

**CAMECO RESOURCES
CROW BUTTE OPERATION**



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

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

June 10, 2025

Electronic Submittal

DOCUMENT CONTROL DESK, DIRECTOR
U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

The enclosed report was provided to NDEE.

Class III UIC Permit NE0122611
May 2025 Monthly Restoration Report

Please find enclosed the Crow Butte Monthly Restoration Reports for Mine Units 2, 3, 4, 5, 6, 7 and 8. The reverse osmosis (RO) units continue to inject permeate into Mine Unit 7 and 8. Mine Units 2, 3, 4, 5 and 6 remained in stability monitoring.

If you have any questions regarding this submittal, please feel free to contact me at (308) 665-2215, ext. 121.

Sincerely,
Cameco Resources
Crow Butte Operation

A handwritten signature in blue ink that reads "Tate Hagman".

Tate Hagman
Restoration Manager

Enclosures: As Stated

cc: Tom Lancaster; Document Control Desk; Deputy Director, Division of Decommissioning – NRC
CBO - File
ec: CR – Electronic File
Kory Winters – NDEE Field Office
Daniel Kroll, UIC/ME Coordinator, NDEE

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 May 2025
 Mine Unit 2

1. RESTORATION ACTIVITY DURING MONTH:

| | YES | NO | |
|----------------------------|-----|----|--|
| a. Groundwater Transfer | | X | (if yes, complete part 2) |
| b. Groundwater Sweep | | X | (if yes, complete part 3) |
| c. Groundwater Treatment | | X | |
| d. Wellfield Recirculatoin | | X | |
| e. Other (explain): | X | | The Mine Unit is in Stability Monitoring |

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING THE MONTH: (Assay results attached)

No in-house samples were collected during the month.

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 May 2025
 Mine Unit 3

1. RESTORATION ACTIVITY DURING MONTH:

| | YES | NO | |
|----------------------------|-----|----|--|
| a. Groundwater Transfer | | X | (if yes, complete part 2) |
| b. Groundwater Sweep | | X | (if yes, complete part 3) |
| c. Groundwater Treatment | | X | |
| d. Wellfield Recirculatoin | | X | |
| e. Other (explain): | X | | The Mine Unit is in Stability Monitoring |

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING THE MONTH: (Assay results attached)

No in-house samples were collected during the month.

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 May 2025
 Mine Unit 4

1. RESTORATION ACTIVITY DURING MONTH:

| | YES | NO | |
|----------------------------|-----|----|--|
| a. Groundwater Transfer | | X | (if yes, complete part 2) |
| b. Groundwater Sweep | | X | (if yes, complete part 3) |
| c. Groundwater Treatment | | X | |
| d. Wellfield Recirculatoin | | X | |
| e. Other (explain): | X | | The Mine Unit is in Stability Monitoring |

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING THE MONTH: (Assay results attached)

No in-house samples were collected during the month.

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 May 2025
 Mine Unit 5

1. RESTORATION ACTIVITY DURING MONTH:

| | YES | NO | |
|----------------------------|-----|----|--|
| a. Groundwater Transfer | | X | (if yes, complete part 2) |
| b. Groundwater Sweep | X | | (if yes, complete part 3) |
| c. Groundwater Treatment | | X | |
| d. Wellfield Recirculatoin | | X | |
| e. Other (explain): | X | | The Mine Unit is in Stability Monitoring |

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

P1002 Well started to lower parameters on monitor well.

4. LIST WELLS SAMPLED DURING THE MONTH: (Assay results attached)

P1002

Mine Unit 5 Restoration Data

| Well ID | Date | Alk | Ca | Cl | Mg | Na | SO4 | Cond | pH | TDS | Fe | U | V |
|---------|-----------|-----|-------|-----|------|-----|-----|------|------|------|------|------|------|
| P1002 | 5/13/2025 | 332 | 14.81 | 160 | 3.98 | 388 | 337 | 1878 | 8.11 | 1164 | 0.01 | 0.94 | 0.20 |

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 May 2025
 Mine Unit 6

1. RESTORATION ACTIVITY DURING MONTH:

| | YES | NO | |
|----------------------------|-----|----|--|
| a. Groundwater Transfer | | X | (if yes, complete part 2) |
| b. Groundwater Sweep | | X | (if yes, complete part 3) |
| c. Groundwater Treatment | | X | |
| d. Wellfield Recirculatoin | | X | |
| e. Other (explain): | X | | The Mine Unit is in Stability Monitoring |

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING THE MONTH: (Assay results attached)

No in-house samples were collected during the month.

