

CAMECO RESOURCES
CROW BUTTE OPERATION



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(308) 665-2341 – FAX

February 11, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Attn: Document Control Desk, 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

Source Materials License SUA-1534
Docket No. 40-8943
Monitor Well Excursion – SM10-18

Dear Deputy Director:

On December 10, 2013 during routine biweekly water sampling of Cameco Resources, Crow Butte Operation (CBO) shallow monitor well SM10-18, the single parameter upper control limit (SCL) for chloride was exceeded as well as the multiple parameter upper control limit (MCL) for conductivity. 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 three excursion indicator parameters. The results of the second sample exceeded the SCL for chloride.

In accordance with License Condition 11.2, CBO increased the sampling frequency for SM10-18 to weekly. Weekly samples were obtained from December 10, 2013 to February 3, 2014. The samples collected on December 30, 2013; January 6, 13, 20, and 27, 2014; and February 3, 2014, were below the excursion criteria. Based on these results, CBO is removing SM10-18 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 July 9, 2014 through February 3, 2014.

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CAMECO RESOURCES
CROW BUTTE OPERATION



Deputy Director
February 11, 2014
Page 2

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

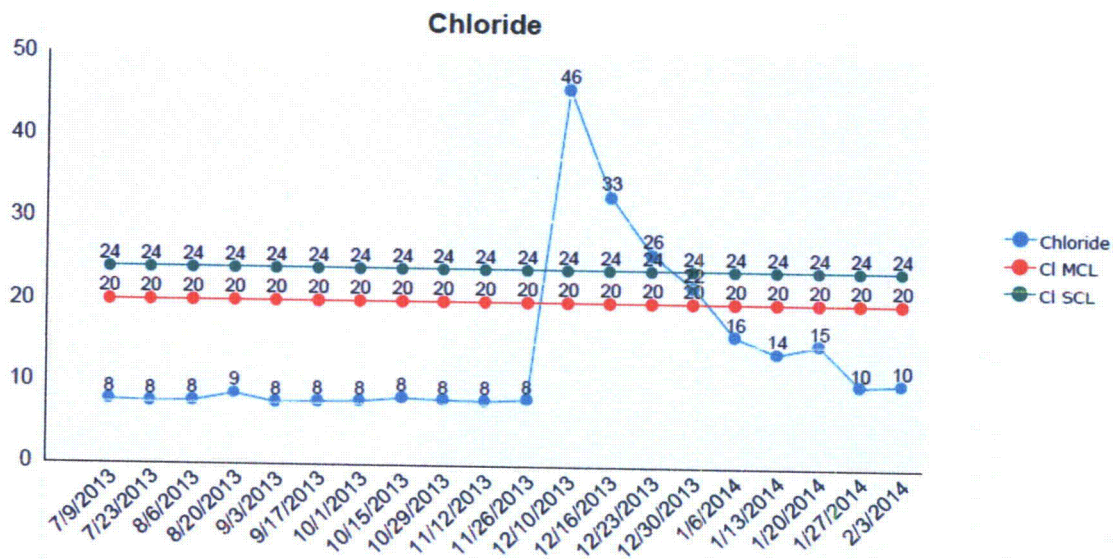
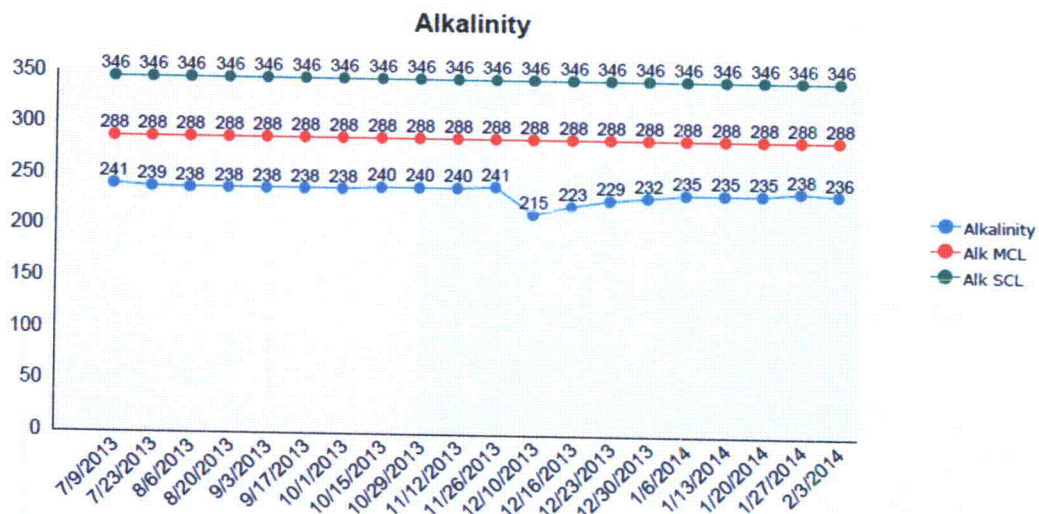
Larry Teahon

