

**CAMECO RESOURCES  
CROW BUTTE OPERATION**



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

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

July 21, 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  
June 2015 Monthly Restoration Report

Dear Ms. Link:

Please find enclosed the June 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  
Shar Sapp – Chadron Field Office

CROW BUTTE MINE  
MONTHLY RESTORATION REPORT  
JUNE 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  
JUNE 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  
JUNE 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 P390, P392, P410, I539P, I543P, I544P, I545P, 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, PM-3, P372, P391, P430, I508P, I535P, I536P, I538P, P6023, P6024, and P6029.

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

BL8 BL9, BL10, BL18, CM1-7, CM3-10, PM-3, P372, P390, P391, P392, P393, P394, P410, P430, I508P, I535P, I536P, I538P, I539P, I543P, I544P, I545P, I546P, I547P, I548P, I549P, I550P, I551P, 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-08	6/16/2015	374.0	10.07	164.0	2.49	291.2		1493	8.22	936	0.033	0.019	2.172	0.074
BL-09	6/16/2015	400.0	17.57	157.0	4.73	370.1		1869	7.99	1155	0.054	0.174	1.492	0.055
BL-10	6/2/2015	521.0	26.23	190.0	6.79	423.6		2327	7.77	1458		-0.007	4.801	0.310
	6/9/2015		25.05		6.45	416.5							4.559	0.312
	6/16/2015	506.0	23.47	190.0	6.11	403.3		2139	7.84	1313		0.002	4.314	0.310
	6/23/2015		22.21		5.73	391.7							4.120	0.322
	6/30/2015		21.78		5.84	403.2							4.036	0.334
BL-18	6/16/2015	439.0	13.38	153.0	3.33	350.5		1664	8.09	1047	0.038	0.009	3.840	0.710
CM1-7	6/2/2015	386.0	15.55	138.0	4.38	317.2		1697	7.76	1063		-0.001	2.870	0.130
	6/9/2015		15.48		4.64	336.4							2.955	0.113
	6/16/2015	403.0	15.74	151.0	4.59	327.3		1719	7.79	1076		0.003	2.780	0.131
	6/23/2015		16.35		4.72	330.1							2.755	0.130
	6/30/2015		17.41		5.04	347.0							2.755	0.123
CM3-10	6/16/2015	338.0	14.95	125.0	3.70	236.9		1254	8.08	778	0.025	0.028	0.490	0.180
I508P	6/2/2015	404.0	9.74	106.0	2.76	287.3		1496	8.03	938		-0.005	2.270	0.210
	6/9/2015		8.64		2.48	296.1							2.072	0.206
	6/16/2015	358.0	7.74	104.0	2.18	260.6		1304	8.14	819		0.003	1.829	0.208
	6/23/2015		7.18		2.02	250.4							1.722	0.208
I535P	6/2/2015	573.0	38.92	299.0	11.52	566.7		2915	7.75	1894		-0.008	2.807	0.120
	6/9/2015		40.27		11.85	560.7							2.861	0.107
	6/16/2015	575.0	38.56	303.0	11.48	561.8		2868	7.83	1861		0.000	2.891	0.118

# Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
	6/23/2015		38.94		11.66	572.5							2.942	0.117
	6/30/2015		40.92		12.12	584.8							2.977	0.124
I536P	6/2/2015	507.0	32.15	205.0	9.09	437.7		2314	7.80	1447		-0.010	10.680	0.150
	6/9/2015		31.54		9.14	442.2							10.240	0.139
	6/16/2015	508.0	31.33	212.0	9.12	443.0		2328	7.84	1459		-0.002	10.290	0.149
	6/23/2015		31.68		9.12	436.6							9.930	0.144
	6/30/2015		33.05		9.25	452.4							9.698	0.154
I538P	6/2/2015	310.0	8.11	104.0	2.15	241.6		1261	8.37	794		-0.005	1.487	0.200
	6/9/2015		8.24		2.28	249.3							1.462	0.183
	6/16/2015	312.0	7.85	106.0	2.17	244.7		1257	8.39	784		0.000	1.405	0.193
	6/23/2015		7.85		2.18	234.8							1.376	0.176
	6/30/2015		8.45		2.22	236.8							1.344	0.181
I539P	6/2/2015	550.0	31.87	253.0	9.45	490.6		2614	7.87	1682		0.004	3.883	0.130
	6/9/2015		32.54		9.50	501.9							3.749	0.120
	6/16/2015	551.0	31.42	241.0	9.23	508.9		2579	7.91	1650		0.013	3.730	0.134
	6/23/2015		30.37		9.35	533.0							3.686	0.129
	6/30/2015		31.24		9.66	531.9							3.535	0.131
I543P	6/2/2015	1112.0	186.50	429.0	50.83	871.2		4885	7.20	3303		-0.005	6.299	0.270
	6/9/2015		196.90		54.28	926.1							7.288	0.269
	6/16/2015		182.10	453.0	52.47	958.1		5164	7.25	3373		0.001	8.366	0.270
	6/23/2015		205.90		56.34	973.7							9.992	0.278
	6/30/2015		191.60		54.56	1002.0							11.160	0.255
I544P	6/2/2015	675.0	58.44	249.0	16.84	551.7		2980	7.40	1940		0.000	4.603	0.450

# Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
	6/9/2015		60.64		17.42	559.2							4.489	0.413
	6/16/2015	692.0	61.58	278.0	17.66	566.8		3051	7.46	1991		0.008	4.475	0.418
	6/23/2015		61.68		17.87	572.9							4.656	0.412
	6/30/2015		64.87		18.88	593.4							4.601	0.403
1545P	6/2/2015	499.0	40.32	205.0	11.22	407.3		2211	7.57	1368		-0.007	2.488	0.380
	6/9/2015		44.36		12.39	435.7							2.513	0.419
	6/16/2015	529.0	45.50	223.0	12.88	437.0		2328	7.63	1459		0.003	2.570	0.417
	6/23/2015		49.27		13.95	444.4							2.666	0.406
	6/30/2015		50.80		14.36	460.1							2.762	0.412
1546P	6/2/2015	701.0	70.85	375.0	19.71	660.5		3647	7.42	2432		0.086	3.458	0.080
	6/9/2015		75.50		20.78	685.1							3.414	0.066
	6/16/2015	735.0	74.60	399.0	20.62	689.5		3688	7.49	2465		0.062	3.405	0.076
	6/23/2015		79.69		22.02	725.2							3.529	0.074
	6/30/2015		79.24		22.19	723.3							3.600	0.075
1547P	6/2/2015	808.0	65.92	303.0	18.89	704.9		3747	7.17	2512		0.004	5.793	0.250
	6/9/2015		66.30		19.56	757.6							6.223	0.231
	6/16/2015	823.0	62.63	274.0	18.41	702.0		3641	7.26	2428		0.053	5.729	0.246
	6/23/2015		67.27		19.99	768.7							5.630	0.246
	6/30/2015		66.56		19.54	728.3							5.652	0.230
1548P	6/16/2015	364.0	13.81	115.0	2.61	275.5		1416	8.18	889	0.046	0.032	0.880	0.102
1549P	6/16/2015	293.0	12.63	122.0	2.64	236.4		1227	7.84	738	0.061	0.541	2.020	0.045
1550P	6/16/2015	296.0	24.46	216.0	5.00	336.7		1787	7.37	1112	0.017	0.459	0.280	0.083
1551P														

# Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
	6/16/2015	465.0	20.58	160.0	4.97	349.0		1796	8.14	1117	0.047	0.013	3.884	0.396
P372	6/2/2015	533.0	37.14	269.0	9.67	495.7		2685	7.34	1728		0.074	19.580	0.160
	6/9/2015		38.22		9.97	503.9							19.450	0.153
	6/16/2015	551.0	36.69	274.0	9.61	497.0		2679	7.46	1724		0.054	18.900	0.165
	6/23/2015		40.14		10.55	521.3							19.660	0.164
	6/30/2015		41.56		10.92	536.7							20.010	0.175
P390	6/2/2015	436.0	19.26	164.0	5.27	365.8		1911	7.84	1179		-0.007	2.318	0.150
	6/9/2015		18.88		5.21	370.8							2.191	0.136
	6/16/2015	437.0	17.84	167.0	5.01	369.3		1854	7.91	1146		0.001	2.171	0.138
	6/23/2015		17.59		4.93	366.7							2.128	0.138
P391	6/2/2015	451.0	29.45	233.0	8.19	457.3		2345	7.94	1473		0.056	2.315	0.170
	6/9/2015		29.10		8.03	449.5							2.241	0.162
	6/16/2015	450.0	27.63	232.0	7.75	446.9		2284	8.02	1423		0.000	2.203	0.184
	6/23/2015		27.05		7.81	444.4							2.178	0.164
	6/30/2015		28.31		8.00	453.8							2.098	0.171
P392	6/2/2015	724.0	81.13	311.0	20.99	627.2		3385	7.56	2255		-0.008	3.834	0.330
	6/9/2015		87.44		22.99	669.9							4.110	0.313
	6/16/2015	792.0	87.99	344.0	23.18	679.1		3610	7.57	2405		0.000	4.191	0.332
	6/23/2015		89.75		24.43	690.6							4.251	0.299
P393	6/16/2015	241.0	25.66	88.0	4.35	146.2		867	8.19	542	0.008	0.005	0.204	0.018
P394	6/16/2015	271.0	10.11	66.0	2.06	201.3		1074	7.93	644	0.022	0.193	0.126	0.019
P410	6/2/2015	748.0	80.25	326.0	21.60	647.2		3407	7.54	2267		-0.005	3.485	0.370



# Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
	6/9/2015		85.81		23.47	667.1							3.465	0.344
	6/16/2015	819.0	93.85	358.0	24.81	695.2		3654	7.54	2438		0.001	3.550	0.372
	6/23/2015		100.80		26.73	716.7							3.658	0.364
	6/30/2015		105.90		28.19	754.6							4.001	0.368
P430	6/2/2015	311.0	5.55	92.0	1.51	231.2		1217	8.04	729		0.001	1.614	0.300
	6/9/2015		20.60		5.73	354.8							1.909	0.278
	6/16/2015	419.0	19.71	150.0	5.56	333.8		1752	7.79	1095		0.005	1.813	0.259
	6/23/2015		19.33		5.66	345.4							1.936	0.254
	6/30/2015		20.36		5.81	358.0							2.036	0.241
P6023	6/2/2015	819.0	63.23	311.0	17.43	809.5		4129	7.01	2716		0.014	1.493	0.030
	6/9/2015		60.58		16.63	787.1							1.468	0.027
	6/16/2015	761.0	54.65	287.0	15.00	738.9		3687	7.13	2464		0.014	1.362	0.029
	6/23/2015		50.37		13.95	693.7							1.262	0.024
	6/30/2015		46.05		12.54	641.4							1.181	0.023
P6024	6/2/2015	965.0	91.23	483.0	24.82	866.3		4664	7.38	3252		0.069	4.693	0.040
	6/9/2015		88.80		25.30	901.6							4.564	0.042
	6/16/2015	981.0	91.05	463.0	24.71	847.2		4538	7.44	2989		0.054	4.163	0.035
	6/23/2015		92.69		25.33	855.7							3.970	0.035
	6/30/2015		90.85		25.48	883.1							3.768	0.040
P6029	6/2/2015		172.00	466.0	43.41	1048.0		5461	7.26	3438		0.040	14.430	0.050
	6/9/2015		175.50		44.31	1067.0							14.520	0.051
	6/23/2015		172.80		45.12	1072.0							15.160	0.060
	6/30/2015		172.00		44.76	1096.0							16.480	0.083
PM-3														

# Mine Unit 4 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
	6/2/2015	232.0	6.82	74.0	1.82	181.0		974	7.96	594		-0.002	0.337	0.110
	6/9/2015		7.42		1.82	188.1							0.336	0.083
	6/16/2015	246.0	6.13	76.0	1.71	182.2		964	7.97	590		0.004	0.375	0.092
	6/23/2015		6.47		1.75	188.5							0.378	0.100
	6/30/2015		6.28		1.73	194.3							0.406	0.102

CROW BUTTE MINE  
MONTHLY RESTORATION REPORT  
JUNE 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, P694, P695, P789, P796, P810, P859, I1126P, P1156, P1209, P1239, I1246P, 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:  
BL5-5, CPW-1, I685P, I693P, P837, P1002, P1203, and P1213.

