

**CAMECO RESOURCES
CROW BUTTE OPERATION**



**86 Crow Butte Road
P.O. Box 169
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**(308) 665-2215
(308) 665-2341 – FAX**

July 30, 2010

Mr. Keith I McConnell, Deputy Director
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
Mailstop T8-F5
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: Source Materials License SUA-1534
Docket No. 40-8943
PR-8 Monitor Well Excursion

Dear Mr. McConnell:

On December 23, 2003 during routine biweekly water sampling of monitor well PR-8, the multiple parameter upper control limit (UCL) was exceeded for sulfate, conductivity, and alkalinity. As required by License Condition 11.2 of Source Materials License SUA-1534, a second sample was collected within 48 hours and analyzed for the five excursion indicator parameters as required by License Condition 11.2. In the confirming sample, four of the five excursion indicators exceeded the multiple UCLs. Based upon these results, PR-8 was placed on excursion status. In accordance with License Condition 11.2, CBO increased the sampling frequency for PR-8 to weekly.

By letter dated September 29, 2003, Source Materials License SUA-1534, Condition 11.2 was amended removing sodium and sulfate as excursion indicator parameters. It was determined that the three parameters, alkalinity, chloride, and conductivity were sufficient to detect well field excursions and the license was amended accordingly.

Weekly samples were obtained from December 23, 2003 to July 27, 2010. The samples collected on June 22 and 29, 2010, and July 6, 13, 20, and 27, 2010 were below the excursion criteria as stated in License Condition 11.2. Based on these results, CBO is removing PR-8 from excursion status and is returning it to routine biweekly sampling. Attached are copies of the analytical data for each of the last six weekly samples and graphs for each parameter covering the period of March 16, 2010 to July 27, 2010.

CROW BUTTE RESOURCES, INC.



Mr. Keith McConnell
July 30, 2010
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If you have any questions or require any further information, please do not hesitate to call me at (308) 665-2215 Ext. 114.

Sincerely,
CAMECO RESOURCES
CROW BUTTE OPERATION

Larry Teahon

Larry Teahon
SHEQ Manager

Enclosures: As Stated

cc: Mr. Ronald Burrows – NRC
Mr. Joe Brister – Cheyenne Office
CBO File

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Sample Date 6/22/2010
Analysis Date 6/22/2010

Crow Butte Project Monitor Well Laboratory Report

Well ID	Alkalinity			Conductivity			Chloride		
	(mg/L)	Alk SCL	Alk MCL	(µmho/cm)	Cond SCL	Cond MCL	(mg/L)	Cl SCL	Cl MCL
CM5-10	276	403	336	1930	2943	2453	184	333	277
CM5-11	307	438	365	1990	2897	2414	199	307	256
CM5-12	293	456	380	1920	2982	2485	195	323	269
CM5-13	284	373	311	1900	3149	2624	188	386	322
CM5-6	301	458	382	1880	2844	2370	191	292	244
CM5-7	299	433	361	1890	2870	2392	191	288	240
CM5-8	331	448	373	2060	2876	2396	211	289	241
CM5-9	299	433	361	1890	2864	2387	191	289	241
CM8-1	296	455	379	1950	3110	2592	191	372	310
CM8-10	327	441	367	1930	3038	2532	197	315	263
CM8-11	314	446	372	1870	3053	2544	191	325	271
CM8-2	298	395	329	1950	3125	2604	193	334	278
CM8-3	287	432	360	1940	3211	2676	195	367	306
CM8-4	294	428	356	1930	3125	2604	195	328	274
CM8-5	286	425	354	1910	3067	2556	191	328	274
CM8-6	299	432	360	1930	3067	2556	191	317	264
CM8-7	321	425	354	1970	3154	2628	197	396	330
CM8-8	305	418	348	1900	3211	2676	195	415	346
CM8-9	310	452	377	1880	3053	2544	188	325	271
IJ13P	813	415	346	3920	2900	2417	399	278	232
PR15	1000	444	370	5040	2792	2327	572	268	223
PR8	475	484	403	1630	2866	2388	99	282	235
SM4-4	209	266	222	630	1099	916	12	62	52
SM4-6	271	361	301	680	1103	919	13	34	28
SM4-8	292	389	324	710	1109	924	12	27	23

