**CAMECO RESOURCES**
**CROW BUTTE OPERATION**

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

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

40-8943

October 12, 2015

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Marty Link, Acting Water Quality Division Administrator
Nebraska Department of Environmental Quality
PO Box 98922
Lincoln, Nebraska 68509-8922

Subject: UIC Permit NE0122611
SM8-6 Monitor Well Excursion

Dear Ms. Link:

On May 19, 2015, during routine biweekly water sampling of Cameco Resources, Crow Butte Operation (CBO) shallow monitor well SM8-6, the multiple parameter upper control limit (MCL) for chloride and the single parameter upper control limit (SCL) for conductivity was exceeded. As required by Section B.1 of Part II of UIC Permit NE0122611, a second sample was collected within 24 hours and analyzed for the three excursion indicator parameters. The results of the second sample exceeded the single parameter upper control limit (SCL) for conductivity.

In accordance with Section B.1 Part II of the UIC permit, CBO increased the sampling frequency for SM8-6 to weekly. Weekly samples were obtained from May 19, 2015, to July 7, 2015. The samples collected on June 23, June 30, and July 7, 2015, were below the excursion criteria from Section B.1 of the permit. Based on these results, CBO removed SM8-6 from excursion status. In accordance with the requirements of Section B.1, weekly sampling continued for an additional three weeks. During the stability monitoring period, the excursion parameters were not exceeded and SM8-6 was returned to biweekly sampling status. Attached are copies of the analytical data for each of the three weekly stability monitoring samples and graphs for each parameter covering the period of April 7, 2015 through October 6, 2015.

If you have any questions regarding this submittal, please feel free to contact me at (308) 665-2215, ext. 114.

NMSS01

**CROW BUTTE RESOURCES, INC.**

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Sincerely,
Cameco Resources
Crow Butte Operation

Larry Teahon

Larry Teahon
SHEQ Manager

Enclosures: As Stated

cc: CBO – File
NRC - Document Control Desk Director,
NRC – Deputy Director

ec: CR – Casper
Nancy Harris – NDEQ Program Coordinator
Shar Sapp – Chadron Field Office

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# Crow Butte Project
## Monitor Well Laboratory Report

