CAMECO RESOURCES
CROW BUTTE OPERATION

86 Crow Butte Road
P.O. Box 169 **(308) 665-2215**
Crawford, Nebraska 69339-0169 **(308) 665-2341 – FAX**

June 12, 2009

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
CM 9-4 Monitor Well Excursion

Dear Mr. McConnell:

On June 11, 2009 during routine biweekly water sampling of Cameco Resources, Crow Butte Operation (CBO) commercial monitor well CM9-4, the single parameter upper control limit (UCL) for alkalinity and the multiple parameter upper control limit (MCL) for conductivity were exceeded. 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 single UCL for alkalinity, confirming an excursion. The MCL for conductivity was not exceeded in the second sample.

CBO notified Mr. Ronald Burrows on June 12, 2009 at 0940 MDT of the confirmation of the exceedance, as required in License Condition 9.2. Laboratory results for the sample analysis for CM9-4 are attached. In addition, graphs are attached for the three excursion indicator parameters and water levels that cover the period from October 2, 2008 to June 12, 2009.

This well began slowly trending upward with the April 16, 2009 sample. For the last month, CBO has been overproducing this area in an effort to curb the trend. This effort has resulted in a drop of 11 feet in water level, but the parameters continue to trend upward. The complexity of the geology in this area presents challenges in controlling the movement of mining solutions. CBO has repaired a production well that will help draw the mining solutions back from the monitor well ring.

Additionally, two more injection wells were turned off on June 12, 2009. In total, seven injection wells have been turned off since May 15, 2009, and a larger pump was installed in the nearest production well which increased flow from 20 gpm to 30 gpm.

In accordance with License Condition 11.2, CBO has increased the sampling frequency for CM9-4 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 117.

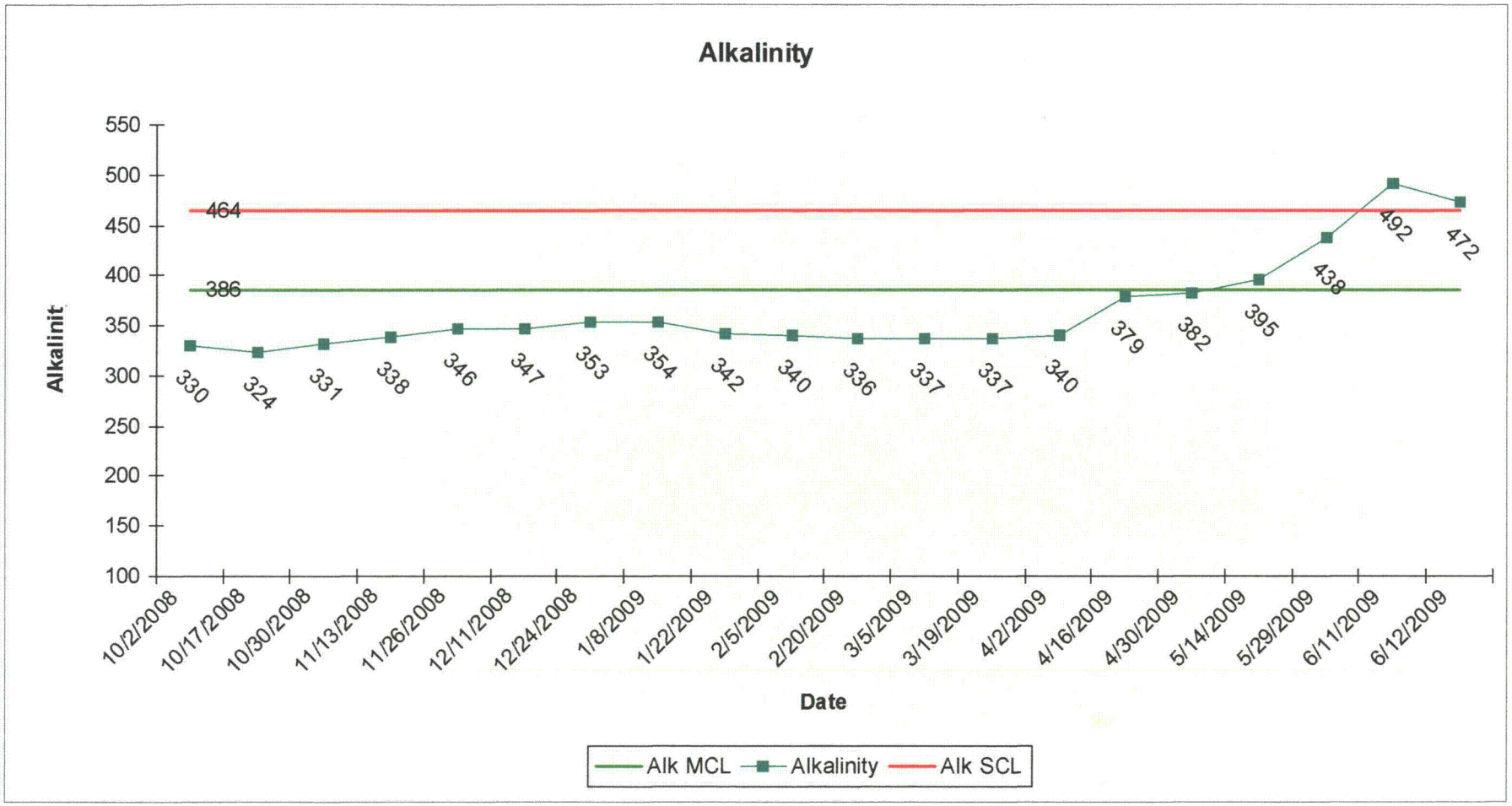
Sincerely,
CAMECO RESOURCES, CROW BUTTE OPERATION