Sample Date 6/29/2010
Analysis Date 6/29/2010

Crow Butte Project Monitor Well Laboratory Report

Well ID	Alkalinity			Conductivity			Chloride		
	(mg/L)	Alk SCL	Alk MCL	(µmho/cm)	Cond SCL	Cond MCL	(mg/L)	Cl SCL	Cl MCL
CM10-10	316	475	396	1850	2736	2280	184	275	229
CM10-11	311	481	401	1850	2808	2340	181	288	240
CM10-12	309	446	372	1900	2923	2436	206	327	272
CM10-13	317	481	401	1820	2779	2316	184	287	239
CM10-14	332	490	408	1770	2578	2148	177	251	209
CM10-15	337	504	420	1720	2491	2076	181	253	211
CM10-16	326	484	403	1800	2650	2208	177	253	211
CM10-17	326	475	396	1820	2664	2220	181	248	206
CM10-8	312	475	396	1870	2707	2256	191	265	221
CM10-9	314	468	390	1860	2693	2244	188	269	224
CM4-4	304	433	361	1860	3002	2502	191	310	258
CM4-5	300	413	344	1860	3171	2642	191	336	280
CM4-6	291	405	337	1860	2812	2344	199	264	220
CM7-10	295	454	378	1910	2877	2398	191	297	247
CM7-11	292	432	360	1920	2817	2347	200	281	234
CM7-12	293	422	352	1930	2794	2328	195	289	241
CM9-18	301	445	371	1860	2794	2328	191	294	245
CM9-19	297	454	378	1870	2952	2460	195	315	263
CM9-20	294	431	359	1880	2779	2316	195	279	233
IJ13P	800	415	346	3970	2900	2417	401	278	232
PR15	1000	444	370	5030	2792	2327	576	268	223
PR8	442	484	403	1443	2866	2388	92	282	235
SM10-16	251	382	318	590	850	708	11	28	23
SM10-17	252	374	312	610	835	696	14	28	23
SM10-18	234	346	288	530	763	636	7.8	24	20

Sample Date 7/6/2010
Analysis Date 7/6/2010

Crow Butte Project Monitor Well Laboratory Report

Well ID	Alkalinity			Conductivity			Chloride		
	(mg/L)	Alk SCL	Alk MCL	(µmho/cm)	Cond SCL	Cond MCL	(mg/L)	Cl SCL	Cl MCL
CM5-18	300	441	367	1940	2916	2430	195	315	263
CM5-19	299	425	354	1940	2916	2430	191	320	266
CM5-20	303	445	371	1980	2929	2441	199	310	258
CM5-21	298	441	367	1940	2910	2425	191	275	229
CM5-22	298	435	362	1950	2903	2419	195	302	252
CM6-12	299	436	364	1950	2794	2328	195	279	233
CM6-13	300	446	372	1950	2866	2388	195	285	238
CM6-14	293	436	364	1930	2909	2424	195	297	247
CM6-15	285	444	370	1940	2779	2316	188	287	239
CM6-16A	294	418	348	1940	3082	2568	195	338	282
CM6-17	295	442	368	1930	2779	2316	195	275	229
CM6-18	295	442	368	1940	2909	2424	195	302	252
CM6-19	300	452	377	1940	2880	2400	195	295	246
CM6-25	295	433	361	1920	2952	2460	195	317	264
CM6-26	297	448	373	1910	2952	2460	191	338	282
IJ13P	800	415	346	3940	2900	2417	402	278	232
PR15	1000	444	370	5030	2792	2327	567	268	223
PR8	392	484	403	1350	2866	2388	78	282	235
SM4-2	191	513	393	650	1256	1039	14	127	88
SM4-3	194	361	301	650	1251	1043	12	38	32
SM5-17	166	264	220	420	694	578	2.1	27	23
SM5-18	175	259	216	440	707	589	3.2	31	26
SM5-19	182	285	238	480	757	631	5	27	22
SM5-20	178	268	223	500	750	625	5.7	32	27
SM5-21	178	284	236	470	755	629	4.6	29	24

