



Department of Environmental Quality

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



Dave Freudenthal, Governor

John Corra, Director

February 21, 2010

Mr. Angelo Kallas
Cameco Resources, Inc.
PO Box 1210
Glenrock, WY 82637

Subject: January 2010 Inspection Report, Cameco Resources, Permits 603 and 633

Dear Mr. Kallas:

Please find enclosed the above referenced report. The January inspection was conducted by me and Steve Ingle with assistance from your staff. The emphasis of the visit was on discussion topics as noted in the report. The Land Quality Division intends to increase field inspection time over the next year in effort to meet the requirements for inspection of well completions as well as verify ongoing wellfield activities.

If you have any questions regarding this report please contact me at (307) 777-7048 or prothw@wyo.gov.

Sincerely,

Pam Rothwell
District 1 Assistant Supervisor
Land Quality Division

cc: Joe Brister, Cameco Resources, Lakewood, CO
Douglas Mandeville, NRC

ec: Steve Ingle, LQD



JANUARY 2010 INSPECTION REPORT DISTRICT 1/LAND QUALITY DIVISION

COMPANY: Cameco Resources (CR), Highland Ranch, Permit #603
& Smith Ranch, Permit 633

LOCATION: North of Glenrock, off Ross Road

DATE OF INPECTION: January 29, 2010

INSPECTORS: Pam Rothwell, LQD Permit Coordinator
Steve Ingle, LQD Hydrologist

COMPANY REPRENTATIVES: Dawn Kolkman, EHS Coordinator
Angelo Kallas, EHS Manager

INTRODUCTION

The focus of the unannounced inspection incorporated a list of discussion topics as well as observation of well completions. The operator provided available staff throughout the day to address questions and to escort inspectors to field sites.

DISCUSSION

Update of Wellfield Activities – provided by Craig Haiser, Production Foreman

- Producing in wellfields H, I, J, K, 15, 15A, 9, 2 and 3
- Restoration activities in wellfields
 - C, D and 1 (all in RO)
 - E & F (pumping to maintain bleed)
 - D-Extension (infrastructure in place for restoration- pumping ?)
- Standby operations in wellfields 4 (pumping), 4A (not pumping – may expand production in future)
- Delineation drilling in wellfields 7 and 10
- Wellfield development in wellfields 3 (additional HH), 9, K-North, 15A
- Undeveloped wellfield – J-Extension
- Pump Test & Baseline Collection in MU 27 (Reynolds Ranch)

J-Wellfield Spill (occurred January 29, 2010)

The total spill volume of 220 gallons was under the minimum reportable requirement which is 420 gallons, however, CR reported it because the fluid ran into a drainage. A pop-off valve failed to re-seat when a piece of circulating poly pipe plugged the valve. The daily wellfield inspector found the spill and reported it immediately. Approximately 1800 ft² was affected. A water sample was not taken due to the minimum available fluid and rapid absorption into the soil. The water quality of the spill will be based on the

laboratory results of the injection fluid at the time of the spill. A report will be sent to LQD according to the requirements

NOV Docket 4231-08 – Settlement Agreement Condition 12/24

Required production values for the time period specified in the Settlement Agreement were provided on unofficial format. Pam asked for a signed statement verifying the annual average production did not exceed 2,000,000 lb/annually from the date of the Settlement Agreement final signature to March 1, 2009. It was agreed upon and will be sent to LQD to abate the requirement.

NOV Docket 4598-09

The Settlement Agreement was finalized and signed by CR on 1/27/10. John Corra signed on 1/28/10. CR provided copy of the screen display for the excursion at CM15 on September 22, 2010 showing the right-hand column bold red box indicating an excursion. In addition to the bold red boxes, the numerical values that exceed the upper control limits are shown in bold red text. The display is incorporated into the *Daily Monitor Well Report* that is routed to supervisors in the Operations and Restoration departments at the mine.

