



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee Areva Resources Canada Inc.		Licensee Representative Brad Pohler	
Licence No. / Expiry 2BE-KIG1318/ June 13th, 2018		Representative's Title SHEQ, Supervisor	
Land Authorization No. / Purpose / Expiry N2014C0001/ Drilling, Fuel Storage, Resupply/ May 29th, 2016		Land Authorization Expiry KVL306C02	
Date of Inspection July 23 rd , 2015		Inspector WRO Wilson	
Activities Inspected <input checked="" type="checkbox"/> Camp <input checked="" type="checkbox"/> Drilling <input type="checkbox"/> Mining <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Reclamation <input type="checkbox"/> Fuel Storage <input type="checkbox"/> Roads/Hauling <input checked="" type="checkbox"/> Other: Sump <input type="checkbox"/> Other: Spills			

Conditions:		A - Acceptable	C - Concern	U - Unacceptable	NA - Not Applicable	NI - Not Inspected
Water Use	Condition	Comment	Site Conditions	Condition	Comment	Haz/Mat Management
Intake/Screen	NI	--	Water Management Structures	A	3	Storage
Flow Measure. Device	A	1	Culverts / Bridges	NA	--	Spills
Source: Unnamed	A	--	Drainage	A	4	Spill Plan
Recirculation (y / n)	Y	1	Mitigation Measures	A	3	Administrative
Waste Disposal			Reclamation	A	5	Annual Report
Solid Waste	NI		Monitoring			Other
Waste Water	A	3	Records	A	2	
*The number in the comments field will correspond with specific comments provided below.						
Samples taken by Inspector:			Location(s): No samples were taken during this inspection			
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						

SECTION 1	<input checked="" type="checkbox"/> Comments (s.1)	<input type="checkbox"/> Non-Compliance with Act or Licence (s.)	<input type="checkbox"/> Action Required (s.)
<p>On July 23rd, 2015 a regularly scheduled compliance inspection of water licence No. 2BE-KIG1318 and land use permit No. N2014C0001 was completed by Aboriginal Affairs and Northern Development Canada's Water Resource Officer (WRO), Christine Wilson. The following report was produced with the findings from that inspection, a review of the 2014 annual report and the follow up information provided by Areva Resources Canada (also referred to as 'Areva' for the purpose of this report).</p> <p>Administrative Review</p> <p>During the July 16th, 2014 water licence inspection a spill of non-mineralized cuttings into a lake in the Bong exploration area (approximately located at 64° 24' 50.18"N, 97° 42' 24.124"W) was discovered. The cause had originally been identified as a misplacement of an excess water line into a historic non-mineralized cutting sump but in the 2014 annual report section 3.4.2 the cause is described as follows "it was determined that the excess water from the hose had not come into contact with the cuttings discharge site near the water. The material appeared to have been remobilized independently of the pump water; likely by recent heavy rains, and flowed downhill into a rocky area(...)Here, it was allowed to penetrate below the ground surface where the cuttings then traveled to the adjacent water body and were observed collecting at the water's edge". The inspector is concerned that if indeed the placement of the excess water line was not the cause of the spill but that rainfall event that cuttings may not be stored appropriately.</p> <p>On June 17th, 2015 a spill of potentially radiologically contaminated cuttings into a lake near 85W exploration area (approximate location 64°25'18" N, 97°48'17" W) was reported. The cause as described in the report titled '150618 2BE-KIG1318 7 Day Spill Report' reads as follows "return water and cuttings entered a water body after being washed down the hill due to the placement of the excess clean water line and presence of runoff water in the area. This facilitated the cuttings to migrate down the hill and enter the small water body." Areva included a section titled 'Corrective and Preventative Measures' in the report; as well as a brief discussion on future preventative measures in the report titled '17072015 Final Spill Report.pdf' section 5 'Conclusion'. The Inspector further reviewed the Spill Contingency Plan V7R3 submitted with the 2014 annual report to clarify spill prevention practices. It was noted that section 3.2 'Mitigation and Preventative Measures' was very detailed when discussing fuel handling compared to the limited information in section 3.2.10 and 3.2.11 that discuss cutting spills. The Inspector is concerned with the lack of information available in the Spill Contingency Plan regarding prevention and emergency response to cutting spills.</p> <p>Comment nine (9) of the July 16th 2014 water licence inspection report noted a concern regarding reclamation of sink holes around the drill sites. Areva addressed this concern in the 2014 annual report; section 3.7.2 Progressive Reclamation stating "where collected cuttings are non-mineralized, they are used to re-establish physical stability by levelling depressions that may have formed from permafrost thaw. Where inadequate fill material is available, excess material from the End grid discharge or gravel may be used to fill larger depressions. AREVA is currently working with local contractors on the procurement of gravel for reclamation purposes." This practice has been included in the Abandonment and Restoration Plan V5 Section 4 that was submitted with the 2014 annual report.</p>			
SECTION 2	<input checked="" type="checkbox"/> Comments (s.2)	<input type="checkbox"/> Non-Compliance with Act or Licence (s.)	<input type="checkbox"/> Action Required (s.)
<p>Observations</p> <p>Water Use</p> <p>1. Meters have been installed on the water intake lines at drill rigs to capture total water consumption.</p>			



