

CAMECO RESOURCES  
CROW BUTTE OPERATION

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



(308) 665-2215  
(308) 665-2341 – FAX

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April 20, 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 – SM10-18

Attn: Document Control Desk:

On April 14, 2015 during routine biweekly water sampling of Cameco Resources, Crow Butte Operation (CBO) commercial 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 11.5 of Source Materials License SUA-1534, a second sample was collected from SM10-18 within 48 hours and analyzed for the three excursion indicator parameters. The results of the second sample exceeded the SCL for chloride and MCL for conductivity.

CBO notified Mr. Ron Burrows of the excursion by voicemail on April 15, 2015 as required in License Conditions 11.5 and 11.6. Laboratory results for the sample analysis for SM10-18 are attached. In addition, graphs are attached for the three excursion indicator parameters and water levels that cover the period from August 26, 2014, to April 15, 2015.

Following the routine biweekly sampling event on Tuesday, March 31, 2015, the well was inadvertently left on. This error was discovered on Wednesday, April 8, 2015, when the well was shut-off. A similar error occurred in November, 2013 which also caused an excursion. CBO will implement control measures that will prevent the well from over pumping in the future.

NH5501

CAMECO RESOURCES  
CROW BUTTE OPERATION



Document Control Desk Director

April 20, 2015

Page 2

In accordance with License Condition 11.5, CBO has increased the sampling frequency for SM10-18 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.

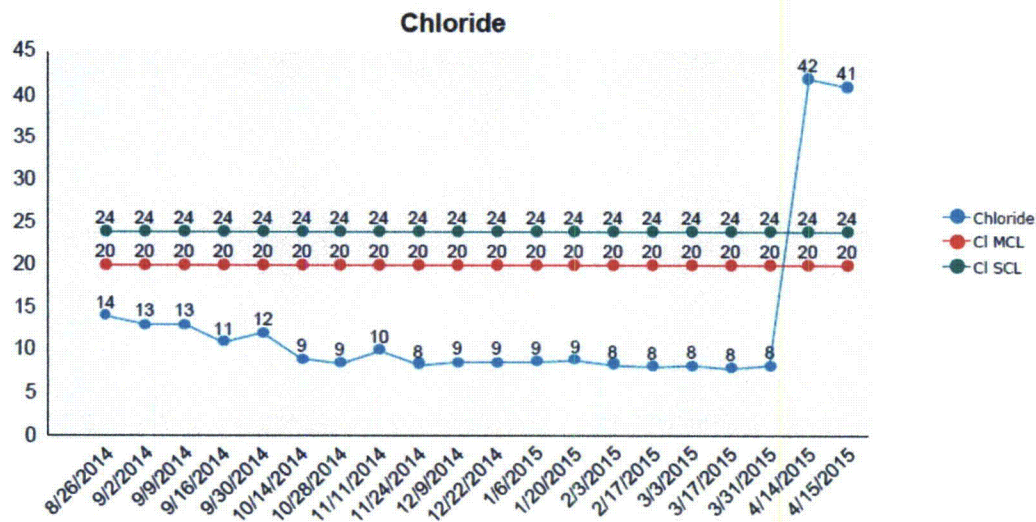
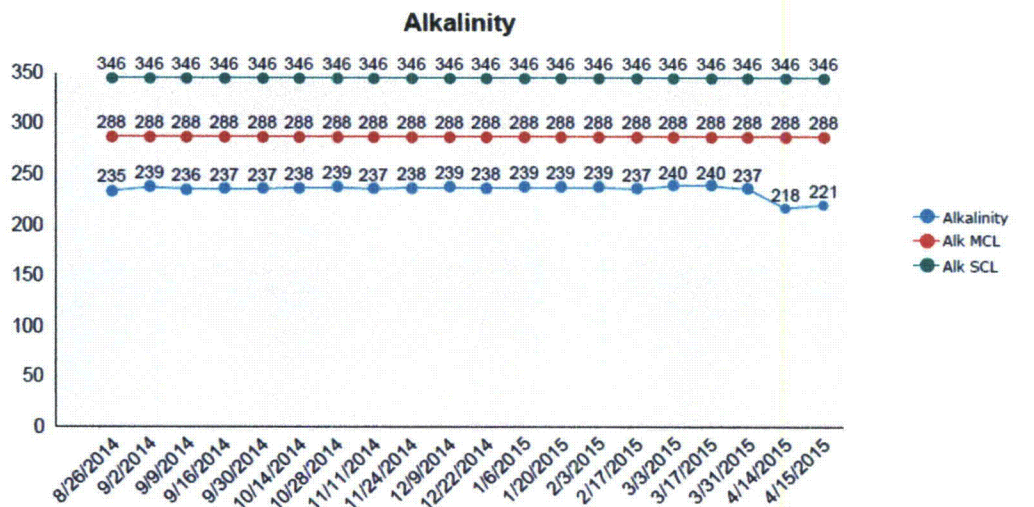
Sincerely,  
CAMECO RESOURCES  
CROW BUTTE OPERATION

