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Cameco Corporation

Turqavik-Aberdeen Uranium Project

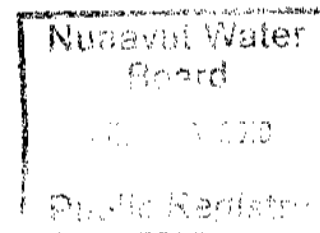
2008 Caribou Monitoring Results – Final Report



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1 Introduction

In 2008, Cameco Corporation (Cameco) conducted exploration activities related to the Turqavik-Aberdeen Uranium Project west of Baker Lake. In Cameco's Land Use Permit (25 April 2008), a key recommendation by the Nunavut Impact Review Board (NIRB) was that "The proponent shall employ a fully independent wildlife monitor to determine when caribou cows and calves are in the area of operation." Cameco has requested that Gebauer & Associates Ltd. in partnership with Goodings Environmental Inc. provide the wildlife monitors and manage the caribou monitoring program to meet NIRB's recommendations. The following report summarizes results of the 2008 caribou monitoring program.

2 Caribou Monitoring Results

2.1 June 2008

2.1.1 Monitoring Results

Caribou were seen in low numbers and were widely dispersed in the vicinity of Cameco exploration activities during the June 2008 monitoring period. The following table summarizes caribou observations during the June 2008 period.

Table 1: Results of Cameco's June 2008 Caribou Monitoring Program. Yellow shading indicates potentially disturbed animals (natural or project-related). Orange indicates animals confirmed as disturbed by project activities.

| Date | Observations | Comments |
|--|-------------------------------|----------------------|
| 05 June (start of 2008 monitoring) | 4 adults at 2km | Foraging |
| | 5 cows and adolescents at 1km | Walking |
| | 1 bull at 100m | |
| | 1 adolescent at 1km | Not determined |
| 06 June | 3 bulls at 1km | Walking undisturbed |
| | 2 bulls at 200m | Foraging undisturbed |
| 07 June | 2 bulls at 50m | Lying down |
| | 4 adults at 500m | Foraging |

Table 1: Continued.

| Date | Observations | Comments |
|------------|--------------------------------|--------------------------------|
| 08 June | 3 adults at 500m | Foraging |
| | 8 adults at 500m | Foraging |
| | 5 adults at 500m | Foraging |
| 09-12 June | None observed | Not applicable |
| 13 June | No monitoring | Not applicable |
| 14 June | 7 adults at 1.5km | Foraging |
| 15 June | No monitoring | Not applicable |
| 16 June | 3 adults, 1 adolescent at 475m | Foraging and walking |
| 17 June | 4 adults at 2km | Foraging and walking |
| | 7 adults at 40m | Walking |
| 18 June | 2 bulls at 850m | Foraging and walking |
| | 1 bull at 200m | Foraging and walking |
| | 2 adults at 2km | Foraging |
| | 2 adults at 350m | Resting, standing and foraging |
| 19 June | None observed | Not applicable |
| 20 June | 1 bull at 100m | Foraging and walking |
| | 1 adult at 2.5km | Foraging and walking |
| 21 June | 6 adults at 3.5km | Foraging and walking |
| | 1 adult at 4.5km | Foraging and walking |
| | 3 adults at 3km | Foraging and walking |
| 22 June | No monitoring | Not applicable |
| 23 June | None observed | Not applicable |
| 24 June | No monitoring | Not applicable |
| 25-26 June | 2 adults at 500m | Resting |
| 27-31 June | No monitoring | Not applicable |

2.1.2 Mitigation Actions Taken

No actions were necessary to mitigate impacts of exploration activities on caribou in the Turqavik-Aberdeen study area in June 2008.

2.1.3 Summary

Small groups of adult caribou were seen on a regular basis on the June monitoring days. Males were most frequently recorded while cows with calves were not observed. The only interaction between exploration activities and caribou occurred on 05 June 2008 when a bull caribou was within 100 m of a departing helicopter. The caribou trotted briefly but showed no obvious signs of stress or concern.

2.2 July 2008

Caribou were seen in low numbers and were widely dispersed in the vicinity of Cameco exploration activities during the July 2008 monitoring period. The following table summarizes caribou observations during the July 2008 period.

