



86 Crow Butte Road
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July 21, 2015

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

Subject: Quarterly Excursion Monitoring Report
Source Materials License No. SUA-1534, Docket No. 40-8943

Dear Sir or Madam:

Enclosed please find one copy of the Excursion Monitoring Report for the Crow Butte Uranium Project. The report is provided in accordance with License Condition 11.1(A) of Source Materials License SUA-1534. This report covers the second quarter of 2015.

If you have any questions concerning the report, please feel free to call me at (308) 665-2215 ext. 114.

Sincerely,
CAMECO RESOURCES
CROW BUTTE OPERATION

A handwritten signature in cursive script that reads "Larry Teahon".

Larry Teahon
Manager of Safety, Health, Environment & Quality

cc: Deputy Director, Division of Decommissioning
Uranium Recovery and Waste Programs
Office of Nuclear Material Safety and Safeguards
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Excursion Monitoring and Corrective Actions

On May 21, 2015, SM6-28, and SM8-28 were placed on excursion status for exceedance of upper control limits and on June 3, 2015, SM8-05 was placed on excursion status for exceedance of the upper control limits.

CBO believes that the apparent excursions are due to increased groundwater levels caused by the significant amount of precipitation at the facility during April, May and June. This conclusion is supported by the following indications:

1. The water level in each well has increased steadily throughout the spring. All three wells are located in an area of high groundwater near the springs that form the source of English Creek. Groundwater quality in this area is under the influence of surface water.
2. While the excursion indicators in each well has increased significantly, the levels still do not approach the levels found in mining solution.
3. Twelve other shallow monitor wells located in Mine Units 6, 8 and 10 are also showing increases in water levels and one or more of the indicator parameters. All of these wells are located in close proximity to English Creek. Historical operating data indicates that the excursion parameters are affected by high water levels in the shallow monitor wells located along English Creek.
4. In June 2010, these same three wells were put on excursion status due to the same circumstances. Once the area dried up and the groundwater table subsided, these wells went off excursion status.

On May 28, 2015, SM8-21 was placed on excursion status for exceedance of upper control limits. In early June the excursion parameters started to go down and as a result the well went off excursion status on June 17, 2015. Due to a high precipitation event that occurred on July 2, 2015 (local reports of 2"-3") this well returned to excursion status on July 10, 2015.

CBO continues to over pump all of these excursion wells to assist in lowering the groundwater levels.

On April 14, 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. The well was removed from excursion status on May 12, 2015. CBO has installed a gas powered pump jack on SM10-18 with a run time of approximately 6-8 hours. CBO believes this control measures will prevent the well from being over pumped in the future.

CAMECO RESOURCES
CROW BUTTE OPERATION



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On May 27, 2015, SM10-21 was placed on excursion status for exceeding the single upper control limit for chloride. Following the routine biweekly sampling event on March 31, 2015, SM10-18 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 at SM10-18. MODFLOW2000 transport modelling of elevated chloride concentrations, done by AquiferTek (May 19, 2015), indicates that an elevated concentration of chloride would be expected in SM10-21, which is downgradient from SM10-18, as a result of the migration and dispersion of the upgradient chloride plume. This well is being over pumped to help facilitate movement and removal of the chloride plume.

On May 19, 2015, well SM8-6 was placed on excursion status for exceedance of upper control limits. The well was removed from excursion status on July 7, 2015.

On May 21, 2015, well SM6-23 was placed on excursion status for exceedance of upper control limits. The well was removed from excursion status on July 9, 2015.

A summary of the weekly excursion indicator parameters and laboratory reports are included in Appendix A and Appendix B respectively.

CROW BUTTE URANIUM PROJECT

**EXCURSION MONITORING
REPORT**

for

SECOND QUARTER, 2015

USNRC Source Materials License SUA 1534

Appendix A
Summary of
Weekly Excursion Indicator Parameter Values
Second Quarter, 2015

Submitted by:
Crow Butte Resources, Inc.
P.O. Box 169
Crawford, NE 69339

NRC
Excursion Monitoring Report
Quarter 2 of 2015

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

Permit No. SUA-1534

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
BOW96-001	221	225	224	502	505	503	6.8	7.9	7.2
CM02-005	334	355	345	1989	2144	2074	190	207	200.5
CM02-006	286	303	294	1246	1459	1344	93	117	104.3
CM02-007	303	312	308	1783	1852	1833	167	174	171
CM03-005	301	304	302	1941	1951	1946	180	190	184.1
CM03-006	298	303	300	1925	1935	1931	180	189	183.3
CM04-001	315	319	317	1841	1859	1849	176	179	177.3
CM04-002	311	314	312	1852	1858	1856	177	181	179.3
CM04-003	310	313	312	1847	1864	1855	173	179	176.2
CM04-004	301	349	318	1847	1998	1889	175	192	179.8
CM05-001	307	312	310	1857	1876	1866	176	183	177.7
CM05-002	306	309	307	1849	1860	1854	176	182	177.6
CM05-003	309	314	311	1844	1854	1848	176	180	177.9
CM05-004	306	315	311	1844	1851	1848	176	181	177.6
CM05-005	306	314	310	1840	1852	1847	175	179	176.7
CM05-006	306	309	308	1847	1855	1850	175	178	176.4
CM05-007	306	309	308	1846	1853	1849	174	180	176.3
CM05-008	305	310	308	1870	1880	1875	175	179	176.1
CM05-009	304	309	306	1861	1882	1869	175	177	175.7
CM05-010	294	297	295	1888	1896	1891	172	179	174
CM05-011	309	313	311	1917	1934	1925	177	181	179.1
CM05-012	299	302	300	1872	1890	1881	177	180	178.3
CM05-013	289	291	290	1865	1882	1873	174	181	175.4
CM05-018	314	326	319	1955	2033	1989	182	196	187.3

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
CM05-019	304	306	305	1899	1916	1908	177	185	180.7
CM05-020	300	304	303	1910	1920	1914	179	189	182.6
CM05-021	299	305	303	1906	1914	1912	179	187	181.4
CM05-022	302	305	303	1910	1915	1913	180	189	182.6
CM05-023	297	300	299	1897	1905	1901	177	188	181.4
CM05-024	300	304	302	1919	1926	1922	177	186	180
CM05-025	295	301	299	1921	1937	1930	171	183	175
CM05-026	302	305	304	1928	1937	1933	179	190	181.4
CM05-027	302	307	306	1943	1956	1946	181	190	184
CM06-001	286	294	291	1853	1881	1869	170	176	173.7
CM06-002	293	304	300	1909	1940	1924	174	181	178.3
CM06-003	300	304	302	1901	1920	1913	176	179	177.3
CM06-004	296	300	299	1942	1950	1946	180	186	182.4
CM06-005	295	298	296	1966	1976	1970	179	184	181.4
CM06-006	293	301	298	1921	1938	1928	175	182	177.6
CM06-007	285	291	289	1932	1943	1936	179	184	181.3
CM06-008	290	301	297	1916	1929	1922	173	184	177
CM06-009	284	287	285	1907	1920	1914	170	175	172
CM06-010	295	302	298	1918	1932	1925	176	180	177.7
CM06-012	302	306	304	1907	1923	1917	179	185	182
CM06-013	302	307	304	1904	1919	1912	178	182	181.3
CM06-014	294	299	297	1889	1910	1902	175	183	177.6
CM06-015	296	300	298	1907	1930	1916	175	183	178
CM06-016A	299	302	300	1909	1922	1914	177	180	178.6
CM06-017	298	302	300	1901	1911	1907	175	179	177.1
CM06-018	298	304	302	1904	1909	1906	177	180	178.4
CM06-019	308	312	310	1895	1910	1902	176	181	178.7
CM06-025	300	304	303	1879	1888	1884	176	182	178.8

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
CM06-026	304	306	305	1861	1882	1875	175	180	176.8
CM06-028	317	322	320	1801	1822	1813	170	174	171.2
CM06-029	305	311	307	1866	1884	1877	173	177	175
CM06-030	318	320	319	1828	1844	1836	173	174	173.7
CM06-031	318	322	320	1843	1857	1852	172	176	173.7
CM06-032	317	320	319	1856	1864	1861	174	176	174.8
CM07-010	296	300	298	1867	1890	1879	179	181	180.6
CM07-011	290	299	296	1891	1910	1900	179	183	181.5
CM07-012	295	296	296	1896	1911	1904	178	182	180.3
CM07-013	294	297	296	1916	1922	1918	179	183	180.3
CM07-014	296	298	297	1922	1927	1925	180	183	181.8
CM07-015	302	303	303	1930	1938	1935	181	183	182.5
CM07-016	299	301	300	1930	1934	1931	178	182	180.7
CM08-001	289	292	291	1929	1941	1937	175	177	176.1
CM08-002	299	304	301	1909	1918	1914	177	181	179.3
CM08-003	299	309	303	1919	1940	1928	179	185	182.4
CM08-004	297	298	298	1901	1910	1908	177	181	178.9
CM08-005	292	301	297	1898	1909	1903	178	182	179.3
CM08-006	298	305	300	1899	1909	1902	178	181	179
CM08-007	304	306	305	1870	1891	1882	178	183	179.4
CM08-008	308	335	317	1879	1984	1914	176	189	181.1
CM08-009	315	316	315	1852	1863	1856	172	177	174
CM08-010	314	316	315	1833	1848	1837	173	180	175.2
CM08-011	315	320	318	1830	1849	1838	170	178	174
CM08-012	320	326	324	1855	1872	1864	172	180	174.7
CM08-019	317	322	319	1775	1832	1804	165	168	166.6
CM08-020	317	322	320	1790	1813	1802	167	170	168.3
CM08-021	317	321	319	1808	1831	1816	167	171	169.3

