

# **CROW BUTTE RESOURCES, INC.**

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



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

January 20, 2006

**Mr. Gary Janosko, Branch Chief  
Fuel Cycle Licensing Branch, FCSS  
c/o Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555**

**Re: Source Materials License SUA-1534  
Docket No. 40-8943  
CM8-21 Monitor Well Excursion**

**Dear Mr. Janosko:**

On January 18, 2006 during routine biweekly water sampling of Crow Butte Resources, Inc. (CBR) perimeter monitor well CM8-21, the multiple parameter upper control limit (UCL) was exceeded for chloride and alkalinity. 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 multiple UCL for chloride and alkalinity.

CBR notified Mr. Stephen J. Cohen by phone on January 19, 2006 of the confirmation of the exceedance as required in License Condition 9.2. Laboratory results for the sample analysis for CM8-21 are attached. In addition, graphs are attached for the three excursion indicator parameters and water level that cover the period from May 11, 2005 to January 19, 2006.

This well has experienced a slow upward trend over the past several months. CBR had been overproducing in this area and currently has a production bleed of approximately 84 GPM. The wellfield and geology staffs are reviewing the corrective actions taken to date and the completion intervals of nearby wells to determine further corrective action to recover the excursion.

In accordance with License Condition 11.2, CBR has increased the sampling frequency for CM8-21 to weekly until three consecutive weekly samples are below the exceeded UCLs. CBR will continue weekly sampling for an additional three weeks after this goal has been achieved as required by CBR's Nebraska Department of Environmental Quality (NDEQ) Class III UIC Permit requirements. If the well has not exceeded the UCLs after these samples, it will be returned to normal status.

*nmssd1*

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Mr. Gary Janosko  
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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,  
CROW BUTTE RESOURCES, INC.

A handwritten signature in cursive script that reads "Larry L. Teahon". The signature is fluid and written in dark ink.

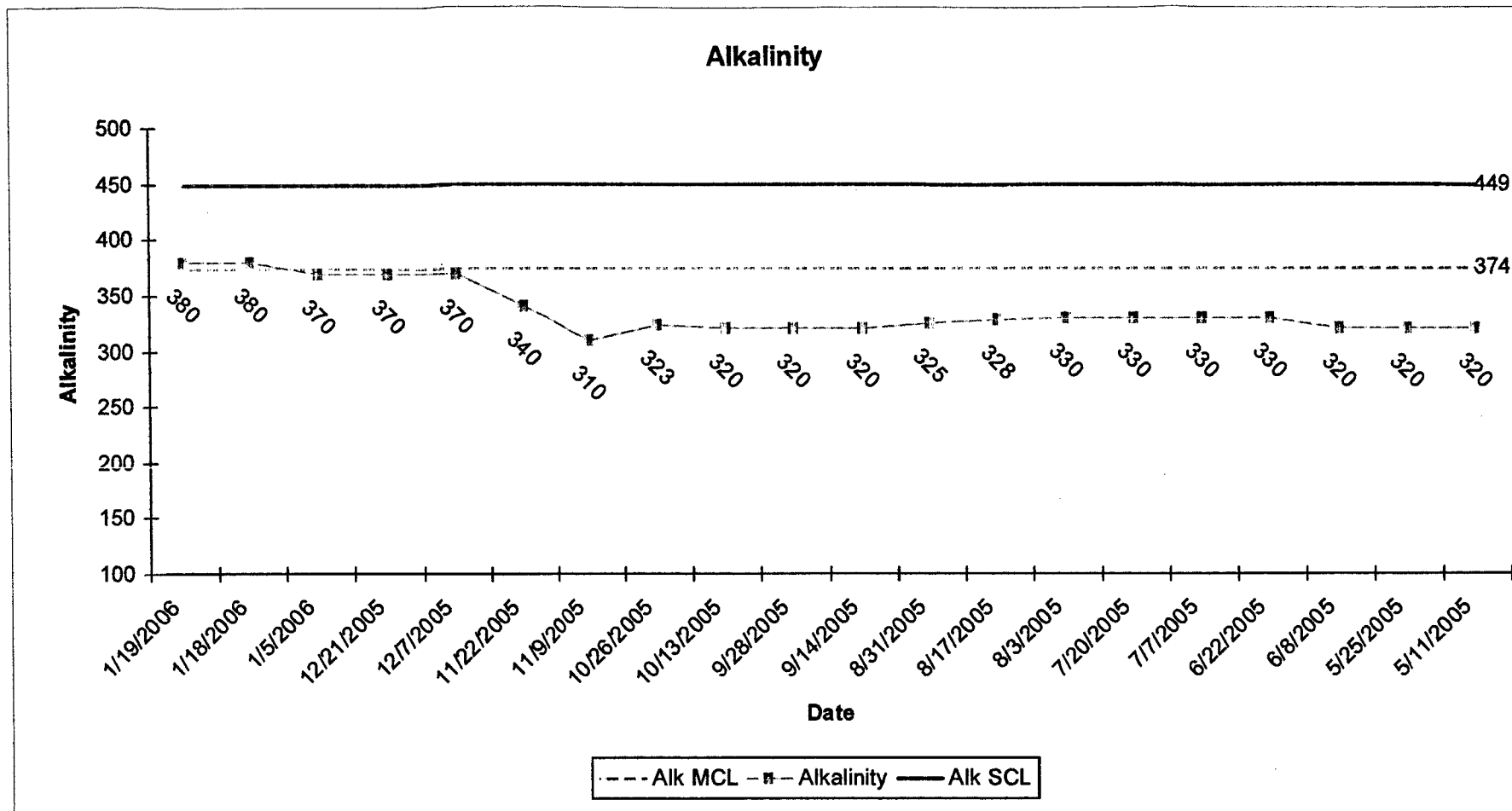
Larry L. Teahon  
Environmental Coordinator