Walt Nelson
Environmental Leadership Coordinator

Enclosures: As Stated

cc: Mr. Ronald Burroughs - NRC
Mr. Steve Collings - CBO, Denver
CBO File

CM9-4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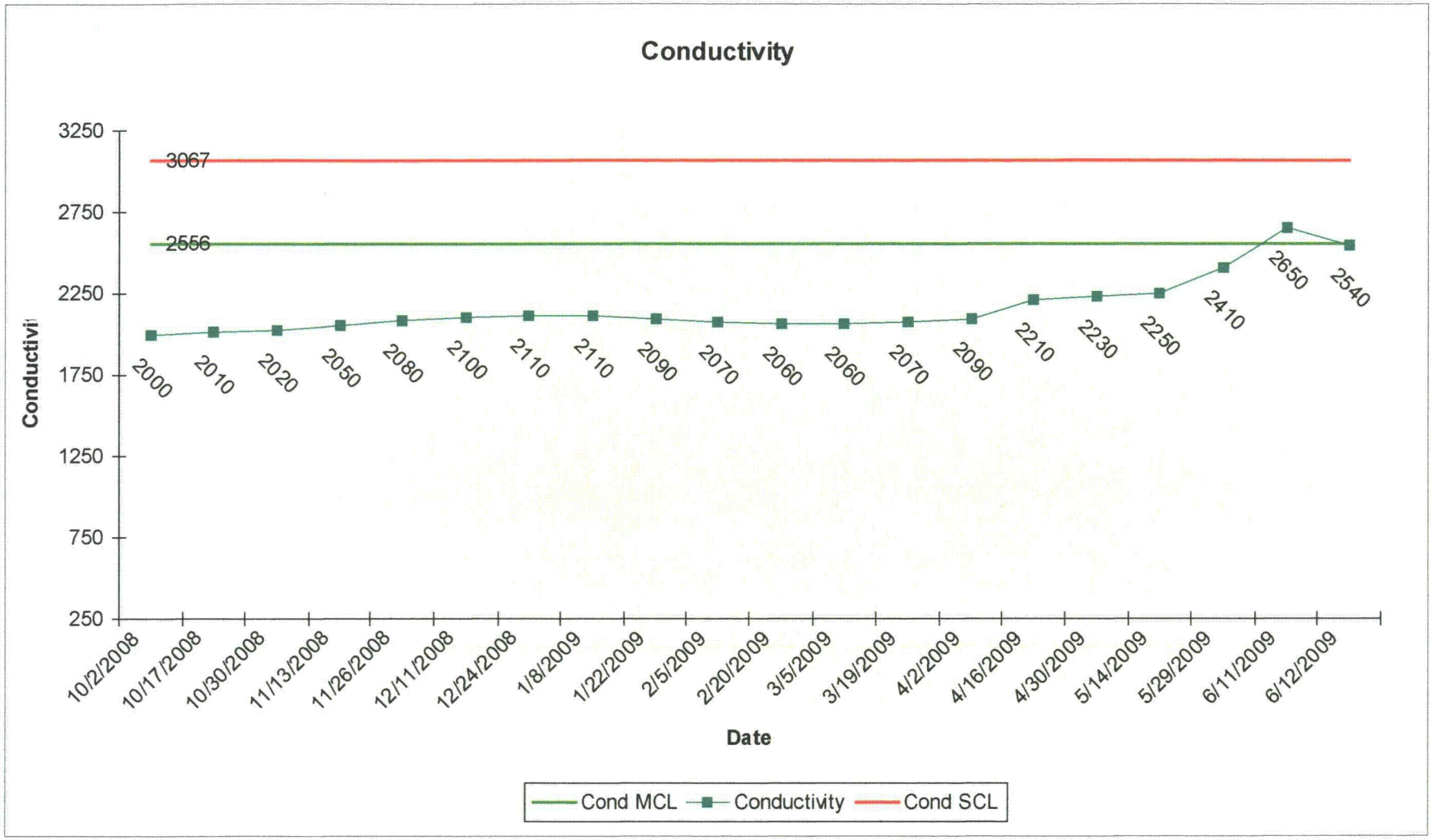
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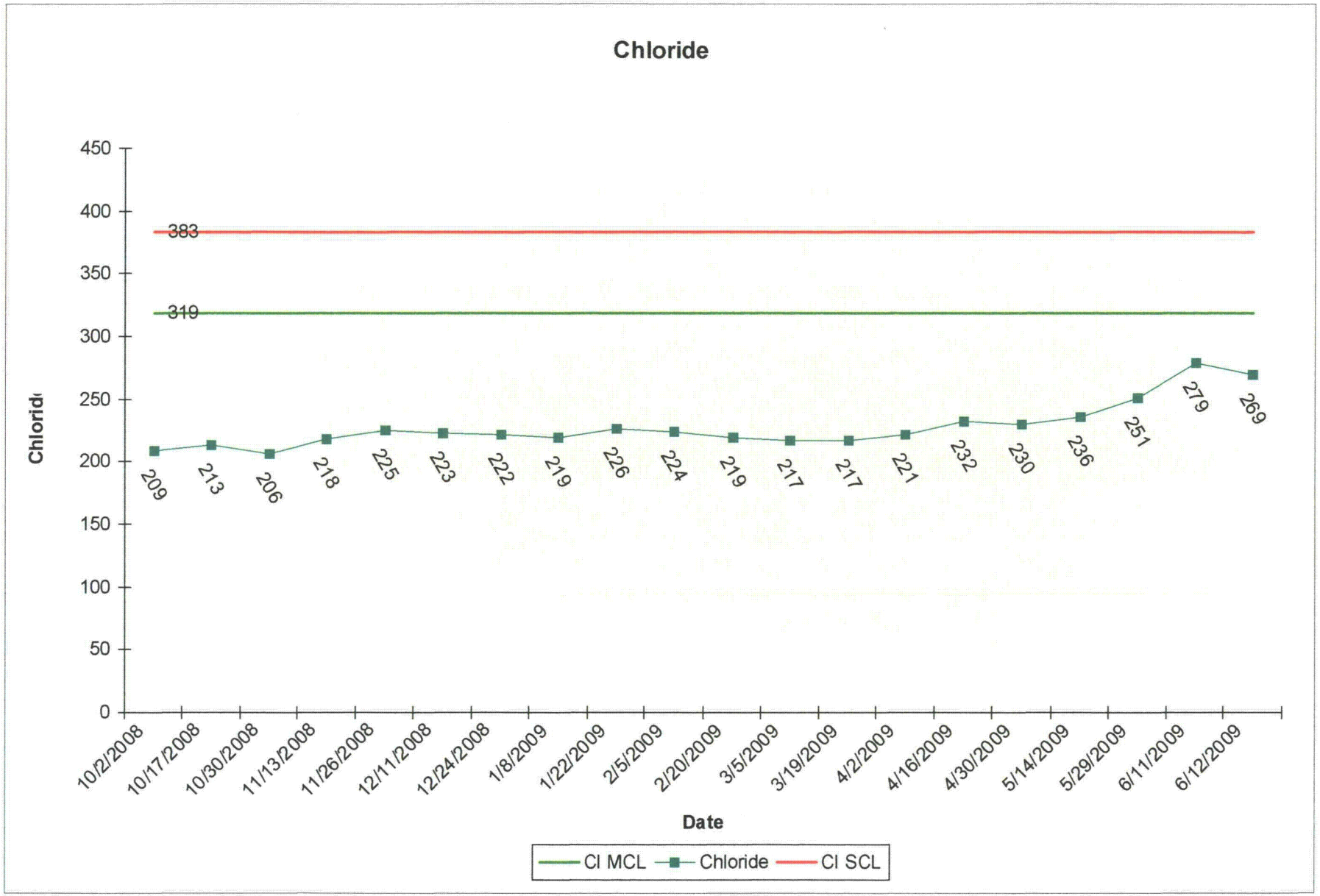
