

CAMECO RESOURCES
CROW BUTTE OPERATION

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P.O. Box 169
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(308) 665-2215
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July 13, 2015

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

ATTN: Document Control Desk Director,
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Source Materials License SUA-1534
 Docket No. 40-8943
 Monitor Well Excursion – SM6-23

Dear Document Control Desk Director:

On May 21, 2015, during routine biweekly water sampling of Cameco Resources, Crow Butte Operation (CBO) shallow monitor well SM6-23, the multiple parameter upper control limit (MCL) for alkalinity and chloride was exceeded. As required by License Condition 11.5 of Source Materials License SUA-1534, a second sample was collected from SM6-23 within 48 hours and analyzed for the three excursion indicator parameters. The results of the second samples also exceeded the excursion control parameters as described above.

In accordance with License Condition 11.5, CBO increased the sampling frequency for SM6-23 to weekly. Weekly samples were obtained from May 22, 2015, to July 9, 2015. The samples collected on June 25, July 2, and July 9, 2015, were below the excursion criteria from License Condition 11.5. Based on these results, CBO is removing SM6-23 from excursion status. In accordance with the requirements of Nebraska Department of Environmental Quality (NDEQ) Underground Injection Permit NE0122611, Section B.1, weekly sampling will continue for an additional three weeks. If the excursion monitoring parameters are not exceeded then biweekly sampling will resume. Attached are copies of the analytical data for each of the last three weekly samples and graphs for each parameter covering the period of December 18, 2014 through July 9, 2015.

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Document Control Desk Director

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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
SHEQ Manager

Enclosures: As Stated

cc: NRC – Deputy Director
CBO - File
ec: CR – Casper



WJ

Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/25/2015

Analysis Date: 06/25/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
CM05-012	299	456	380	1886	2982	2485	177	323	269
CM05-013	290	373	311	1866	3149	2624	174	386	322
CM06-001	293	432	360	1881	3168	2640	175	334	278
CM06-002	301	436	364	1940	2822	2352	178	279	233
CM06-003	301	441	367	1920	2808	2340	177	269	224
CM06-004	300	441	367	1942	2837	2364	182	289	241
CM06-005	295	416	347	1972	2923	2436	180	294	245
CM06-006	301	444	370	1931	2894	2412	177	301	251
CM06-007	291	403	336	1936	2822	2352	179	281	234
CM06-008	299	445	371	1926	2923	2436	176	305	254
CM07-010	299	454	378	1890	2877	2398	181	297	247
CM09-012	303	444	370	1809	2866	2388	175	321	268
CM09-013	300	442	368	1806	2707	2256	174	279	233
CM09-014	303	461	384	1824	2923	2436	181	327	272
CM09-015	304	432	360	1818	2736	2280	173	279	233
CM09-016	302	444	370	1840	2678	2232	179	268	223
CM09-017	310	441	367	1832	2678	2232	179	268	223
CM09-018	302	445	371	1820	2794	2328	178	294	245
CM09-019	303	454	378	1829	2952	2460	178	315	263
CM09-020	299	431	359	1854	2779	2316	177	279	233
SM06-001	212	325	271	535	903	752	7.1	47	39
SM06-002	209	291	242	545	1008	840	9.9	85	71
SM06-003	204	295	246	542	844	703	10	43	36
SM06-004	208	310	258	523	804	670	8.3	32	27
SM06-005	216	314	262	517	770	642	6.4	26	22
SM06-006	227	334	278	477	711	593	3.3	24	20
SM06-007	229	343	286	495	779	649	6.2	39	32
SM06-008	208	311	259	493	770	642	7.3	36	30
SM06-009	224	336	280	492	815	679	6.5	51	42
SM06-010	204	317	264	483	838	698	8	35	29
SM06-017	237	353	294	483	798	665	3.8	42	35
SM06-023	267	314	262	572	691	576	8	23	19



