## **Appendix G13**

**2015 Wildlife Monitoring Summary Report** 



# **MEADOWBANK MINE**

2015 WILDLIFE MONITORING SUMMARY REPORT

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#### **SECTION 1 • EXECUTIVE SUMMARY**

As a requirement of the NIRB Project Certificate, the 2015 Wildlife Monitoring Summary Report represents the 10<sup>th</sup> of a series of annual Wildlife Monitoring Summary Reports for the Agnico Eagle Mines Ltd. (Agnico Eagle) Meadowbank Mine (the project). Baseline and monitoring programs were first initiated in 1999 and will continue throughout the life of the mine. Details of the wildlife monitoring program for the project are provided in the Terrestrial Ecosystem Management Plan (Cumberland 2006). The 2015 report provides the objectives, methodology, historical and current year results, and management recommendations for each monitoring program. Each subsequent Wildlife Monitoring Summary Report builds on data presented in the previous year's report and monitoring incorporates recommendations from the previous reports.

Four active Peregrine Falcon (*Falco peregrinus*) nests were observed and monitored at quarry sites along the AWAR in 2015; no nesting activity was observed at Portage Pit or other pits in 2015. Raptor nest management plans were not warranted at any of the active nest sites as no project-related effects on falcon nesting success were observed.

The Government of Nunavut (GN) Caribou (*Rangifer tarandus*) collaring program, ongoing for the past seven years in the Baker Lake area, continued in 2015 with monitoring of existing collared animals and 10 additional collars deployed in 2015, as part of regional efforts to understand Caribou populations. Seasonal Caribou movements within and adjacent to the Meadowbank Regional Study Area (RSA) were tracked and mapped throughout the year. In 2015, collared Caribou were present in the RSA during the spring, late summer, fall, and early winter seasons, and several movements of collared Caribou were recorded across the Meadowbank AWAR.

Hunter Harvest Study (HHS) participation rates declined in 2015 (35 respondents), although overall reported number of Caribou harvested in 2015 was slightly higher than in 2014 (n=305, compared to n=269 last year). In 2015, 54% of all reported Caribou harvests were within 5 km of the AWAR, which was higher than the average of 40% since the study began. To date, the threshold level of 20% change in hunting patterns within the RSA has not been exceeded. With a declining participant rate, interpretation of hunting data becomes increasingly difficult. Agnico Eagle has suspended the program for 2016, but will be consulting with the Baker Lake HTO and GN representatives to discuss the findings of the study to date, explore other options for collecting hunting and fishing data in the Baker Lake area, and facilitate greater involvement of the local community, including the HTO, in future years of the study.

The AWAR was closed as a proactive and mitigative measure for approximately 10 days in October and November, as large herds of Caribou were observed nearby. No Caribou fatalities occurred at the mine site or along the AWAR in 2015. Improved food-handling practices and employee awareness programs at the mine site helped ensure that there were no mine-related Wolf (*Canis lupus*) or Wolverine (*Gulo gulo*) fatalities. With the Authorization of the GN officer, one Arctic Fox (*Vulpes lagopus*) needed to be euthanized after attempts to deter the animal were unsuccessful.

#### 2.1 BACKGROUND

The Agnico Eagle Mines Ltd. (Agnico Eagle) Meadowbank Mine (the project), located in the Kivalliq Region of Nunavut (**Figure 2.1**), received a Project Certificate from the Nunavut Impact Review Board (NIRB) in 2006. The subsequent Water License and KIA Land Use Production Lease, allowed for the construction of a gold mine and ancillary facilities including an All Weather Access Road (AWAR), barge unloading facilities, lay-down area, and a fuel tank farm in the vicinity of the Hamlet of Baker Lake.

The 2015 annual report is the 10<sup>th</sup> of a series of annual Wildlife Monitoring Summary Reports for the project. The purpose of this report is to summarize the 2015 data collected from the wildlife monitoring programs, and to describe natural variation and potential mine-related changes in wildlife populations within and adjacent to the Meadowbank Gold Mine (the mine). The 2015 report describes monitoring objectives and methodology, historical and current year results, mitigation activities, and management recommendations based on 2015 monitoring results.

#### 2.2 PROJECT DESCRIPTION

The Meadowbank Gold Mine (the mine or project), with an expected operating life of about eight years (or until Q3 2018), is located approximately 70 km north of the Hamlet of Baker Lake and 300 km inland from the northwest coast of Hudson Bay.