Table 2: Results of Cameco's July 2008 Caribou Monitoring Program. Yellow shading indicates potentially disturbed animals (natural or project-related). Orange indicates animals confirmed as disturbed by project activities.

| Date | Observations | Comments |
|------------|-------------------------|---|
| 01 July | No monitoring | Not applicable |
| 02 July | 1 adult at 2.5km | Foraging |
| | 1 adult at 3km | Foraging |
| 03 July | No monitoring | Not applicable |
| 04 July | 1 bull at 300m | Walking and uninterested |
| 05 July | 3 bulls at 180m | Walking and foraging; helicopter departed |
| 06-07 July | None observed | Not applicable |
| 08 July | 1 adult at 850m | Standing, foraging and uninterested |
| 09 July | 2 adults at 900m | Walking |
| 10-14 July | None observed | Not applicable |
| 15 July | 1 cow at 500m | Walking |
| | 1 bull at 200m | Foraging |
| 16-17 July | None observed | Not applicable |
| 18 July | 1 bull at 2km | Foraging |
| 19 July | No monitoring | Not applicable |
| 20 July | 2 adults at 1.5km | Foraging |
| | 1 adult at 500m | Foraging |
| 21 July | 1 bull at 1.5km | Foraging |
| | 1 bull at 1km | Foraging |
| 22-23 July | No monitoring | Not applicable |
| 24-27 July | None observed | Not applicable |
| 28 July | 1 bull at 250m | Walking briskly westward |
| | 1 bull at 350m | Foraging and walking |
| 29 July | 1 adolescent at 350m | Foraging and walking |
| | 1 adult at 450m | Foraging and walking |
| 30 July | 20 adults seen from air | Foraging |

Table 2: Continued.

| Date | Observations | Comments |
|---------|--------------------------------|---|
| 31 July | 1 adolescent at 75m | Foraging and walking |
| | 1 bull, 1 female at 350m | Foraging and walking |
| | 8 adults at 1km | Foraging and walking |
| | 1 bull, 1 cow at 50m | Standing, walking and running |
| | 1 adolescent at 35m | Standing and walking |
| | 2 adults, 2 adolescents at 50m | Resting, standing and walking |
| | 3 adults at 400m | Resting and standing on sandy creek |
| | 6 adults at 2-3km | Resting and standing; scattered on hillside |

2.2.1 Mitigation Actions Taken

On 05 July 2008, a group of three bulls was observed within 180 m of exploration activities. Although no disturbance was noted, the helicopter flew away to another location.

2.2.2 Summary

Small groups of adult caribou were seen on a regular basis on the July monitoring days. An increase in caribou numbers (i.e., cows, bulls and young – no calves) was noted on the last few days of July. Most sightings were of adult animals. The only interactions between exploration activities and caribou occurred on 05 July 2008 when three bull caribou were observed within 180 m of exploration activities (no disturbance noted and helicopter flew to alternate location) and on 31 July, when two adults within 50 m of the observer were observed running.

2.3 August 2008

Caribou were seen in increasing numbers in the vicinity of Cameco exploration activities during the August 2008 monitoring period; however, large groups were not observed. Bulls made up approximately 89% of adult animals where sex was identified. Adolescents also made up a significant proportion (17%) of all animals encountered. Only one cow and calf were documented. The following table summarizes caribou observations during the August 2008 period.

Table 3: Results of Cameco's August 2008 Caribou Monitoring Program. Yellow shading indicates potentially disturbed animals (natural or project-related). Orange indicates animals confirmed as disturbed by project activities.

| Date | Observations | Comments |
|-----------|----------------------------------|---|
| 01 August | No monitoring | Not applicable |
| 02 August | 1 bull at 300m | Foraging and walking |
| | 1 bull at 4km | Running full speed towards creek |
| | 1 bull, 2 adolescents at 800m | Resting, standing along creek bed |
| | 1 cow at 45m | Standing and walking |
| | 1 bull at 60m | Walking fast and steady |
| | 1 bull at 700m | Walking around small lake |
| | 2 adults at 900m | Running at top speed |
| | 1 bull at 100m | Walking, running and shaking whole body |
| | 4 adults at 2km | Running up and down valley creek |
| 03 August | 1 adolescent at 300m | Walking upwind then N |
| | 1 bull at 1.75km | Walking quickly to creek |
| | 1 bull at 350m | Walking and running to small lake |
| | 1 cow at 350m | Walking and foraging |
| 04 August | 1 bull at 375m | Resting near lake |
| | 1 bull at 250m | Walking |
| | 1 adolescent at 700m | Foraging and walking |
| | 1 bull at 450m | Walking quickly to W |
| 05 August | 1 bull at 1km | Standing on creek bed |
| | 1 cow at 75m | Walking around pond and then running to NW |
| | 1 bull at 2.5km | Foraging and walking slowly S |
| | 2 adults, 1 adolescent at 1.75km | Foraging and walking slowly to SE |
| 06 August | 1 cow at 225m | Foraging and walking |
| | 1 bull at 125m | Standing and walking |
| | 1 bull at 1km | Foraging and walking to W |
| | 1 bull at 300m | Resting on hilltop |
| 07 August | 1 cow at 55m | Walking |
| | 1 adolescent at 375m | Foraging and walking |
| | 1 bull at 300m | Foraging and walking |
| | 1 adolescent male at 65m | Walking NE |
| | 1 cow, 1 calf at 65m | Resting, standing and walking to NE |
| | 1 bull at 200m | Foraging and walking to creek bed |
| | 1 cow at 100m | Resting, standing and walking |
| | 1 bull at 300m | Foraging and walking |
| | 1 bull at 275m | Foraging and walking |
| | 1 cow at 300m | Foraging and walking |
| | 1 bull at 1km | Walking quickly to N |
| | 1 bull at 450m | Walking quickly to E |
| | 1 cow at 150m | Foraging and walking along creek bed |
| | 1 bull at 150m | Walking SE |
| 08 August | 2 bulls at 800m | Running, splashing in lake, swimming out and back |
| | 1 bull at 65m | Walking, standing, trotting south |
| | 1 bull at 50m | Walking |
| | 1 bull at 600m | Running W uphill |
| 08 August | 1 adolescent at 75m | Running NW |
| | 4 adults, 3 adolescents at 1km | Walking, running, foraging and resting |