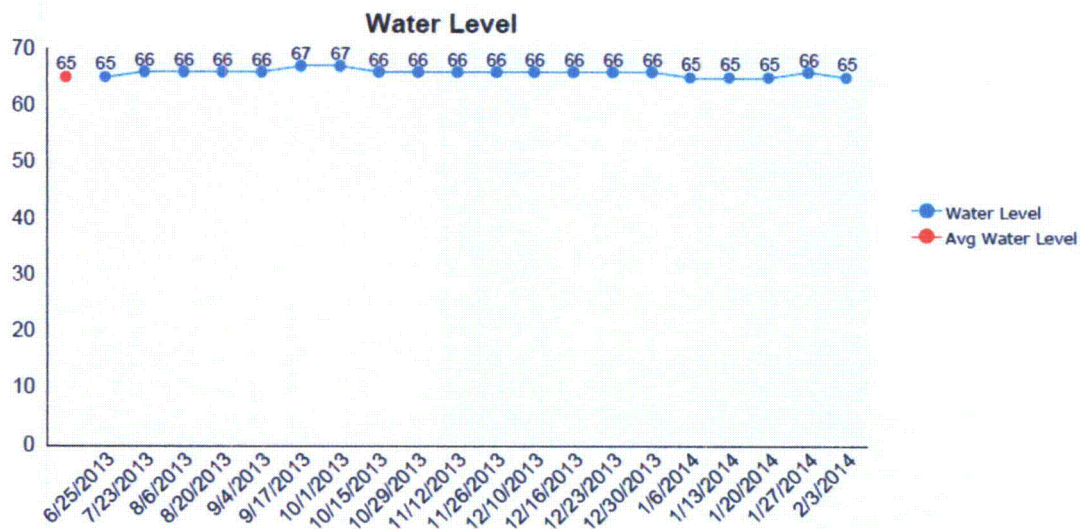
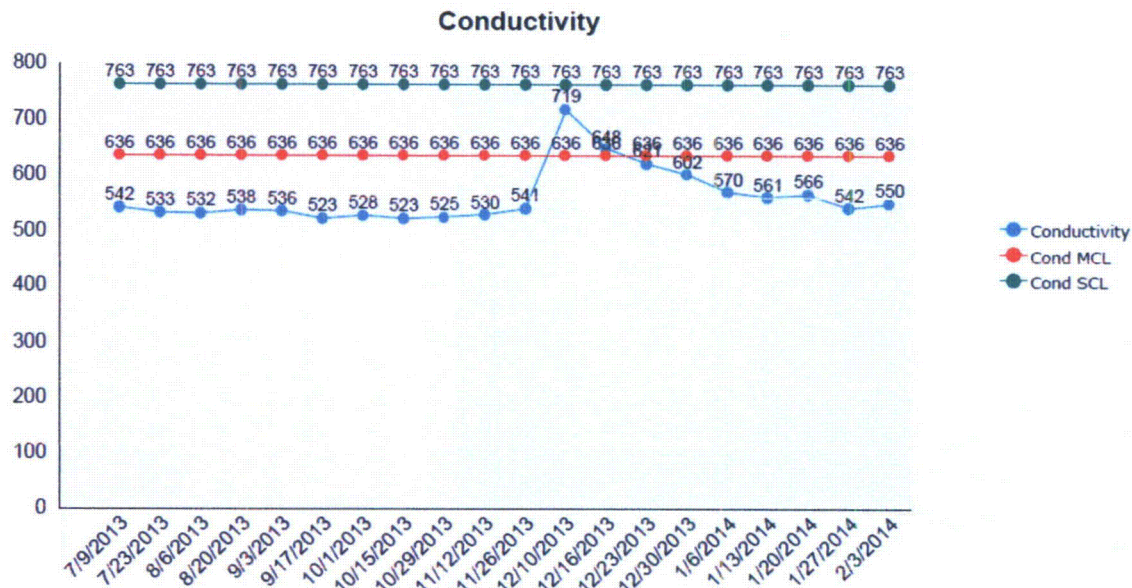
Larry Teahon
SHEQ Manager

Enclosures: As Stated

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

SM10-018







Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 02/03/2014

Analysis Date: 02/03/2014

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (μMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM07-013	152	233	194	377	592	493	5.9	25	21
SM07-014	139	180	150	332	618	515	2.6	65	54
SM10-018	236	346	288	550	763	636	10.2	24	20
SM10-023	239	360	300	554	792	660	13	28	23
SM10-024	231	346	288	539	778	648	11.2	25	21
SM10-025	227	331	276	541	792	660	11.8	27	23
SM10-026	247	360	300	581	821	684	14	29	24
SM10-027	281	403	336	607	878	732	6.6	25	21
SM10-028A	244	360	300	646	893	744	28.7	43	36
SM10-029A	267	360	300	601	864	720	11.5	31	26