Sample Date 7/13/2010
Analysis Date 7/13/2010

Crow Butte Project Monitor Well Laboratory Report

Well ID	Alkalinity			Conductivity			Chloride		
	(mg/L)	Alk SCL	Alk MCL	(µmho/cm)	Cond SCL	Cond MCL	(mg/L)	Cl SCL	Cl MCL
CM10-10	316	475	396	1870	2736	2280	184	275	229
CM10-11	313	481	401	1860	2808	2340	184	288	240
CM10-12	314	446	372	1880	2923	2436	188	327	272
CM10-13	321	481	401	1840	2779	2316	181	287	239
CM10-14	333	490	408	1790	2578	2148	181	251	209
CM10-15	337	504	420	1720	2491	2076	177	253	211
CM10-16	322	484	403	1800	2650	2208	177	253	211
CM10-17	327	475	396	1820	2664	2220	177	248	206
CM10-8	309	475	396	1850	2707	2256	188	265	221
CM10-9	313	468	390	1870	2693	2244	184	269	224
CM4-4	306	433	361	1870	3002	2502	195	310	258
CM4-5	301	413	344	1860	3171	2642	191	336	280
CM4-6	293	405	337	1860	2812	2344	195	264	220
CM7-10	295	454	378	1910	2877	2398	191	297	247
CM7-11	292	432	360	1930	2817	2347	199	281	234
CM7-12	293	422	352	1940	2794	2328	195	289	241
CM9-18	299	445	371	1860	2794	2328	191	294	245
CM9-19	298	454	378	1870	2952	2460	195	315	263
CM9-20	299	431	359	1880	2779	2316	195	279	233
IJ13P	775	415	346	3860	2900	2417	411	278	232
PR15	975	444	370	4990	2792	2327	541	268	223
PR8	355	484	403	1190	2866	2388	65	282	235
SM10-16	251	382	318	600	850	708	11	28	23
SM10-17	251	374	312	610	835	696	15	28	23
SM10-18	235	346	288	530	763	636	7.8	24	20