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
CM08-022	322	323	323	1815	1830	1822	165	170	168.3
CM08-026	313	320	318	1807	1827	1815	166	171	168.7
CM08-027	315	321	319	1818	1828	1824	169	174	170.7
CM08-028	319	323	321	1817	1832	1822	169	172	170.7
CM09-008	298	300	299	1799	1810	1805	172	178	174.3
CM09-009	301	305	303	1786	1794	1790	169	177	174
CM09-010	300	305	303	1768	1778	1773	171	181	175.4
CM09-011	303	306	305	1791	1799	1796	173	178	175.9
CM09-012	302	305	303	1799	1809	1802	174	178	176.1
CM09-013	300	302	301	1803	1807	1805	174	179	176.9
CM09-014	300	303	301	1822	1827	1824	181	186	183.1
CM09-015	300	304	302	1814	1822	1816	173	177	175.3
CM09-016	302	312	310	1840	1855	1846	179	183	180.6
CM09-017	307	310	308	1830	1835	1832	178	181	179.7
CM09-018	300	305	302	1820	1829	1823	177	179	177.9
CM09-019	300	303	302	1829	1841	1835	178	181	178.9
CM09-020	298	300	299	1850	1854	1852	177	182	179.7
CM10-001	321	332	328	1846	1884	1864	172	183	175.7
CM10-002	325	336	332	1857	1906	1886	173	184	177.2
CM10-003	318	324	321	1863	1903	1879	176	188	182
CM10-004	312	321	318	1848	1855	1852	174	182	176.8
CM10-005	330	345	337	1929	1963	1949	187	200	191.5
CM10-006	317	321	320	1834	1840	1838	170	178	172
CM10-007	320	323	321	1835	1842	1839	168	177	171
CM10-008	322	328	325	1840	1856	1846	170	177	172.3
CM10-009	318	323	321	1819	1835	1829	167	170	168.5
CM10-010	350	370	360	1960	2024	1990	182	190	186.5
CM10-011	318	321	320	1826	1844	1835	167	171	168.7

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
CM10-012	325	329	328	1804	1822	1815	164	169	166
CM10-013	338	347	343	1775	1801	1789	163	167	164.8
CM10-014	348	362	355	1715	1789	1753	161	168	163.7
CM10-015	344	351	346	1699	1713	1705	159	162	160.8
CM10-016	317	322	321	1804	1823	1817	158	160	159
CM10-017	341	350	345	1747	1794	1771	158	163	160.3
CM10-020	321	323	322	1798	1817	1809	161	167	163
CM10-021	321	324	323	1809	1823	1818	162	168	164.8
CM10-022	320	326	324	1831	1843	1836	164	167	165.8
CM10-023	323	326	325	1822	1836	1829	162	166	164.3
CM10-024	321	326	324	1827	1832	1830	165	167	165.8
CM10-025	323	327	325	1813	1824	1819	165	167	166.5
CM10-026	319	323	321	1817	1827	1821	166	169	167.2
CM10-027	317	318	318	1832	1841	1836	168	174	170.8
CM10-028	315	321	318	1817	1835	1826	168	170	169.1
CM10-029	319	321	320	1815	1834	1824	166	170	168.3
CM10-030	319	323	321	1818	1831	1825	167	169	167.9
CM10-031	317	319	318	1810	1834	1820	164	169	166.9
CM10-032	318	322	320	1844	1861	1849	160	163	160.8
CM10-033	328	333	329	1806	1813	1810	157	165	160.8
CM10-034	331	346	336	1797	1880	1833	165	175	170.2
CM11-001	303	305	304	1841	1855	1847	174	179	175.7
CM11-002A	307	316	311	1852	1883	1870	178	182	179.2
CM11-003	312	404	345	1863	2210	1987	180	209	191
CM11-004	303	306	304	1826	1839	1833	173	180	176.2
CM11-005	302	305	304	1821	1834	1826	173	177	175.2
CM11-006	319	357	337	1866	1988	1925	179	190	183.7
CM11-007	300	303	301	1813	1817	1815	172	176	173.8

7/10/2015

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
CM11-008	309	358	329	1851	2025	1923	176	189	182.2
CM11-009	296	300	299	1820	1837	1830	172	177	174.3
CM11-010	298	299	298	1821	1827	1825	171	176	174.2
CM11-011	298	318	304	1824	1886	1843	172	182	175.3
CM11-012	300	305	302	1799	1829	1810	169	175	172
CM11-013	299	302	301	1803	1812	1806	175	180	177.3
CM11-014	310	317	314	1844	1881	1856	173	186	180.7
CM11-015	302	304	303	1782	1793	1790	169	176	171.4
CM11-016	303	306	304	1769	1783	1777	172	177	174.1
CM11-017	303	305	304	1774	1781	1777	170	175	173.1
CM11-018	308	318	311	1804	1830	1818	172	177	174.6
CM11-019	300	307	305	1789	1801	1798	171	178	174.6
IJ013P	262	293	282	1051	1149	1103	72	78	75
PR008	206	228	214	736	886	794	53	65	58.8
PR015	187	194	190	583	621	599	26	29	27.5
SM02-001	191	194	192	531	537	534	14	15	14.6
SM02-002	166	170	169	463	471	466	11	12	11.3
SM02-003	198	200	199	551	558	554	16	17	16.1
SM03-001	206	208	207	669	682	673	13	13	13
SM03-002	178	180	180	448	459	453	3.4	4	3.7
SM03-003	176	179	178	455	466	460	5.5	5.8	5.6
SM04-001	157	162	160	364	373	369	2.5	2.9	2.7
SM04-002	192	194	193	631	640	636	13	14	13.9
SM04-003	187	193	191	620	630	625	12	12	12
SM04-004	210	211	211	621	630	625	12	12	12
SM04-005A	197	199	198	534	541	538	11	11	11
SM04-006	270	273	271	657	659	658	13	13	13
SM04-007	185	187	186	524	532	528	17	18	17.2

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
SM04-008	296	299	298	699	703	702	11	12	11.3
SM04-009	285	294	288	676	701	686	12	13	12.2
SM04-010A	297	301	299	712	721	716	11	12	11.7
SM04-011A	288	299	293	699	710	705	11	11	11
SM05-001	234	236	235	600	607	603	12	12	12
SM05-002	192	194	193	449	459	452	5.5	5.9	5.7
SM05-003	226	229	228	585	589	587	12	12	12
SM05-004	209	211	210	560	568	564	16	17	16.4
SM05-005	236	238	237	597	601	599	11	11	11
SM05-006	210	216	212	570	581	577	13	14	13.1
SM05-007	212	215	214	568	572	570	9.3	9.6	9.4
SM05-008	206	211	209	553	560	557	12	12	12
SM05-009	206	210	208	547	552	549	11	11	11
SM05-010	210	212	211	545	557	552	9.8	11	10.1
SM05-011	217	220	219	568	577	573	9.9	10	10.0
SM05-012	210	214	212	551	564	557	9.9	10	10.0
SM05-013	200	202	201	548	553	551	13	13	13
SM05-014	178	183	181	482	494	486	8.8	9.8	9.2
SM05-015	204	207	206	543	550	547	12	12	12
SM05-016	184	185	184	449	456	453	5.1	5.6	5.4
SM05-017	168	170	169	411	418	415	1.5	2.5	2.1
SM05-018	174	175	174	431	437	434	2.8	3.1	3.0
SM05-019	184	187	185	475	492	480	4.5	5.5	4.8
SM05-020	178	182	180	472	485	481	5.2	5.3	5.2
SM05-021	179	180	180	456	466	460	4.5	4.9	4.7
SM05-022	184	186	185	464	469	466	3.5	3.7	3.6
SM05-023	182	184	183	459	464	461	3.2	3.5	3.3
SM05-024	174	175	175	440	445	442	5	5.3	5.1

Well ID	7	Alkalinity			Conductivity			Chloride		
		Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
SM05-025	171	175	173	456	463	459	5.8	6.3	6.1	
SM06-001	205	212	210	518	539	534	6.9	7.3	7.1	
SM06-002	204	211	209	542	555	547	9.9	11	10.3	
SM06-003	202	206	204	541	546	543	9.7	11	10.2	
SM06-004	203	209	207	521	527	524	7.9	8.5	8.2	
SM06-005	215	218	216	514	520	518	6.4	7.1	6.7	
SM06-006	223	228	226	473	479	477	3.2	3.6	3.3	
SM06-007	226	230	229	491	500	495	6.2	6.6	6.3	
SM06-008	207	210	209	489	497	493	7.2	7.6	7.4	
SM06-009	224	226	225	475	492	483	5	6.5	5.6	
SM06-010	202	207	205	483	495	489	7.9	8.6	8.3	
SM06-011	212	219	216	492	525	509	8.9	11	10.0	
SM06-012	236	239	238	501	532	515	5.3	9.6	6.8	
SM06-013	241	248	245	520	596	557	5.9	7.5	6.8	
SM06-014	206	208	207	547	554	550	12	13	12.1	
SM06-015	207	208	208	533	542	538	10	11	10.9	
SM06-016	211	213	212	444	450	447	3.4	3.9	3.6	
SM06-017	235	240	237	476	487	483	3.7	4.1	3.9	
SM06-018	201	203	202	547	554	550	14	14	14	
SM06-019	208	212	210	484	522	500	7.8	11	9.0	
SM06-020	216	226	221	523	637	583	11	19	14.9	
SM06-021	218	225	222	528	626	579	11	15	13	
SM06-022	211	213	212	467	476	472	6	6.6	6.2	
SM06-023	249	269	263	534	585	565	6.4	8.3	7.4	
SM06-024	236	250	241	520	568	538	7.7	10	8.4	
SM06-025	215	221	218	517	584	549	11	13	11.8	
SM06-026	205	208	207	462	473	468	6.7	6.8	6.8	
SM06-027	224	229	226	493	511	501	6.8	9.2	7.4	

