**CROW BUTTE RESOURCES, INC.**

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

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

June 22, 2005

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
SM6-28 Monitor Well Excursion

Dear Mr. Janosko:

On June 16, 2005 during routine biweekly water sampling of Crow Butte Resources, Inc. (CBR) shallow monitor well SM6-28, the multiple parameter upper control limit (UCL) for alkalinity and the single parameter upper control limit (UCL) for conductivity was 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 multiple UCL for alkalinity and the single UCL for conductivity.

CBR notified Mr. Robert Nelsen by telephone on June 17, 2005 of the confirmation of the exceedance as required in License Condition 12.2. A confirmation e-mail was sent on the same date. Laboratory results for the sample analysis for SM6-28 are attached. In addition, graphs are attached for the three excursion indicator parameters and water level that cover the period from October 21, 2004 to June 21, 2005.

CBR believes that this apparent excursion is due to increased groundwater levels caused by the significant amount of precipitation received at the facility this spring and is not caused by mining activity. This conclusion is supported by the following indications:

1. Water level in the well has increased 4 feet this spring and is currently within 10 feet of the top of the casing at the well. SM6-28 is located in Mine Unit 6 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.

NMSS01



2. The chloride concentration has increased from normal concentrations of 6 mg/l to 15 mg/l and has not exceeded the UCLs. If the monitor well were affected by an excursion of mining solutions, it would be expected that the chloride concentration would be much higher due to its high concentration in the lixiviant (which typically contains chloride concentrations in excess of 500 mg/l) and its mobility in the environment.

3. There are fifteen other shallow monitor wells in Mine Unit 6 (which is south of English Creek) and Mine Unit 8 (which is north of English Creek) that are showing similar increases in water level, alkalinity, and conductivity with some minor increases in chloride concentrations. Over the past five months water levels have risen an average of 2.1 feet, alkalinity 7 mg/l, conductivity 48 umhos/cm and chlorides 2.6 mg/l. A common characteristic of these wells is the close proximity to the creek. The wells are highlighted on the attached map.

4. There are very few injection wells in operation near SM6-28. All wellheads, wellhouses, and trunklines were checked by CBR field staff on June 17, 2005 and no apparent sources for the excursion were identified.

5. This same shallow monitor well was placed on excursion status in May 2000 following a similar increase in water level due to precipitation (see excursion report dated May 30, 2000). The well was removed from excursion status in late June 2000 after water level had decreased during summer months (see excursion report dated June 27, 2000).

In accordance with License Condition 11.2, CBR will increase the sampling frequency for SM6-28 to weekly until three consecutive weekly samples are below the exceeded UCL. CBR will then continue weekly sampling for an additional three weeks after this goal has been achieved. If the well has not exceeded the UCL, 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.

Sincerely,
CROW BUTTE RESOURCES, INC.