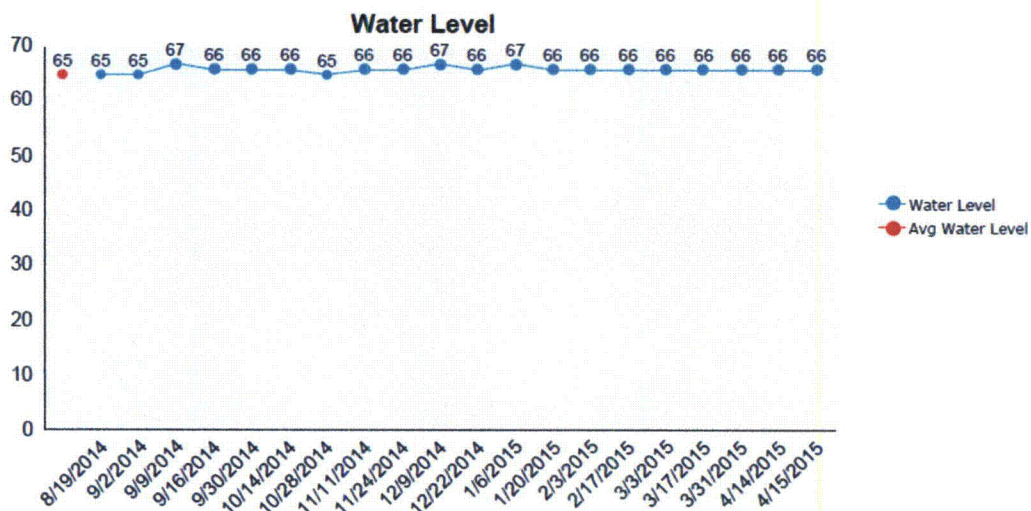
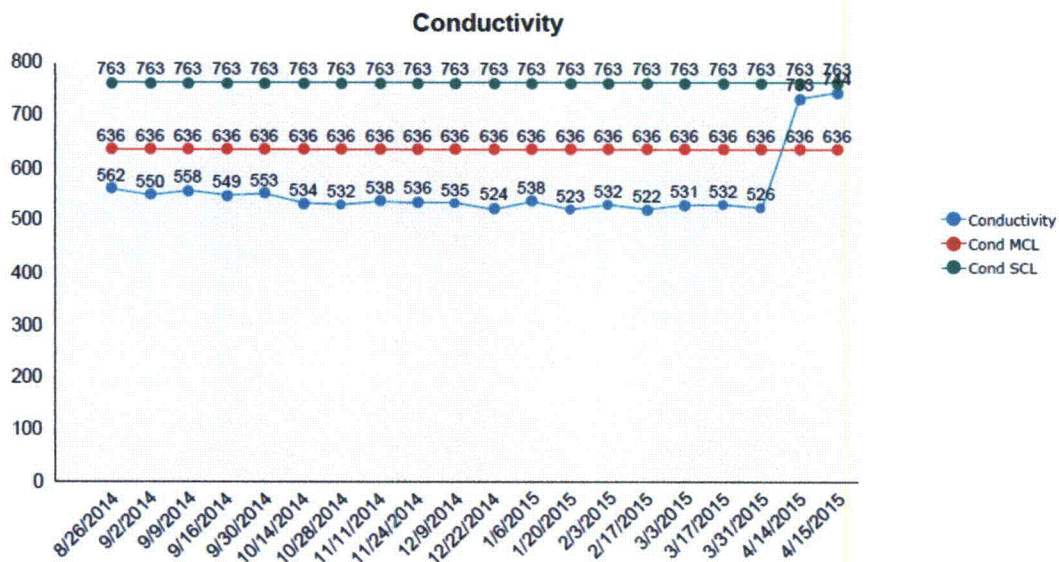
Larry Teahon  
SHEQ Manager

Enclosures: As Stated

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

SM10-018







**Crow Butte Project**  
**Monitor Well Laboratory Report**

Sample Date: 04/14/2015

Analysis Date: 04/14/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM07-023	176	278	232	450	850	708	3.9	59	50
SM07-024	186	259	216	568	809	674	8.3	45	37
SM07-025	155	202	168	359	645	538	2.7	52	44
SM10-016	252	382	318	574	850	708	9.4	28	23
SM10-017	243	374	312	551	835	696	8.7	28	23
SM10-018	218	346	288	733	763	636	42	24	20
SM10-019	245	369	307	597	778	648	16	25	21
SM10-020	236	360	300	567	792	660	18	27	22
SM10-021	229	360	300	605	806	672	26	27	23
SM10-022	239	360	300	547	778	648	10	23	20



**Crow Butte Project**  
**Monitor Well Laboratory Report**

Sample Date: 04/15/2015

Analysis Date: 04/15/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM05-007	215	323	269	572	932	776	9.3	41	34
SM05-008	209	312	260	556	840	700	12	32	27
SM08-017	236	331	276	541	848	707	7.4	24	20
SM08-018	229	317	264	531	816	680	9	25	21
SM08-019	230	340	283	530	827	689	7.5	25	21
SM08-020	222	314	262	520	806	672	7.6	25	21
SM08-021	226	317	264	543	706	588	8.1	25	21
SM08-022	227	324	270	554	829	691	7.9	25	20
SM08-023	223	317	264	532	808	673	7.7	27	23
SM08-024	227	317	264	560	720	600	8.3	24	20
SM08-025	238	324	270	600	720	600	8.8	24	20
SM10-018	221	346	288	744	763	636	41	24	20
SM10-030	238	359	299	528	778	648	6.9	25	21
SM10-031	232	340	283	529	734	612	7	25	21
SM10-032	237	340	283	525	734	612	6.3	23	20