Well Completion Requirements (WR&R Chapter 11, Section 11(b))

Pam provided discussion of the requirements for enforcement of this regulation and advised that Cameco will need to provide completion information prior to using new injection wells. LQD is considering options of evaluating the extensive drilling activities at CR including a percentage of on-site completion inspections and a percentage of records evaluations.

Mine Unit C Restoration – provided by Toby Hewitt and Jim Clay

CR has restarted reverse osmosis (RO) as the selenium levels are now reduced to baseline. Toby Hewitt reported selenium at 0.8 mg/L. Bioremediation was discontinued in November 2009 with circulating fluids continuing since that time. Internal evaluation of the project led to the decision to restart RO. Pam requested an update and final report for TFN 5 6/97 for LQD review and concurrence of the next stage of groundwater restoration. CR said they could provide a final summary of the project with a proposal for final restoration including a schedule. Pam requested all sample results not already submitted to the TFN be included in the report.

Radium Pond Reclamation

Pam requested an update on the status of the plans for the reclamation of the radium pond. CR has put the reclamation into the 2010 budget and ordered a spot scanner with a discriminator to allow CR to conduct soil testing in the field. This will help narrow the sampling requirements during excavation of the soils. LQD has requested a reclamation plan for the ponds. Angelo will check on the status.

Deep Disposal Well Status

Morton workover is completed
Vollman workover in progress –may need recompletion or offset
SRHUP #6 – drilled and cased, plan to begin using in February 2010
SRHUP#9 - drilling completed
SRHUP#10 – ready to drill, waiting on approval of surety

TFN 5 2/142 – Mine Unit D New Restoration Wells

CR has drill rigs on standby to begin this activity and is waiting for approval from LQD to proceed with plugging the original wells and drilling new wells in a new completion zone. LQD has expedited the review for this TFN with comments sent on January 22, 2010. LQD agreed to review the responses as soon as they are sent. Toby explained a similar request will be sent addressing Mine Unit E. Pam asked that the surety be evaluated for the additional wells as it was not reviewed for those in the D Wellfield. LQD explained the 60 day review period for permit revisions.

FIELD INSPECTION

Mine Unit 15

The inspectors observed partial completion activities in Wellfield 15A. Under-reaming was completed at the first drill site observed. The driller was running casing and placing spacers at 40 feet intervals. The next step for this well is cementing the hole around the pipe, followed by running a cutter into the pipe to open up the production zone followed by installation of the screen. A cutter tool was observed (**Figure 1**). A second drill site was on lunch break with the screen/packer ready to be installed (**Figure 2**).

The observation/inspection of completion activities will continue with future inspections according to the Chapter 11 requirements, however, inspections will be opportunistic as the process is a moving target and difficult to predict what phases of completion are ongoing at any one time of inspection.

It was noted that topsoil is no longer being placed in piles adjacent to the drill locations where it had previously been subject to contamination from the spoil material and often run over by drill traffic. The topsoil is now salvaged for localized areas of drilling into larger stockpiles (**Figure 3**). The topsoil pile had the required sign, however was not seeded or protected with a toe ditch. The salvaged topsoil appears to be bladed to remove the vegetation. The depth of salvageable soil for the area was not known.

PHOTOS



Figure 1 Cutting tool used to open poly pipe production zones where screen will be installed.

