LKS

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

July 28, 2012

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

Subject: June 2012 Inspection Report
Cameco Resources, Permits 603 & 633

Dear Mr. Garoutte:

The Land Quality Division (LQD) conducted the June 2012 inspection with assistance from you and your staff on June 14, 2012. Please find the inspection report enclosed.

As a result of the inspection, there is potential for violations that will need additional information provided to the LQD. Please find the inspection report enclosed with the information requests in the *Compliance and Assessment* section of the report. The information is requested **within 90 days** for further evaluation of compliance.

If you have any questions, please do not hesitate to contact me at pam.rothwell@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
Doug Mandeville, NRC

JUNE 2012 INSPECTION REPORT

PERMITS 603 & 633

COMPANY:	Cameco Resources
LOCATION:	North of Glenrock, Converse County (Smith-Highland Ranch Uranium Project)
DATE OF INSPECTION:	June 14, 2012
DATE OF REPORT:	July 12, 2012
INSPECTORS:	Pam Rothwell, Permit Coordinator
CO. STAFF PRESENT:	Ken Garoutte, Cameco SHEQ Manager Dave Moody, Cameco, Wellfield Operations Manager Craig Hiser, Wellfield Development Supervisor

INTRODUCTION

Focus of Inspection

- Review well completion records and conduct a field inspection of the completed wells in MU-D (approved under separate report).
- Observe status of Mine Unit F and Mine Unit 9 (Header House 1)

INSPECTION

MU-D Well Completion Inspection (Chapter 11, Section 11(h))

Three wells were installed as pumping wells to draw mining fluids that have been on excursion, back into the wellfield. A records review of the well completion reports, casing reports, mechanical integrity reports and geophysical logs was completed to evaluate the requirements for well construction according to Chapter 11, Section 6. A field inspection was completed of the post well construction status including well placement location, necessary surface and channel stabilization, protection of the well from surface runoff and evaluation of the annulus, i.e., fall back of the seal. The wells were deemed acceptable by LQD with formal authorization to use the wells sent to CR on June 29, 2012.

MU-F

Activities in the wellfield are focused on plugging failed wells and refurbishment of pipelines, bell holes and associated header houses. The number of bell holes is being reduced from five (5) down to (2) for better control of the operation. Apparently, there were leakage issues in the infrastructure which resulted in discontinued mining in the wellfield many years ago. The steel pipes and flanges in the bell holes were thought to be a cause of the leaks. The steel pipes are

being replaced with poly-pipe. As the injection and production wells are tested (MIT), they may be plugged if they fail testing or repaired for restoration activities. Additional mining is being evaluated in the wellfield where approved patterns were not mined in the past. The wellfield is very extensive with 38 header houses (pattern areas). The status of mining activities in the wellfield was observed by visiting several of the header houses on the east side of the wellfield. Many of the header houses are not operational with the pipes and connections stripped out **(Figures 1-4)**. There are a few patterns with some production continuing with low flow rates **(Figure 5)**. Cameco states they are evaluating refurbishment requirements for additional mining or restoration in the wellfield. A $32,000 bond is included in the surety for each header house requiring refurbishment. The following summarizes the header houses that were inspected:

Header House	Inspection Date	Observations
HH-F-1	6/14/12	New headers, upgraded PLC (programmable logic controller), for further production or restoration. Wells have been routered off, removing flange-replacing w/ certainteed O-ring seal
HH-F-5	6/14/12	Working on pipeline refurbishment in the area
HH-F-6	6/14/12	Stripped out, evaluating for additional mining or restoration, bonded for refurbishment
HH-F-8	6/14/12	Same as HH-F-6
HH-F-9	6/14/12	Not installed
HH-F-11	6/14/12	Very old used in earlier mining, stripped
HH-F-12	6/14/12	No bleed, shut off, stripped
HH-F-13	6/14/12	No bleed, shut off, stripped
HH-F-14	6/14/12	No bleed, shut off, stripped
HH-F-15	6/14/12	No bleed, shut off, stripped
HH-F-16	6/14/12	Producing, 9 producers, 21 injectors, 125gpm
HH-F-18	6/14/12	Producing, 12 patterns, 125gpm
HH-F-19	6/14/12	Producing, 9 patterns, 125gpm
HH-F-20	6/14/12	Producing
HH-F-21	6/14/12	Producing
HH-F-44	6/14/12	Stripped out, on list to refurbish
HH-F-46	6/14/12	Shut down, no bleed, not stripped

Casing Leak Testing

The consultants (Telesto) contracted to investigate the wellfield leakage issue in Wellfield F were taking samples at the shallow wells 322 and 323. There are issues with slow recharge making it difficult to obtain a sample.