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 May 2025
 Mine Unit 7

1. RESTORATION ACTIVITY DURING MONTH:

| | YES | NO | |
|----------------------------|-----|----|---|
| a. Groundwater Transfer | | X | (if yes, complete part 2) |
| b. Groundwater Sweep | | X | (if yes, complete part 3) |
| c. Groundwater Treatment | X | | IX and RO CM4-14 I1975P I2429P P1957 P2040 P2144 P2219 P2384 P2601 P2614 |
| d. Wellfield Recirculatoin | | X | |
| e. Other (explain): | | X | |

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING THE MONTH: (Assay results attached)

CM4-14
 I1971P
 I1975P
 I2429P
 P1957
 P2040
 P2219
 P2384
 P2601
 P2614

Mine Unit 7 Restoration Data

| Well ID | Date | Alk | Ca | Cl | Mg | Na | SO4 | Cond | pH | TDS | Fe | U | V |
|---------|-----------|-----|-------|-----|-------|-----|-----|------|------|------|------|------|------|
| CM4-14 | | | | | | | | | | | | | |
| | 5/13/2025 | 500 | 25.75 | 105 | 7.05 | 385 | 265 | 1817 | 7.71 | 1127 | 0.01 | 0.55 | 0.31 |
| I1971P | | | | | | | | | | | | | |
| | 5/13/2025 | 582 | 31.76 | 119 | 8.14 | 455 | 343 | 2153 | 7.6 | 1335 | 0.01 | 0.47 | 0.16 |
| I1975P | | | | | | | | | | | | | |
| | 5/13/2025 | 521 | 23.56 | 102 | 6.95 | 388 | 265 | 1835 | 7.62 | 1138 | 0.01 | 1.27 | 0.18 |
| I2429P | | | | | | | | | | | | | |
| | 5/13/2025 | 377 | 20.00 | 144 | 5.36 | 369 | 291 | 1784 | 7.9 | 1106 | 0.01 | 1.26 | 0.29 |
| P1957 | | | | | | | | | | | | | |
| | 5/13/2025 | 444 | 33.92 | 85 | 7.15 | 324 | 245 | 1617 | 7.48 | 1003 | 0.05 | 1.91 | 0.12 |
| P2040 | | | | | | | | | | | | | |
| | 5/13/2025 | 499 | 35.24 | 132 | 11.07 | 426 | 361 | 2079 | 7.3 | 1289 | 0.01 | 0.89 | 0.08 |
| P2219 | | | | | | | | | | | | | |
| | 5/13/2025 | 486 | 28.58 | 132 | 8.33 | 423 | 341 | 2032 | 7.39 | 1260 | 0.03 | 0.94 | 0.08 |
| P2384 | | | | | | | | | | | | | |
| | 5/13/2025 | 540 | 33.69 | 143 | 10.23 | 464 | 385 | 2228 | 7.85 | 1381 | 0.01 | 1.40 | 0.38 |
| P2601 | | | | | | | | | | | | | |
| | 5/13/2025 | 386 | 15.33 | 117 | 4.27 | 345 | 253 | 1635 | 7.92 | 1014 | 0.03 | 0.27 | 0.61 |
| P2614 | | | | | | | | | | | | | |
| | 5/13/2025 | 359 | 24.11 | 160 | 6.41 | 390 | 342 | 1920 | 8.06 | 1190 | 0.01 | 0.42 | 0.16 |

CROW BUTTE MINE
MONTHLY RESTORATION REPORT
May 2025
Mine Unit 8

1. RESTORATION ACTIVITY DURING MONTH:

| | YES | NO | |
|----------------------------|-----|----|---|
| a. Groundwater Transfer | | X | (if yes, complete part 2) |
| b. Groundwater Sweep | | X | (if yes, complete part 3) |
| c. Groundwater Treatment | X | | IX and RO CPW9 P2952 P3308 P3689 P4320 I2688P P2984 P3309 P3834 P4327 I2791 P2996 P3424 P3840 I3699P P3064 P3439 P3903 P2678 P3114 P3440 P3905 P2682 P3208 P3442 P3910 P2698 P3249 P3444 P3912 P2699 P3253 P3643 P3927 P2805 P3256 P3644 P3928 P2916 P3278 P3653 P4190 |
| d. Wellfield Recirculatoin | | X | |
| e. Other (explain): | | X | |

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING THE MONTH: (Assay results attached)

| | | |
|---------|-------|-------|
| COW96-1 | P2984 | P3653 |
| CPW96-1 | P2996 | P3689 |
| I2674P | P3064 | P3834 |
| I2677P | P3114 | P3840 |
| I2679P | P3208 | P3905 |
| I2684P | P3249 | P3910 |
| I2688P | P3256 | P3912 |
| I2791P | P3278 | P3928 |
| I3699P | P3308 | P4190 |
| P2678 | P3309 | P4320 |
| P2682 | P3424 | P4327 |
| P2698 | P3439 | |
| P2699 | P3440 | |
| P2916 | P3444 | |
| P2952 | P3643 | |

