



**AREVA Resources Canada Inc.**

**Kiggavik Project, Nunavut**

Monthly Wildlife Report

June 9 – June 30, 2014

# **1 Introduction**

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During the 2014 Kiggavik exploration program, wildlife monitoring has been carried out in accordance with the Kiggavik Project Wildlife Mitigation and Monitoring Plan (WMMP). One of the requirements within this plan is monthly reporting. This report covers the month of June and is the first for the 2014 field season.

## **2 Local Wildlife Monitors**

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Throughout June, AREVA employed Wildlife Monitors from Baker Lake; Timothy Evviuk, Floyd Aksawnee, John Etegyoyok, and Sam Qarliksaq. Wildlife Monitors are responsible for notifying the Project Geologist and/or Safety, Health, Environment, and Quality (SHEQ) Supervisor of approaching caribou herds and determining their distance from activities. The monitors also determine when the herds are a sufficient distance for activities to resume in the event that caribou proximities dictate a shutdown of operations. Consistent monitoring occurred throughout June, which involves the Wildlife Monitor travelling to the five height-of-land (HOL) stations around camp and occasional visits outside of camp where required. The Wildlife Monitor records wildlife sightings in log books and reports findings to the SHEQ Supervisor. The HOL locations around camp are shown in Figure 1 below. While on site, the Wildlife Monitors liaise with the SHEQ Supervisor to determine if monitoring is needed at specific locations besides the HOL locations around camp.