Table 3: Continued.

| Date | Observations | Comments |
|-------------|------------------------------|--------------------------|
| 09 August | No monitoring | Not applicable |
| 10 August | 1 bull at 800m | Foraging |
| | 1 bull at 500m | Foraging |
| | 1 bull at 1.5km | Walking |
| | 1 bull at 500m | Walking |
| | 1 bull at 200m | Walking |
| 11 August | No observations | Not applicable |
| 12 August | 1 bull at 500m | Resting |
| | 1 bull at 250m | Resting |
| | 1 bull at 150m | Foraging |
| | 1 bull at 1km | Resting |
| | 1 bull at 2km | Walking |
| | 1 bull at 3km | Foraging |
| | 2 bulls, 1 adolescent at 75m | Foraging |
| 13 August | 5 bulls at 500m | Foraging |
| | 1 adolescent at 1km | Foraging |
| | 2 bulls at 150m | Lying down |
| | 2 bulls at 30m | Walking |
| | 1 adolescent at 1km | Resting |
| | 1 bull at 1km | Foraging |
| | 1 bull at 1.5km | Walking |
| | 1 bull at 200m | Foraging |
| | 1 bull at 80m | Walking and then running |
| | 1 bull at 800m | Foraging |
| | 2 bulls at 50m | Foraging |
| 14 August | No monitoring | Not applicable |
| 15 August | 1 bull at 500m | Standing |
| | 3 bulls at 500m | Foraging |
| 16 August | 1 bull at 1.5km | Foraging |
| | 1 bull at 1.5km | Foraging |
| | 1 bull at 1km | Foraging |
| | 3 bulls at 1km | Foraging |
| | 1 adult at 2km | Foraging |
| | 7 adults at 3km | Walking |
| | 1 bull at 3km | Standing |
| | 1 bull at 1km | Walking |
| | 1 bull at 2km | Walking |
| | 1 bull at 250m | Resting |
| | 2 adolescents at 100m | Foraging |
| | 2 bulls at 300m | Resting |
| | 1 adolescent at 100m | Resting |
| | 1 adolescent at 1km | Running |
| 17 August | No monitoring | Not applicable |

Table 3: Continued.

| Date | Observations | Comments |
|--|------------------------------|----------|
| 18 August (end of 2008 monitoring) | 1 bull at 1.5km | Foraging |
| | 1 bull at 2km | Foraging |
| | 2 bulls at 2km | Foraging |
| | 1 bull at 150m | Walking |
| | 1 bull at 2km | Resting |
| | 1 bull at 1.5km | Foraging |
| | 1 bull at 500m | Foraging |
| | 1 adolescent at 1km | Resting |
| | 1 bull at 200m | Walking |
| | 1 bull at 500m | Foraging |
| | 1 bull at 1km | Running |
| | 1 unknown at 1km | Walking |
| | 1 adolescent at 2km | Walking |
| | 2 adolescents at 500m | Foraging |
| | 3 bulls, 1 adolescent at 2km | Foraging |
| | 1 bull at 500m | Standing |

2.3.1 Mitigation Actions Taken

No mitigation actions were taken in August 2008.

2.3.2 Summary

An increasing number of adult and adolescent caribou were seen in August relative to previous months. Bulls were most commonly sighted. Several potential interactions between exploration activities and caribou occurred (see highlighted cells in above table); however, at least half were likely due to natural causes.

3 2008 Summary

Caribou monitoring associated with exploration was conducted from 05 June to 18 August 2008. Generally, few caribou were observed in June and July, while in late July and August, an increasing number of caribou were encountered. Adult bulls were the most common sex and age of caribou observed in all months. Only one cow and calf were observed (in August). Several potential interactions between exploration activities and caribou were noted; however, in most cases, caribou appeared undisturbed, even at close distances. A similar monitoring program will be initiated in 2009 if exploration continues on the Cameco property.