Sample Date 7/20/2010
Analysis Date 7/20/2010

Crow Butte Project Monitor Well Laboratory Report

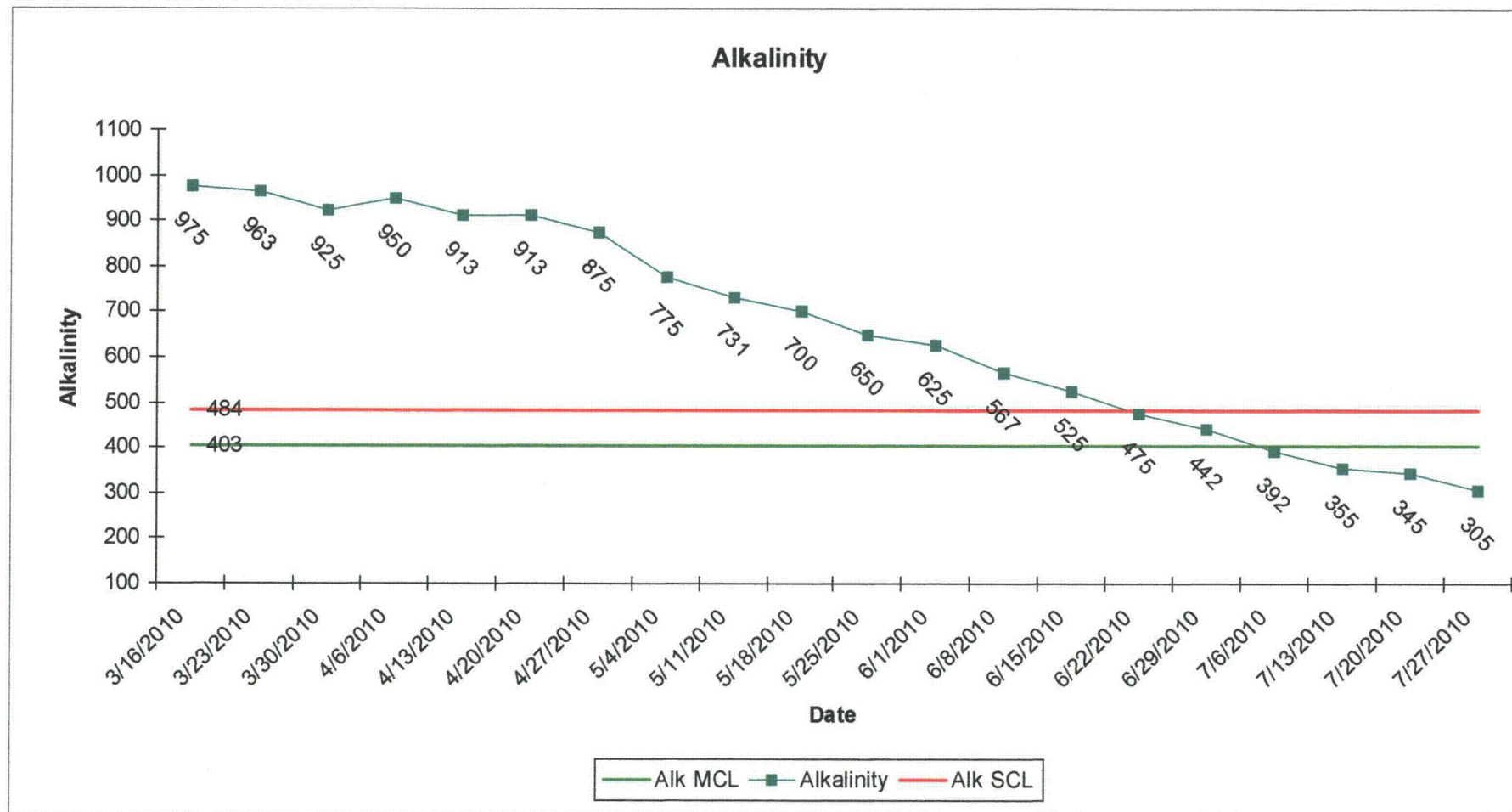
Well ID	Alkalinity			Conductivity			Chloride		
	(mg/L)	Alk SCL	Alk MCL	(µmho/cm)	Cond SCL	Cond MCL	(mg/L)	Cl SCL	Cl MCL
CM5-10	283	403	336	1920	2943	2453	188	333	277
CM5-11	315	438	365	2010	2897	2414	206	307	256
CM5-12	299	456	380	1920	2982	2485	197	323	269
CM5-13	291	373	311	1910	3149	2624	195	386	322
CM5-6	306	458	382	1880	2844	2370	191	292	244
CM5-7	305	433	361	1890	2870	2392	191	288	240
CM5-8	339	448	373	2080	2876	2396	213	289	241
CM5-9	301	433	361	1890	2864	2387	195	289	241
CM8-1	300	455	379	1940	3110	2592	191	372	310
CM8-10	323	441	367	1900	3038	2532	191	315	263
CM8-11	328	446	372	1920	3053	2544	195	325	271
CM8-2	295	395	329	1940	3125	2604	195	334	278
CM8-3	288	432	360	1940	3211	2676	195	367	306
CM8-4	290	428	356	1930	3125	2604	195	328	274
CM8-5	288	425	354	1910	3067	2556	191	328	274
CM8-6	295	432	360	1920	3067	2556	191	317	264
CM8-7	333	425	354	2010	3154	2628	204	396	330
CM8-8	305	418	348	1890	3211	2676	195	415	346
CM8-9	310	452	377	1870	3053	2544	188	325	271
IJ13P	792	415	346	3810	2900	2417	408	278	232
PR15	1000	444	370	4960	2792	2327	550	268	223
PR8	345	484	403	1150	2866	2388	64	282	235
SM4-4	210	266	222	630	1099	916	12	62	52
SM4-6	272	361	301	680	1103	919	13	34	28
SM4-8	296	389	324	710	1109	924	13	27	23