WJ

Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 07/02/2015

Analysis Date: 07/02/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
CM06-025	303	433	361	1874	2952	2460	175	317	264
CM06-026	307	448	373	1887	2952	2460	178	338	282
CM06-028	322	449	374	1817	2894	2412	172	307	256
CM06-029	309	448	373	1874	3024	2520	178	321	268
CM06-030	319	459	383	1840	2952	2460	175	328	274
CM06-031	321	464	386	1855	2851	2376	175	301	251
CM06-032	320	461	384	1868	2981	2484	178	292	244
CM08-027	321	475	396	1815	2794	2328	171	314	262
CM08-028	323	480	400	1818	2650	2208	171	264	220
SM06-023	267	314	262	573	691	576	7.8	23	19
SM06-024	255	310	258	580	672	560	11	24	20
SM06-025	220	324	270	567	696	580	13	24	20
SM06-026	209	308	257	474	726	605	6.9	24	20
SM06-027	230	317	264	512	677	564	7.3	23	20
SM06-028	304	351	293	763	778	648	15	24	20
SM08-026	238	317	264	631	720	600	11	24	20
SM08-027	239	353	294	529	706	588	7.1	22	19
SM08-029	252	338	282	631	763	636	13	26	22
SM08-030	196	284	236	448	672	560	9	38	32
SM08-031	233	350	292	511	750	625	6.3	28	23
SM11-016	148	213	178	308	461	384	2	23	19
SM11-017	145	210	175	302	432	360	3	21	17
SM11-018	143	207	173	303	475	396	2.3	28	23
SM11-019	143	204	170	323	533	444	2.4	35	29
SM11-020	158	235	196	385	590	492	4.6	23	19
SM11-022	171	288	240	469	773	644	7.4	32	27
SM11-023	169	246	205	414	662	552	6.5	32	27
SM11-024	158	233	194	403	619	516	3.1	26	21
SM11-025	162	235	196	404	590	492	2	21	18
SM11-026	152	228	190	355	547	456	2.9	22	18



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Crow Butte Project
Monitor Well Laboratory Report

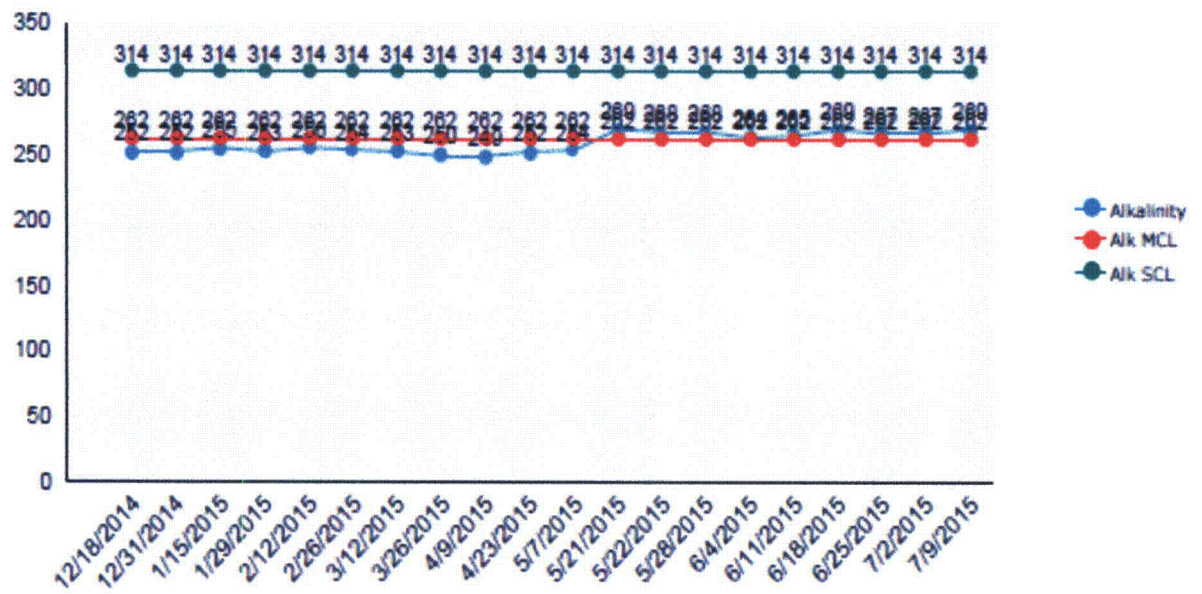
Sample Date: 07/09/2015

Analysis Date: 07/09/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
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CM06-005	296	416	347	1970	2923	2436	180	294	245
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CM09-013	301	442	368	1809	2707	2256	178	279	233
CM09-014	307	461	384	1826	2923	2436	180	327	272
CM09-015	303	432	360	1818	2736	2280	176	279	233
CM09-016	312	444	370	1843	2678	2232	181	268	223
CM09-017	306	441	367	1834	2678	2232	180	268	223
CM09-018	305	445	371	1826	2794	2328	178	294	245
CM09-019	303	454	378	1839	2952	2460	178	315	263
CM09-020	299	431	359	1855	2779	2316	181	279	233
SM06-001	209	325	271	534	903	752	6.9	47	39
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SM06-023	269	314	262	570	691	576	7.7	23	19

SM06-023

Alkalinity



Chloride