Michael Griffin
Manager of Health, Safety, and Environmental Affairs

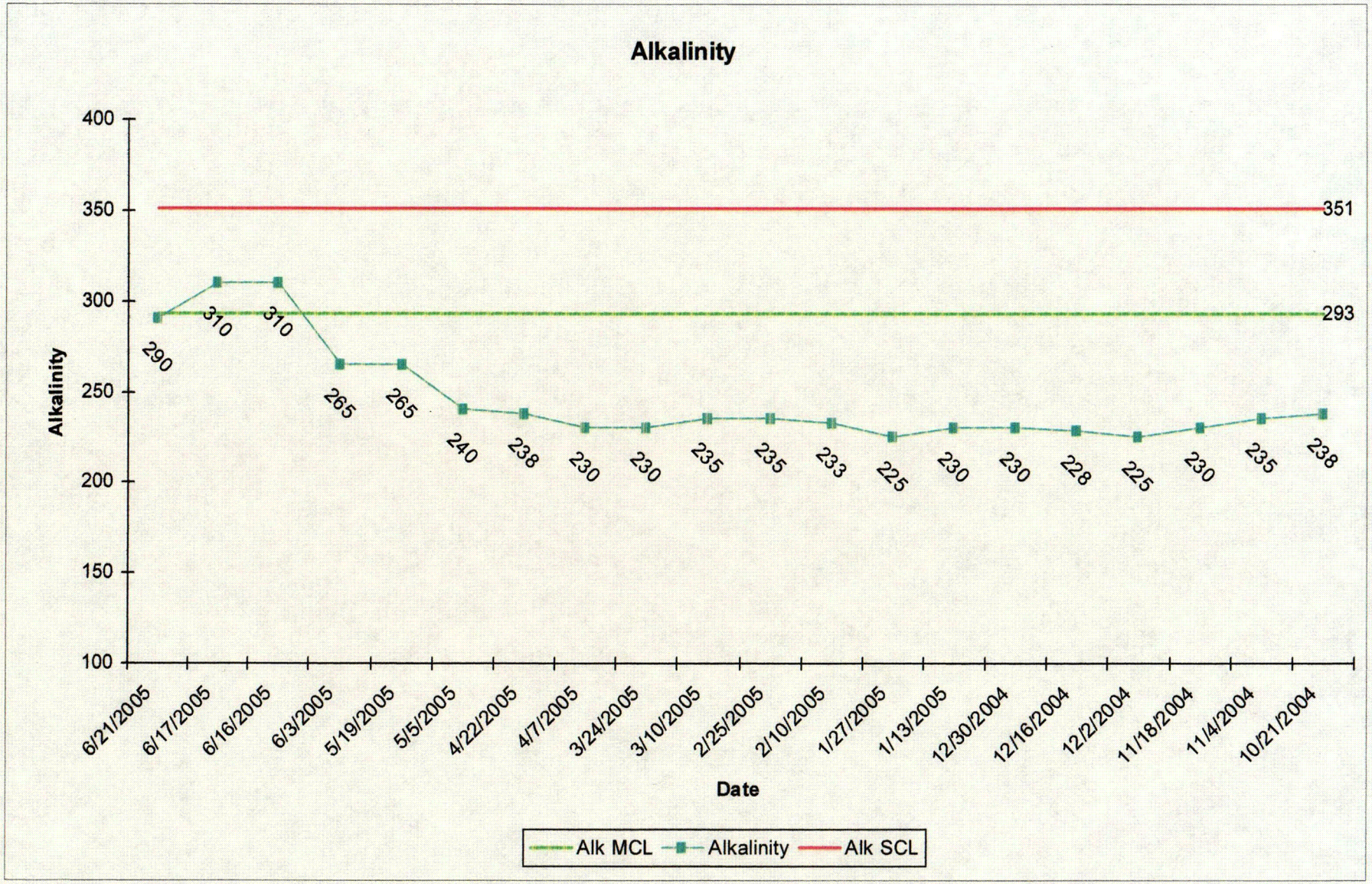


Enclosures: As Stated

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

Mr. Steve Collings - CBR, Denver

