

**CAMECO RESOURCES
CROW BUTTE OPERATION**



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

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

March 17, 2011

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

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

Subject: Source Materials License SUA-1534
Docket No. 40-8943
Monitor Well Excursion – CM8-8

Dear Mr. McConnell:

On March 15, 2011, during routine biweekly water sampling of Cameco Resources, Crow Butte Operation (CBO) commercial monitor well CM8-8, the single control limit (SCL) for alkalinity was exceeded. As required by License Condition 11.2 of Source Materials License SUA-1534, a second sample was collected from CM8-8 within 48 hours and analyzed for the three excursion indicator parameters. The results of the second sample also exceeded the single control limit for alkalinity.

CBO notified Mr. Ron Burrows of the excursion at 1:30 PM MDT on March 16, 2011 via voicemail and email as required in License Condition 9.2. Laboratory results for the sample analysis for CM8-8 are attached. In addition, graphs are attached for the three excursion indicator parameters and water levels that cover the period from July 7, 2010 to March 16, 2011.

The excursion indicator parameters in CM8-8 indicated a slow, upward trend on February 15, 2011. In

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response, CBO increased production 29 gpm in the area adjacent to CM8-8. This caused the water level in CM8-8 to drop 4 feet between February 15 and March 1. On March 1, 2011 an additional 26 gpm of injection was turned off and an additional 28 gpm of production was turned on causing the water level to drop another 8 feet. On March 9, 2011, CBO turned off 19 gpm of injection. On March 15, 2011, another 36 gallons of production was started-up. Currently, the net bleed in this area of the wellfield is 138 gpm. Since February 15, 2011, the water level has decreased from 126 feet to 149 feet below ground level, a drop of 23 feet. CBO believes the corrective actions currently in place will successfully recover the mining solution.

In accordance with License Condition 11.2, CBO has increased the sampling frequency for CM8-8 to weekly until three consecutive weekly samples are below the exceeded UCLs. CBO will continue weekly sampling for an additional three weeks after this goal has been achieved as required by CBO's NDEQ Class III UIC Permit requirements. If the well has not exceeded the UCLs after these samples, it will be returned to normal status.

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
SHEQ Manager

Enclosures: As Stated

cc: Mr. Ronald Burrows – Project Manager
CBO - File
ec: CR – Cheyenne Office

Sample Date 3/15/2011
Analysis Date 3/15/2011

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
CM11-12	301	433	361	1850	2794	2328	183	268	223
CM11-13	300	418	348	1860	2722	2268	193	291	242
CM11-14	308	468	390	1880	3024	2520	195	357	298
CM11-15	298	431	359	1840	2765	2304	186	289	241
CM11-16	301	451	376	1820	2794	2328	187	276	230
CM11-17	299	438	365	1810	2837	2364	187	301	251
CM11-18	304	445	371	1830	2722	2268	186	297	247
CM11-19	303	448	373	1840	2779	2316	186	300	250
CM6-10	305	429	358	1980	2952	2460	199	327	272
CM6-9	290	428	356	1940	2866	2388	190	285	238
CM8-1	295	455	379	1960	3110	2592	191	372	310
CM8-2	300	395	329	1940	3125	2604	194	334	278
CM8-3	290	432	360	1940	3211	2676	195	367	306
CM8-4	295	428	356	1930	3125	2604	196	328	274
CM8-5	285	425	354	1910	3067	2556	195	328	274
CM8-6	295	432	360	1910	3067	2556	192	317	264
CM8-7	310	425	354	1910	3154	2628	192	396	330
CM8-8	483	418	348	2530	3211	2676	258	415	346
CM8-9	310	452	377	1870	3053	2544	185	325	271
CM9-10	302	359	299	1830	2390	1992	189	292	244
CM9-11	302	445	371	1830	2707	2256	188	284	236
CM9-8	299	418	348	1820	2952	2460	190	366	305
CM9-9	303	475	396	1820	2923	2436	188	334	278
IJ13P	400	415	346	1880	2900	2417	173	278	232
SM11-1	166	240	200	420	605	504	5.3	24	20