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
SM06-028	253	337	301	584	817	722	9.7	16	13.2
SM07-001	173	177	175	426	435	431	3.3	3.5	3.5
SM07-002	165	169	167	403	414	408	3.4	3.8	3.6
SM07-003	172	174	173	436	446	441	4.8	5.2	5.0
SM07-004	165	168	166	399	408	403	3.5	3.6	3.5
SM07-005	169	171	170	421	432	426	3.2	3.5	3.3
SM07-006	155	158	156	369	375	373	4.5	4.9	4.7
SM07-007	169	172	171	432	441	435	4.2	4.9	4.5
SM07-008	169	173	171	479	513	489	8	8.9	8.3
SM07-009	168	172	170	418	425	422	4	4.3	4.2
SM07-010	167	171	169	435	445	443	3.5	4.1	3.9
SM07-011	142	146	145	343	350	347	3.2	3.9	3.4
SM07-012	166	170	168	437	464	446	3.5	4.7	4.2
SM07-013	151	154	153	369	386	377	5.3	7	5.9
SM07-014	136	139	138	328	336	332	2.1	2.8	2.5
SM07-015	142	147	145	335	344	338	2.5	3.1	2.9
SM07-016	139	141	140	331	340	335	3	3.3	3.1
SM07-017	169	181	176	375	406	396	2.8	3.4	3.1
SM07-018	139	142	141	335	345	340	2.8	3.2	3.0
SM07-019	143	146	145	349	360	355	2.4	3.6	3.2
SM07-020	146	150	148	340	349	344	1.9	2.2	2.1
SM07-021	143	146	145	342	351	346	2.6	2.8	2.7
SM07-022	145	148	147	338	348	342	2.1	2.6	2.4
SM07-023	176	180	178	448	459	453	3.7	3.9	3.8
SM07-024	186	190	188	558	583	572	8.2	8.4	8.3
SM07-025	155	158	157	357	368	362	2	3	2.7
SM08-001	235	240	237	501	540	523	5.2	7.7	6.5
SM08-002	237	241	238	512	541	525	5.4	5.9	5.6

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
SM08-003	230	240	235	500	552	527	6.1	7.1	6.5
SM08-004	225	236	231	504	560	532	7.3	12	9.0
SM08-005	250	278	265	557	704	646	7.6	22	16.4
SM08-006	244	256	250	628	815	717	11	27	18.4
SM08-007	246	251	248	585	637	611	8.7	14	10.7
SM08-008	238	241	240	499	512	507	5	5.4	5.2
SM08-009	237	240	238	498	509	505	5.1	5.7	5.3
SM08-010	241	243	242	581	626	600	8.9	13	10.3
SM08-011	229	231	230	526	537	532	7.1	7.6	7.3
SM08-012	238	249	244	555	599	579	8	9.7	8.7
SM08-013	227	230	228	541	555	548	12	13	12.3
SM08-014	230	233	232	547	580	563	9.3	12	10.7
SM08-015	222	224	223	520	540	530	7.5	8.1	7.8
SM08-016	224	229	226	527	566	545	7.1	8.5	7.8
SM08-017	232	239	236	535	541	539	7.3	7.7	7.5
SM08-018	227	231	229	526	532	530	8.1	9.1	8.7
SM08-019	229	232	230	529	537	532	7.3	8	7.6
SM08-020	220	222	221	517	524	519	7.4	7.7	7.5
SM08-021	225	283	250	542	712	624	7.9	12	10.1
SM08-022	227	237	231	554	649	585	7.7	11	8.8
SM08-023	221	237	227	532	580	547	7.7	8.9	8.2
SM08-024	227	231	228	560	615	582	8.3	11	9.6
SM08-025	238	247	242	600	688	634	8.8	14	10.6
SM08-026	229	236	231	539	651	594	8.1	13	10.2
SM08-027	232	240	234	505	531	517	6.3	7.1	6.7
SM08-028	235	274	255	633	938	818	7.2	14	11.4
SM08-029	244	251	247	569	625	592	10	12	10.7
SM08-030	195	197	196	442	449	445	8.6	9.2	9.0

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
SM08-031	230	235	232	500	513	506	6.5	6.9	6.7
SM09-001	175	178	176	428	442	437	4.2	4.6	4.4
SM09-002	163	165	164	384	392	387	3.2	3.5	3.4
SM09-003	160	162	161	369	383	378	2.8	3	2.9
SM09-004	147	149	148	370	377	374	6	6.4	6.2
SM09-005	143	145	144	307	315	311	2.5	2.9	2.8
SM09-006	143	145	145	308	313	310	2	2.7	2.4
SM09-007	160	165	164	397	402	400	2.8	3.4	3.2
SM09-008	159	165	164	392	396	394	1.8	2.6	2.2
SM09-009	154	155	154	370	374	373	3.5	3.7	3.6
SM09-010	148	150	148	346	350	348	2.3	2.6	2.5
SM09-011	149	150	149	353	357	355	2.7	3.3	3.0
SM09-012	163	166	164	391	395	393	2.5	2.9	2.7
SM09-013	145	147	146	337	343	340	2.8	3.2	3.0
SM09-014	140	142	142	318	322	320	1.7	2.3	1.9
SM09-015	141	145	142	315	320	318	1.2	2.3	1.8
SM09-016	143	145	143	303	306	305	1.1	1.9	1.5
SM09-017	140	142	141	319	325	323	2.8	3.3	3.1
SM09-018	140	146	144	319	326	322	1.3	2	1.7
SM09-019	138	140	139	308	312	310	2.1	2.5	2.4
SM09-020	140	142	141	318	321	320	2.5	3	2.8
SM10-001	283	290	288	688	710	703	14	15	14.3
SM10-002	223	233	230	526	541	532	7.6	8.5	8.0
SM10-003	246	250	248	551	563	557	8.9	9.7	9.2
SM10-004	238	245	241	519	535	528	6.7	7	6.8
SM10-005	239	244	241	521	537	528	6.5	6.9	6.7
SM10-006	286	327	313	686	776	748	13	14	13.5
SM10-007	287	300	296	699	720	713	13	14	13.3

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
SM10-008	288	297	293	669	681	674	12	13	12.2
SM10-009	245	264	251	543	585	557	8.4	9.7	8.8
SM10-010	238	245	241	529	545	535	7.7	8.2	8.0
SM10-011	275	290	282	652	700	674	11	13	12.2
SM10-012	276	285	280	661	671	666	11	12	11.8
SM10-013	239	240	239	542	550	544	8.6	9.1	8.8
SM10-014A	240	249	247	571	581	576	9.6	10	9.8
SM10-015	249	275	263	561	633	600	9.6	14	11.9
SM10-016	250	256	254	574	586	579	9.4	10	9.7
SM10-017	243	249	247	551	566	558	8.7	10	9.6
SM10-018	218	240	233	529	744	595	8	42	18.2
SM10-019	240	245	243	555	597	570	11	16	12.5
SM10-020	234	239	236	567	601	586	18	25	22
SM10-021	224	235	231	601	658	619	25	42	30
SM10-022	239	241	240	546	560	551	10	11	10.7
SM10-023	234	242	237	557	566	562	15	16	15.3
SM10-024	230	233	232	532	540	535	10	10	10
SM10-025	228	230	229	527	539	533	10	11	10.7
SM10-026	245	247	246	574	588	581	14	15	14.8
SM10-027	241	266	252	537	581	556	7	8.2	7.9
SM10-028A	212	243	229	619	641	634	28	37	31.2
SM10-029A	265	270	268	601	617	607	11	13	12
SM10-030	231	248	239	523	543	531	6.5	6.9	6.8
SM10-031	231	237	233	527	537	530	6.7	7.1	6.9
SM10-032	234	240	237	524	527	526	6.1	6.6	6.3
SM11-001	163	164	163	408	414	412	6.2	6.8	6.4
SM11-002	141	143	142	322	331	327	4	4.4	4.2
SM11-003	144	145	145	317	324	321	1.4	2.2	1.8

Well ID	Alkalinity			Conductivity			Chloride		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
SM11-004	141	142	142	306	312	310	1.1	2.5	1.9
SM11-005	141	142	141	317	323	320	2.8	3.2	2.9
SM11-006	141	143	142	323	329	327	5.3	5.6	5.4
SM11-007	144	145	145	306	318	312	2.6	4.2	3.2
SM11-009	152	154	153	308	315	311	1.1	1.5	1.2
SM11-010	158	160	159	321	326	323	1	1.8	1.3
SM11-011	152	154	153	347	353	350	1.2	3.3	2.2
SM11-012	144	147	146	327	334	331	2.8	3.2	3.1
SM11-013	143	144	143	295	300	298	1.2	2.1	1.7
SM11-014	139	141	140	296	300	298	1.3	2.5	2.1
SM11-015	139	140	140	307	312	310	2.3	2.6	2.5
SM11-016	145	149	147	301	307	304	1.9	2.2	2.1
SM11-017	144	147	145	296	299	298	2.7	3.1	2.9
SM11-018	141	143	142	297	302	300	1.4	2.6	2.0
SM11-019	143	147	145	315	321	318	1.1	2.1	1.8
SM11-020	150	164	157	361	403	379	3.6	5.3	4.2
SM11-022	169	172	170	459	469	465	7.1	7.3	7.2
SM11-023	165	169	168	410	415	413	6.3	6.9	6.7
SM11-024	157	160	158	399	407	403	3.1	4	3.7
SM11-025	159	162	160	390	407	398	2.5	2.7	2.6
SM11-026	145	148	147	333	345	338	2.1	2.5	2.3