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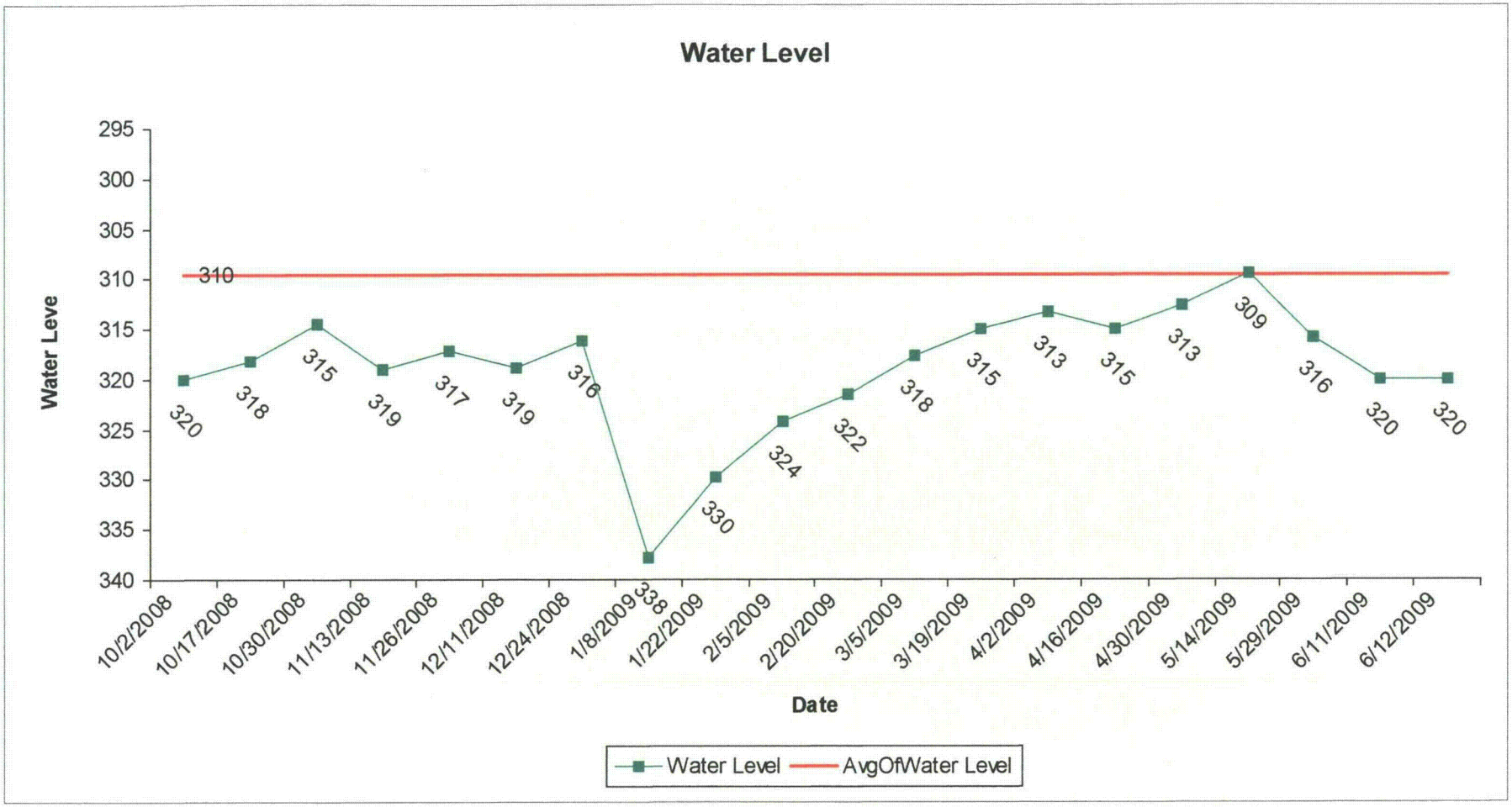
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Crow Butte Project
Monitor Well Laboratory Report