**Sample Date:** 07/14/2015

**Analysis Date:** 07/14/2015

| Well ID | Alkalinity (mg/L) | Alk SCL | Alk MCL | Conductivity (µMho/cm) | Cond SCL | Cond MCL | Chloride (mg/L) | Cl SCL | Cl MCL |
|---|---|---|---|---|---|---|---|---|---|
| CM06-009 | 288 | 428 | 356 | 1906 | 2866 | 2388 | 172 | 285 | 238 |
| CM06-010 | 298 | 429 | 358 | 1908 | 2952 | 2460 | 178 | 327 | 272 |
| CM08-001 | 297 | 455 | 379 | 1922 | 3110 | 2592 | 179 | 372 | 310 |
| CM08-002 | 303 | 395 | 329 | 1903 | 3125 | 2604 | 180 | 334 | 278 |
| CM08-003 | 301 | 432 | 360 | 1906 | 3211 | 2676 | 180 | 367 | 306 |
| CM08-004 | 299 | 428 | 356 | 1903 | 3125 | 2604 | 178 | 328 | 274 |
| CM08-005 | 292 | 425 | 354 | 1897 | 3067 | 2556 | 180 | 328 | 274 |
| CM08-006 | 300 | 432 | 360 | 1891 | 3067 | 2556 | 178 | 317 | 264 |
| CM08-007 | 307 | 425 | 354 | 1880 | 3154 | 2628 | 178 | 396 | 330 |
| CM08-008 | 309 | 418 | 348 | 1879 | 3211 | 2676 | 178 | 415 | 346 |
| CM08-009 | 318 | 452 | 377 | 1857 | 3053 | 2544 | 176 | 325 | 271 |
| CM09-008 | 300 | 418 | 348 | 1816 | 2952 | 2460 | 171 | 366 | 305 |
| CM09-009 | 306 | 475 | 396 | 1792 | 2923 | 2436 | 174 | 334 | 278 |
| CM09-010 | 305 | 359 | 299 | 1770 | 2390 | 1992 | 175 | 292 | 244 |
| CM09-011 | 306 | 445 | 371 | 1789 | 2707 | 2256 | 175 | 284 | 236 |
| CM11-012 | 303 | 433 | 361 | 1795 | 2794 | 2328 | 166 | 268 | 223 |
| CM11-013 | 304 | 418 | 348 | 1801 | 2722 | 2268 | 175 | 291 | 242 |
| CM11-014 | 318 | 468 | 390 | 1854 | 3024 | 2520 | 180 | 357 | 298 |
| CM11-015 | 305 | 431 | 359 | 1776 | 2765 | 2304 | 172 | 289 | 241 |
| CM11-016 | 305 | 451 | 376 | 1766 | 2794 | 2328 | 174 | 276 | 230 |
| CM11-017 | 304 | 438 | 365 | 1769 | 2837 | 2364 | 174 | 301 | 251 |
| CM11-018 | 320 | 445 | 371 | 1840 | 2722 | 2268 | 178 | 297 | 247 |
| CM11-019 | 308 | 448 | 373 | 1794 | 2779 | 2316 | 176 | 300 | 250 |
| SM04-001 | 159 | 248 | 206 | 371 | 772 | 643 | 2.6 | 52 | 43 |
| SM04-002 | 193 | 513 | 393 | 640 | 1256 | 1039 | 14 | 127 | 88 |
| SM04-005A | 199 | 367 | 306 | 539 | 1236 | 1030 | 11 | 106 | 88 |
| SM08-001 | 238 | 374 | 312 | 530 | 763 | 636 | 7.5 | 25 | 21 |
| SM08-002 | 240 | 353 | 294 | 542 | 778 | 648 | 6.3 | 24 | 20 |
| SM08-003 | 239 | 331 | 276 | 547 | 720 | 600 | 7.2 | 24 | 20 |
| SM08-004 | 236 | 323 | 269 | 557 | 819 | 683 | 11 | 25 | 21 |
| SM08-005 | 280 | 346 | 288 | 682 | 749 | 624 | 19 | 23 | 19 |
| SM08-006 | 259 | 328 | 274 | 694 | 734 | 612 | 18 | 23 | 19 |

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

**Sample Date:** 07/21/2015

**Analysis Date:** 07/21/2015

| Well ID | Alkalinity (mg/L) | Alk SCL | Alk MCL | Conductivity (µMho/cm) | Cond SCL | Cond MCL | Chloride (mg/L) | Cl SCL | Cl MCL |
|---|---|---|---|---|---|---|---|---|---|
| SM07-023 | 179 | 278 | 232 | 453 | 850 | 708 | 3.9 | 59 | 50 |
| SM07-024 | 190 | 259 | 216 | 574 | 809 | 674 | 8.4 | 45 | 37 |
| SM07-025 | 159 | 202 | 168 | 364 | 645 | 538 | 2.9 | 52 | 44 |
| SM08-005 | 281 | 346 | 288 | 677 | 749 | 624 | 17 | 23 | 19 |
| SM08-006 | 259 | 328 | 274 | 681 | 734 | 612 | 17 | 23 | 19 |
| SM10-016 | 256 | 382 | 318 | 581 | 850 | 708 | 10 | 28 | 23 |
| SM10-017 | 248 | 374 | 312 | 562 | 835 | 696 | 10 | 28 | 23 |
| SM10-018 | 241 | 346 | 288 | 536 | 763 | 636 | 8.6 | 24 | 20 |
| SM10-019 | 241 | 369 | 307 | 560 | 778 | 648 | 11 | 25 | 21 |
| SM10-020 | 236 | 360 | 300 | 589 | 792 | 660 | 23 | 27 | 22 |
| SM10-022 | 241 | 360 | 300 | 552 | 778 | 648 | 11 | 23 | 20 |

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# Crow Butte Project
## Monitor Well Laboratory Report