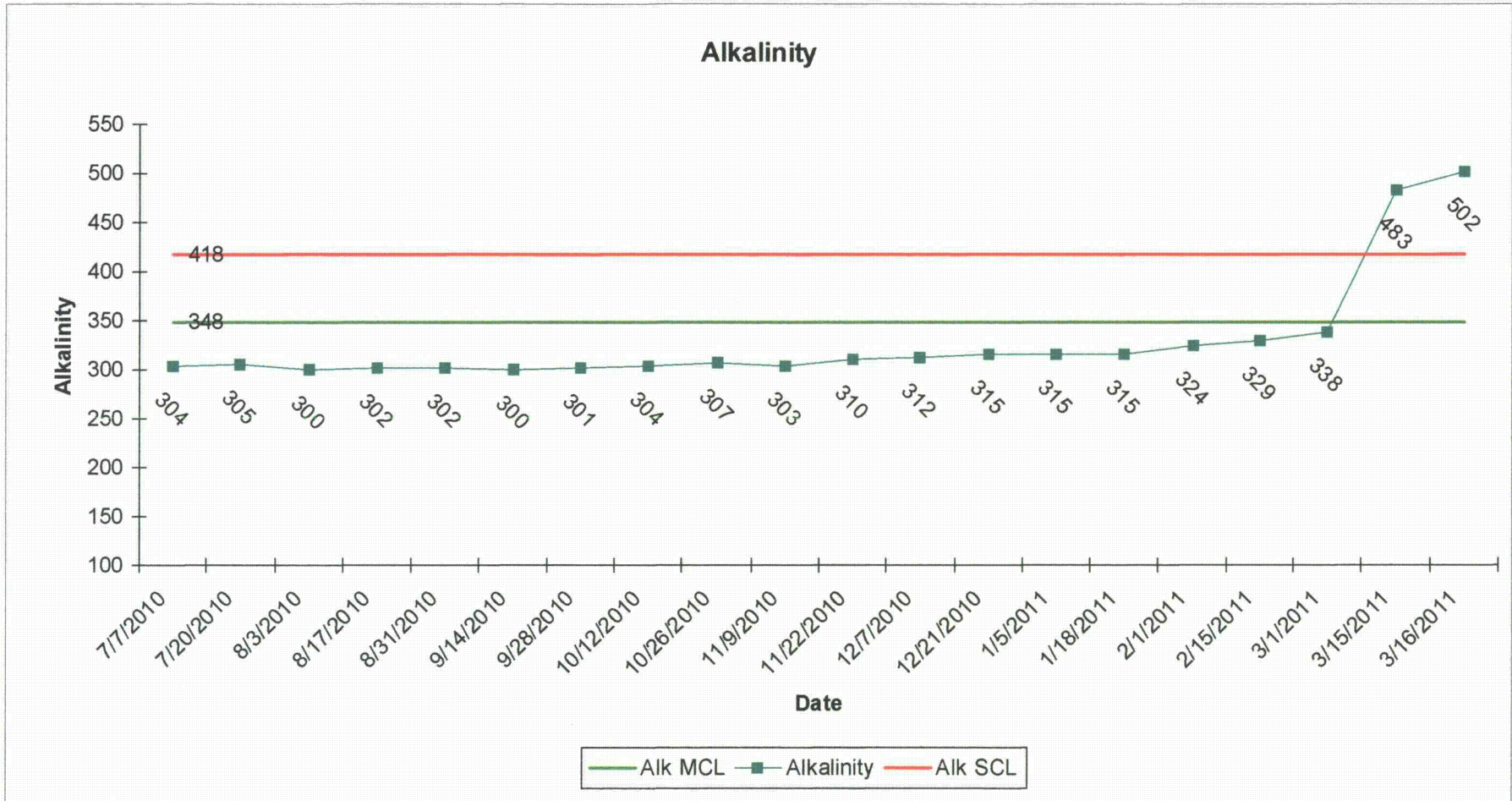
Sample Date
Analysis Date

3/16/2011
3/16/2011

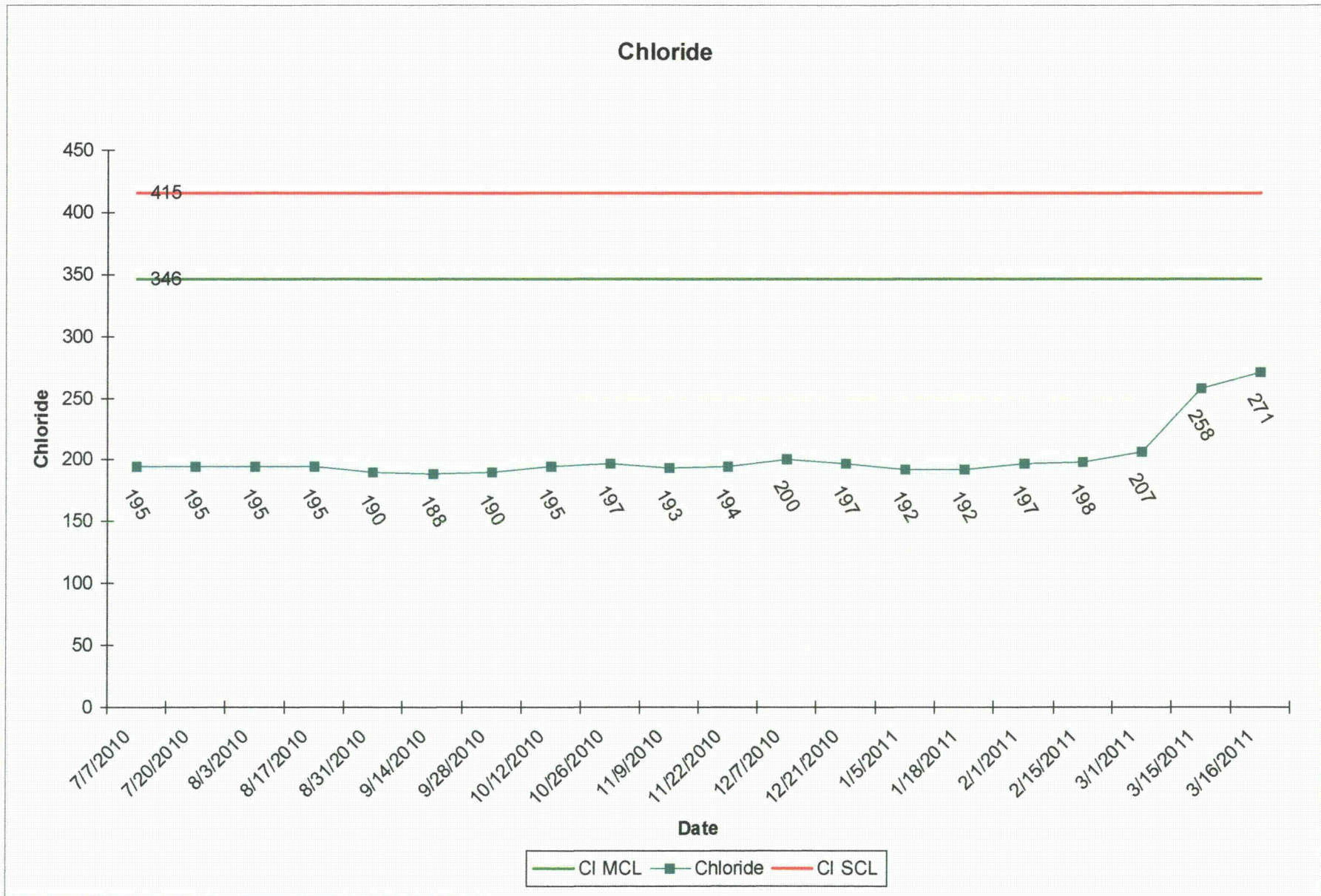
Crow Butte Project Monitor Well Laboratory Report

Well ID	Alkalinity			Conductivity			Chloride		
	(mg/L)	Alk SCL	Alk MCL	(µmho/cm)	Cond SCL	Cond MCL	(mg/L)	Cl SCL	Cl MCL
CM10-1	409	469	391	2150	2822	2352	223	305	254
CM10-2	323	474	395	1890	2707	2256	188	262	218
CM10-3	312	474	395	1870	2736	2280	184	266	222
CM10-4	312	468	390	1860	2794	2328	188	288	240
CM10-5	354	464	386	2030	3082	2568	202	389	324
CM10-6	315	482	402	1870	2750	2292	184	281	234
CM10-7	316	482	402	1860	2765	2304	183	278	232
CM11-1	302	438	365	1880	2808	2340	190	297	247
CM11-10	298	436	364	1850	2707	2256	188	284	236
CM11-11	301	433	361	1860	2736	2280	187	278	232
CM11-2A	299	442	368	1880	2794	2328	189	285	238
CM11-3	300	439	366	1860	2693	2244	185	272	227
CM11-4	300	464	386	1870	2678	2232	185	268	223
CM11-5	299	451	376	1860	2664	2220	185	274	228
CM11-6	302	436	364	1860	2707	2256	185	269	224
CM11-7	296	432	360	1850	2707	2256	184	272	227
CM11-8	296	462	385	1850	2678	2232	183	274	228
CM11-9	290	439	366	1870	2765	2304	191	276	230
CM8-10	333	441	367	1980	3038	2532	199	315	263
CM8-11	331	446	372	1950	3053	2544	193	325	271
CM8-12	323	461	384	1900	3038	2532	190	305	254
CM8-8	502	418	348	2590	3211	2676	271	415	346
SM10-1	286	469	391	690	994	828	14	37	31
SM10-10	237	353	294	540	792	660	8.5	30	25
SM10-11	252	373	311	610	835	696	11	30	25

CM8-8



CM8-8



CM8-8



CM8-8