Mine Unit 8 Restoration Data

| Well ID | Date | Alk | Ca | Cl | Mg | Na | SO4 | Cond | pH | TDS | Fe | U | V |
|---------|-----------|-----|-------|-----|------|-----|-----|------|------|------|------|-------|-------|
| COW96-1 | | | | | | | | | | | | | |
| | 5/13/2025 | 608 | 22.95 | 213 | 7.99 | 579 | 436 | 2679 | 7.85 | 1661 | 0.02 | 4.42 | 1.01 |
| CPW96-1 | | | | | | | | | | | | | |
| | 5/13/2025 | 549 | 23.18 | 224 | 6.38 | 578 | 462 | 2662 | 8.1 | 1650 | 0.01 | 0.89 | 1.11 |
| I2674P | | | | | | | | | | | | | |
| | 5/13/2025 | 350 | 8.74 | 95 | 2.27 | 305 | 208 | 1434 | 8.01 | 889 | 0.01 | 1.25 | 0.68 |
| I2677P | | | | | | | | | | | | | |
| | 5/13/2025 | 366 | 9.05 | 87 | 2.87 | 305 | 203 | 1433 | 8.13 | 888 | 0.01 | 2.17 | 0.29 |
| I2679P | | | | | | | | | | | | | |
| | 5/13/2025 | 618 | 20.75 | 202 | 6.82 | 571 | 419 | 2682 | 7.81 | 1663 | 0.01 | 4.16 | 0.45 |
| I2684P | | | | | | | | | | | | | |
| | 5/13/2025 | 507 | 8.39 | 117 | 2.76 | 419 | 265 | 1899 | 8.33 | 1177 | 0.01 | 3.78 | 0.96 |
| I2688P | | | | | | | | | | | | | |
| | 5/13/2025 | 492 | 22.72 | 144 | 5.84 | 427 | 297 | 1987 | 8.06 | 1232 | 0.03 | 2.75 | 0.54 |
| I2791P | | | | | | | | | | | | | |
| | 5/13/2025 | 312 | 10.83 | 111 | 2.81 | 308 | 236 | 1490 | 7.83 | 924 | 0.08 | 0.58 | -0.02 |
| I3699P | | | | | | | | | | | | | |
| | 5/13/2025 | 517 | 8.18 | 171 | 2.73 | 409 | 271 | 2282 | 8.1 | 1415 | 0.00 | 1.71 | 0.70 |
| P2678 | | | | | | | | | | | | | |
| | 5/13/2025 | 385 | 14.60 | 106 | 4.01 | 331 | 238 | 1601 | 7.88 | 993 | 0.00 | 2.33 | 0.35 |
| P2682 | | | | | | | | | | | | | |
| | 5/13/2025 | 349 | 11.26 | 96 | 3.38 | 305 | 212 | 1426 | 8.14 | 884 | 0.01 | 2.91 | 0.40 |
| P2698 | | | | | | | | | | | | | |
| | 5/13/2025 | 466 | 19.77 | 128 | 5.24 | 490 | 355 | 1888 | 8.3 | 1171 | 0.01 | 1.76 | 0.15 |
| P2699 | | | | | | | | | | | | | |
| | 5/13/2025 | 650 | 18.87 | 213 | 6.63 | 615 | 449 | 2802 | 8.02 | 1737 | 0.01 | 6.20 | 0.71 |
| P2916 | | | | | | | | | | | | | |
| | 5/13/2025 | 326 | 11.42 | 91 | 2.81 | 286 | 203 | 1372 | 8.13 | 851 | 0.01 | 0.90 | 0.41 |
| P2952 | | | | | | | | | | | | | |
| | 5/13/2025 | 532 | 23.79 | 177 | 6.40 | 501 | 374 | 2331 | 7.88 | 1445 | 0.01 | 2.99 | 0.18 |
| P2984 | | | | | | | | | | | | | |
| | 5/13/2025 | 559 | 18.95 | 172 | 5.28 | 500 | 357 | 2355 | 7.99 | 1460 | 0.00 | 5.51 | 0.32 |
| P2996 | | | | | | | | | | | | | |
| | 5/13/2025 | 515 | 12.02 | 147 | 3.83 | 465 | 321 | 2087 | 8.09 | 1294 | 0.00 | 4.75 | 4.29 |
| P3064 | | | | | | | | | | | | | |
| | 5/13/2025 | 600 | 18.71 | 224 | 6.12 | 606 | 454 | 2730 | 8.06 | 1693 | 0.01 | 10.09 | 0.76 |
| P3114 | | | | | | | | | | | | | |
| | 5/13/2025 | 548 | 12.88 | 159 | 4.54 | 493 | 343 | 2236 | 8.05 | 1386 | 0.00 | 7.61 | 0.82 |