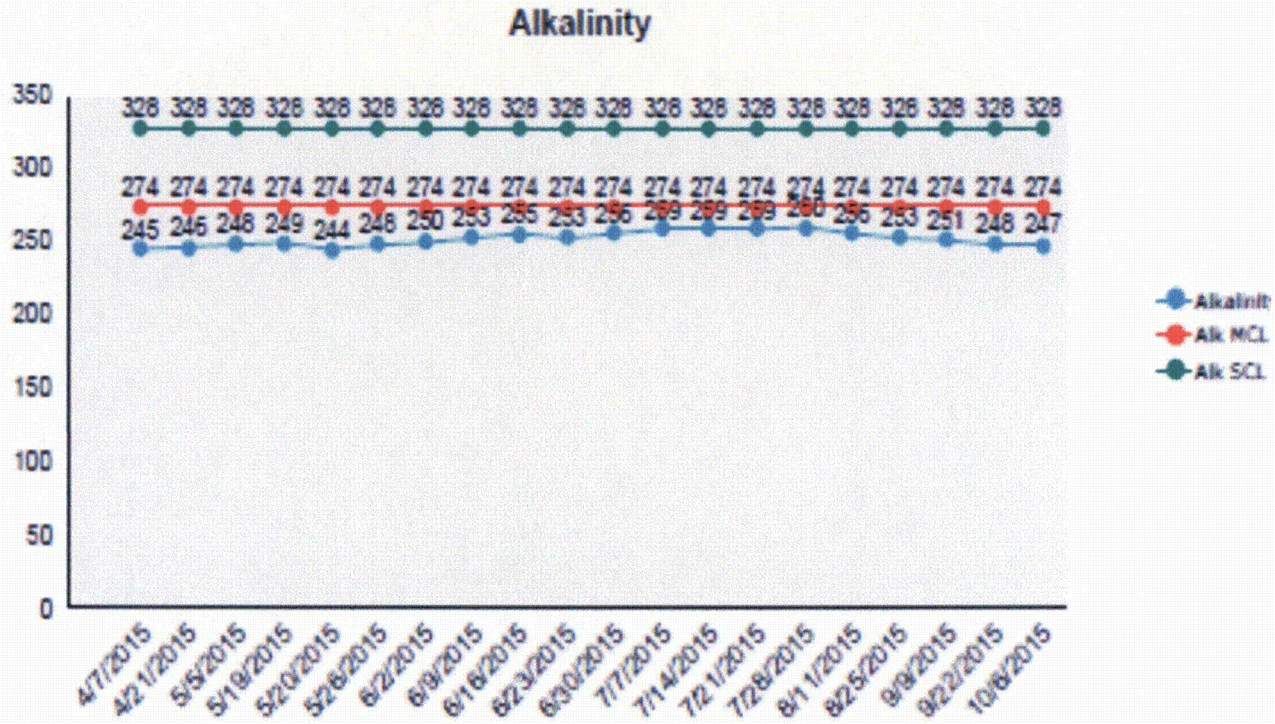
**Sample Date:** 07/28/2015

