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Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor

John Corra, Director

November 15, 2011

Mr. Kenneth Garoutte
Cameco Resources, Inc.
PO Box 1210
Glenrock, WY 82637

Subject: November 2011 Inspection Report
Cameco Resources, Permits 603 & 633

Dear Mr. Garoutte:

Please find enclosed the above referenced report. The November inspection was conducted with assistance from your staff on November 9 and 10, 2011. The LQD was satisfied with the well completion inspections and has addressed the concurrence to use the wells through separate response letters.

There are no compliance items that require immediate action. Please notify the LQD when the soil clean-up is complete and prior to re-seeding the Mine Unit 15, Header House 20 spill area. LQD would like to evaluate the clean-up using CRs equipment (scintilometer) and the condition of the soils for revegetation.

If you have any questions, please do not hesitate to contact me at prothw@wyo.gov or 777-7048.

Sincerely,

Pam Rothwell

Pam Rothwell
District 1 Assistant Supervisor
Land Quality Division

Enclosure

cc: Cameco Resources, Cheyenne, WY w/att
Douglas Mandeville, NRC w/att

PERMITS 603 & 633 INSPECTION REPORT
NOVEMBER 2011
DISTRICT 1/LAND QUALITY DIVISION

COMPANY:	Cameco Resources Incorporated
LOCATION:	North of Glenrock, Converse County (Smith-Highland Ranch Uranium Project)
DATE OF INSPECTION:	November 9 & 10, 2011
DATE OF REPORT:	November 10, 2011
INSPECTORS:	Pam Rothwell, LQD District 1 Assistant Supervisor
CONDITIONS:	Partly cloudy, light winds (15 mph), 40°
CO. STAFF PRESENT:	Ken Garoutte, Cameco SHEQ Manager Dave Moody, Cameco, Wellfield Operations Manager Craig Hiser, Wellfield Development Supervisor

INTRODUCTION

The focus of this inspection was:

- to review well completion records and conduct a field inspection of the completed wells in MU-3 and repaired wells in MU-K
- observe the replaced coupling at well EI-287A found during an LQD well completion inspection in MU-E
- observe soil clean-up at the wellfield release at MU-15, Header House 20

MINE UNIT 3 - WELL COMPLETION RECORDS REVIEW AND INSPECTION

Prior to the site inspection, the completion records were reviewed for all of the wells included in the notification. Reporting errors were noted and corrected during the inspection. All wells were noted to have passed the mechanical integrity test.

The wells completed for inspection in MU-3 were installed to extend the wellfield in previously approved pattern areas 3-5 and 3-6. Upon inspection of the wells it was found that the leak detection units had been installed on all of the newly completed wells, preventing the inspection of the annular seal. The unit was removed from one of the wells (3I-161A) to verify the casing was cemented to surface. The surface drainages were observed in the area of the new well completions with no apparent concerns for protection of the wells or for drainages.

Nearby wells were observed that had recently been installed to mine in a separate zone for a proposed wellfield extention. The wells were said to have comparable completions as those included in the notification. This allowed the inspector to observe the height of the casing above surface, presence of a cover/cap and the cementing of the casing to the surface. These wells were not in use which was verified in the header house which did not show the well hook ups and no flows were observed.

It was emphasized to CR that to complete the field inspection for wellfield completions the inspector needed to be able to observe the casing cemented to surface. CR agreed to delay the installation of the leak detection until the inspections could be completed in the future.

The *InSitu Recovery Class III Well Completion Inspection Form & Attachment Table* was used to complete the inspection. Verbal concurrence to initiate use of the wells was provided with formal approval to follow the inspection.

A brief discussion of well placement in surface drainages led to CRs commitment to be more diligent with avoiding placement of wells in the flow path of drainages.

MINE UNIT K REPAIRED WELLS – FOLLOW-UP INSPECTION

CR repaired seven wells in MU-K and provided notification to LQD with a letter received on October 7, 2011. According to Chapter 11, Section 8 (c), a repaired well must be retested within 120 days of the repair. A review of the MIT retest records was conducted and a site inspection of the repaired wells was completed. The records review indicated the failed MITs were the result of calcification in the well joints leading to damaged and/or failed casing. The repaired wells were noted to have the casing cemented to the surface **(Figure 1)**.

MINE UNIT E – WELL COMPLETION FOLLOW-UP REVIEW

The June 23, 2011 inspection identified three corrections:

- verify surety coverage for both the new replacement wells (completions) and the plugged wells that were not adequately abandoned or
- abandon the plugged wells
- replace a cracked coupling on well EI-287A

The wells were not in use at the time of the inspection as CR was waiting for LQD authorization. The coupling had been replaced on well EI-287A **(Figure 2)**. CR will be abandoning holes in multiple wellfields that had not been previously abandoned. Surety coverage was added for all wells installed at the HUP and SR mines to cover wells previously thought to have been adequately abandoned. The surety increase for MU-E abandoned wells is included in the recently approved 2009-2010 Annual Report surety increase. The instrument was provided to LQD on October 20, 2011.