Appendix B

Monitor Well Laboratory Reports

Second Quarter, 2015



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



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 04/21/2015

Analysis Date: 04/21/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM08-007	246	348	290	585	763	636	8.8	23	19
SM08-008	240	340	283	499	864	720	5.2	24	20
SM08-009	238	353	294	498	886	738	5.1	23	19
SM08-010	241	331	276	581	749	624	9.2	24	20
SM08-011	230	323	269	526	792	660	7.3	24	20
SM08-012	238	323	269	555	834	695	8	25	20
SM08-013	227	328	274	541	880	733	12	31	26
SM08-014	231	325	271	547	720	600	9.4	24	20
SM08-015	222	305	254	520	789	658	7.7	35	29
SM08-016	224	331	276	527	828	690	7.7	24	20
SM09-001	176	255	212	434	648	540	4.3	31	26
SM09-002	165	230	192	386	665	554	3.4	72	60
SM09-003	161	239	199	377	605	504	3	29	24
SM09-004	148	230	192	370	562	468	6.1	26	22
SM09-005	144	206	172	310	446	372	2.9	22	18
SM10-018	228	346	288	669	763	636	31	24	20
SM11-001	164	240	200	408	605	504	6.6	24	20
SM11-002	142	202	168	325	446	372	4.4	21	17
SM11-003	145	210	175	320	490	408	2	20	17
SM11-004	142	200	167	306	446	372	1.7	20	17
SM11-005	141	204	170	317	475	396	2.8	20	17
SM11-006	142	207	173	323	490	408	5.6	25	21



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 04/28/2015

Analysis Date: 04/28/2015

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	451	850	708	3.8	59	50
SM07-024	188	259	216	570	809	674	8.4	45	37
SM07-025	155	202	168	362	645	538	2.9	52	44
SM10-016	255	382	318	577	850	708	9.6	28	23
SM10-017	247	374	312	556	835	696	9.6	28	23
SM10-018	232	346	288	595	763	636	19	24	20
SM10-019	242	369	307	573	778	648	13	25	21
SM10-020	238	360	300	573	792	660	19	27	22
SM10-021	231	360	300	606	806	672	26	27	23
SM10-022	240	360	300	550	778	648	10	23	20



Crow Butte Project

Monitor Well Laboratory Report

Sample Date: 05/05/2015

Analysis Date: 05/19/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM08-007	248	348	290	596	763	636	8.8	23	19
SM08-008	239	340	283	505	864	720	5.1	24	20
SM08-009	237	353	294	504	886	738	5.1	23	19
SM08-010	241	331	276	586	749	624	9.1	24	20
SM08-011	230	323	269	532	792	660	7.1	24	20
SM08-012	244	323	269	574	834	695	8.1	25	20
SM08-013	228	328	274	546	880	733	12	31	26
SM08-014	233	325	271	558	720	600	10	24	20
SM08-015	222	305	254	526	789	658	7.5	35	29
SM08-016	225	331	276	535	828	690	7.6	24	20
SM09-001	177	255	212	440	648	540	4.5	31	26
SM09-002	164	230	192	384	665	554	3.3	72	60
SM09-003	162	239	199	381	605	504	3	29	24
SM09-004	148	230	192	375	562	468	6.2	26	22
SM09-005	144	206	172	313	446	372	2.8	22	18
SM10-018	236	346	288	563	763	636	13	24	20
SM11-001	163	240	200	413	605	504	6.3	24	20
SM11-002	143	202	168	331	446	372	4.2	21	17
SM11-003	145	210	175	322	490	408	1.6	20	17
SM11-004	142	200	167	310	446	372	1.1	20	17
SM11-005	141	204	170	321	475	396	2.9	20	17
SM11-006	143	207	173	328	490	408	5.5	25	21



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 05/12/2015

Analysis Date: 05/12/2015

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	178	278	232	448	850	708	3.7	59	50
SM07-024	190	259	216	558	809	674	8.2	45	37
SM07-025	158	202	168	357	645	538	2.8	52	44
SM10-016	250	382	318	579	850	708	9.7	28	23
SM10-017	248	374	312	552	835	696	9.3	28	23
SM10-018	238	346	288	548	763	636	11	24	20
SM10-019	244	369	307	555	778	648	11	25	21
SM10-020	235	360	300	576	792	660	21	27	22
SM10-021	231	360	300	607	806	672	28	27	23
SM10-022	241	360	300	546	778	648	11	23	20



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 05/19/2015

Analysis Date: 05/19/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM08-007	248	348	290	598	763	636	8.9	23	19
SM08-008	238	340	283	506	864	720	5.2	24	20
SM08-009	238	353	294	505	886	738	5.4	23	19
SM08-010	242	331	276	589	749	624	9.1	24	20
SM08-011	230	323	269	535	792	660	7.3	24	20
SM08-012	248	323	269	586	834	695	8.6	25	20
SM08-013	228	328	274	547	880	733	12	31	26
SM08-014	232	325	271	559	720	600	11	24	20
SM08-015	222	305	254	528	789	658	7.7	35	29
SM08-016	225	331	276	536	828	690	7.5	24	20
SM09-001	175	255	212	428	648	540	4.2	31	26
SM09-002	164	230	192	384	665	554	3.4	72	60
SM09-003	160	239	199	375	605	504	2.8	29	24
SM09-004	147	230	192	370	562	468	6	26	22
SM09-005	143	206	172	307	446	372	2.7	22	18
SM10-018	238	346	288	529	763	636	8	24	20
SM11-001	163	240	200	409	605	504	6.4	24	20
SM11-002	141	202	168	322	446	372	4.3	21	17
SM11-003	144	210	175	317	490	408	1.9	20	17
SM11-004	141	200	167	306	446	372	1.9	20	17
SM11-005	141	204	170	317	475	396	2.8	20	17
SM11-006	141	207	173	324	490	408	5.3	25	21



Crow Butte Project

Monitor Well Laboratory Report

Sample Date: 05/19/2015

Analysis Date: 05/19/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
CM06-009	286	428	356	1914	2866	2388	170	285	238
CM06-010	299	429	358	1926	2952	2460	178	327	272
CM08-001	291	455	379	1939	3110	2592	176	372	310
CM08-002	300	395	329	1917	3125	2604	177	334	278
CM08-003	303	432	360	1931	3211	2676	182	367	306
CM08-004	298	428	356	1910	3125	2604	178	328	274
CM08-005	300	425	354	1904	3067	2556	178	328	274
CM08-006	299	432	360	1902	3067	2556	179	317	264
CM08-007	306	425	354	1874	3154	2628	183	396	330
CM08-008	314	418	348	1920	3211	2676	180	415	346
CM08-009	316	452	377	1854	3053	2544	173	325	271
CM09-008	299	418	348	1804	2952	2460	174	366	305
CM09-009	304	475	396	1789	2923	2436	173	334	278
CM09-010	302	359	299	1772	2390	1992	181	292	244
CM09-011	303	445	371	1795	2707	2256	178	284	236
CM11-012	301	433	361	1804	2794	2328	173	268	223
CM11-013	302	418	348	1803	2722	2268	176	291	242
CM11-014	311	468	390	1844	3024	2520	182	357	298
CM11-015	303	431	359	1793	2765	2304	176	289	241
CM11-016	303	451	376	1781	2794	2328	177	276	230
CM11-017	303	438	365	1781	2837	2364	175	301	251
CM11-018	308	445	371	1826	2722	2268	172	297	247
CM11-019	300	448	373	1801	2779	2316	175	300	250
SM04-001	157	248	206	364	772	643	2.5	52	43
SM04-002	193	513	393	631	1256	1039	14	127	88
SM04-005A	197	367	306	535	1236	1030	11	106	88
SM08-001	238	374	312	538	763	636	6.8	25	21
SM08-002	237	353	294	525	778	648	5.6	24	20
SM08-003	235	331	276	530	720	600	6.3	24	20
SM08-004	232	323	269	529	819	683	8	25	21
SM08-005	262	346	288	646	749	624	16	23	19
SM08-006	249	328	274	760	734	612	21	23	19



Crow Butte Project

Monitor Well Laboratory Report

Sample Date: 05/20/2015

Analysis Date: 05/20/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
CM08-010	315	441	367	1848	3038	2532	174	315	263
CM08-011	317	446	372	1849	3053	2544	174	325	271
CM08-012	324	461	384	1872	3038	2532	172	305	254
CM10-001	332	469	391	1884	2822	2352	175	305	254
CM10-002	330	474	395	1890	2707	2256	175	262	218
CM10-003	319	474	395	1872	2736	2280	178	266	222
CM10-004	320	468	390	1855	2794	2328	179	288	240
CM10-005	332	464	386	1958	3082	2568	190	389	324
CM10-006	321	482	402	1837	2750	2292	171	281	234
CM10-007	323	482	402	1841	2765	2304	170	278	232
CM11-001	304	438	365	1855	2808	2340	175	297	247
CM11-002A	307	442	368	1865	2794	2328	178	285	238
CM11-003	404	439	366	2210	2693	2244	209	272	227
CM11-004	305	464	386	1837	2678	2232	174	268	223
CM11-005	302	451	376	1830	2664	2220	175	274	228
CM11-006	319	436	364	1876	2707	2256	179	269	224
CM11-007	301	432	360	1817	2707	2256	173	272	227
CM11-008	315	462	385	1876	2678	2232	176	274	228
CM11-009	300	439	366	1837	2765	2304	174	276	230
CM11-010	298	436	364	1827	2707	2256	173	284	236
CM11-011	301	433	361	1830	2736	2280	172	278	232
SM04-003	187	361	301	622	1251	1043	12	38	32
SM04-004	210	266	222	622	1099	916	12	62	52
SM08-006	244	328	274	754	734	612	18	23	19
SM10-001	287	469	391	699	994	828	14	37	31
SM10-002	230	338	282	526	763	636	7.8	24	20
SM10-003	247	386	322	553	821	684	9.7	24	20
SM10-004	241	346	288	528	778	648	6.9	24	20
SM10-005	239	350	292	525	763	636	6.6	23	19
SM10-006	304	501	418	725	1123	936	13	33	28
SM10-007	295	403	336	710	965	804	13	33	27
SM10-008	297	403	336	676	907	756	12	31	26