Monitor Wells Not Sampled Due to Raptor Activity

The hawk nest area where sampling was discontinued was observed. There was no indication that the nest was in use. CR stated that the birds had fledged. Cameco is resuming sampling activities at the wells in question.

MU-9

Erosion Control

The slopes along the drainage through the wellfield were receiving maintenance during the inspection including bio-mats to stabilize the slopes and to enhance the vegetation (Figure 6).

Undeveloped Header House No. 1

The area that has been identified as in a Notice of Violation due to disturbance outside of the permit boundary was re-evaluated to determine whether any well installations, other than the monitor wells used for the pump test, were located outside the permit boundary. The Trimble GPS was not operational upon inspection. The operator agreed to recruit their professional surveyor to delineate the permit boundary on a map with the well locations for wells in question.

During observation of the water supply pond (Figure 7) it was discovered that there were additional wells installed to supply the pond. Those wells were approved by the State Engineer's Office and are permitted by the landowner (Figure 8).

COMPLIANCE and ASSESSMENT

1 The inspection of the header houses in Wellfield F provided insight into the extent of the casing leak issues identified in the Administrative Order issued in August 2000. It became apparent during the inspection that not only were many wells identified with casing breaks and joint failures through the Administrative Order, but also, many pipelines and bell holes were affected with many infrastructure failures requiring replacements. This is a potential violation of the Noncoal Rules and Regulations (R&Rs), Chapter 11, Section 9(a)(iv) which states, *"The operator shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the operator to achieve compliance...Proper operation and maintenance includes effective performance..."*.

Therefore, it is requested that CR conduct an investigation of the affected soils and subsoils associated with the infrastructure failures and provide soil analysis and a report of the subsoil and soil testing associated with pipeline and bell hole failures where mining and production fluids were transported through the facilities that were found to have failed. A plan for the investigation should be provided to LQD for review within 90 days of receipt of this report.

2 There are numerous header houses in Wellfield F that indicate a bleed is not being maintained to control the fluids of the mining zone in many pattern areas. This is indicated where the header houses are stripped of pipes and connections to the wellfields. The Noncoal Rules and Regulations (R&R), Chapter 11, Section 11(d) states, *"No operator shall construct, operate, maintain, convert, plug, abandon, or conduct any other injection or mining-related activity in a manner that allows the movement of fluid containing any contaminant into zones or intervals other than those authorized in the approved permit..."* A review of the excursion history in the wellfield indicates two confirmed excursions; one in 2002 and one in 2009. If these excursions were the result

of failure to maintain the bleed in the wellfield, they could be perceived as violations of this regulation.

The R&Rs, Chapter 11, Section 9(a)(iv) states, *"The operator shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the operator to achieve compliance...Proper operation and maintenance includes effective performance...".*

The lack of operational and maintained facilities through the life of the wellfield is considered a violation of these citations. **CR should provide a detailed plan for all pattern areas and header houses within Wellfield F. This plan must be submitted within 90 days of receipt of this report.** The annual reports have not provided sufficient detail to evaluate the status of patterns or header houses in operation. Upon receipt of the report, LQD will evaluate the operational status of all of the header houses for compliance with the regulatory requirements.

In recent years, LQD has identified delays in the restoration of many wellfields, followed by the discovery that the wellfields need refurbishment to proceed with restoration. Next it was learned that CR needed to re-evaluate the production status in MU-F and decide whether additional production would be pursued or whether the wellfield would be restored. These evaluations appear to be further delaying restoration progress. Therefore, CR will need to provide the requested report for LQD to understand the intent to restore the wellfield as well as remain in compliance with the above referenced citations.

3 LQD has requested that CR discontinue the practice of missing sample events and develop remote monitoring practices to avoid missed samples (review of 4th Quarter Monitoring Report). Observation of the nest site reported to be used for a Swainson Hawk was not in use nor was there evidence of recent use. It was not apparent that there was a valid reason to discontinue sampling at five monitor wells in the area.

4 A Notice of Violation, Docket No. 4988-12 was issued for disturbance outside the permit boundary and for unpermitted (LQD) use of water in the minig operations (water supply pond and wells). The violation was identified during the May 2012 inspection. Further inspection of the area was conducted to determine whether any of the wellfield unit injection or production wells were located outside the permit boundary. CR agreed to submit a professional survey of the boundary and wells near the boundary on a map. LQD also discovered additional wells were installed to supply the water supply pond. The map was provided to LQD on June 26, 2012. Cameco's practice has been to rely on the landowner for the appropriate permits for the water supplies used in the operation. The source, quality and quantity requirements of the Wyoming Environmental Quality Act have not been addressed in the permit. The additional wells found during the inspection, although not identified in the Notice of Violation will be addressed in the Settlement Agreement.