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

BL5-5, BL-17, CM2-09, CM2-10, CPW1, I678P, P682, P683, I685P, I686P, P691, I693P, P694, P695, I696P, P751, P789, P796, P810, P837, P859, P1002, P1060, I1126P, P1156, P1203, P1209, P1213, P1239, P1259, 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-17	6/2/2015		86.25	403	25.52	1086.0		5316	7.41	3391		-0.01	5.986	1.500
	6/16/2015		76.54	381	23.07	969.6		5257	7.52	3382		0.00	5.363	1.385
BL5-5	6/2/2015	545	53.76	356	14.24	655.2		3424	7.96	2273		0.09	0.304	0.020
	6/9/2015		53.54		14.26	666.0							0.356	-0.032
	6/16/2015	550	53.17	351	14.15	653.3		3433	8.00	2275		0.07	0.319	0.019
	6/23/2015		52.85		14.22	654.8							0.321	-0.032
	6/30/2015		56.24		14.82	681.6							0.325	0.011
CM2-09	6/2/2015	266	6.09	71	1.39	217.9		1126	8.55	679	0.03	0.04	0.622	0.010
CM2-10	6/2/2015	350	19.52	122	3.93	305.2		1553	8.26	989	0.01	0.07	10.9	0.090
CPW-1	6/2/2015	544	29.98	235	8.15	509.0		2584	8.01	1654	0.01	0.04	2.196	0.010
	6/9/2015		30.39		8.13	507.9							2.165	0.025
	6/16/2015	535	29.02	232	7.77	506.6		2546	8.04	1627		0.06	2.115	0.024
	6/23/2015		26.92		7.66	491.8							2.052	0.052
	6/30/2015		28.08		7.81	489.9							2.023	0.041
I1126P	6/30/2015		9.22		2.21	225.9							2.569	0.813
I678P	6/2/2015	474	25.20	188	6.14	415.6		2199	8.05	1358		0.00	5.141	0.360
	6/9/2015		23.24		5.72	420.9							4.918	0.388
	6/16/2015	468	22.72	179	5.57	412.8		2126	8.07	1307		0.01	4.906	0.400
	6/23/2015		22.56		5.50	391.0							4.839	0.369
	6/30/2015		22.24		5.42	407.4							4.732	0.365
I685P	6/2/2015	637	36.90	337	11.57	678.1		3434	7.83	2275	0.01	0.00	2.282	0.330
	6/9/2015		36.65		11.60	682.0							2.187	0.305
I686P	6/2/2015	334	11.01	123	2.45	294.8		1499	8.14	941	0.06	0.20	2.818	0.270
I693P	6/2/2015	389	17.80	209	4.27	434.3		2248	8.06	1396		0.00	7.969	0.470
	6/9/2015		17.57		4.10	443.9							7.689	0.434
	6/16/2015	387	16.71	207	3.94	420.7		2227	8.12	1379		0.01	7.565	0.465

# Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
	6/23/2015		16.35		4.01	425.4							7.428	0.447
	6/30/2015		18.92		4.12	427.4							7.264	0.450
I696P	6/2/2015	324	19.18	80	2.54	228.1		1213	8.24	726	0.05	0.28	1.194	0.120
P1002	6/16/2015	368	17.83	190	4.97	392.8		2046	8.11	1259		0.00	1.617	0.307
	6/23/2015		17.23		4.72	388.2							1.59	0.298
	6/30/2015		17.37		4.77	400.1							1.595	0.291
P1060	6/2/2015	336	6.46	79	1.51	254.1		1273	8.38	803	0.23	0.00	1.229	1.830
P1156	6/2/2015	473	24.42	200	6.70	445.2		2276	7.94	1419		-0.01	3.063	0.290
	6/9/2015		24.18		6.58	443.1							3.08	0.271
	6/16/2015	477	23.27	202	6.46	459.1		2305	8.00	1441		0.00	3.091	0.287
	6/23/2015		22.67		6.24	430.3							2.977	0.283
	6/30/2015		22.84		6.21	439.1							2.982	0.271
P1203	6/2/2015	337	18.96	180	4.84	386.9		2032	8.17	1251		0.00	1.174	0.210
	6/9/2015		17.91		4.80	428.6							1.209	0.189
	6/16/2015	344	18.40	200	4.75	393.0		2039	8.23	1259		0.01	1.162	0.196
	6/23/2015		17.45		4.67	410.0							1.223	0.214
	6/30/2015		18.59		4.83	381.9							1.136	0.249
P1209	6/2/2015	355	14.64	145	4.17	320.9		1670	8.02	1051		0.01	3.234	0.530
	6/9/2015		14.15		4.19	341.0							3.39	0.548
	6/16/2015	360	14.13	155	4.08	326.0		1697	8.11	1063		0.02	3.406	0.524
	6/23/2015		12.35		3.63	301.7							3.071	0.517
P1213	6/2/2015		14.74		4.11	395.3						-0.01	2.376	0.850
P1239	6/2/2015	403	18.88	171	5.29	394.4		2074	8.18	1276	0.05	-0.01	3.723	0.570
	6/9/2015		18.64		5.43	403.5							3.587	0.525
	6/16/2015	396	17.94	187	5.23	397.4		2036	8.21	1253		0.01	3.494	0.569
	6/23/2015		16.26		4.93	386.0							3.356	0.523
	6/30/2015		17.02		4.96	372.4							3.329	0.567

# Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
P1246	6/16/2015	481	18.77	181	5.44	418.5		2173	8.13	1337		0.02	7.561	1.359
	6/23/2015		18.39		5.40	417.9							7.291	1.383
	6/30/2015		17.48		5.10	401.9							7.175	1.385
P1259	6/2/2015	692	27.75	273	8.23	598.3		3010	7.89	1962		0.03	13.4	0.770
	6/9/2015		29.02		8.86	702.6							16.04	0.743
	6/16/2015	729	29.98	337	8.93	628.9		3156	7.93	2074		0.02	13.77	0.799
	6/23/2015		28.87		9.08	659.4							14.92	0.795
	6/30/2015		31.24		9.43	620.9							13.44	0.931
P6016	6/2/2015	550	43.00	236	10.00	523.0		2697	7.68	1737	0.00		1.01	0.017
	6/5/2015		42.49		9.79	522.6							1.01	0.017
P6020	6/2/2015	374	21.00	216	5.00	430.0		2268	7.99	1413	0.00		0.119	0.008
	6/5/2015		21.25		5.39	430.0							0.119	-0.008
P6021	6/2/2015	212	5.00	60	1.00	151.0		797	8.42	528	0.02		0.664	0.002
	6/5/2015		5.08		0.83	151.0							0.664	0.002
P6022	6/2/2015	547	38.00	300	11.00	610.0		3128	7.63	2054	0.00		0.415	0.020
	6/5/2015		38.41		10.77	610.4							0.415	0.020
P682	6/2/2015	165	3.00	29	0.44	98.1		532	8.67	355	0.18	0.26	0.294	0.710
P683	6/2/2015	513	23.08	178	6.32	439.9		2244	7.89	1393		0.00	5.772	0.370
	6/9/2015		23.02		6.09	434.1							5.791	0.371
	6/16/2015	496	21.22	185	5.81	430.2		2171	7.96	1336		0.01	5.737	0.411
	6/23/2015		21.19		5.71	413.1							5.607	0.416
	6/30/2015		21.55		5.80	420.3							5.581	0.447
P691	6/2/2015	158	7.38	49	1.54	116.2		635	8.24	404		0.01	0.299	0.250
P694	6/2/2015	371	12.59	147	3.39	327.0		1702	8.05	1066		0.04	1.642	0.300
	6/9/2015		12.40		3.24	327.2							1.536	0.267
	6/16/2015	349	11.00	135	2.96	304.8		1585	8.11	1007		0.05	1.405	0.273

# Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
P695	6/23/2015		10.42		2.89	284.3							1.354	0.328
	6/2/2015	574	21.35	231	6.66	516.6		2615	7.97	1682		0.03	11.48	0.550
	6/9/2015		20.60		6.39	514.9							11.06	0.524
	6/16/2015	580	20.91	254	6.47	522.7		2650	8.01	1705		0.03	11.5	0.530
	6/23/2015		21.78		6.71	524.6							12.42	0.498
P751	6/30/2015		23.20		7.14	551.5							12.17	0.513
	6/2/2015	229	4.94	64	0.87	174.2		891	8.46	564		0.04	2.737	0.450
	6/2/2015	219	6.23	84	1.51	195.5		1053	7.93	636	0.06	0.03	0.608	0.130
	6/9/2015		8.14		2.10	229.7							0.688	0.113
	6/16/2015	255	9.91	117	2.49	254.8		1360	7.88	853		0.01	0.739	0.110
P789	6/23/2015		11.81		2.99	279.9							0.868	0.107
	6/30/2015		13.48		3.43	310.5							0.942	0.109
	6/2/2015	361	19.72	154	4.77	334.6		1760	7.93	1098		0.02	0.864	0.020
	6/9/2015		18.63		4.60	327.1							0.839	0.015
	6/16/2015	347	17.35	136	4.28	323.6		1665	8.00	1048		0.01	0.801	0.026
P796	6/23/2015		16.88		4.19	311.7							0.785	0.021
	6/30/2015		17.34		4.38	323.5							0.756	0.023
	6/2/2015	422	16.28	175	4.37	402.3		2069	8.10	1273		0.00	2.143	0.030
	6/23/2015		15.67		4.15	383.4							2.054	0.026
	6/30/2015		15.69		4.11	387.2							2.059	0.028
P810	6/2/2015	437	30.93	208	8.17	418.1		2194	7.92	1355		0.00	1.609	0.130
	6/9/2015		29.13		7.88	452.7							1.622	0.124
	6/16/2015	421	26.49	197	7.08	403.3		2122	8.01	1303		0.10	1.447	0.121
	6/23/2015		27.36		7.63	445.1							1.602	0.116
	6/30/2015		28.37		7.79	426.5							1.54	0.117
P837	6/2/2015	436	21.96	247	5.86	500.0		2491	8.01	1586		0.01	2.6	0.240
	6/9/2015		22.01		5.85	483.4							2.416	0.236
	6/16/2015	436	20.71	236	5.53	466.6		2420	8.07	1534		0.02	2.268	0.263
P859														

# Mine Unit 5 Restoration Data

Well Name	Date	Alk	Ca	Cl	Mg	Na	SO4	Cond	pH	TDS	As	Fe	U	V
	6/23/2015		19.57		5.30	440.9							2.146	0.320
	6/30/2015		19.67		5.28	430.7							2.051	0.438



CROW BUTTE MINE  
MONTHLY RESTORATION REPORT  
JUNE 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	6/9/2015			15.87	4.34	417.7							2.280	0.763
	6/16/2015			58.60	16.70	941.0						0.00	12.750	
	6/23/2015			57.00	16.29	914.2							12.860	0.894
	6/30/2015			60.99	17.59	965.1							13.180	0.948
P1596	6/2/2015			56.55	17.59	941.5						-0.01	12.480	
	6/9/2015			56.55	17.88	921.7							11.880	0.972
	6/16/2015			55.52	17.69	962.2						0.00	12.740	
	6/23/2015			54.39	17.22	932.0							12.950	0.939
	6/30/2015			58.05	18.40	973.6							13.360	1.019