Crow Butte Project

Monitor Well Laboratory Report

Sample Date: 05/21/2015

Analysis Date: 05/21/2015

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	300	433	361	1887	2952	2460	176	317	264
CM06-026	304	448	373	1879	2952	2460	175	338	282
CM06-028	319	449	374	1822	2894	2412	170	307	256
CM06-029	305	448	373	1881	3024	2520	173	321	268
CM06-030	320	459	383	1844	2952	2460	174	328	274
CM06-031	320	464	386	1852	2851	2376	173	301	251
CM06-032	320	461	384	1859	2981	2484	174	292	244
CM08-027	315	475	396	1824	2794	2328	174	314	262
CM08-028	320	480	400	1818	2650	2208	170	264	220
SM06-023	269	314	262	585	691	576	6.7	23	19
SM06-024	240	310	258	547	672	560	7.9	24	20
SM06-025	215	324	270	571	696	580	12	24	20
SM06-026	205	308	257	473	726	605	6.7	24	20
SM06-027	225	317	264	505	677	564	9.2	23	20
SM06-028	300	351	293	742	778	648	12	24	20
SM08-026	230	317	264	651	720	600	13	24	20
SM08-027	233	353	294	527	706	588	6.4	22	19
SM08-028	245	328	274	905	801	667	12	24	20
SM08-029	245	338	282	598	763	636	11	26	22
SM08-030	195	284	236	446	672	560	9.2	38	32
SM08-031	230	350	292	512	750	625	6.7	28	23
SM11-016	145	213	178	302	461	384	2.1	23	19
SM11-017	146	210	175	297	432	360	2.7	21	17
SM11-018	141	207	173	297	475	396	1.4	28	23
SM11-019	145	204	170	315	533	444	2.1	35	29
SM11-020	150	235	196	377	590	492	3.9	23	19
SM11-022	170	288	240	469	773	644	7.1	32	27
SM11-023	165	246	205	415	662	552	6.7	32	27
SM11-024	160	233	194	407	619	516	3.9	26	21
SM11-025	160	235	196	395	590	492	2.5	21	18
SM11-026	145	228	190	334	547	456	2.5	22	18

WU



Crow Butte Project **Monitor Well Laboratory Report**

Sample Date: 05/22/2015

Analysis Date: 05/22/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM06-023	268	314	262	577	691	576	7.5	23	19
SM06-028	303	351	293	720	778	648	13	24	20
SM08-028	253	328	274	905	801	667	12	24	20



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 05/26/2015

Analysis Date: 05/26/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM07-013	154	233	194	386	592	493	7	25	21
SM07-014	137	180	150	328	618	515	2.6	65	54
SM08-006	248	328	274	815	734	612	27	23	19
SM08-028	255	328	274	938	801	667	13	24	20
SM10-018	238	346	288	541	763	636	8.3	24	20
SM10-023	234	360	300	560	792	660	16	28	23
SM10-024	231	346	288	532	778	648	10	25	21
SM10-025	228	331	276	527	792	660	10	27	23
SM10-026	245	360	300	574	821	684	14	29	24
SM10-027	246	403	336	544	878	732	8.2	25	21
SM10-028A	216	360	300	619	893	744	32	43	36
SM10-029A	269	360	300	605	864	720	12	31	26



Crow Butte Project

Monitor Well Laboratory Report

Sample Date: 05/27/2015

Analysis Date: 05/27/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM02-003	199	344	287	551	969	808	16	37	31
SM03-001	207	374	312	672	1122	935	13	85	71
SM03-002	180	305	254	450	805	671	3.7	40	34
SM03-003	179	297	247	459	729	607	5.5	30	25
SM04-006	271	361	301	657	1103	919	13	34	28
SM04-008	298	389	324	701	1109	924	11	27	23
SM04-010A	300	354	295	716	1053	877	11	36	30
SM04-011A	299	554	462	709	1469	1224	11	139	115
SM05-001	234	363	302	600	1032	860	12	57	47
SM05-002	193	287	239	449	714	595	5.6	27	22
SM05-003	228	351	293	585	1048	874	12	81	68
SM05-004	210	327	272	562	973	811	16	66	55
SM05-005	237	367	306	597	1041	868	11	65	54
SM05-006	215	324	270	580	922	768	13	47	39
SM05-007	213	323	269	568	932	776	9.4	41	34
SM05-008	206	312	260	553	840	700	12	32	27
SM07-015	145	200	167	336	495	413	2.7	24	20
SM07-016	141	199	166	334	451	376	3.2	24	20
SM07-017	169	209	174	375	539	449	2.8	30	25
SM07-018	141	217	181	340	513	427	2.9	23	19
SM07-019	146	212	176	354	599	499	3.4	38	31
SM07-020	148	228	190	341	583	486	2.2	28	23
SM07-021	146	216	180	345	534	445	2.8	27	23
SM07-022	148	217	181	342	644	536	2.6	54	45
SM07-023	180	278	232	453	850	708	3.9	59	50
SM07-024	188	259	216	575	809	674	8.3	45	37
SM07-025	158	202	168	361	645	538	2	52	44
SM10-016	256	382	318	577	850	708	9.8	28	23
SM10-017	247	374	312	558	835	696	9.7	28	23
SM10-019	242	369	307	563	778	648	12	25	21
SM10-020	239	360	300	601	792	660	24	27	22
SM10-021	234	360	300	615	806	672	28	27	23



WV

Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 05/28/2015

Analysis Date: 05/28/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
BOW96-001	221	314	262	503	791	659	7	24	20
CM07-010	298	454	378	1874	2877	2398	181	297	247
CM08-019	318	461	384	1814	2909	2424	167	278	232
CM08-020	321	467	389	1812	3038	2532	167	305	254
CM08-021	321	449	374	1831	2952	2460	169	261	217
CM08-022	323	461	384	1830	2966	2472	169	266	222
CM08-026	320	467	389	1827	2650	2208	170	266	222
CM09-012	304	444	370	1799	2866	2388	176	321	268
CM09-013	302	442	368	1807	2707	2256	177	279	233
CM09-014	300	461	384	1827	2923	2436	186	327	272
CM09-015	301	432	360	1818	2736	2280	176	279	233
CM09-016	312	444	370	1855	2678	2232	182	268	223
CM09-017	308	441	367	1832	2678	2232	181	268	223
CM09-018	303	445	371	1829	2794	2328	177	294	245
CM09-019	302	454	378	1837	2952	2460	178	315	263
CM09-020	299	431	359	1853	2779	2316	180	279	233
CM10-028	320	461	384	1835	2736	2280	168	265	221
CM10-029	321	461	384	1823	2808	2340	169	281	234
CM10-030	323	454	378	1826	2678	2232	168	253	211
CM10-031	318	446	372	1834	2678	2232	167	253	211
SM06-023	268	314	262	578	691	576	8	23	19
SM06-028	320	351	293	783	778	648	15	24	20
SM08-017	236	331	276	539	848	707	7.3	24	20
SM08-018	228	317	264	529	816	680	8.1	25	21
SM08-019	230	340	283	535	827	689	7.3	25	21
SM08-020	220	314	262	517	806	672	7.5	25	21
SM08-021	283	317	264	707	706	588	11	25	21
SM08-022	234	324	270	593	829	691	9.2	25	20
SM08-023	237	317	264	580	808	673	8.8	27	23
SM08-024	227	317	264	605	720	600	11	24	20
SM08-025	247	324	270	663	720	600	12	24	20
SM09-006	145	216	180	311	461	384	2.7	22	19



Crow Butte Project

Monitor Well Laboratory Report

Sample Date: 05/29/2015

Analysis Date: 05/29/2015

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	302	456	380	1888	2982	2485	179	323	269
CM05-013	291	373	311	1879	3149	2624	174	386	322
CM06-001	294	432	360	1879	3168	2640	176	334	278
CM06-002	304	436	364	1934	2822	2352	180	279	233
CM06-003	304	441	367	1912	2808	2340	178	269	224
CM06-004	300	441	367	1946	2837	2364	183	289	241
CM06-005	296	416	347	1969	2923	2436	180	294	245
CM06-006	299	444	370	1926	2894	2412	175	301	251
CM06-007	290	403	336	1935	2822	2352	180	281	234
CM06-008	301	445	371	1920	2923	2436	173	305	254
SM06-001	210	325	271	539	903	752	7.2	47	39
SM06-002	211	291	242	550	1008	840	11	85	71
SM06-003	203	295	246	543	844	703	10	43	36
SM06-004	209	310	258	527	804	670	8.4	32	27
SM06-005	215	314	262	520	770	642	6.7	26	22
SM06-006	226	334	278	477	711	593	3.4	24	20
SM06-007	230	343	286	496	779	649	6.3	39	32
SM06-008	207	311	259	492	770	642	7.3	36	30
SM06-009	226	336	280	486	815	679	6.4	51	42
SM06-010	205	317	264	488	838	698	8.2	35	29
SM06-017	237	353	294	486	798	665	3.9	42	35
SM08-021	281	317	264	712	706	588	12	25	21