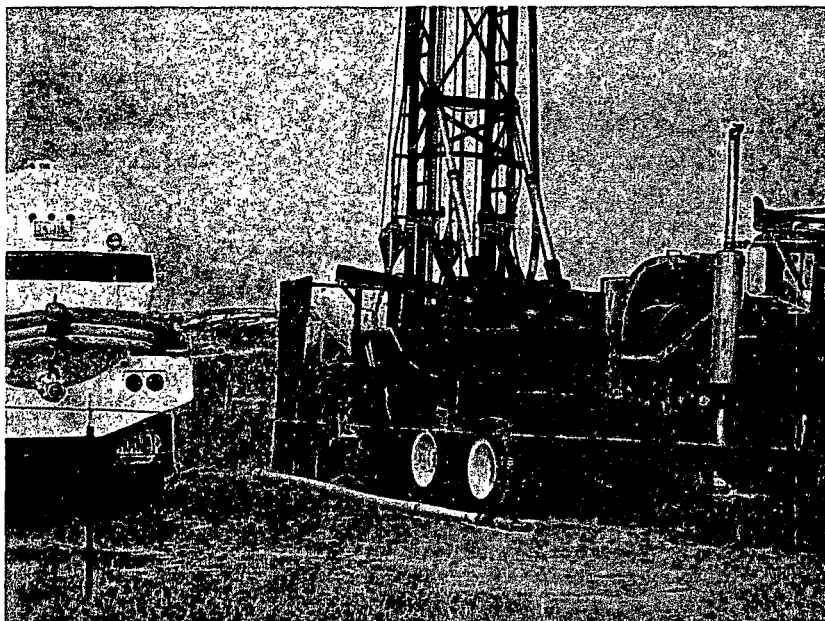


Figure 2 View of drill rig with next strand including the screen interval and packer ready for installation.

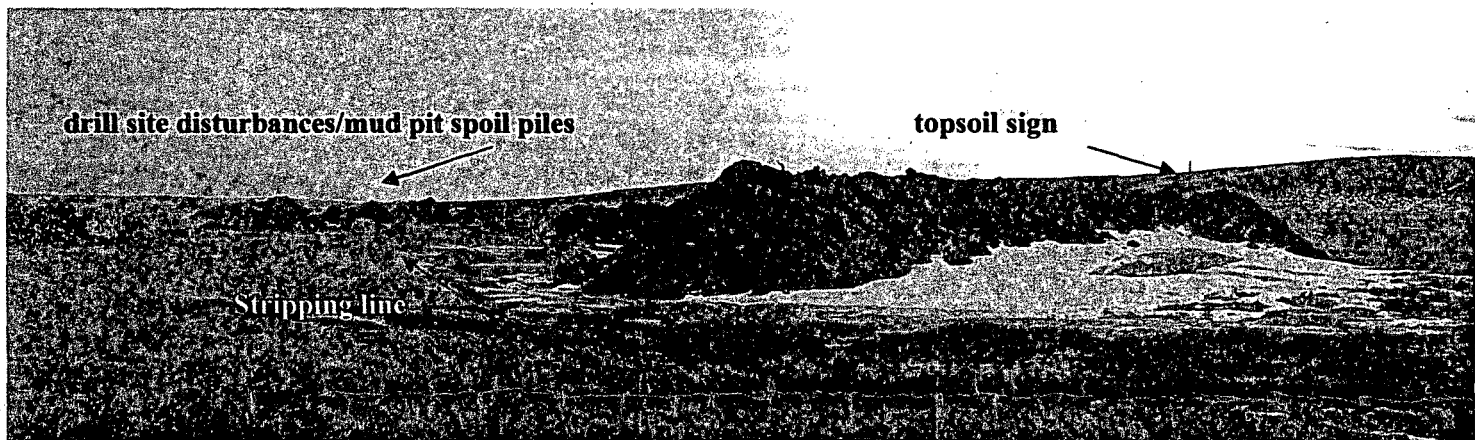


Figure 3 Topsoil salvaged from localized disturbance area of wellfield development

COMPLIANCE/ASSESSMENT

- 1 The savaged topsoil appears to be bladed to remove the vegetation. The inspector verified the depth of topsoil for the area inspected (Permit 633, Appendix D-7). The soils survey indicates soil depths in Section 11 T35N R74 are generally 3-5 inches. CR should ensure all topsoil is being salvaged.
- 2 Topsoil stockpiles constructed for local disturbances occurring during wellfield development require protection measures according to Noncoal Rule and Regulations Chapter 3, Section 2(c)(i)(B). CR is not providing a quick growing cover of vegetation as the piles are typically reapplied within a year. However, to minimize loss of soil during heavy runoff events and to keep mine traffic from encroaching onto the piles a perimeter toe ditch is required to contain the soil. **Please construct a toe ditch around the topsoil stockpiles during construction of all new topsoil stockpiles.**