The scope of the Terrestrial Ecosystem Management Plan (TEMP) is to report on monitoring of the mine during construction, operation, maintenance, reclamation, and closure. This report includes data collected in 2015, the fifth year of operation. Construction of a 106.8 km AWAR between the Hamlet of Baker Lake, the nearest community, and the mine was completed in March 2008 and provides mine site access and re-supply, while on-site mine access roads connect open pit areas to ancillary facilities. Mine site facilities include a mill, power plant, maintenance facilities, tank farm for fuel storage, water treatment plant, sewage treatment plant, airstrip, and accommodations. Mine components include open pits, waste rock storage facilities, and a tailings storage facility.

Environmental baseline studies were conducted in the project area prior to mine approval and integrated into the current project design according to the 2006 TEMP. Wildlife Valued Ecosystem Components (VECs), which were identified in consultation with regulatory agencies and residents of Baker Lake, include vegetation cover (wildlife habitat), ungulates, predatory mammals, small mammals, raptors, waterbirds, and other breeding birds. Further details on the proposed project can be found in the Final Environmental Impact Statement (FEIS 2005).

In 2008, construction of the AWAR and numerous camp infrastructure facilities were completed, while in 2009, principal mine site construction commenced. Mine operation commenced in early 2010.

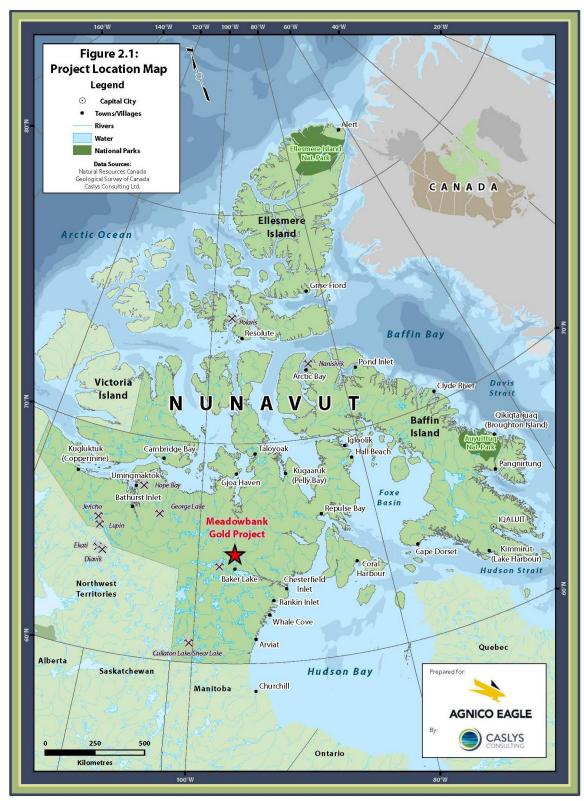


Figure 2.1: Project Location Map

#### 2.3 STUDY AREA BOUNDARIES

The mine site Local Study Area (LSA) includes a 5 km radius area centred on the Main Site and a 5 km radius around the Vault Site creating an elliptical shape with a total area of 194 km<sup>2</sup> (**Figure 2.2**). The Regional Study Area (RSA) encompasses an area that includes a 25 km radius area around the Main Site and a 50 km wide corridor centred on the AWAR for a total area of 5,106 km<sup>2</sup> (**Figure 2.2**). The AWAR LSA consists of a 3 km wide corridor centred on the AWAR between Baker Lake and Meadowbank mine site (**Figure 2.2**). Justification for study area size can be found in previous wildlife monitoring summary reports.

#### 2.4 MONITORING APPROACH – LSA AND RSA

Wildlife monitoring is an essential tool in protecting and maintaining wildlife occurring in the vicinity of the project. A comprehensive monitoring strategy has been implemented and, as required, is adapted to meet the objectives of the management strategy set out in the TEMP (Cumberland 2006). Monitoring programs evaluate the effectiveness of mitigation measures and assess mine-related impact predictions. For all wildlife monitoring programs there is a certain level of uncertainty or unpredictability; therefore, residual effects identified during monitoring may require implementation of adaptive management strategies.

To effectively evaluate the accuracy of impact predictions, a series of quantitative monitoring indicators, which are within the broad categories of habitat distribution, wildlife distribution, wildlife richness, wildlife diversity, wildlife abundance, and environmental health, have been developed. These indicators have been described in detail in earlier annual reports.