Sample Date: 06/02/2015

Analysis Date: 06/02/2015

WN

Crow Butte Project
Monitor Well Laboratory Report

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
CM06-009	285	428	356	1907	2866	2388	171	285	238
CM06-010	302	429	358	1920	2952	2460	178	327	272
CM08-001	291	455	379	1929	3110	2592	176	372	310
CM08-002	302	395	329	1909	3125	2604	177	334	278
CM08-003	304	432	360	1926	3211	2676	182	367	306
CM08-004	297	428	356	1901	3125	2604	178	328	274
CM08-005	301	425	354	1909	3067	2556	178	328	274
CM08-006	300	432	360	1909	3067	2556	178	317	264
CM08-007	306	425	354	1879	3154	2628	178	396	330
CM08-008	308	418	348	1879	3211	2676	176	415	346
CM08-009	315	452	377	1859	3053	2544	174	325	271
CM09-008	299	418	348	1804	2952	2460	175	366	305
CM09-009	303	475	396	1789	2923	2436	169	334	278
CM09-010	303	359	299	1773	2390	1992	171	292	244
CM09-011	304	445	371	1794	2707	2256	173	284	236
CM11-012	300	433	361	1807	2794	2328	175	268	223
CM11-013	301	418	348	1805	2722	2268	175	291	242
CM11-014	313	468	390	1848	3024	2520	180	357	298
CM11-015	302	431	359	1793	2765	2304	169	289	241
CM11-016	304	451	376	1772	2794	2328	172	276	230
CM11-017	304	438	365	1776	2837	2364	170	301	251
CM11-018	314	445	371	1821	2722	2268	174	297	247
CM11-019	305	448	373	1796	2779	2316	174	300	250
SM04-001	161	248	206	371	772	643	2.8	52	43
SM04-002	193	513	393	640	1256	1039	14	127	88
SM04-005A	198	367	306	540	1236	1030	11	106	88
SM08-001	238	374	312	540	763	636	7.2	25	21
SM08-002	238	353	294	531	778	648	5.5	24	20
SM08-003	236	331	276	544	720	600	6.7	24	20
SM08-004	235	323	269	553	819	683	9.6	25	21
SM08-005	268	346	288	685	749	624	21	23	19
SM08-006	250	328	274	766	734	612	23	23	19



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/02/2015

Analysis Date: 06/02/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM08-007	248	348	290	636	763	636	13	23	19
SM08-008	240	340	283	510	864	720	5	24	20
SM08-009	239	353	294	509	886	738	5.2	23	19
SM08-010	241	331	276	609	749	624	11	24	20
SM08-011	230	323	269	537	792	660	7.6	24	20
SM08-012	243	323	269	582	834	695	8.8	25	20
SM08-013	229	328	274	550	880	733	12	31	26
SM08-014	230	325	271	571	720	600	12	24	20
SM08-015	223	305	254	535	789	658	7.8	35	29
SM08-016	228	331	276	557	828	690	7.8	24	20
SM08-028	262	328	274	923	801	667	14	24	20
SM09-001	175	255	212	436	648	540	4.2	31	26
SM09-002	164	230	192	388	665	554	3.5	72	60
SM09-003	162	239	199	369	605	504	2.9	29	24
SM09-004	148	230	192	375	562	468	6.4	26	22
SM09-005	143	206	172	311	446	372	2.8	22	18
SM10-018	239	346	288	531	763	636	8	24	20
SM11-001	163	240	200	413	605	504	6.4	24	20
SM11-002	143	202	168	328	446	372	4.1	21	17
SM11-003	144	210	175	322	490	408	1.9	20	17
SM11-004	142	200	167	311	446	372	2.2	20	17
SM11-005	141	204	170	321	475	396	2.9	20	17
SM11-006	142	207	173	327	490	408	5.4	25	21



Crow Butte Project

Monitor Well Laboratory Report

Sample Date: 06/03/2015

Analysis Date: 06/03/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
CM08-010	315	441	367	1833	3038	2532	174	315	263
CM08-011	318	446	372	1830	3053	2544	174	325	271
CM08-012	324	461	384	1859	3038	2532	173	305	254
CM10-001	328	469	391	1868	2822	2352	175	305	254
CM10-002	325	474	395	1861	2707	2256	173	262	218
CM10-003	318	474	395	1863	2736	2280	176	266	222
CM10-004	321	468	390	1849	2794	2328	174	288	240
CM10-005	342	464	386	1963	3082	2568	190	389	324
CM10-006	320	482	402	1839	2750	2292	170	281	234
CM10-007	321	482	402	1838	2765	2304	170	278	232
CM11-001	303	438	365	1844	2808	2340	174	297	247
CM11-002A	310	442	368	1865	2794	2328	179	285	238
CM11-003	312	439	366	1863	2693	2244	180	272	227
CM11-004	303	464	386	1826	2678	2232	173	268	223
CM11-005	303	451	376	1824	2664	2220	174	274	228
CM11-006	329	436	364	1896	2707	2256	180	269	224
CM11-007	300	432	360	1814	2707	2256	173	272	227
CM11-008	309	462	385	1851	2678	2232	177	274	228
CM11-009	296	439	366	1822	2765	2304	173	276	230
CM11-010	298	436	364	1821	2707	2256	174	284	236
CM11-011	299	433	361	1824	2736	2280	172	278	232
SM04-003	193	361	301	630	1251	1043	12	38	32
SM04-004	211	266	222	629	1099	916	12	62	52
SM08-005	270	346	288	691	749	624	21	23	19
SM08-021	260	317	264	661	706	588	11	25	21
SM10-001	290	469	391	707	994	828	14	37	31
SM10-002	232	338	282	537	763	636	8.5	24	20
SM10-003	248	386	322	559	821	684	9.2	24	20
SM10-004	245	346	288	535	778	648	6.8	24	20
SM10-005	242	350	292	531	763	636	6.8	23	19
SM10-006	313	501	418	759	1123	936	14	33	28
SM10-007	295	403	336	716	965	804	14	33	27



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/03/2015

Analysis Date: 06/03/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM10-008	294	403	336	677	907	756	12	31	26
SM10-009	255	389	324	567	835	696	8.9	28	23
SM10-010	243	353	294	541	792	660	8	30	25
SM10-011	290	373	311	700	835	696	13	30	25
SM10-012	279	415	346	668	850	708	12	31	26
SM10-013	239	350	292	542	778	648	8.9	30	25
SM10-014A	249	366	305	578	806	672	9.7	29	24
SM10-015	274	353	294	632	763	636	13	28	23
SM10-021	231	360	300	643	806	672	35	27	23
SM11-007	144	207	173	313	475	396	2.8	26	22
SM11-009	154	226	188	314	461	384	1.3	20	16
SM11-010	159	233	194	326	478	398	1.8	21	18
SM11-011	153	236	197	353	504	420	1.2	21	17
SM11-012	146	219	182	334	518	432	3	27	22
SM11-013	144	215	179	300	461	384	1.3	25	21
SM11-014	140	207	173	300	475	396	1.9	26	21
SM11-015	140	203	169	312	490	408	2.3	31	26



Crow Butte Project

Monitor Well Laboratory Report

Sample Date: 06/04/2015

Analysis Date: 06/04/2015

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	1883	2952	2460	177	317	264
CM06-026	306	448	373	1874	2952	2460	176	338	282
CM06-028	321	449	374	1816	2894	2412	170	307	256
CM06-029	307	448	373	1874	3024	2520	175	321	268
CM06-030	319	459	383	1828	2952	2460	173	328	274
CM06-031	320	464	386	1852	2851	2376	173	301	251
CM06-032	319	461	384	1864	2981	2484	175	292	244
CM08-027	320	475	396	1826	2794	2328	169	314	262
CM08-028	319	480	400	1832	2650	2208	169	264	220
SM06-023	264	314	262	570	691	576	7.9	23	19
SM06-024	244	310	258	546	672	560	9.1	24	20
SM06-025	220	324	270	571	696	580	13	24	20
SM06-026	208	308	257	468	726	605	6.8	24	20
SM06-027	227	317	264	503	677	564	7.3	23	20
SM06-028	337	351	293	809	778	648	15	24	20
SM08-026	229	317	264	634	720	600	12	24	20
SM08-027	237	353	294	522	706	588	7	22	19
SM08-029	251	338	282	625	763	636	11	26	22
SM08-030	197	284	236	443	672	560	9.1	38	32
SM08-031	232	350	292	506	750	625	6.5	28	23
SM11-016	147	213	178	307	461	384	2.1	23	19
SM11-017	145	210	175	299	432	360	3	21	17
SM11-018	143	207	173	301	475	396	2.1	28	23
SM11-019	144	204	170	321	533	444	2	35	29
SM11-020	155	235	196	366	590	492	3.8	23	19
SM11-022	170	288	240	466	773	644	7.3	32	27
SM11-023	169	246	205	415	662	552	6.9	32	27
SM11-024	159	233	194	406	619	516	3.8	26	21
SM11-025	159	235	196	390	590	492	2.7	21	18
SM11-026	147	228	190	334	547	456	2.3	22	18



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/09/2015

Analysis Date: 06/09/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM07-023	178	278	232	454	850	708	3.8	59	50
SM07-024	189	259	216	579	809	674	8.3	45	37
SM07-025	158	202	168	363	645	538	2.6	52	44
SM08-005	268	346	288	692	749	624	22	23	19
SM08-006	253	328	274	728	734	612	21	23	19
SM08-028	268	328	274	901	801	667	14	24	20
SM10-016	256	382	318	582	850	708	10	28	23
SM10-017	249	374	312	563	835	696	10	28	23
SM10-018	238	346	288	548	763	636	10	24	20
SM10-019	242	369	307	566	778	648	12	25	21
SM10-020	235	360	300	601	792	660	25	27	22
SM10-022	240	360	300	555	778	648	11	23	20