Sample Date 7/27/2010
Analysis Date 7/27/2010

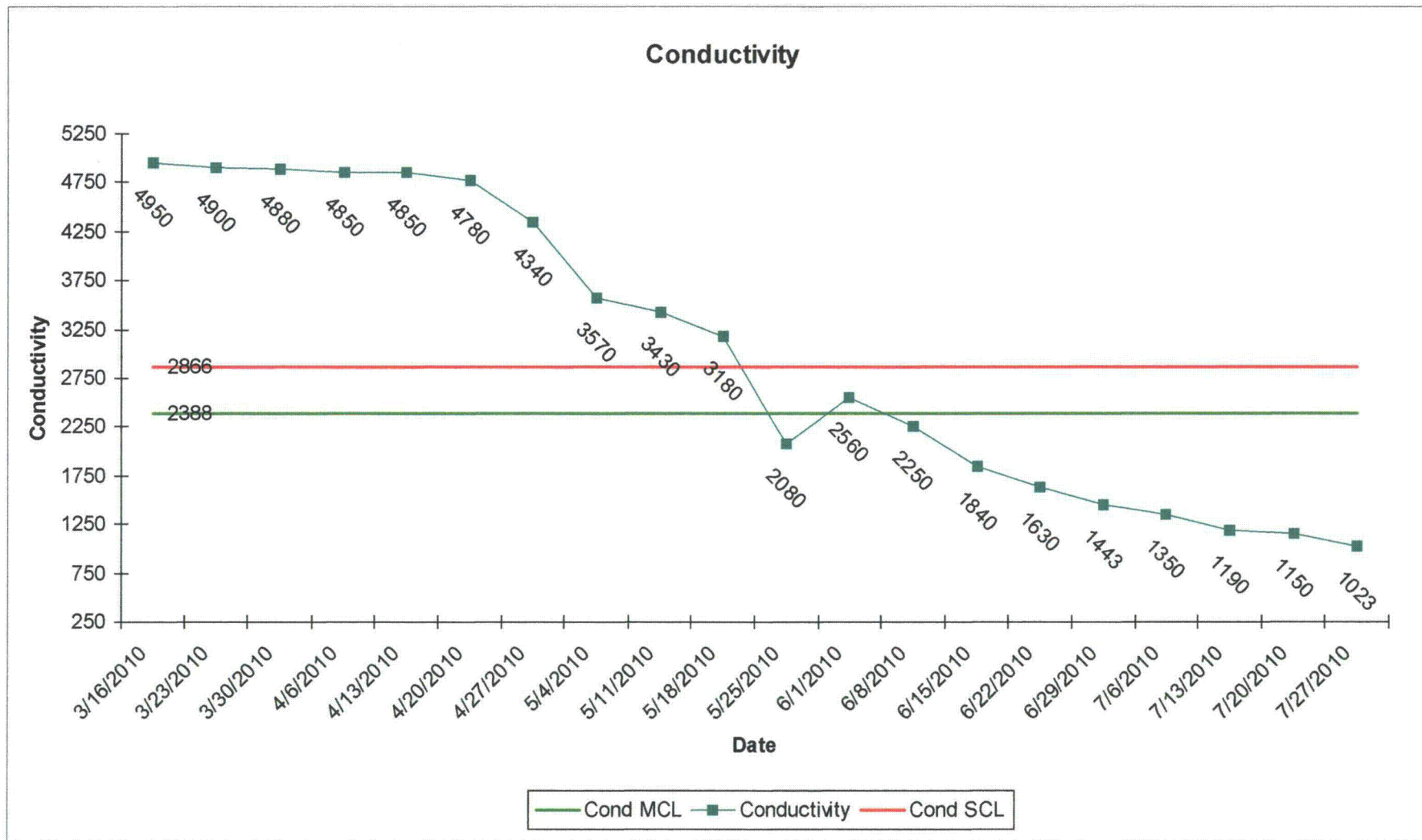
Crow Butte Project Monitor Well Laboratory Report

Well ID	Alkalinity			Conductivity			Chloride		
	(mg/L)	Alk SCL	Alk MCL	(µmho/cm)	Cond SCL	Cond MCL	(mg/L)	Cl SCL	Cl MCL
CM10-10	319	475	396	1870	2736	2280	184	275	229
CM10-11	315	481	401	1850	2808	2340	188	288	240
CM10-12	317	446	372	1870	2923	2436	191	327	272
CM10-13	324	481	401	1840	2779	2316	181	287	239
CM10-14	333	490	408	1790	2578	2148	184	251	209
CM10-15	341	504	420	1720	2491	2076	177	253	211
CM10-16	327	484	403	1810	2650	2208	181	253	211
CM10-17	329	475	396	1820	2664	2220	177	248	206
CM10-8	313	475	396	1860	2707	2256	188	265	221
CM10-9	313	468	390	1850	2693	2244	188	269	224
CM4-4	307	433	361	1870	3002	2502	195	310	258
CM4-5	303	413	344	1860	3171	2642	191	336	280
CM4-6	297	405	337	1860	2812	2344	193	264	220
CM7-10	300	454	378	1910	2877	2398	191	297	247
CM7-11	294	432	360	1920	2817	2347	197	281	234
CM7-12	296	422	352	1940	2794	2328	195	289	241
CM9-18	303	445	371	1860	2794	2328	191	294	245
CM9-19	299	454	378	1870	2952	2460	195	315	263
CM9-20	295	431	359	1880	2779	2316	195	279	233
IJ13P	742	415	346	3730	2900	2417	390	278	232
PR15	913	444	370	4870	2792	2327	541	268	223
PR8	305	484	403	1023	2866	2388	60	282	235
SM10-16	253	382	318	590	850	708	12	28	23
SM10-17	252	374	312	610	835	696	15	28	23
SM10-18	237	346	288	530	763	636	7.8	24	20