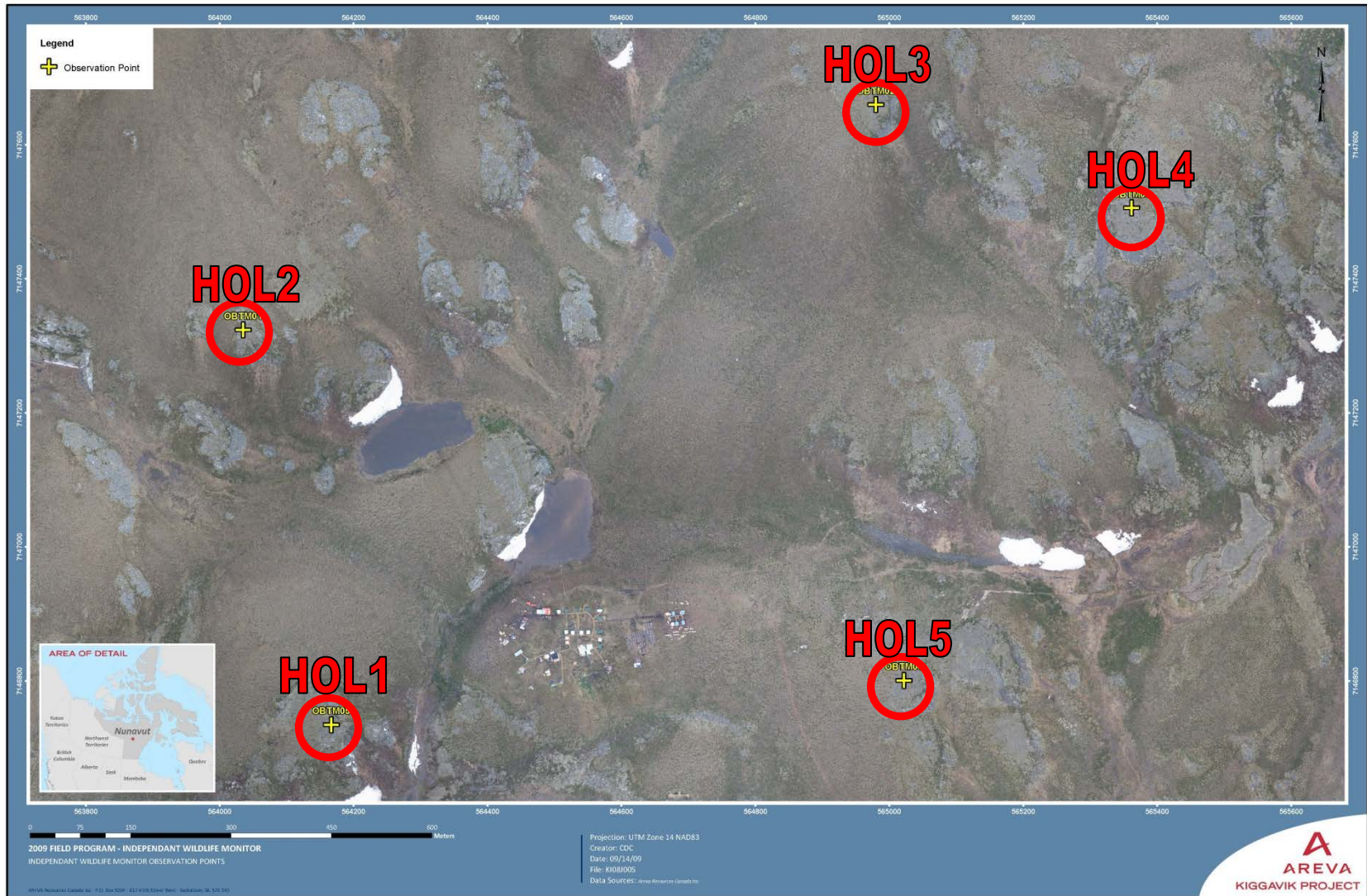


Figure 1 Wildlife Monitor Height of Land (HOL) Locations

### 3 Wildlife Sightings

Observation methods vary with sightings provided from the personnel in camp, the field, aerial flights, and the Wildlife Monitors. Sightings are recorded at various locations and transcribed into an environmental data spreadsheet as shown in the appended Table. Sighting details vary with the observer, but typically include information regarding the species observed, the number present, behaviour, location, and whether a disturbance occurred. No animals were disturbed during the month of June, and there were no raptor nest sites identified on the property; however four sparrow nests with two to five eggs were located around camp and near a drill site. Nest sites were marked off and avoided by employees following their discovery. There were a total of 38 separate wildlife sightings with a single caribou herd of approximately 1000 animals accounting for 2,000 of the 2,133 animals observed through June. Other species identified are summarized in Table 1 below.



Figure 2 Nest Site by Drill Setup

Table 1 June Kiggavik Wildlife Summary

Species	Wildlife Sightings	Total Number Observed
Arctic Fox	2	2
Arctic Hare	5	7
Caribou	13	2,070
Canadian Geese	1	2
Grizzly Bear	2	2
Lemming	1	1
Muskox	6	36
Peregrine Falcon	1	1
Ptarmigan	1	4
Sandhill Cranes	1	3
Savannah Sparrow	1	1
Siksik (Ground Squirrel)	1	1
Wolf	3	3
<b>Total</b>	<b>38</b>	<b>2,133</b>

### **3.1 Observation Methods**

Apart from the regular observations from local Wildlife Monitors, personnel record wildlife sightings as well. The appended table outlines the sightings in more detail, including the method of observation. Wildlife logs are placed in the camp kitchen, camp office and in each helicopter for ease of recording wildlife sightings. During site orientation, Kiggavik personnel are informed of the wildlife log locations and are encouraged to report all wildlife sightings.

The Kiggavik camp uses two helicopters throughout the season for transport of personnel and to provide drill support. Pilots and personnel record aerial wildlife observations from the helicopter during these regular flights. Long range flights are occasionally made between Baker Lake and Kiggavik, while short range flights are commonly made between the Kiggavik camp and drilling rigs. These flights are monitored for altitude restrictions, and pilots are informed if caribou approach the area.

The Government of Northwest Territories (GNWT) provide collaring data showing collar movements. The issuance of collar data enables proper implementation of the WMMP as a source of caribou movements.

### **3.2 Mitigation Action Taken**

As required by the Nunavut Impact Review Board (NIRB) 2007 screening decision and the WMMP, activity will be suspended when concentrations of caribou are within 2 km of drill rigs during the months of June and July, and aircraft will not take off or land within 1 km of a herd. From May 15 to July 15, operations will be suspended within 10 km of areas occupied by cows and calves. During the month of June, there were no instances requiring mitigating actions.