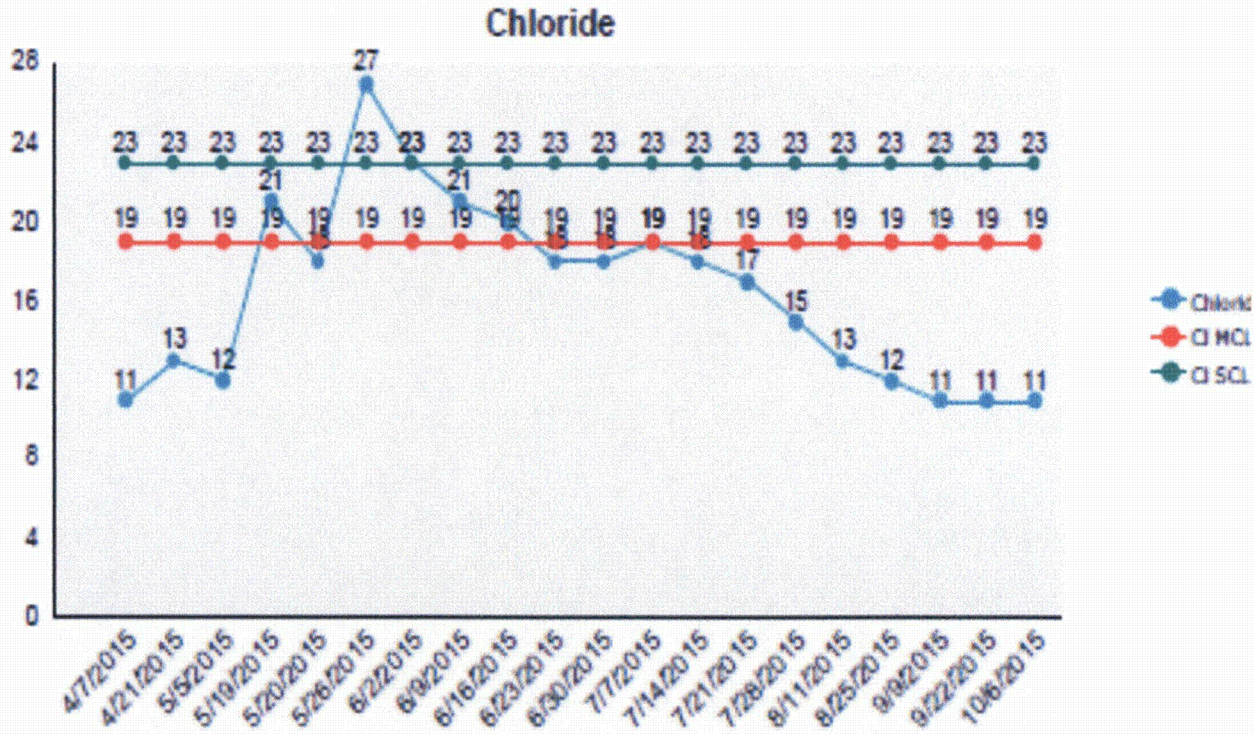
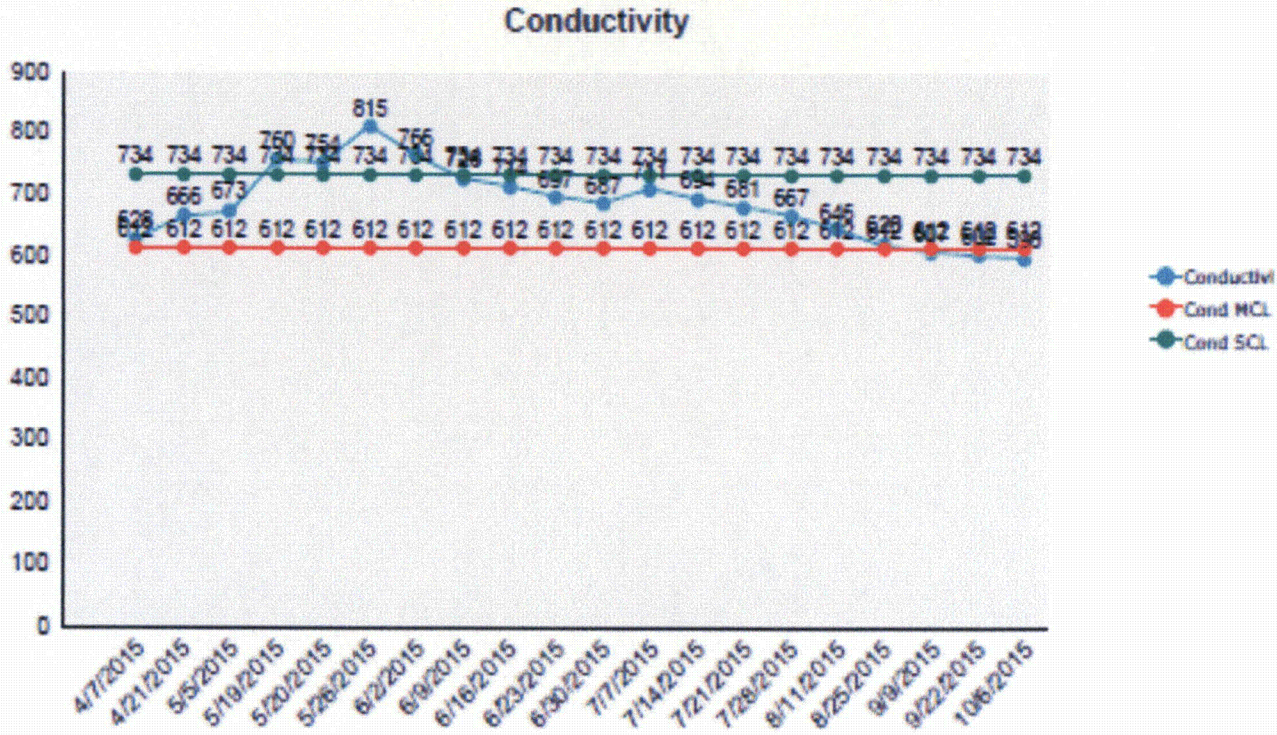