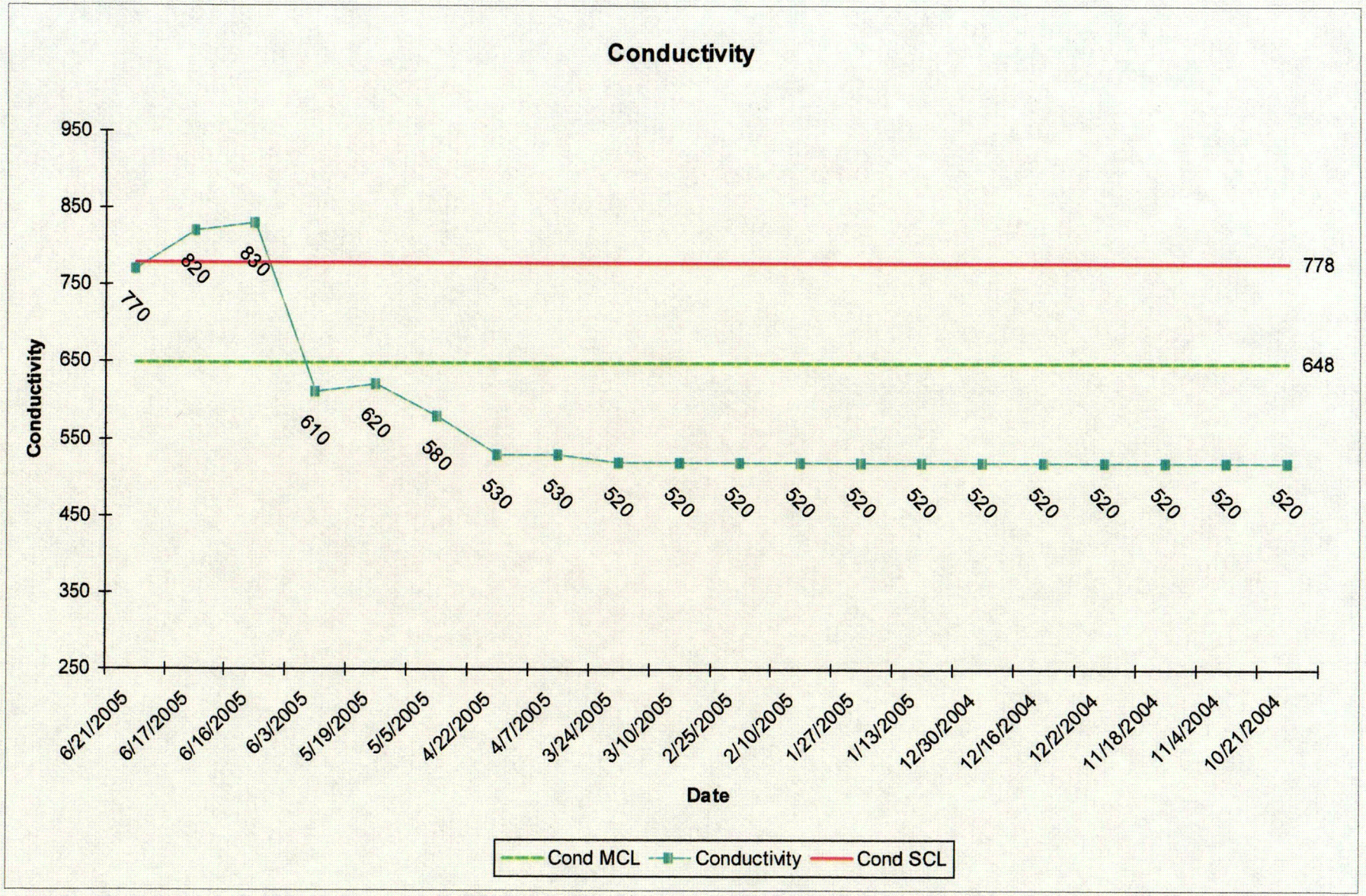
# SM6-28




Tuesday, June 21, 2005

C01

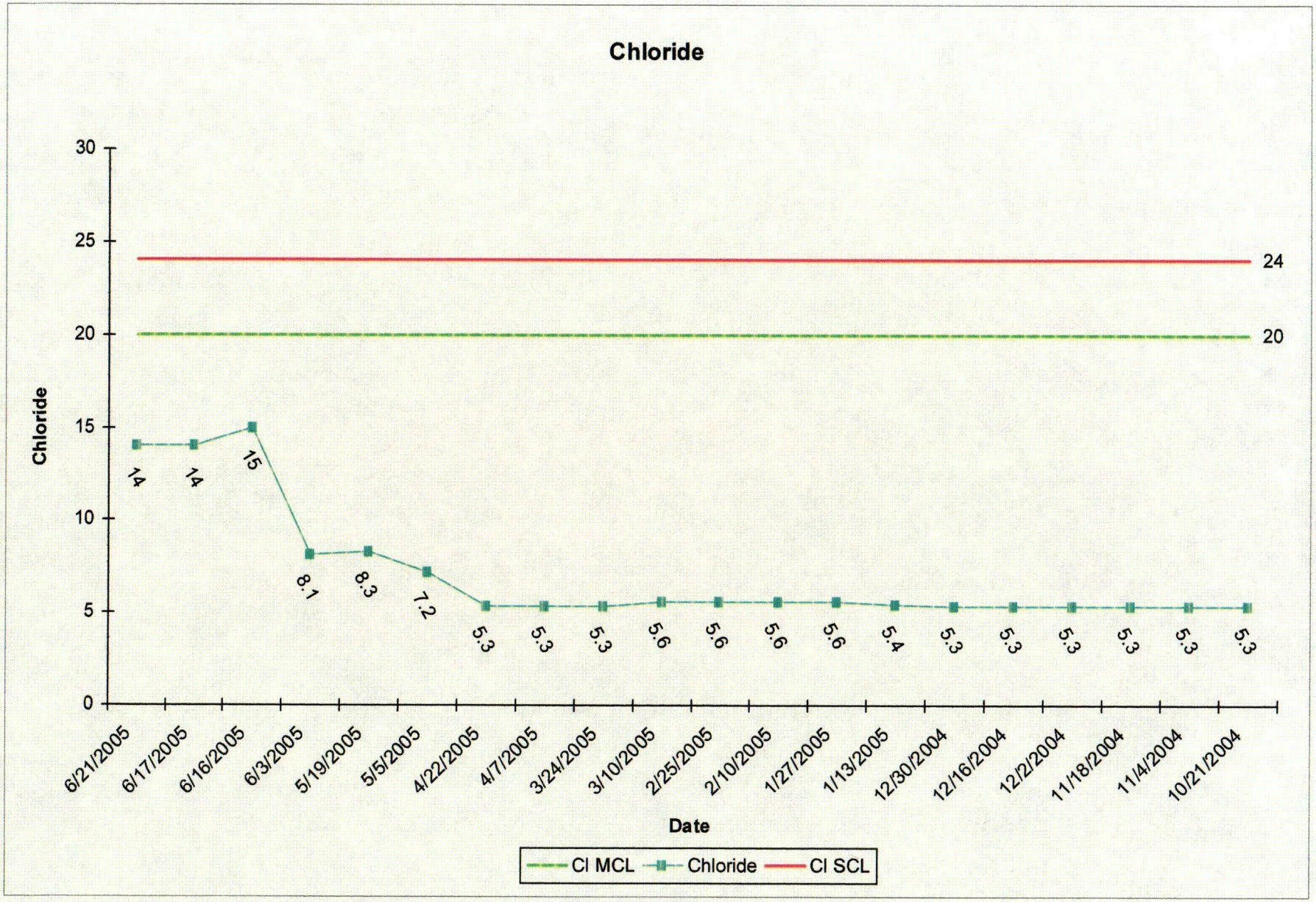
# SM6-28




Tuesday, June 21, 2005

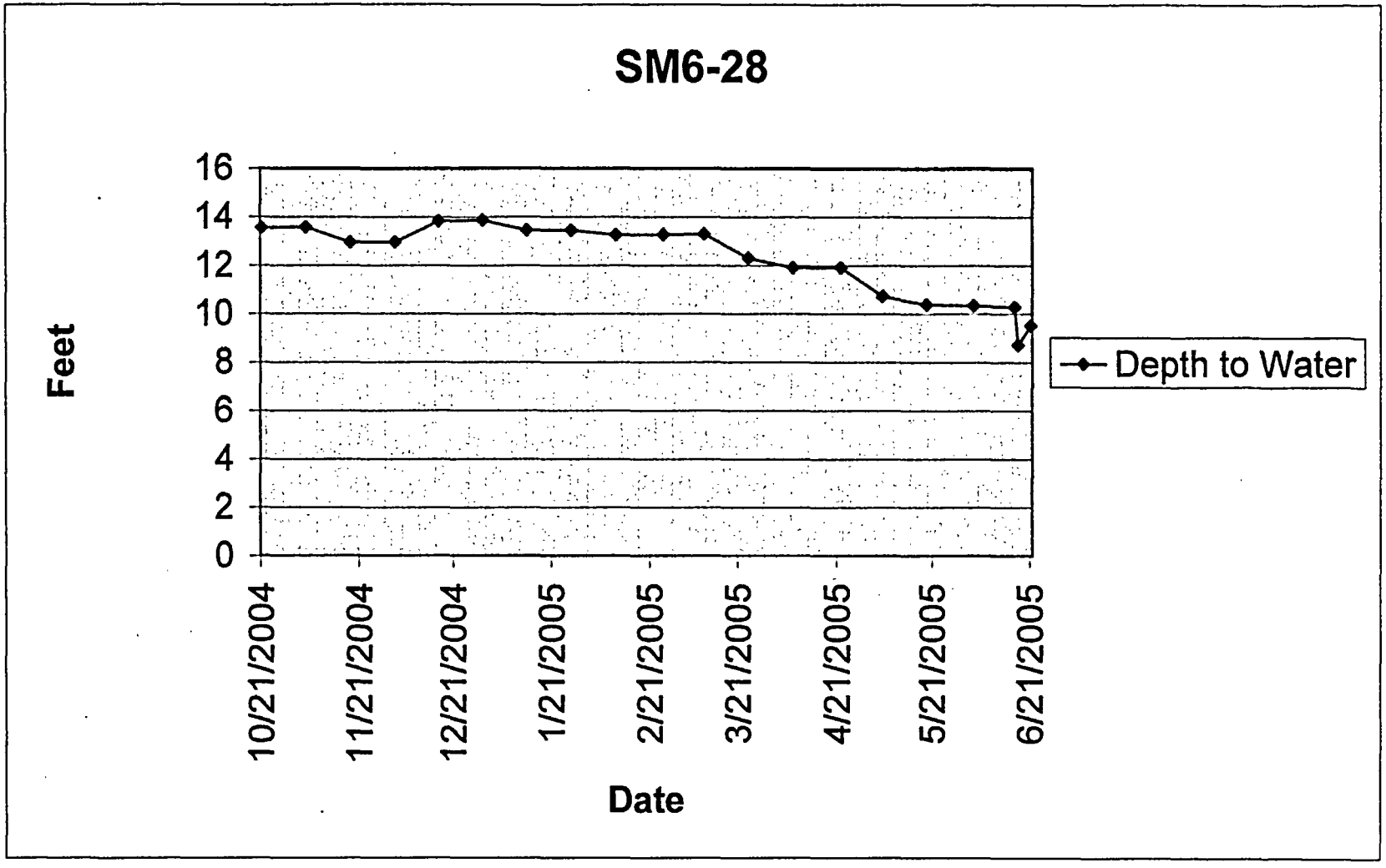
C02

# SM6-28




Tuesday, June 21, 2005

C03


SM6-28
Feet
16
14
12
10
8
6
4
2
0
10/21/2004
11/21/2004
12/21/2004
1/21/2005
2/21/2005
3/21/2005
4/21/2005
5/21/2005
6/21/2005
Date
Depth to Water

# Crow Butte Project
## Monitor Well Laboratory Report

**Sample Date** 6/17/2005
**Analysis Date** 6/17/2005

| Well ID | Alkalinity (mg/L) | Alk SCL | Alk MCL | Conductivity (µmho/cm) | Cond SCL | Cond MCL | Chloride (mg/L) | Cl SCL | Cl MCL |
|---|---|---|---|---|---|---|---|---|---|
| SM6-28 | 310 | 351 | 293 | 820 | 778 | 648 | 14 | 24 | 20 |