Mine Unit 8 Restoration Data

| Well ID | Date | Alk | Ca | Cl | Mg | Na | SO4 | Cond | pH | TDS | Fe | U | V |
|---------|-----------|-----|-------|-----|------|-----|-----|------|------|------|------|------|------|
| P3208 | 5/13/2025 | 640 | 36.60 | 246 | 9.93 | 637 | 506 | 2973 | 7.68 | 1843 | 0.02 | 2.53 | 0.15 |
| P3249 | 5/13/2025 | 433 | 12.53 | 137 | 3.68 | 408 | 298 | 1880 | 8.09 | 1166 | 0.01 | 2.69 | 0.46 |
| P3256 | 5/13/2025 | 608 | 22.78 | 213 | 7.57 | 574 | 416 | 2642 | 8.07 | 1638 | 0.01 | 2.55 | 0.44 |
| P3278 | 5/13/2025 | 458 | 8.59 | 122 | 3.26 | 397 | 268 | 1830 | 8.43 | 1135 | 0.01 | 1.32 | 0.30 |
| P3308 | 5/13/2025 | 387 | 6.03 | 100 | 2.16 | 336 | 224 | 1557 | 8.17 | 965 | 0.01 | 2.14 | 0.44 |
| P3309 | 5/13/2025 | 270 | 5.05 | 64 | 1.62 | 232 | 157 | 1082 | 8.15 | 671 | 0.01 | 0.42 | 0.26 |
| P3424 | 5/13/2025 | 276 | 5.31 | 60 | 1.79 | 222 | 146 | 1050 | 8.4 | 651 | 0.00 | 0.31 | 0.32 |
| P3439 | 5/13/2025 | 469 | 10.02 | 122 | 2.98 | 406 | 274 | 1861 | 8.22 | 1154 | 0.01 | 1.77 | 0.41 |
| P3440 | 5/13/2025 | 394 | 7.83 | 91 | 2.18 | 328 | 215 | 1507 | 8.17 | 934 | 0.01 | 2.20 | 0.26 |
| P3444 | 5/13/2025 | 372 | 9.16 | 89 | 2.90 | 315 | 210 | 1449 | 8.14 | 898 | 0.01 | 2.25 | 0.31 |
| P3643 | 5/13/2025 | 430 | 12.48 | 119 | 3.83 | 373 | 262 | 1756 | 8.27 | 1089 | 0.01 | 1.41 | 0.28 |
| P3653 | 5/13/2025 | 481 | 13.06 | 144 | 4.31 | 430 | 307 | 2026 | 7.97 | 1256 | 0.01 | 2.15 | 0.37 |
| P3689 | 5/13/2025 | 455 | 12.72 | 132 | 3.69 | 408 | 288 | 1909 | 8.09 | 1184 | 0.01 | 0.96 | 0.15 |
| P3834 | 5/13/2025 | 425 | 14.22 | 146 | 4.42 | 403 | 300 | 1909 | 8.05 | 1184 | 0.01 | 1.02 | 0.25 |
| P3840 | 5/13/2025 | 528 | 15.50 | 165 | 5.01 | 480 | 343 | 2242 | 8.15 | 1390 | 0.01 | 1.45 | 0.31 |
| P3905 | 5/13/2025 | 564 | 19.25 | 174 | 5.48 | 506 | 364 | 2368 | 8.13 | 1468 | 0.01 | 2.71 | 0.36 |
| P3910 | 5/13/2025 | 355 | 8.33 | 94 | 2.67 | 309 | 212 | 1458 | 8.04 | 904 | 0.01 | 1.47 | 0.31 |
| P3912 | 5/13/2025 | 361 | 5.52 | 96 | 1.74 | 316 | 208 | 1473 | 8.22 | 913 | 0.01 | 1.49 | 0.44 |
| P3928 | 5/13/2025 | 392 | 4.88 | 89 | 1.54 | 321 | 195 | 1479 | 8.44 | 917 | 0.01 | 3.17 | 0.62 |

Mine Unit 8 Restoration Data

| Well ID | Date | Alk | Ca | Cl | Mg | Na | SO4 | Cond | pH | TDS | Fe | U | V |
|---------|-----------|-----|-------|-----|------|-----|-----|------|------|------|------|------|------|
| P4190 | | | | | | | | | | | | | |
| | 5/13/2025 | 398 | 8.88 | 107 | 2.56 | 345 | 234 | 1600 | 8.29 | 992 | 0.01 | 0.96 | 2.06 |
| P4320 | | | | | | | | | | | | | |
| | 5/13/2025 | 406 | 11.37 | 114 | 3.24 | 354 | 243 | 1654 | 8.25 | 1025 | 0.01 | 1.11 | 1.53 |
| P4327 | | | | | | | | | | | | | |
| | 5/13/2025 | 398 | 11.21 | 122 | 3.09 | 358 | 258 | 1707 | 8.06 | 1058 | 0.01 | 2.75 | 0.52 |