## **4 Flight Altitudes**

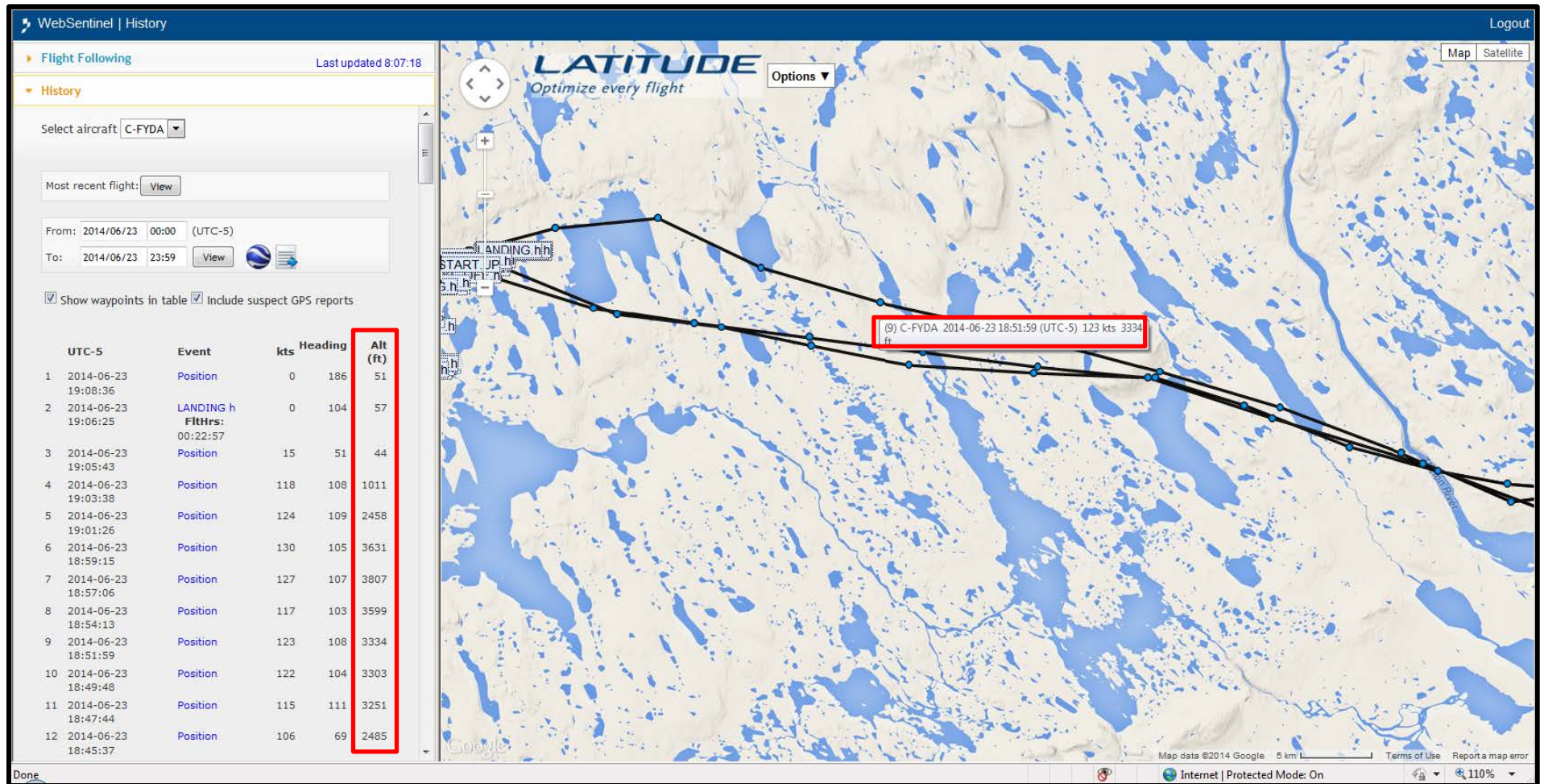
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The Kiggavik WMMP requires that long range flights be flown a minimum of 610 m (2000 ft) above ground, and short range flights be flown 300 m (1000 ft) above ground with exceptions for low-level ceiling conditions, slinging activity, or risks to flight safety. The pilots have been compliant with altitudes required for both long range and short range flights.

Through the internet based WebSentinel program, helicopter altitudes are tracked and periodically checked by the SHEQ Supervisor. The WebSentinel program allows the SHEQ Supervisor to cross reference with flight reports to ensure pilots abide by the proper altitudes. The pilots have been diligent in flying at or above the desired altitudes whenever possible with the exception of slinging requirements or low ceiling/bad weather. Baker Lake residents wishing to view the helicopter altitudes are welcome to stop by the AREVA office any time.