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/10/2015

Analysis Date: 06/10/2015

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	214	323	269	568	932	776	9.6	41	34
SM05-008	210	312	260	556	840	700	12	32	27
SM08-017	238	331	276	540	848	707	7.6	24	20
SM08-018	230	317	264	528	816	680	8.9	25	21
SM08-019	231	340	283	533	827	689	8	25	21
SM08-020	221	314	262	520	806	672	7.6	25	21
SM08-021	255	317	264	650	706	588	11	25	21
SM08-022	235	324	270	628	829	691	10	25	20
SM08-023	229	317	264	556	808	673	8.6	27	23
SM08-024	227	317	264	602	720	600	11	24	20
SM08-025	247	324	270	688	720	600	13	24	20
SM10-021	224	360	300	658	806	672	42	27	23
SM10-030	242	359	299	534	778	648	6.9	25	21
SM10-031	234	340	283	529	734	612	7	25	21
SM10-032	238	340	283	526	734	612	6.3	23	20



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Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/11/2015

Analysis Date: 06/11/2015

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	1872	2982	2485	178	323	269
CM05-013	289	373	311	1873	3149	2624	181	386	322
CM06-001	294	432	360	1875	3168	2640	172	334	278
CM06-002	293	436	364	1909	2822	2352	174	279	233
CM06-003	301	441	367	1916	2808	2340	176	269	224
CM06-004	298	441	367	1950	2837	2364	180	289	241
CM06-005	295	416	347	1971	2923	2436	179	294	245
CM06-006	293	444	370	1928	2894	2412	175	301	251
CM06-007	285	403	336	1932	2822	2352	181	281	234
CM06-008	299	445	371	1922	2923	2436	175	305	254
CM07-010	297	454	378	1876	2877	2398	181	297	247
CM09-012	303	444	370	1801	2866	2388	175	321	268
CM09-013	302	442	368	1804	2707	2256	177	279	233
CM09-014	301	461	384	1826	2923	2436	182	327	272
CM09-015	301	432	360	1822	2736	2280	174	279	233
CM09-016	312	444	370	1848	2678	2232	180	268	223
CM09-017	307	441	367	1835	2678	2232	179	268	223
CM09-018	305	445	371	1826	2794	2328	178	294	245
CM09-019	302	454	378	1841	2952	2460	178	315	263
CM09-020	299	431	359	1853	2779	2316	179	279	233
SM06-001	212	325	271	539	903	752	6.9	47	39
SM06-002	209	291	242	555	1008	840	10	85	71
SM06-003	206	295	246	546	844	703	10	43	36
SM06-004	206	310	258	524	804	670	7.9	32	27
SM06-005	215	314	262	518	770	642	6.5	26	22
SM06-006	228	334	278	479	711	593	3.2	24	20
SM06-007	230	343	286	500	779	649	6.2	39	32
SM06-008	209	311	259	497	770	642	7.2	36	30
SM06-009	225	336	280	490	815	679	5.7	51	42
SM06-010	205	317	264	490	838	698	8.1	35	29
SM06-017	237	353	294	487	798	665	4	42	35
SM06-023	265	314	262	573	691	576	7.8	23	19



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/11/2015

Analysis Date: 06/11/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM06-028	331	351	293	804	778	648	15	24	20
SM09-006	145	216	180	309	461	384	2	22	19
SM09-007	165	239	199	402	590	492	3.3	25	21
SM09-008	164	230	192	395	701	584	2.4	106	88
SM09-009	154	235	196	374	634	528	3.5	50	42
SM09-010	148	216	180	349	533	444	2.5	24	20
SM09-011	149	230	192	356	518	432	2.9	21	17
SM09-012	163	238	198	393	605	504	2.6	29	24
SM09-013	146	222	185	339	518	432	2.9	24	20
SM09-014	142	233	194	320	518	432	2.3	21	18
SM09-015	142	225	187	318	490	408	1.2	22	18
SM09-016	143	216	180	304	461	384	1.1	20	17
SM09-017	141	209	174	322	533	444	2.8	31	26
SM09-018	144	210	175	320	490	408	2	22	18
SM09-019	139	209	174	309	461	384	2.4	23	19
SM09-020	142	210	175	320	475	396	2.8	22	19



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Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/16/2015

Analysis Date: 06/16/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
CM06-009	284	428	356	1916	2866	2388	171	285	238
CM06-010	301	429	358	1918	2952	2460	178	327	272
CM08-001	289	455	379	1940	3110	2592	175	372	310
CM08-002	304	395	329	1910	3125	2604	181	334	278
CM08-003	301	432	360	1920	3211	2676	181	367	306
CM08-004	297	428	356	1905	3125	2604	178	328	274
CM08-005	299	425	354	1907	3067	2556	178	328	274
CM08-006	299	432	360	1903	3067	2556	178	317	264
CM08-007	304	425	354	1890	3154	2628	179	396	330
CM08-008	308	418	348	1880	3211	2676	176	415	346
CM08-009	315	452	377	1853	3053	2544	174	325	271
CM09-008	298	418	348	1799	2952	2460	178	366	305
CM09-009	304	475	396	1786	2923	2436	177	334	278
CM09-010	304	359	299	1772	2390	1992	175	292	244
CM09-011	305	445	371	1799	2707	2256	175	284	236
CM11-012	301	433	361	1829	2794	2328	171	268	223
CM11-013	299	418	348	1806	2722	2268	180	291	242
CM11-014	316	468	390	1860	3024	2520	173	357	298
CM11-015	303	431	359	1790	2765	2304	170	289	241
CM11-016	306	451	376	1777	2794	2328	172	276	230
CM11-017	305	438	365	1779	2837	2364	175	301	251
CM11-018	312	445	371	1826	2722	2268	175	297	247
CM11-019	305	448	373	1801	2779	2316	171	300	250
SM04-001	162	248	206	371	772	643	2.9	52	43
SM04-002	194	513	393	640	1256	1039	14	127	88
SM04-005A	199	367	306	538	1236	1030	11	106	88
SM08-001	240	374	312	540	763	636	7.4	25	21
SM08-002	240	353	294	538	778	648	5.8	24	20
SM08-003	238	331	276	548	720	600	7.1	24	20
SM08-004	235	323	269	558	819	683	11	25	21
SM08-005	270	346	288	672	749	624	19	23	19
SM08-006	255	328	274	714	734	612	20	23	19



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/16/2015

Analysis Date: 06/16/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM08-007	249	348	290	637	763	636	13	23	19
SM08-008	241	340	283	512	864	720	5.2	24	20
SM08-009	239	353	294	509	886	738	5.4	23	19
SM08-010	243	331	276	623	749	624	12	24	20
SM08-011	231	323	269	536	792	660	7.3	24	20
SM08-012	245	323	269	595	834	695	9.3	25	20
SM08-013	230	328	274	555	880	733	13	31	26
SM08-014	232	325	271	580	720	600	12	24	20
SM08-015	224	305	254	540	789	658	8.1	35	29
SM08-016	228	331	276	563	828	690	8.4	24	20
SM08-028	270	328	274	854	801	667	14	24	20
SM09-001	176	255	212	440	648	540	4.4	31	26
SM09-002	163	230	192	385	665	554	3.2	72	60
SM09-003	162	239	199	382	605	504	2.9	29	24
SM09-004	149	230	192	377	562	468	6.4	26	22
SM09-005	143	206	172	311	446	372	2.9	22	18
SM11-001	163	240	200	414	605	504	6.3	24	20
SM11-002	142	202	168	327	446	372	4.2	21	17
SM11-003	144	210	175	323	490	408	2.2	20	17
SM11-004	142	200	167	312	446	372	2.2	20	17
SM11-005	141	204	170	322	475	396	3	20	17
SM11-006	143	207	173	329	490	408	5.4	25	21



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Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/17/2015

Analysis Date: 06/17/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
CM08-010	314	441	367	1834	3038	2532	175	315	263
CM08-011	319	446	372	1831	3053	2544	174	325	271
CM08-012	326	461	384	1855	3038	2532	175	305	254
CM10-001	331	469	391	1866	2822	2352	176	305	254
CM10-002	328	474	395	1857	2707	2256	175	262	218
CM10-003	318	474	395	1865	2736	2280	179	266	222
CM10-004	321	468	390	1852	2794	2328	176	288	240
CM10-005	345	464	386	1959	3082	2568	192	389	324
CM10-006	320	482	402	1835	2750	2292	171	281	234
CM10-007	320	482	402	1835	2765	2304	170	278	232
CM11-001	304	438	365	1846	2808	2340	177	297	247
CM11-002A	309	442	368	1852	2794	2328	178	285	238
CM11-003	318	439	366	1885	2693	2244	183	272	227
CM11-004	304	464	386	1833	2678	2232	175	268	223
CM11-005	305	451	376	1821	2664	2220	173	274	228
CM11-006	342	436	364	1946	2707	2256	184	269	224
CM11-007	303	432	360	1814	2707	2256	172	272	227
CM11-008	311	462	385	1857	2678	2232	179	274	228
CM11-009	300	439	366	1820	2765	2304	172	276	230
CM11-010	299	436	364	1824	2707	2256	171	284	236
CM11-011	298	433	361	1834	2736	2280	172	278	232
SM04-003	193	361	301	630	1251	1043	12	38	32
SM04-004	210	266	222	630	1099	916	12	62	52
SM08-021	247	317	264	638	706	588	12	25	21
SM10-001	283	469	391	688	994	828	14	37	31
SM10-002	230	338	282	528	763	636	7.9	24	20
SM10-003	250	386	322	563	821	684	9	24	20
SM10-004	243	346	288	534	778	648	6.7	24	20
SM10-005	244	350	292	537	763	636	6.8	23	19
SM10-006	286	501	418	686	1123	936	13	33	28
SM10-007	287	403	336	699	965	804	14	33	27
SM10-008	289	403	336	669	907	756	13	31	26