MINE UNIT 15- HEADER HOUSE 20 WELLFIELD RELEASE CLEAN-UP

The clean-up of the spill has progressed with the removal of a maximum depth of 4 inches of contaminated soil so far. The contaminated soils are stripped and loaded into steel freight containers and hauled to a facility in Utah that accepts 11e2 bi-product waste material. There have been approximately 17 containers filled with 10 hauled away **(Figure 3)**. An additional 12 to15 containers are estimated to be needed for additional soil removal. The turn-around time for hauling the material appears to be causing minor delays in the project. It is not anticipated that the stripping depth will need to go much further.

A shallow hole was dug to expose the soil profile to approximately six inches **(Figure 4).** Good organics were noted in the top one to two inches followed by a sandy loam below.

COMPLIANCE ASSESSMENT

1 The well completions in Wellfields E, 3 and K are recommended for approval.

2 It is requested that CR not install leak detection systems until well completions are inspected.

3 LQD requests CR select well locations cautiously, with diligent effort in placement of wells in the flow path of ephemeral draianges.

4 Upon removal of the contaminated soils in MU-15 (HH-20), LQD requests an inspection by LQD staff to verify the contaminated soil is removed prior to reseeding the surface. LQD will also examine the soil composition for recommendation for amendment if necessary.

PHOTOS

Figure 1 Soil probe inserted and stopped at depth (approximately 3") to concrete seal at repaired well in MU-K

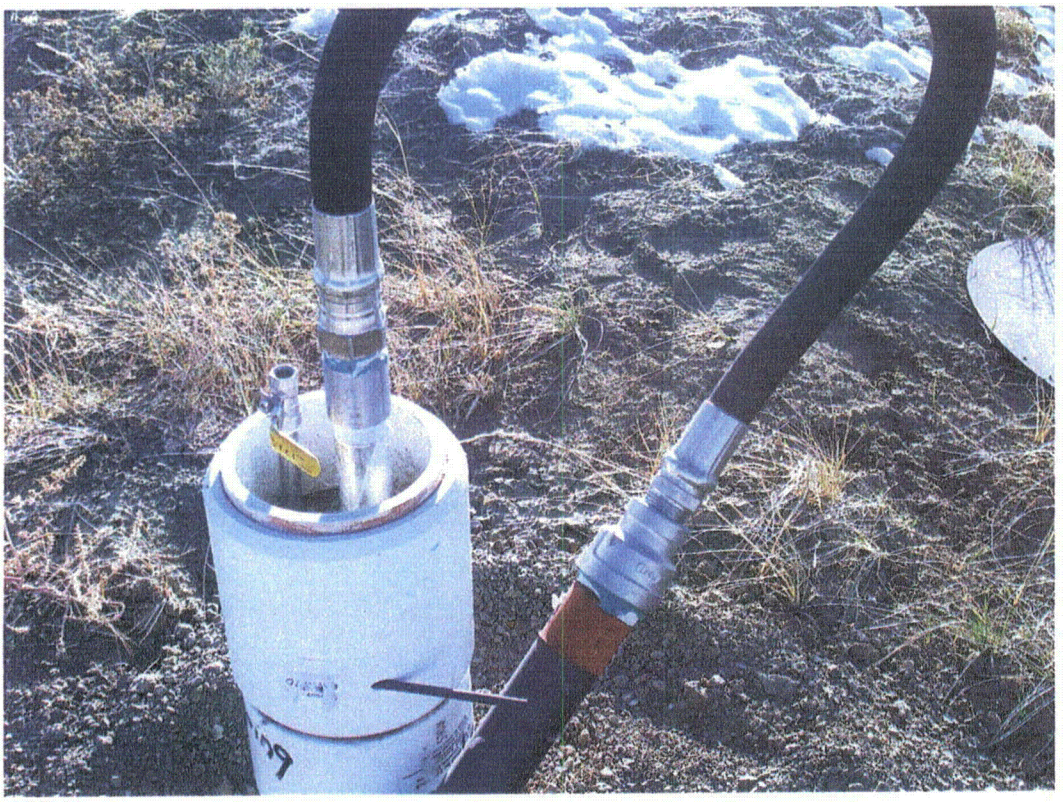

Figure 2 Replaced cracked coupling at EI-287A

Figure 3 Soil cleanup at HH-15-20

Figure 4 Excavation of soil in the clean-up area of HH-15-20