#### 2.5 MONITORING APPROACH – MINE SITE

Environmental staff monitor wildlife in close proximity to mine facilities, and along the AWAR and Vault Pit Haul Road on a regular basis (discussed in detail in **Sections 6** and **7**). Where unacceptable risks to wildlife are observed, mitigation measures are implemented to avert animals from site activities in accordance with the TEMP (Cumberland 2006). Detailed reporting protocols (e.g., a dangerous animal occurrence, monthly wildlife reports submitted to the GN, road closure notification to GN, KIA, HTO, etc.) are established and implemented by on-site environmental staff. During these events, Agnico Eagle representatives communicate any issues directly with the GN Department of Environment (DoE) Conservation Officer, KIA, and the local HTO.

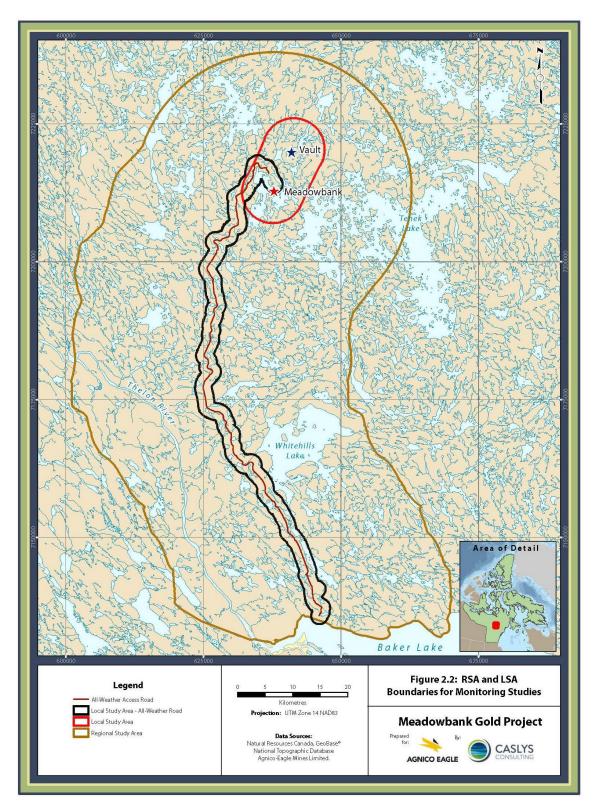


Figure 2.2: RSA and LSA Boundaries for Monitoring Studies

#### 2.6 REPORT OBJECTIVES

The primary objectives of the 2015 Wildlife Monitoring Summary Report include:

- Reporting the results of the 2015 wildlife monitoring programs;
- Summarizing the monitoring strategy implemented over the course of the year;
- Evaluating the function and validity of implemented monitoring strategies;
- · Summarizing adaptive management strategies;
- Providing management recommendations for 2016; and
- Allowing regulators to contribute advice for improving wildlife management.

#### 2.7 INUIT INVOLVEMENT

Since 1999, local Inuit from the Hamlet of Baker Lake have been involved in all wildlife-related baseline and monitoring surveys. A summary of the various programs and the average number of Inuit involved since 1999 is provided in **Table 2.1**.

Table 2.1: Inuit Involvement in Baseline and Monitoring Programs for the Meadowbank Mine.

Survey Description	Years Conducted (# of Years)	Average # of Inuit Involved
RSA Aerial Survey	1999, 2002 to 2008 (8) - discontinued	2
LSA Aerial Survey	1999, 2002 to 2008 (8) - discontinued	2
Breeding Bird Plots	2003 to 2012; 2015 (11)	2 to 3
Breeding Bird Transects	2005 to 2011; 2015 (8)	2
Waterfowl Nest Surveys	2004 to 2012 (9) - discontinued	3
Raptor Nest Surveys	2004 to 2007, 2010 to 2015 (10)	3 to 4
AWAR Ground Surveys	2004 to 2015 (12)	3 to 4
Habitat Mapping	2004 to 2005, 2010, 2012, 2014 (5)	1 to 2
Phenology Plots	2003 to 2005 (3) - discontinued	2

#### SECTION 3 • HABITAT MAPPING

The habitat mapping monitoring program was developed to describe the overall area of different Ecological Land Classification (ELC) units lost due to mine-related activities at three primary locations: Main and Vault sites (which together encompass the mine site), and the AWAR. The primary objective of the habitat mapping monitoring program is to confirm that estimated habitat losses associated with mine site and AWAR construction have not exceeded the threshold limits identified in the TEMP (Cumberland 2006) plus approved extensions. A detailed analysis was provided in the 2014 Wildlife Monitoring Summary Report and the next analysis is scheduled for 2017. For monitoring program details, refer to the 2014 annual report.

