Cameco

CAMECO RESOURCES
Smith Ranch-Highland Operation
Mail:
P.O. Box 1210
Glenrock, WY
82637 USA

Tel: (307) 358-6541
Fax: (307) 358-4533
www.cameco.com

21 August 2008

Mr. Lowell Spackman, District 1 Supervisor
Land Quality Division
Wyoming Department of Environmental Quality
Herschler Building
122 West 25th Street
Cheyenne, WY 82002

Re: Mine Permit No. 633; Smith Ranch-Highland Uranium Project (SR-HUP):
Release of Solutions Report pursuant to WDEQ-LQD Non-Coal R&Rs, Chapter 11, §12(a)(ii)(A-D), Mine Unit K Injection Trunk line to Header House K-6, 17 August 2008

Dear Mr. Spackman:

As reported to Mr. Steve Ingle and Ms. Pam Rothwell of the Wyoming Department of Environmental Quality, Land Quality Division (WDEQ/LQD), and Mr. Doug Mandeville, NRC Project Manager, via e-mail and/or phone 18 August 2008, Power Resources, Inc. dba Cameco Resources had a release of injection water at the Smith Ranch-Highland Uranium Project (SR-HUP) in Converse County, Wyoming (reported per WDEQ-LQD Non-Coal R&Rs, Chapter 11, §12(a)(i) et seq. As a matter of standard practice, Mr. Joe Hunter of WDEQ-WQD was notified by phone. Approximately 7,965 gallons were released from the Mine Unit K injection trunk line to Header House K-6; 450 gallons of the spilled solution were recovered and transferred to the Smith Ranch evaporation pond for ultimate disposal through the deep disposal injection well.

The leak was detected at approximately 1:00 am on Sunday 17 August 2008 by a Satellite Operator; the duration of the spill event was estimated at approximately 30-40 minutes. The Operator saw a sudden change on the graph (computer screen) at Satellite #3, reported the observation at 1:00am, and immediately went to the field, found the problem, and isolated the pipeline by shutting down the trunk line. A vacuum truck then recovered 450 gallons of spilled solution, which was transferred to an evaporation pond for deep disposal. The apparent cause of the leak was a fuse joint failure on the trunk line.

The solution spill was contained within a topographical bowl, and did not threaten or enter the waters of the State. A fluid sample of the spilled solution was collected, and was sent to Energy Laboratories for analysis of uranium, radium 226, selenium, and arsenic. The preliminary analytical results reported that the uranium concentration of the solution was 1.4 ppm (per on-site laboratory). Soil samples were collected at representative areas at 0-2", 2-6" and 6-12" for analysis (see attached map; K-1 through K-4 were taken within the spill area; K-5, outside the area of the spill, was taken for background). A gamma survey was performed across the spill area at each of the soil sample sites. The sample points for soils and gamma radiation are located on the attached

map, which also gives the gamma readings in microrems (μR). Readings from the spill area were 20 μR; a background reading at K-5 showed 15 μR, a negligible difference. The fluid is not considered hazardous material under RCRA and is not reportable under SARA.

Power Resource's Spill Committee meets monthly and after each spill to discuss preventive measures to minimize the potential of releases from Smith Ranch-Highland operations, and to assess and make recommendations to potentially mitigate re-occurrences. The Spill Committee convened today (Thursday 21 August) to discuss this spill, among other matters, to review this spill investigation with Committee members. The results from that meeting are included in the attached report. Any further potential remedial actions will be based upon analysis of soil sample data when received.

In accordance with Chapter IV, Section 4(a)(iv) of the Water Quality Division Rules and Regulations, attached is a report describing the release and the steps taken, or planned to be taken, to prevent a recurrence of an event of this nature. A formalized version of the field map is also included in this package.

Please call if me at (307) 358-6541 ext. 46 if you have any questions.