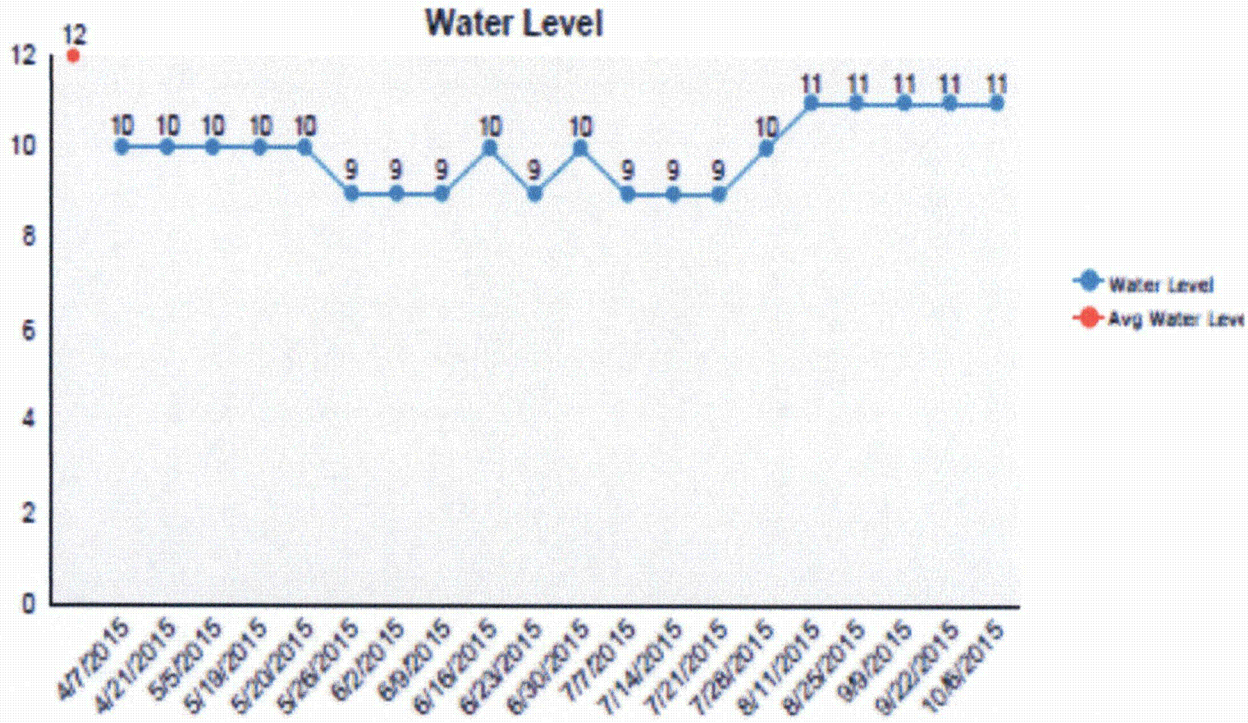
**Analysis Date:** 07/28/2015