PHOTOS

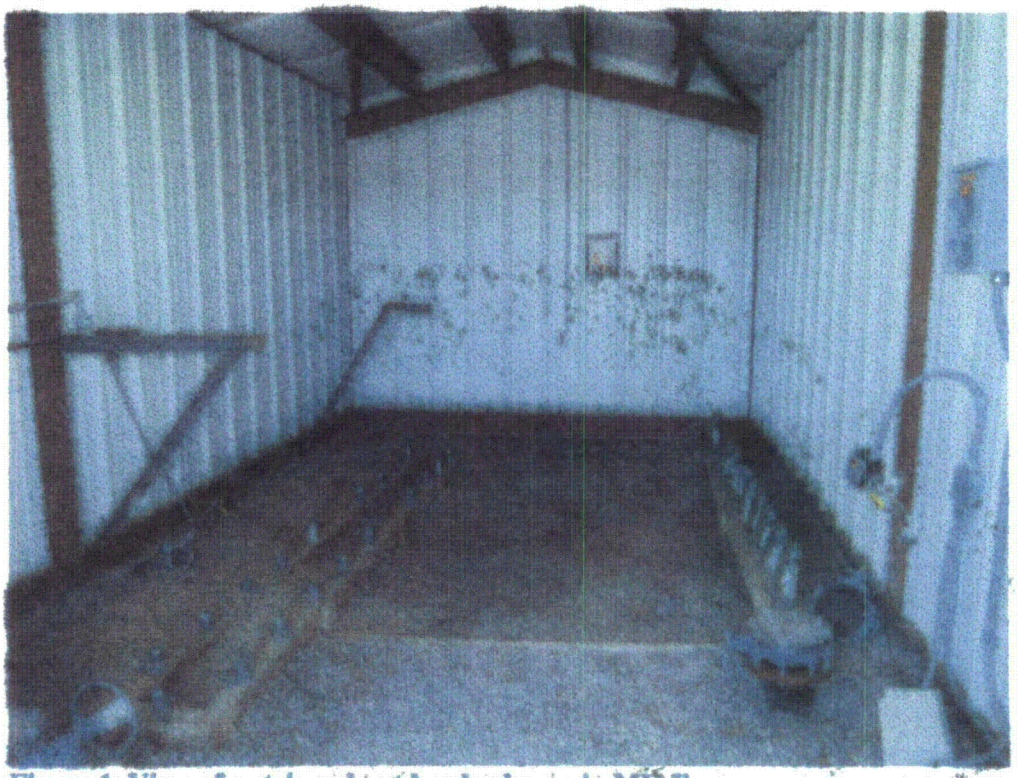

Figure 1 View of a stripped out header house in MU-5

Figure 2 View of a stripped out header house in MU-F

Figure 3 View of a stripped out header house in MU-F

Figure 5 View of a header house in MU-F showing connections to the wellfield pattern for production