Sincerely,

John McCarthy
Manager-Environment, Health and Safety, RSO
Cameco Resources, Smith Ranch Highland Operation
Attachments

Cc: Doug Mandeville – NRC Project Manager
File HUP 4.3.3.1
File SR 4.6.4.2
B. Johnson
Tom Cannon
S. Miller
C. Foldenauer
File SR 4.6.4.4
Joe Hunter – Water Quality Division
M. Bryson
S. Bakken

Attachment

Power Resources, Inc
Smith Ranch-Highland Uranium Project
URANIUM IN SITU FLUID RELEASE REPORT

Production Fluids

A. DESCRIPTION OF THE EVENT AND MITIGATIVE ACTIONS TAKEN

On 17 August 2008 at approximately 1:00 am, a Satellite Operator reported the identification (via computer monitoring system at Satellite Station #3) of a release of injection fluid at the Mine Unit K injection 12" trunk line to Header House K-6 (see attached map). Upon discovery of the leak, the wellfield operator immediately went to the field, found the problem, and isolated the pipeline by shutting down the trunk line.

Approximately 7,965 gallons were released from the Mine Unit K injection trunk line to Header House K-6; 450 gallons of the spilled solution were recovered by a vacuum truck and transferred to the Smith Ranch evaporation pond for ultimate disposal through the deep disposal injection well. The solution spill was contained within a topographical bowl, and did not threaten or enter the waters of the State.

A fluid sample of the spilled solution was collected, and was sent to Energy Laboratories for analysis of uranium, radium 226, selenium, and arsenic. The preliminary analytical results reported indicated that the uranium concentration of the solution was 1.4 ppm (per on-site laboratory). Soil samples were collected from the affected surface at 0-2", 2-6" and 6-12" intervals (K-1 through K-5), and a gamma survey was performed across the entire spill area using the same sample points. Readings from the spill area were 20 μR; a background reading at K-5 showed 15 μR, a negligible difference.

The release occurred in a Mine Unit K injection trunk line, and affected approximately 1.55 acres.