Enclosures: As Stated

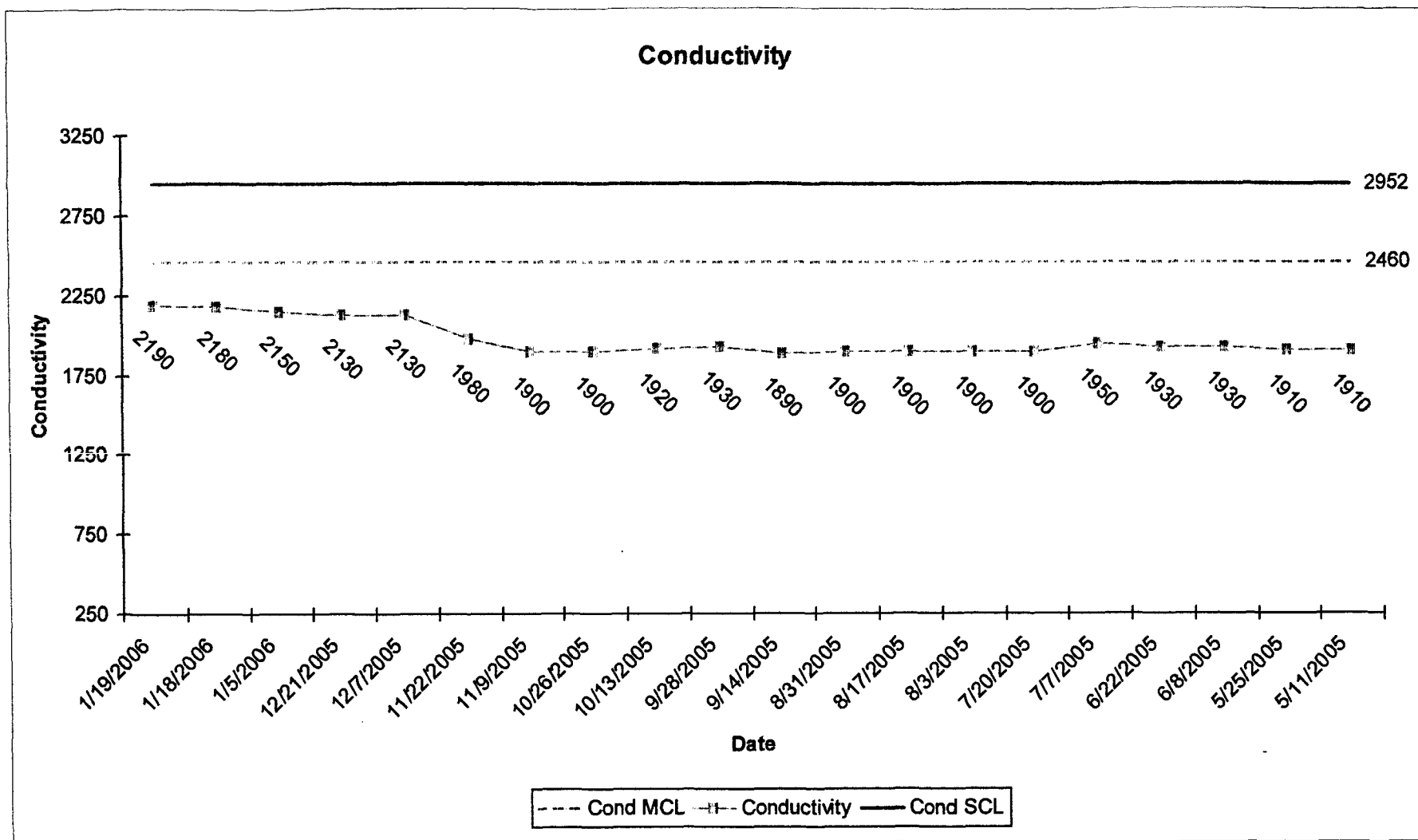
cc: U.S. Nuclear Regulatory Commission  
Mr. Stephen J. Cohen - ADDRESSEE ONLY  
Fuel Cycle Licensing Branch  
Mail Stop T-8A33  
Washington, DC 20555