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/17/2015

Analysis Date: 06/17/2015

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM10-009	264	389	324	585	835	696	9.7	28	23
SM10-010	245	353	294	545	792	660	8.2	30	25
SM10-011	282	373	311	678	835	696	13	30	25
SM10-012	276	415	346	661	850	708	12	31	26
SM10-013	240	350	292	545	778	648	8.6	30	25
SM10-014A	247	366	305	575	806	672	9.8	29	24
SM10-015	272	353	294	633	763	636	14	28	23
SM10-021	227	360	300	628	806	672	32	27	23
SM11-007	144	207	173	311	475	396	2.6	26	22
SM11-009	153	226	188	315	461	384	1.5	20	16
SM11-010	159	233	194	326	478	398	1.4	21	18
SM11-011	152	236	197	351	504	420	2.4	21	17
SM11-012	146	219	182	332	518	432	3.1	27	22
SM11-013	144	215	179	300	461	384	2	25	21
SM11-014	140	207	173	300	475	396	2.3	26	21
SM11-015	140	203	169	312	490	408	2.6	31	26



Crow Butte Project

Monitor Well Laboratory Report

Sample Date: 06/18/2015

Analysis Date: 06/18/2015

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	1888	2952	2460	177	317	264
CM06-026	306	448	373	1882	2952	2460	177	338	282
CM06-028	322	449	374	1801	2894	2412	171	307	256
CM06-029	311	448	373	1866	3024	2520	175	321	268
CM06-030	320	459	383	1839	2952	2460	174	328	274
CM06-031	322	464	386	1850	2851	2376	172	301	251
CM06-032	317	461	384	1862	2981	2484	175	292	244
CM08-027	320	475	396	1822	2794	2328	169	314	262
CM08-028	321	480	400	1821	2650	2208	171	264	220
SM06-023	269	314	262	585	691	576	8.3	23	19
SM06-024	250	310	258	568	672	560	10	24	20
SM06-025	221	324	270	584	696	580	13	24	20
SM06-026	208	308	257	473	726	605	6.8	24	20
SM06-027	229	317	264	511	677	564	7.3	23	20
SM06-028	333	351	293	817	778	648	16	24	20
SM08-026	236	317	264	646	720	600	11	24	20
SM08-027	240	353	294	531	706	588	7.1	22	19
SM08-029	251	338	282	616	763	636	12	26	22
SM08-030	197	284	236	449	672	560	9	38	32
SM08-031	235	350	292	513	750	625	6.9	28	23
SM11-016	146	213	178	306	461	384	2	23	19
SM11-017	144	210	175	299	432	360	2.9	21	17
SM11-018	142	207	173	302	475	396	2.6	28	23
SM11-019	143	204	170	320	533	444	1.1	35	29
SM11-020	161	235	196	401	590	492	5.3	23	19
SM11-022	172	288	240	468	773	644	7.3	32	27
SM11-023	169	246	205	414	662	552	6.9	32	27
SM11-024	157	233	194	402	619	516	3.7	26	21
SM11-025	161	235	196	405	590	492	2.5	21	18
SM11-026	148	228	190	343	547	456	2.4	22	18



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/23/2015

Analysis Date: 06/23/2015

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	178	278	232	459	850	708	3.9	59	50
SM07-024	189	259	216	583	809	674	8.3	45	37
SM07-025	158	202	168	368	645	538	3	52	44
SM08-005	275	346	288	704	749	624	22	23	19
SM08-006	253	328	274	697	734	612	18	23	19
SM08-028	274	328	274	840	801	667	13	24	20
SM10-016	256	382	318	586	850	708	9.9	28	23
SM10-017	248	374	312	566	835	696	10	28	23
SM10-018	240	346	288	543	763	636	8.6	24	20
SM10-019	240	369	307	565	778	648	11	25	21
SM10-020	234	360	300	600	792	660	25	27	22
SM10-022	240	360	300	560	778	648	11	23	20



Crow Butte Project
Monitor Well Laboratory Report

Sample Date: 06/24/2015

Analysis Date: 06/24/2015

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	214	323	269	570	932	776	9.5	41	34
SM05-008	211	312	260	558	840	700	12	32	27
SM08-017	239	331	276	541	848	707	7.5	24	20
SM08-018	231	317	264	532	816	680	9.1	25	21
SM08-019	232	340	283	537	827	689	7.8	25	21
SM08-020	221	314	262	524	806	672	7.7	25	21
SM08-021	243	317	264	626	706	588	11	25	21
SM08-022	237	324	270	649	829	691	11	25	20
SM08-023	225	317	264	554	808	673	8.9	27	23
SM08-024	231	317	264	615	720	600	11	24	20
SM08-025	246	324	270	678	720	600	14	24	20
SM10-021	229	360	300	631	806	672	35	27	23
SM10-030	248	359	299	543	778	648	6.9	25	21
SM10-031	237	340	283	537	734	612	6.8	25	21
SM10-032	240	340	283	527	734	612	6.1	23	20

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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



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Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM06-028	315	351	293	777	778	648	16	24	20
SM09-006	145	216	180	310	461	384	2	22	19
SM09-007	165	239	199	401	590	492	3.2	25	21
SM09-008	164	230	192	396	701	584	1.8	106	88
SM09-009	155	235	196	373	634	528	3.5	50	42
SM09-010	148	216	180	348	533	444	2.3	24	20
SM09-011	149	230	192	355	518	432	2.7	21	17
SM09-012	164	238	198	394	605	504	2.5	29	24
SM09-013	146	222	185	339	518	432	2.8	24	20
SM09-014	142	233	194	320	518	432	1.7	21	18
SM09-015	141	225	187	318	490	408	2.3	22	18
SM09-016	143	216	180	305	461	384	1.9	20	17
SM09-017	142	209	174	325	533	444	3.2	31	26
SM09-018	146	210	175	326	490	408	1.9	22	18
SM09-019	139	209	174	310	461	384	2.4	23	19
SM09-020	141	210	175	319	475	396	2.8	22	19



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Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
CM06-009	287	428	356	1918	2866	2388	171	285	238
CM06-010	300	429	358	1932	2952	2460	177	327	272
CM08-001	290	455	379	1940	3110	2592	177	372	310
CM08-002	302	395	329	1918	3125	2604	180	334	278
CM08-003	299	432	360	1919	3211	2676	179	367	306
CM08-004	297	428	356	1910	3125	2604	179	328	274
CM08-005	292	425	354	1904	3067	2556	178	328	274
CM08-006	305	432	360	1899	3067	2556	178	317	264
CM08-007	306	425	354	1891	3154	2628	178	396	330
CM08-008	310	418	348	1879	3211	2676	178	415	346
CM08-009	316	452	377	1863	3053	2544	172	325	271
CM09-008	299	418	348	1810	2952	2460	172	366	305
CM09-009	305	475	396	1789	2923	2436	174	334	278
CM09-010	303	359	299	1768	2390	1992	175	292	244
CM09-011	304	445	371	1797	2707	2256	174	284	236
CM11-012	305	433	361	1799	2794	2328	169	268	223
CM11-013	302	418	348	1804	2722	2268	177	291	242
CM11-014	315	468	390	1851	3024	2520	180	357	298
CM11-015	303	431	359	1782	2765	2304	172	289	241
CM11-016	303	451	376	1769	2794	2328	175	276	230
CM11-017	304	438	365	1774	2837	2364	171	301	251
CM11-018	318	445	371	1830	2722	2268	176	297	247
CM11-019	305	448	373	1789	2779	2316	173	300	250
SM04-001	161	248	206	370	772	643	2.7	52	43
SM04-002	194	513	393	640	1256	1039	14	127	88
SM04-005A	199	367	306	538	1236	1030	11	106	88
SM08-001	240	374	312	536	763	636	7.7	25	21
SM08-002	241	353	294	541	778	648	5.9	24	20
SM08-003	240	331	276	552	720	600	7.1	24	20
SM08-004	236	323	269	560	819	683	12	25	21
SM08-005	278	346	288	690	749	624	20	23	19
SM08-006	256	328	274	687	734	612	18	23	19



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Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µMho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM08-007	251	348	290	635	763	636	14	23	19
SM08-008	241	340	283	509	864	720	5.4	24	20
SM08-009	240	353	294	509	886	738	5.7	23	19
SM08-010	243	331	276	626	749	624	13	24	20
SM08-011	231	323	269	531	792	660	7.3	24	20
SM08-012	249	323	269	599	834	695	9.7	25	20
SM08-013	229	328	274	546	880	733	12	31	26
SM08-014	232	325	271	577	720	600	11	24	20
SM08-015	224	305	254	539	789	658	8.1	35	29
SM08-016	229	331	276	566	828	690	8.5	24	20
SM08-028	274	328	274	797	801	667	12	24	20
SM09-001	178	255	212	442	648	540	4.6	31	26
SM09-002	165	230	192	392	665	554	3.4	72	60
SM09-003	162	239	199	383	605	504	3	29	24
SM09-004	149	230	192	376	562	468	6.3	26	22
SM09-005	145	206	172	315	446	372	2.5	22	18
SM11-001	164	240	200	414	605	504	6.2	24	20
SM11-002	142	202	168	326	446	372	4	21	17
SM11-003	145	210	175	322	490	408	1.4	20	17
SM11-004	142	200	167	310	446	372	2.5	20	17
SM11-005	141	204	170	320	475	396	3.2	20	17
SM11-006	143	207	173	328	490	408	5.3	25	21