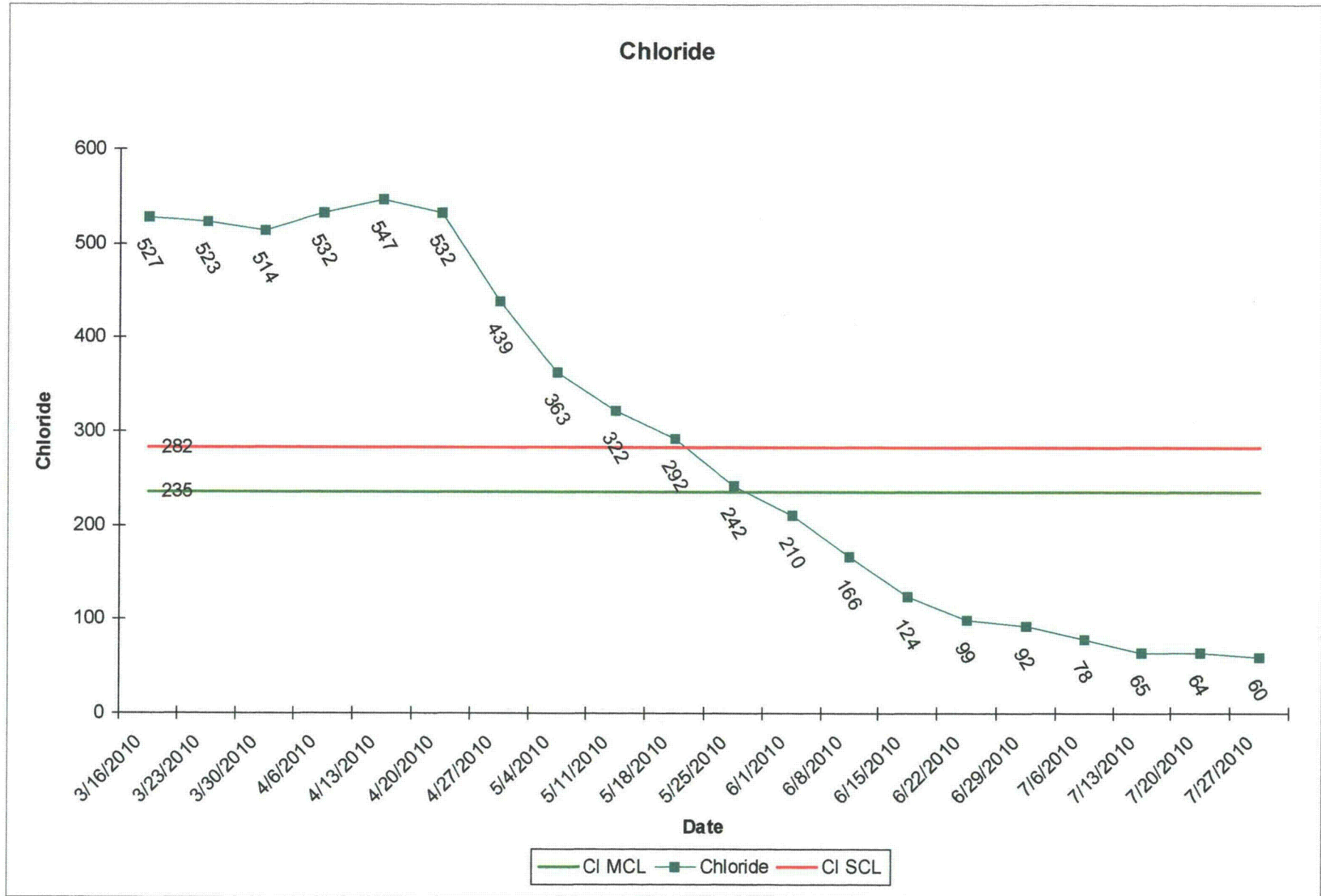
PR8



PR8



PR8



PR8