Mr. Steve Collings - CBR, Denver

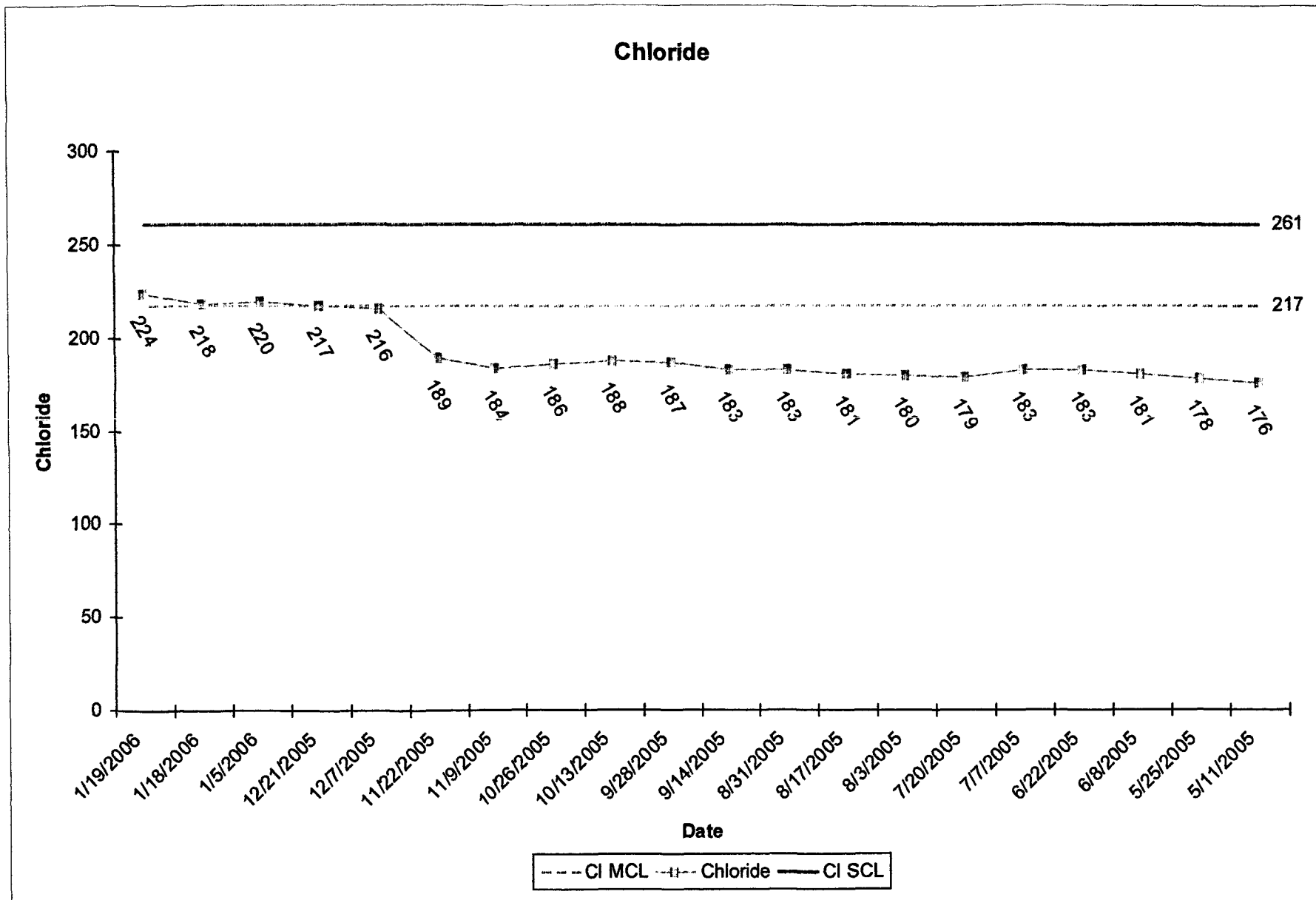
# CM8-21



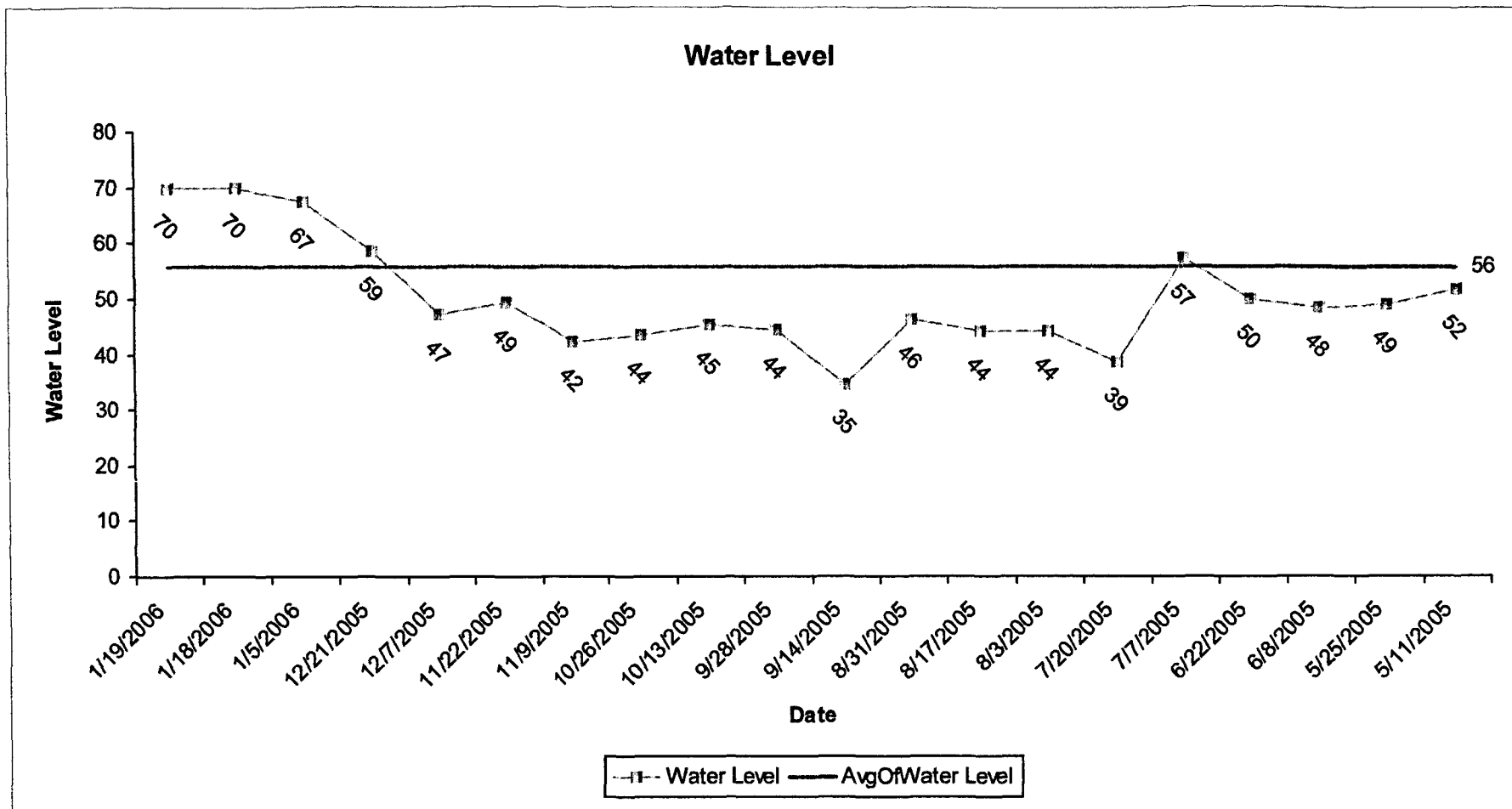
# CM8-21



# CM8-21



# CM8-21



Sample Date 1/18/06  
Analysis Date 1/18/06

## 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
CM7-13	300	436	364	1940	2841	2368	184	287	239
CM7-14	295	422	352	1950	2772	2310	184	274	228
CM7-15	300	432	360	1960	2822	2352	184	284	236
CM7-16	305	441	367	1970	2831	2359	185	281	234
CM8-19	320	461	384	1840	2909	2424	176	278	232
CM8-20	320	467	389	1860	3038	2532	176	305	254
CM8-21	380	449	374	2180	2952	2460	218	261	217
CM8-22	315	461	384	1850	2966	2472	176	266	222
CM8-23	315	455	379	1850	2938	2448	176	258	215
CM8-24	317	458	382	1860	2971	2484	176	278	232
CM8-25	308	449	374	1870	3355	2796	185	357	298
CM9-1	310	482	402	1860	2837	2364	180	288	240
CM9-2	318	439	366	1940	2779	2316	194	297	247