# Crow Butte Project
## Monitor Well Laboratory Report

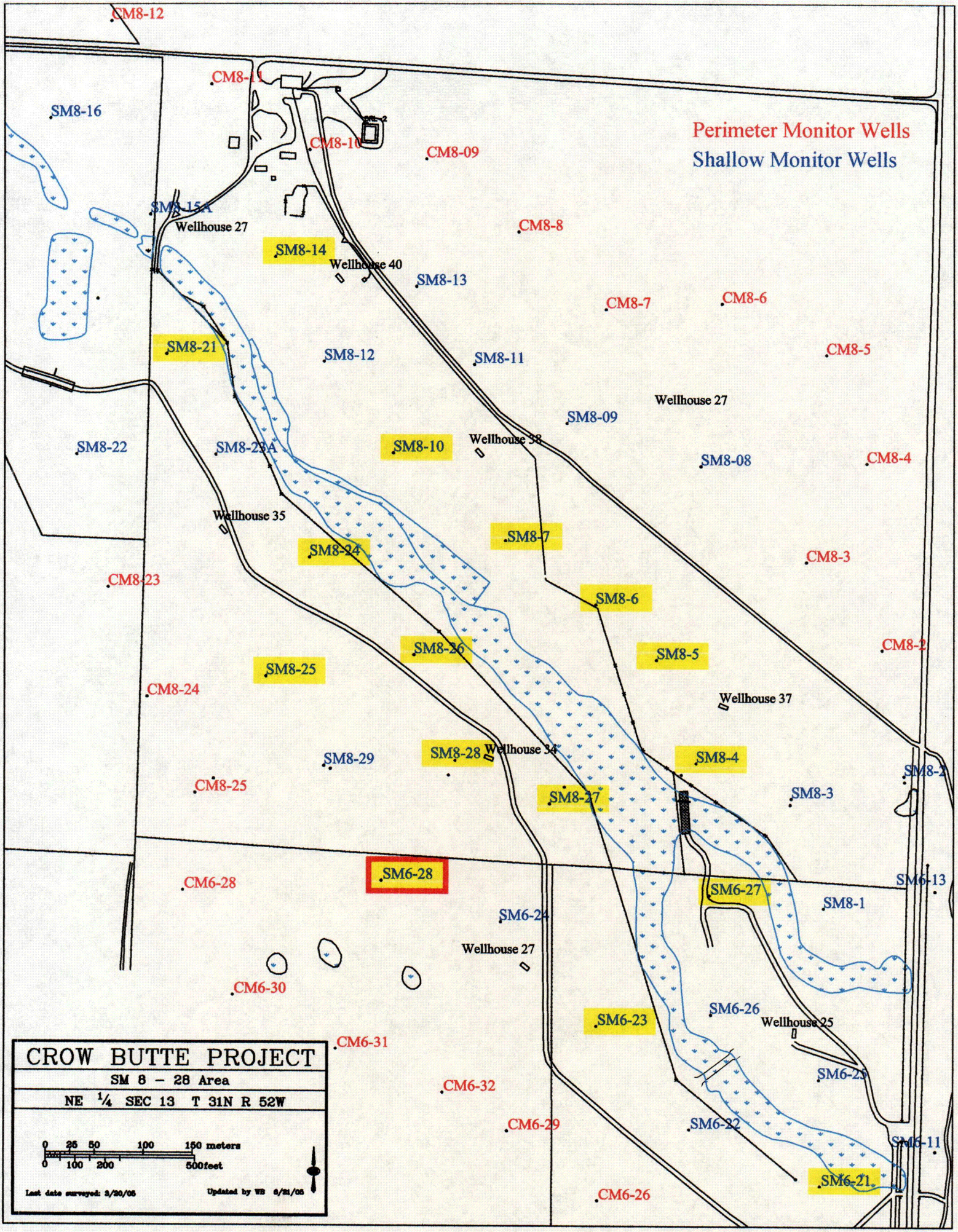
**Sample Date** 6/16/2005
**Analysis Date** 6/16/2005

| Well ID | Alkalinity (mg/L) | Alk SCL | Alk MCL | Conductivity (µmho/cm) | Cond SCL | Cond MCL | Chloride (mg/L) | Cl SCL | Cl MCL |
|---|---|---|---|---|---|---|---|---|---|
| SM6-13 | 240 | 360 | 300 | 580 | 768 | 640 | 6.7 | 26 | 21 |
| SM6-21 | 210 | 312 | 260 | 530 | 713 | 594 | 8.5 | 25 | 21 |
| SM6-22 | 205 | 310 | 258 | 460 | 674 | 562 | 5.2 | 22 | 18 |
| SM6-23 | 260 | 314 | 262 | 560 | 691 | 576 | 7.4 | 23 | 19 |
| SM6-24 | 220 | 310 | 258 | 480 | 672 | 560 | 5.6 | 24 | 20 |
| SM6-25 | 200 | 324 | 270 | 480 | 696 | 580 | 6.3 | 24 | 20 |
| SM6-26 | 200 | 308 | 257 | 460 | 726 | 605 | 5.2 | 24 | 20 |
| SM6-27 | 220 | 317 | 264 | 480 | 677 | 564 | 5.2 | 23 | 20 |
| SM6-28 | 310 | 351 | 293 | 830 | 778 | 648 | 15 | 24 | 20 |
| CM3-5 | 320 | 433 | 361 | 2120 | 2814 | 2345 | 207 | 318 | 265 |
| CM5-13 | 280 | 373 | 311 | 1920 | 3149 | 2624 | 185 | 386 | 322 |
| CM6-25 | 300 | 433 | 361 | 1910 | 2952 | 2460 | 185 | 317 | 264 |
| CM6-26 | 300 | 448 | 373 | 1910 | 2952 | 2460 | 182 | 338 | 282 |
| CM6-28 | 310 | 449 | 374 | 1860 | 2894 | 2412 | 180 | 307 | 256 |
| CM6-29 | 300 | 448 | 373 | 1920 | 3024 | 2520 | 183 | 321 | 268 |
| CM6-30 | 310 | 459 | 383 | 1880 | 2952 | 2460 | 181 | 328 | 274 |
| CM6-31 | 315 | 464 | 386 | 1900 | 2851 | 2376 | 181 | 301 | 251 |
| CM6-32 | 320 | 461 | 384 | 1950 | 2981 | 2484 | 192 | 292 | 244 |
| SM7-11 | 145 | 216 | 180 | 370 | 539 | 449 | 4.8 | 27 | 22 |
| SM7-12 | 165 | 223 | 186 | 440 | 619 | 516 | 2.6 | 28 | 23 |
| SM7-13 | 145 | 233 | 194 | 380 | 592 | 493 | 6.3 | 25 | 21 |
| SM9-5 | 140 | 206 | 172 | 310 | 446 | 372 | 2.2 | 22 | 18 |
| SM9-6 | 148 | 216 | 180 | 310 | 461 | 384 | 1.9 | 22 | 19 |
| SM9-7 | 160 | 239 | 199 | 410 | 590 | 492 | 4.4 | 25 | 21 |
| SM9-8 | 158 | 230 | 192 | 400 | 701 | 584 | 3.7 | 106 | 88 |