Sample Date 6/12/2009
Analysis Date 6/12/2009

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µmho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
CM9-4	465	464	386	2540	3067	2556	269	383	319

Crow Butte Project
Monitor Well Laboratory Report

Sample Date 6/11/2009
Analysis Date 6/11/2009

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µmho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
BOW96-1	225	314	262	500	791	659	6.8	24	20
CM6-2	299	436	364	1970	2822	2352	183	279	233
CM6-28	318	449	374	1860	2894	2412	185	307	256
CM6-29	308	448	373	1910	3024	2520	187	321	268
CM6-3	293	441	367	1910	2808	2340	186	269	224
CM6-30	316	459	383	1870	2952	2460	187	328	274
CM6-31	316	464	386	1880	2851	2376	187	301	251
CM6-32	312	461	384	1900	2981	2484	185	292	244
CM8-24	321	458	382	1840	2971	2484	178	278	232
CM8-25	314	449	374	1850	3355	2796	178	357	298
CM9-1	302	482	402	1870	2837	2364	196	288	240
CM9-10	299	359	299	1800	2390	1992	186	292	244
CM9-2	301	439	366	1850	2779	2316	190	297	247
CM9-3	298	448	373	1850	2664	2220	191	266	222
CM9-4	492	464	386	2650	3067	2556	279	383	319
CM9-5	292	449	374	1850	2952	2460	191	328	274
CM9-6	307	449	374	1870	3082	2568	192	377	314
CM9-7	299	464	386	1810	2808	2340	179	285	238
CM9-8	296	418	348	1830	2952	2460	183	366	305
CM9-9	302	475	396	1820	2923	2436	189	334	278
SM10-30	235	359	299	520	778	648	6.5	25	21
SM10-31	226	340	283	510	734	612	6.1	25	21
SM10-32	228	340	283	510	734	612	5.9	23	20
SM8-17	227	331	276	510	848	707	6.9	24	20
SM8-18	225	317	264	520	816	680	9.2	25	21