CM9-3	308	448	373	1850	2664	2220	180	266	222
CM9-4	300	464	386	1870	3067	2556	189	383	319
CM9-5	300	449	374	1870	2952	2460	196	328	274
SM3-1	210	374	312	690	1122	935	15	85	71
SM3-2	180	305	254	450	805	671	3.9	40	34
SM3-3	180	297	247	470	729	607	7.1	30	25
SM4-8	298	389	324	710	1109	924	12	27	23
SM6-15	210	321	268	550	842	702	13	34	28
SM6-16	205	317	264	450	840	700	3.1	31	26
SM7-10	170	253	211	450	680	566	3.1	25	21
SM7-8	168	238	198	490	802	668	8.2	50	42
SM7-9	170	262	218	420	660	550	3.1	29	24

Sample Date 1/19/06  
Analysis Date 1/19/06

## 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
CM3-6	313	441	367	2000	2799	2333	190	300	250
CM6-10	300	429	358	1960	2952	2460	184	327	272
CM6-4	300	441	367	1930	2837	2364	184	289	241
CM6-5	303	416	347	1990	2923	2436	184	294	245
CM6-6	300	444	370	1950	2894	2412	184	301	251
CM6-7	305	403	336	1940	2822	2352	183	281	234
CM6-8	295	445	371	1940	2923	2436	184	305	254
CM6-9	300	428	356	1950	2866	2388	184	285	238
CM8-21	380	449	374	2190	2952	2460	224	261	217
CM9-14	388	461	384	2210	2923	2436	226	327	272
CM9-15	300	432	360	1850	2736	2280	184	279	233
CM9-16	300	444	370	1860	2678	2232	184	268	223
CM9-17	295	441	367	1850	2678	2232	185	268	223
CM9-18	300	445	371	1860	2794	2328	189	294	245
CM9-19	292	454	378	1900	2952	2460	188	315	263
CM9-20	290	431	359	1890	2779	2316	188	279	233
SM6-10	200	317	264	500	838	698	8.6	35	29
SM6-17	240	353	294	490	798	665	3.5	42	35
SM6-3	200	295	246	550	844	703	11	43	36
SM6-4	210	310	258	530	804	670	8.2	32	27
SM6-5	210	314	262	520	770	642	7.1	26	22
SM6-6	230	334	278	480	711	593	3.1	24	20
SM6-7	230	343	286	500	779	649	6.3	39	32
SM6-8	210	311	259	480	770	642	5.1	36	30
SM7-24	182	259	216	590	809	674	10	45	37