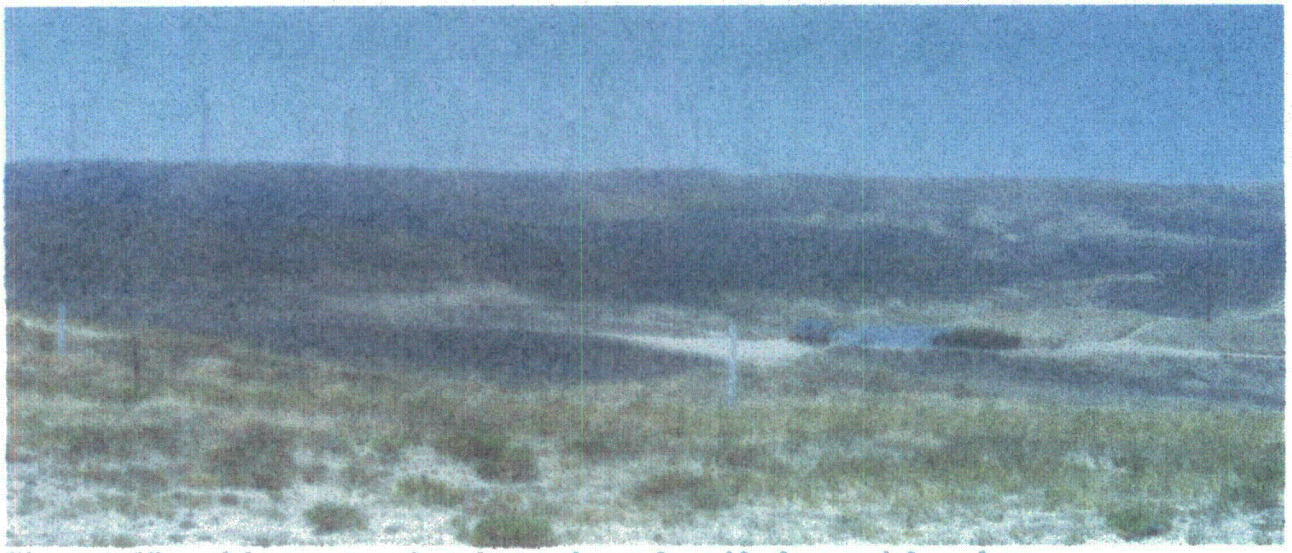

Figure 6 View of the water truck at the supply pond outside the permit boundary

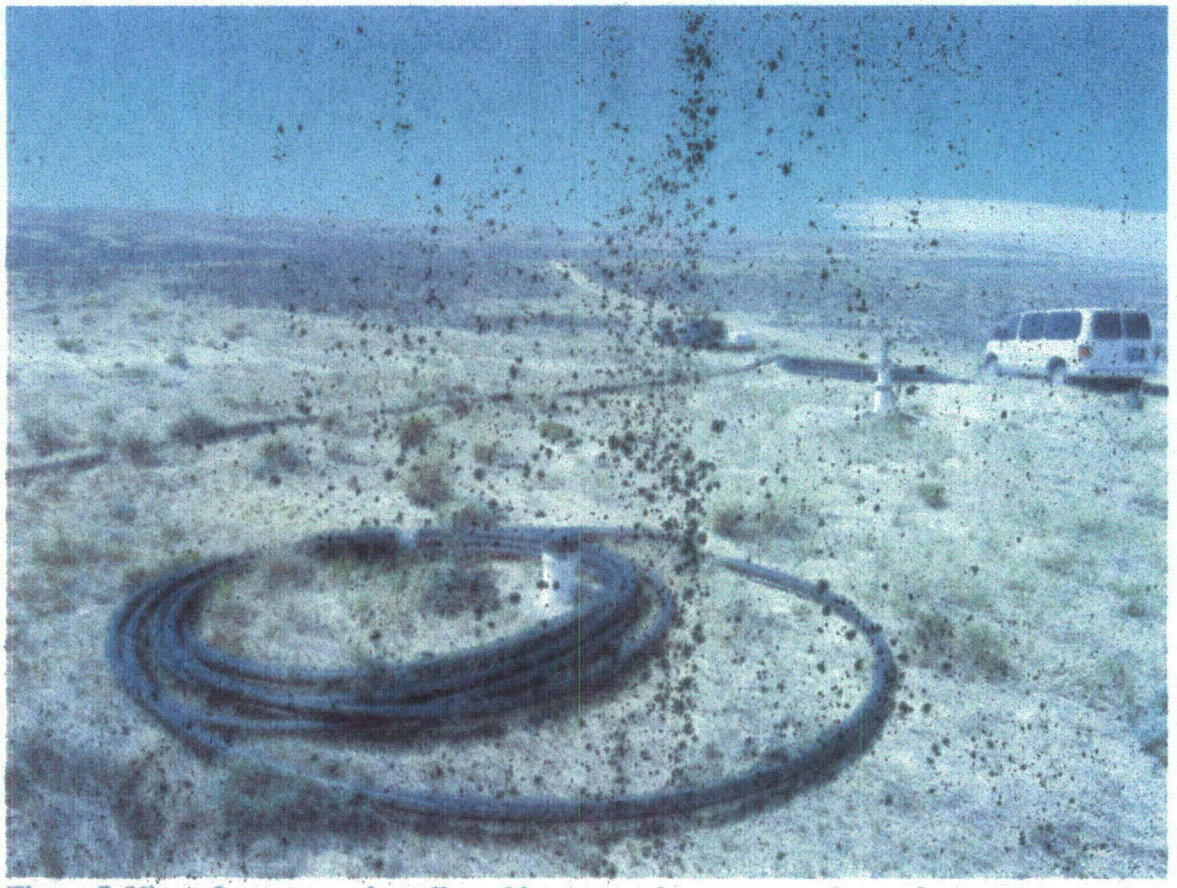

Figure 7 View of water supply wells and hose near the water supply pond