B. CAUSE OF THE RELEASE AND THE STEPS TAKEN TO PREVENT RECURRENCE

Cause

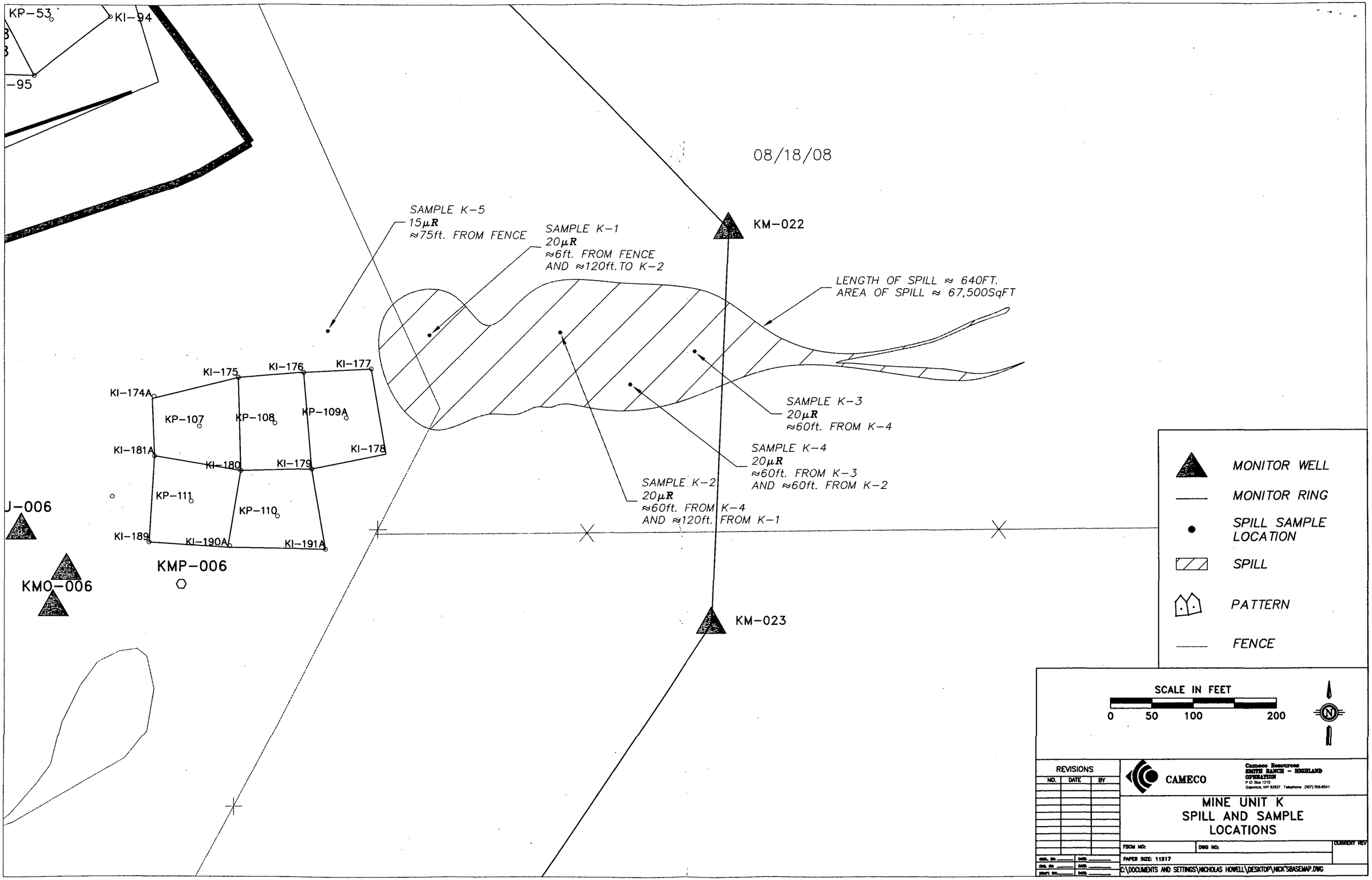
The leak occurred subsequent to an attempt to fix a surfaced trunk line by excavating, and then cutting the line, and fusing with a fusible coupling. The apparent cause of the leak was a fused joint failure on the trunk line that occurred after the repair. The fusible coupler union was not properly completed.

During fusion, the electrical generator shut down prematurely, and the joint weld was incomplete. The crew then restarted the fusion process after restarting the generator, thinking this was acceptable and proper, and completed the fusion process. This apparently may not be acceptable or appropriate procedure (i.e., to restart weld procedure in the middle of the process). See recommendations in following section.

Recurrence Prevention

Cameco Resource's Spill Committee members met this morning to discuss this spill and recommend any corrective actions that could be taken. The following items came out of the Committee's meeting:

- Call manufacturer (CFC) of fusing device out here to give advice and further training on use of the fuser;
- Do not attempt to continue or reinitiate fusion after fusion process has been interrupted. Must install new fusible coupling after such an occurrence. We learned here that the fusible coupler is a one-use device;
- Only use fusible couplers where absolutely necessary, and where visible, e.g., bell holes, plant, etc.;
- All fusible couplings that are currently buried shall be excavated and "potted", or poured in concrete.



REVISIONS		
NO.	DATE	BY

CAMECO

Cameco Resources
SMITH RANCH - HIGHLAND
OPERATION
P O Box 1210
Glenrock, WY 82637 Telephone (307) 358-6541

MINE UNIT K
SPILL AND SAMPLE LOCATIONS

FSCM NO: | DWG NO: | CURRENT REV

PAPER SIZE: 11X17

C:\DOCUMENTS AND SETTINGS\NICHOLAS HOWELL\DESKTOP\NICK'SBASEMAP.DWG