| Well ID | Alkalinity (mg/L) | Alk SCL | Alk MCL | Conductivity (µMho/cm) | Cond SCL | Cond MCL | Chloride (mg/L) | Cl SCL | Cl MCL |
|---|---|---|---|---|---|---|---|---|---|
| CM06-009 | 287 | 428 | 356 | 1906 | 2866 | 2388 | 171 | 285 | 238 |
| CM06-010 | 297 | 429 | 358 | 1922 | 2952 | 2460 | 179 | 327 | 272 |
| CM08-001 | 294 | 455 | 379 | 1927 | 3110 | 2592 | 176 | 372 | 310 |
| CM08-002 | 303 | 395 | 329 | 1914 | 3125 | 2604 | 180 | 334 | 278 |
| CM08-003 | 297 | 432 | 360 | 1914 | 3211 | 2676 | 180 | 367 | 306 |
| CM08-004 | 298 | 428 | 356 | 1908 | 3125 | 2604 | 183 | 328 | 274 |
| CM08-005 | 291 | 425 | 354 | 1896 | 3067 | 2556 | 179 | 328 | 274 |
| CM08-006 | 301 | 432 | 360 | 1901 | 3067 | 2556 | 179 | 317 | 264 |
| CM08-007 | 306 | 425 | 354 | 1893 | 3154 | 2628 | 178 | 396 | 330 |
| CM08-008 | 312 | 418 | 348 | 1894 | 3211 | 2676 | 180 | 415 | 346 |
| CM08-009 | 321 | 452 | 377 | 1869 | 3053 | 2544 | 177 | 325 | 271 |
| CM09-008 | 299 | 418 | 348 | 1809 | 2952 | 2460 | 173 | 366 | 305 |
| CM09-009 | 304 | 475 | 396 | 1794 | 2923 | 2436 | 175 | 334 | 278 |
| CM09-010 | 305 | 359 | 299 | 1776 | 2390 | 1992 | 171 | 292 | 244 |
| CM09-011 | 306 | 445 | 371 | 1798 | 2707 | 2256 | 178 | 284 | 236 |
| CM11-012 | 302 | 433 | 361 | 1801 | 2794 | 2328 | 172 | 268 | 223 |
| CM11-013 | 302 | 418 | 348 | 1801 | 2722 | 2268 | 176 | 291 | 242 |
| CM11-014 | 319 | 468 | 390 | 1859 | 3024 | 2520 | 179 | 357 | 298 |
| CM11-015 | 303 | 431 | 359 | 1782 | 2765 | 2304 | 172 | 289 | 241 |
| CM11-016 | 305 | 451 | 376 | 1771 | 2794 | 2328 | 173 | 276 | 230 |
| CM11-017 | 305 | 438 | 365 | 1770 | 2837 | 2364 | 173 | 301 | 251 |
| CM11-018 | 321 | 445 | 371 | 1839 | 2722 | 2268 | 178 | 297 | 247 |
| CM11-019 | 306 | 448 | 373 | 1791 | 2779 | 2316 | 178 | 300 | 250 |
| SM04-001 | 161 | 248 | 206 | 367 | 772 | 643 | 2.7 | 52 | 43 |
| SM04-002 | 195 | 513 | 393 | 635 | 1256 | 1039 | 15 | 127 | 88 |
| SM04-005A | 199 | 367 | 306 | 538 | 1236 | 1030 | 11 | 106 | 88 |
| SM08-001 | 238 | 374 | 312 | 519 | 763 | 636 | 7.1 | 25 | 21 |
| SM08-002 | 243 | 353 | 294 | 540 | 778 | 648 | 6.4 | 24 | 20 |
| SM08-003 | 240 | 331 | 276 | 541 | 720 | 600 | 7.3 | 24 | 20 |
| SM08-004 | 235 | 323 | 269 | 551 | 819 | 683 | 11 | 25 | 21 |
| SM08-005 | 279 | 346 | 288 | 673 | 749 | 624 | 16 | 23 | 19 |
| SM08-006 | 260 | 328 | 274 | 667 | 734 | 612 | 15 | 23 | 19 |

SM8-006
10/9/15

## SM08-006






SM8-006
10/9/15