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 01/27/2014

Analysis Date: 01/27/2014

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM05-021	179	284	236	459	755	629	4.8	29	24
SM05-022	184	278	232	465	773	644	3.7	33	28
SM05-023	182	287	239	460	753	628	3.3	28	24
SM05-024	173	264	220	442	700	583	5.4	28	24
SM05-025	177	264	220	476	724	604	6.9	31	26
SM06-011	212	318	265	484	691	576	8.4	24	20
SM06-012	236	348	290	497	736	613	5.2	23	19
SM06-013	240	360	300	517	768	640	5.7	26	21
SM06-014	205	301	251	550	936	780	13	58	48
SM06-015	206	321	268	539	842	702	11	34	28
SM06-016	212	317	264	446	840	700	4	31	26
SM06-018	202	305	254	551	837	697	14	33	27
SM06-019	207	297	247	481	698	582	7.5	27	22
SM06-020	214	323	269	515	717	598	9.9	26	22
SM06-021	213	312	260	514	713	594	9.8	25	21
SM06-022	209	310	258	467	674	562	6.1	22	18
SM10-018	238	346	288	542	763	636	10	24	20



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 01/20/2014
Analysis Date: 01/20/2014

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM07-013	153	233	194	377	592	493	6	25	21
SM07-014	139	180	150	331	618	515	2.6	65	54
SM10-018	235	346	288	566	763	636	15	24	20
SM10-023	238	360	300	557	792	660	13	28	23
SM10-024	231	346	288	541	778	648	11	25	21
SM10-025	227	331	276	541	792	660	12	27	23
SM10-026	247	360	300	588	821	684	15	29	24
SM10-027	267	403	336	588	878	732	6.9	25	21
SM10-028A	244	360	300	651	893	744	28	43	36
SM10-029A	266	360	300	603	864	720	12	31	26



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 01/13/2014

Analysis Date: 01/13/2014

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM05-021	179	284	236	460	755	629	4.9	29	24
SM05-022	182	278	232	463	773	644	3.7	33	28
SM05-023	182	287	239	461	753	628	3.5	28	24
SM05-024	174	264	220	441	700	583	5.3	28	24
SM05-025	174	264	220	466	724	604	6.4	31	26
SM06-011	211	318	265	484	691	576	8.1	24	20
SM06-012	235	348	290	497	736	613	5	23	19
SM06-013	241	360	300	518	768	640	5.5	26	21
SM06-014	206	301	251	553	936	780	13	58	48
SM06-015	206	321	268	541	842	702	11	34	28
SM06-016	212	317	264	447	840	700	3.5	31	26
SM06-018	201	305	254	554	837	697	14	33	27
SM06-019	207	297	247	483	698	582	7.2	27	22
SM06-020	214	323	269	513	717	598	9.5	26	22
SM06-021	214	312	260	515	713	594	10	25	21
SM06-022	209	310	258	470	674	562	6	22	18
SM10-018	235	346	288	561	763	636	14	24	20



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 01/06/2014

Analysis Date: 01/06/2014

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (μ Mho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM07-013	153	233	194	371	592	493	6.1	25	21
SM07-014	138	180	150	326	618	515	2.6	65	54
SM10-018	235	346	288	570	763	636	16	24	20
SM10-023	239	360	300	549	792	660	14	28	23
SM10-024	232	346	288	534	778	648	12	25	21
SM10-025	226	331	276	534	792	660	12	27	23
SM10-026	248	360	300	579	821	684	15	29	24
SM10-027	280	403	336	600	878	732	6.9	25	21
SM10-028A	244	360	300	644	893	744	29	43	36
SM10-029A	265	360	300	594	864	720	12	31	26



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 12/30/2013

Analysis Date: 12/30/2013

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM05-021	180	284	236	458	755	629	4.9	29	24
SM05-022	184	278	232	464	773	644	3.8	33	28
SM05-023	183	287	239	461	753	628	3.5	28	24
SM05-024	174	264	220	442	700	583	5.3	28	24
SM05-025	176	264	220	473	724	604	6.6	31	26
SM06-011	214	318	265	487	691	576	8.4	24	20
SM06-012	236	348	290	500	736	613	4.8	23	19
SM06-013	241	360	300	520	768	640	5.7	26	21
SM06-014	206	301	251	552	936	780	13	58	48
SM06-015	209	321	268	540	842	702	12	34	28
SM06-016	212	317	264	447	840	700	3.8	31	26
SM06-018	202	305	254	553	837	697	14	33	27
SM06-019	208	297	247	483	698	582	7.3	27	22
SM06-020	215	323	269	508	717	598	9	26	22
SM06-021	217	312	260	515	713	594	10	25	21
SM06-022	210	310	258	469	674	562	5.9	22	18
SM10-018	232	346	288	602	763	636	22	24	20