.20	1106	0.02	0.00	1.401	0.308
P701	7/20/2015	311	15.22	199	3.70	382.9	387.3	1963	8.15	1212		0.01	0.587	0.595
P789	7/7/2015		13.87		3.57	318.1	273.4						1.012	0.126
	7/14/2015	297	14.62	157	3.66	340.3	294.6	1840	7.79	1139		0.01	1.139	0.106
	7/21/2015		14.82		3.68	339.6	324.9						1.094	0.107
	7/28/2015		14.60		3.61	348.7	337.9						1.147	0.099
P796	7/7/2015		17.70		4.43	311.7	240.9						0.695	0.014
	7/14/2015	337	19.28	142	4.71	343.9	269.6	1781	7.91	1109		0.01	0.695	0.027
	7/14/2015		19.28		4.71	343.9	269.6						0.695	0.027
	7/21/2015		18.98		4.64	329.1	286.1						0.626	0.005
	7/28/2015		19.78		4.81	337.0	305.4						0.623	0.030
P810	7/7/2015		15.71		4.16	387.2	290.6						2.07	0.019
	7/14/2015	400	15.67	160	4.07	407.0	306.0	2031	8.11	1251		0.00	2.072	0.036
	7/21/2015		14.94		3.83	378.4	312.7						1.986	0.027
	7/28/2015		14.48		3.65	376.9	311.9						2.003	0.029
P837														

Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
	7/7/2015		26.96		7.46	415.9	330.0						1.514	0.102
	7/14/2015	422	31.13	190	8.24	445.7	366.4	2296	7.89	1433		0.01	1.586	0.135
	7/21/2015		25.61		6.95	401.9	361.0						1.402	0.111
	7/28/2015		28.54		7.34	416.1	380.2						1.532	0.118
P859														
	7/7/2015		19.87		5.47	429.7	353.0						2.075	0.546
	7/14/2015	402	21.54	211	5.69	461.2	384.8	2389	8.07	1510		0.02	2.041	0.697
	7/21/2015		21.08		5.65	437.8	405.8						2.015	0.667
	7/28/2015		21.69		5.78	444.7	413.7						2.057	0.690
P908														
	7/14/2015	303	16.23	192	4.00	384.5	321.9	2030	8.22	1250	0.02	0.01	1.348	0.098
	7/21/2015		0.00		-0.01	-0.4	-2.3						-0.133	-0.020

CROW BUTTE MINE
MONTHLY RESTORATION REPORT
JULY 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 and P1596 are being used to maintain an inward hydraulic gradient.

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

P1312, and P1596.

MU6 Restoration Data

Well Name	Date	Alk	Cl	Ca	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
P1312	7/7/2015			58.58	17.4	932.7	696.3						13.250	0.92
	7/14/2015			64.21	17.9	1026.0	766.9						13.070	1.015
	7/21/2015			61.83	17.5	971.3	777.2						13.100	0.963
	7/28/2015			61.59	17.5	981.6	789.2						13.240	0.938
P1596	7/7/2015			55.63	18.0	942.7	691.3						13.610	1.035
	7/14/2015			61.38	18.1	1034.0	763.9						13.720	1.145