2. The total water use records were available for review by the inspector.

Waste Water

3. Further improvements have been made to the waste water sump. The hold time with in the sump has been extended by the addition of filtration berm walls.

Site Conditions

4. The camp is built up off the ground with wooden pathways to prevent negative impacts to surface drainage.

Drilling

5. A total of seven drill sites where inspected, one of which was the sink hole site of concerns from the July 16th, 2014 inspection report. All of the sites were found to be reclaimed to the satisfaction of the inspector. The Inspector was pleased to see the changes made in the field.

Spills

6. Areva fulfills a vigorous pre and post inspections procedures of all drill sites. Some of the activities involved in the pre-drill inspection are mapping out the water use and discharge line locations as well as verify locations of old cutting sumps. The post drill inspection ensures the cutting sump locations are recorded and final reclamation activities are completed. The Inspector was satisfied with the improvements made to the drill practices but requests that Areva includes such preventative measures in a drilling specific section of the current Spill Contingency Plan V7R3. The section should contain detailed information such like section 4.2.3 Spill of a liquid Fuel to Lake Water of the plan titled '2BE-KIG1318 Spill Contingency Plan V7R3'.
7. Areva will update the AANDC contact to read Manager, Field Operations 867-975-4295 which is specified under PART H item 4 (b) of the Amendment No. 1 of the current licence.

SECTION 3

☐ Comments (s. 3)

☐ Non-Compliance with Act or Licence (s. 3)

☒ Action Required (s.3)

- Submit to the Nunavut Water Board a revised Spill Contingency Plan with the 2015 Annual Report to include the materials discussed above in comments 6 and 7.

Areva is encouraged to propose the revisions that best fit the Kiggavik project. It is the responsibility of Areva to contact the inspector to discuss changes to the action required above.

Areva Resources Canada Inc. is reminded Part f item 4;

"The Licensee shall dispose of all drill Waste, including water, chips, muds and salts (CaCl₂) in any quantity or concentration, from land-based drilling, in a properly constructed Sump or an appropriate natural depression located at a distance of at least thirty-one (31) meters from the ordinary High Water Mark of any adjacent Water body, where direct flow into a Water body is not possible and no additional impacts are created."

Licensee or Representative <i>Bradley Pohler</i>	Inspector's Name C. Wilson
Signature <i>Bradley Pohler</i>	Signature <i>Original signed on file</i>
Date <i>October 2, 2015</i>	Date October 1 st , 2015

Office Use Only: Follow-up report to be issued by Inspector

☐ Yes ☒ No

cc. Erik Allain, Manager Field Operations, AANDC
Brad Pohley, SHEQ Coordinator, Areva Resources Canada Inc.
Manager Licensing, Nunavut Water Board