| Sample Date | 6/16/2005 |
|---|---|
| Analysis Date | 6/17/2005 |

# 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 |
|---|---|---|---|---|---|---|---|---|---|
| SM9-9 | 155 | 235 | 196 | 400 | 634 | 528 | 8.7 | 50 | 42 |
| SM9-10 | 145 | 216 | 180 | 360 | 533 | 444 | 3.7 | 24 | 20 |
| SM9-11 | 145 | 230 | 192 | 360 | 518 | 432 | 2.6 | 21 | 17 |
| CM9-6 | 305 | 449 | 374 | 1840 | 3082 | 2568 | 181 | 377 | 314 |
| CM9-7 | 300 | 464 | 386 | 1830 | 2808 | 2340 | 183 | 285 | 238 |
| CM9-8 | 290 | 418 | 348 | 1910 | 2952 | 2460 | 206 | 366 | 305 |
| CM9-9 | 305 | 475 | 396 | 1870 | 2923 | 2436 | 198 | 334 | 278 |
| CM9-10 | 300 | 359 | 299 | 1790 | 2390 | 1992 | 178 | 292 | 244 |
| CM9-11 | 303 | 445 | 371 | 1820 | 2707 | 2256 | 178 | 284 | 236 |
| CM9-12 | 300 | 444 | 370 | 1910 | 2866 | 2388 | 198 | 321 | 268 |
| CM9-13 | 295 | 442 | 368 | 1880 | 2707 | 2256 | 189 | 279 | 233 |


Perimeter Monitor Wells
Shallow Monitor Wells
CM8-12
CM8-11
SM8-16
CM8-10
CM8-09
SM8-15A
Wellhouse 27
CM8-8
SM8-14
Wellhouse 40
SM8-13
CM8-7
CM8-6
SM8-21
SM8-12
SM8-11
CM8-5
Wellhouse 27
SM8-09
SM8-22
SM8-23A
SM8-10
Wellhouse 38
SM8-08
CM8-4
Wellhouse 35
SM8-7
SM8-24
CM8-3
CM8-23
SM8-6
SM8-26
SM8-5
CM8-2
SM8-25
CM8-24
Wellhouse 37
SM8-29
SM8-28
Wellhouse 34
SM8-4
SM8-2
CM8-25
SM8-27
SM8-3
SM6-28
CM6-28
SM6-13
SM6-27
SM8-1
SM6-24
Wellhouse 27
CM6-30
SM6-26
SM6-23
Wellhouse 25
CM6-31
SM6-25
CM6-32
CM6-29
SM6-22
SM6-11
SM6-21
CM6-26
CROW BUTTE PROJECT
SM 8 – 28 Area
NE 1/4 SEC 13 T 31N R 52W
0 25 50 100 150 meters
0 100 200 500feet
Last date surveyed: 3/20/05
Updated by WB 6/21/05

C04