



VIA EMAIL

February 8, 2012

Phyllis Beaulieu  
Manager of Licensing  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven NU, X0B 1J0

Dear Ms. Beaulieu:

**Re: Response to Comments Received on Review of Request to Amend NWB Water Use Licence 2BE-KIG0812 to Authorize Drilling During Low Flow Artesian Conditions.**

This letter is submitted in response to the comments made by Environment Canada (EC) and Aboriginal Affairs and Northern Development Canada (AANDC) on AREVA Resources Canada Inc's (AREVA) request to amend the Nunavut Water Board licence 2BE-KIG0812, to authorize drilling during low flow artesian conditions on the Kiggavik Lease. For ease of your review, the comments have been reproduced below in italics followed by AREVA's response.

*EC would like to know the proponent's sealing and capping procedures used when containing artesian flow. (EC)*

The sealing and capping procedures depend on the conditions of the artesian. The casing is left in the borehole below ground level and a plug is placed inside to prevent water flow. The plug may be a pine plug which naturally expands to constrict water flow or a plug used by the drill contractor for other uses i.e. wedging. Cement is poured above the plug for additional sealing. If the water flow has not stopped using this method a metal cap is welded to the top of the casing. A post drilling inspection is also completed to ensure there is no further water flow from the borehole.

*The proponent shall ensure that they have the capacity to contain the volumes of water being drilled, and prevent the induced contamination of groundwater or salinization of surface waters if saline conditions are encountered. The proponent shall ensure that the water is contained and not allowed to migrate into fish bearing waters unless it is proven to be non-deleterious. Surface erosion must be prevented. (EC)*

All water will be pumped to a natural low lying depression where sandbags may also be used to ensure the capacity is suitable to contain the volume of water being drilled. Surface erosion is prevented by pumping the water directly from the drill casing and trench or the drill tubs to the low lying depression. AREVA will conduct daily inspections to ensure the water is properly contained and not migrating to fish bearing waters. The drill contractor will be made aware of all AREVA expectations and NWB licence conditions. Drilling will be halted and the drill hole immediately capped and permanently sealed to prevent surface erosion and surface water contamination if:

- The natural low lying depression is unable to contain the volume of water produced by the artesian.
- Water from the artesian is at a rate which exceeds pumping capabilities (estimated to be >95 L/min).

*The proponent shall report all artesian flow occurrences including the GPS coordinates, dates, artesian flow rates, depth of permafrost, and aquifer data within their Annual Report. (EC)*

AREVA will continue report all artesian flow occurrences and associated data within the Annual Report.

*Water Samples shall be taken at each borehole where artesian flow is encountered and analysis results forwarded to the NWB as stipulated in the Water License. The proponent should establish background water quality levels above and below the proposed amended area prior to drilling. (EC)*

Water samples will be taken at each borehole where artesian flow is encountered and the analysis results will be forwarded to the NWB. Background water quality levels were established during the aquatic baseline studies conducted on the Kiggavik Lease between 2007 and 2010.

*The AANDC Water Resources Division suggest that if AREVA decides to drill within 20 meters of the ordinary high water mark of the Andrew Lake and Mushroom Lake areas in the future than another amendment application be submitted to the NWB for review if the above request in amendment No. 5 is removed. (AANDC)*

Should AREVA decide to drill within 30 meters of the ordinary high water mark of the Andrew Lake and Mushroom Lake areas in the future a new amendment application will be submitted.

*The AANDC Water Resources Division suggests that the proponent be required to continue following all the terms and conditions of their Type 'B' water licence if they are allowed to drill*

*during low flow artesian condition in all areas of their project area. Specifically, the conditions outlined in Part F, Item 6 which pertains to artesian flow conditions must be followed. (AANDC)*

AREVA will continue to seal and permanently cap all boreholes with artesian flows immediately upon completion of borehole. All artesian flows will be reported in the Annual Report including GPS coordinates and dates.

*AREVA should ensure that all water encountered from an artesian flow be analyzed to confirm the age of the water (i.e. pre-glacial vs. regional, recent flow) and the water quality including salt and metal contents. These analyses will help improve the understanding of the source of the water and prevent potential complications which may arise should the source be confirmed to be regional flow (i.e. draining of connecting lakes, aquifers, potential ground water contamination, etc) and release of poor quality water to the surface. (AANDC)*

Water from artesian flows will be sampled and analyzed for the above parameters. Water analysis results will be included in the annual report.

Please feel free to contact me should you have any further questions, comments or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kim Jackson'.

Kim Jackson

Environment and Radiation Protection Supervisor

Kiggavik Project, AREVA Resources Canada Inc.

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