# APPENDIX A – Flight Altitude Check



Date	Time	Observation method	Species	Number	Behaviour	Disturbance	Cause of Disturbance	Behaviour Before Disturbance	Behaviour After Disturbance	Actions Taken to Avoid Disturbance	Physical Location	Comments
12-Jun-2014	1:12 PM	Camp Observation	Muskox	2	-	No	-	-	-	-	Behind Helipad	
10-Jun-2014	8:30 PM	Camp Observation	Caribou	2	Walking	No	-	-	-	-	Near camp	
13-Jun-2014	1:30pm	Field Observation	Grizzly Bear	1	Swimming	No	-	-	-	-	Drill 3	
14-Jun-2014	9:30 PM	Camp Observation	Arctic Hare	1	-	No	-	-	-	-	Main Zone	
15-Jun-2014	11:00 AM	Aerial	Arctic Fox	1	-	No	-	-	-	-	2 Miles South of Camp	
16-Jun-2014	9:00 AM	Camp Observation	Siksik	1	Sitting on Helipad	No	-	-	-	-	Camp Helipad	
16-Jun-2014	5:00 PM	Camp Observation	Grizzly Bear	1	Bathing in Endgrid Lake	No	-	-	-	-	End Grid	
16-Jun-2014	9:00 PM	Camp Observation	Wolf	1	Traveling around west side of camp	No	-	-	-	-	Behind Helipad	
16-Jun-2014	5:30pm	Aerial	Caribou	6	-	No	-	-	-	-	6 Miles West of Camp	
17-Jun-2014	7:10 AM	Aerial	Arctic Hare	1	-	No	-	-	-	-	West of Camp	
17-Jun-2014	4:00 PM	Camp Observation	Arctic Fox	1	-	No	-	-	-	-	Kiggavik	
17-Jun-2014	4:00 PM	Camp Observation	Siksik	1	-	No	-	-	-	-	Kiggavik	
18-Jun-2014	10:47 AM	Camp Observation	Sparrow	1	Attending Nest	No	-	-	-	-	Camp	
20-Jun-2014	11:00 PM	Camp Observation	Arctic Hare	1	Eating	No	-	-	-	-	Lone Gull	
21-Jun-2014	12:15 AM	Camp Observation	Caribou	2	Walking	No	-	-	-	-	Near Camp	
21-Jun-2014	10:00 AM	Aerial	Caribou	8	Walking	No	-	-	-	-	End Grid East	
21-Jun-2014	11:00 AM	Camp Observation	Sandhill Cranes	3	Flying	No	-	-	-	-	End Grid East	
22-Jun-2014	6:45 AM	Aerial	Arctic Hare	3	-	No	-	-	-	-	Helipad	
22-Jun-2014	12:35 AM	Field Observation	Caribou	13	Eating	No	-	-	-	-	Drill 1	
22-Jun-2014	10:00 PM	Field Observation	Caribou	10	Eating	No	-	-	-	-	Drill 1	
22-Jun-2014	11:10 AM	Camp Observation	Geese	2	Flying	No	-	-	-	-	Above Main Office	
23-Jun-2014	4:45 PM	Field Observation	Caribou	2	Walking North	No	-	-	-	-	East of HOL4	
23-Jun-2014	1:00 PM	Field Observation	Caribou	11	Eating	No	-	-	-	-	Drill 1	
24-Jun-2014	7:30 PM	Aerial	Muskox	7	Eating	No	-	-	-	-	2km East of EE02	
25-Jun-2014	3:30 PM	Field Observation	Caribou	3	Running	No	-	-	-	-	South of Camp	

Date	Time	Observation method	Species	Number	Behaviour	Disturbance	Cause of Disturbance	Behaviour Before Disturbance	Behaviour After Disturbance	Actions Taken to Avoid Disturbance	Physical Location	Comments
25-Jun-2014	11:34 AM	Aerial	Caribou	12	-	No	-	-	-	-	NW of Roughland	
26-Jun-2014	1:30 PM	Aerial	Muskox	8	Standing by Lake	No	-	-	-	-	South of Bong	
26-Jun-2014	12:30 PM	Field Observation	Lemming	1	Running	No	-	-	-	-	End Grid East	
26-Jun-2014	1:40 PM	Aerial	Muskox	10	Eating	No	-	-	-	-	SW of Roughland	
27-Jun-2014	8:00 AM	Camp Observation	Peregrine Falcon	1	Flying South	No	-	-	-	-	Camp	
27-Jun-2014	12:00 PM	Field Observation	Wolf	1	Walking North	No	-	-	-	-	North of HOL 2	
27-Jun-2014	12:00 PM	Field Observation	Caribou	1	Eating	No	-	-	-	-	North of HOL 3	
27-Jun-2014	3:00 PM	Field Observation	Muskox	6	Eating	No	-	-	-	-	2 km East of Camp	
28-Jun-2014	5:45 PM	Aerial	Wolf	1	Running	No	-	-	-	-	SE of Fuel Cache	
28-Jun-2014	12:00 PM	Aerial	Muskox	3	Eating	No	-	-	-	-	85W	
29-Jun-2014	10:38 PM	Camp Observation	Arctic Hare	1	Grooming	No	-	-	-	-	Camp	
29-Jun-2014	10:50 AM	Camp Observation	Ptarmigan	4	Clucking	No	-	-	-	-	Camp	
28-Jun-2014	1:30 PM	Camp Observation	Siksik	1	Exploring	No	-	-	-	-	Camp	
29-Jun-2014	8:30 AM	Aerial	Caribou	1000	Grazing	No	-	-	-	-	West of Baker Lake	
30-Jun-2014	1:30 PM	Aerial	Caribou	1000	Grazing	No	-	-	-	-	East of Siamese Lake	Stationary and not moving westward