Where unnecessary and unplanned habitat degradation has occurred, measures may be taken to reclaim or rejuvenate these areas. Measures may involve removal of contaminated soil, reseeding (e.g., native-grass cultivars and forbs such as nitrogen-fixing legumes), regrading and/or removal of material in affected areas leading to natural revegetation, and transplanting of vegetation.

#### SECTION 4 • BREEDING BIRD MONITORING

#### 4.1 OVERVIEW

The breeding bird PRISM plot and bird transect monitoring programs have been designed to evaluate potential project-related changes in breeding bird species abundance, richness, and diversity over time. The program is one component of the larger monitoring strategy to evaluate the success of mitigation measures implemented to minimize the amount of vegetation (i.e., bird habitat) removed or degraded (e.g., dustfall) by the project, and whether certain mine activities such as the mine site or AWAR have resulted in reduced or compromised habitat function or effectiveness (i.e., zone of influence) for breeding birds.

#### 4.2 OBJECTIVE

#### 4.2.1 Breeding Bird PRISM Plots

The objective of the breeding bird plot monitoring program is to confirm that a mine-related change of 20% function, determined by an increase or decrease in local breeding bird abundance, richness, and diversity, has not occurred. The program uses the widely accepted Canadian Wildlife Service's (CWS) Program for Regional and International Shorebird Monitoring (PRISM) protocols (CWS 2005).

#### 4.2.2 Breeding Bird Transects

The objective of the breeding bird transects monitoring program is to confirm that an AWAR-related reduction in local breeding bird abundance, richness, and diversity will not occur beyond a threshold level. A secondary objective of the monitoring program is to determine more effective ways to prevent disturbance to nesting birds based on feedback from mitigation measures and observations.

#### 4.3 DURATION

## 4.3.1 Breeding Bird PRISM Plots

The breeding bird plot monitoring program is to continue every year during the construction period, for at least the first three full years of mine operation (2010 to 2012), and every three years after 2012 in accordance with the TEMP (Cumberland 2006). The most recent PRISM plot survey was conducted in 2015, and the next survey is planned for 2018.

## 4.3.2 Breeding Bird Transects

The breeding bird transect monitoring program was conducted during the AWAR construction period (2005 to 2007) and for four years during operation (2008 to 2011). The bird transect monitoring program was suspended in 2012 after detailed statistical analyses (2011 annual report) determined that the road was having little to no effect on breeding bird populations. With dustfall monitoring being conducted adjacent to the road from 2012 and 2015, a subset of three transects was surveyed in 2015 to determine whether breeding bird populations are comparable to previous surveys.

#### 4.4 METHODOLOGY

### 4.4.1 Breeding Bird PRISM Plots

This report provides basic summaries of the PRISM plot data using a variety of measures of species abundance, richness, and diversity. In addition, analyses are conducted to test for differences in trends for mine and control plots (**Table 4.1**), and are described in detail below. Details on the field methodology for PRISM plots are provided in previous annual Wildlife Monitoring Summary Reports.

Table 4.1: Indices of Bird Communities.

Indicator Statistic		Comments		
Species abundance Mean count of all species		A general index of abundance		
Species richness Count of species observed		Total number of species		
Species diversity	Shannon Weiner Function	Takes into account abundance and richness		
Species evenness	Shannon Weiner Function/ log(species richness)	Evenness or equitability of species		

#### Species Relative Abundance

The number of birds counted in each survey is a potential index of relative abundance of birds in each habitat type. The counts for plots and location were tabulated to investigate differences in relative abundance under the assumption that detection probability of birds was similar in each PRISM plot.

Relative abundance was compared on a species-specific basis. Differences between plots and yearly trends were also tested using analysis of covariance (ANCOVA) to control for various factors affecting species metrics; therefore, allowing a more precise test of mine effects (Milliken and Johnson 2002). Poisson or negative binomial regression was used to model count data (McCullough and Nelder 1989) with a log link function. The Poisson distribution is based upon counts and can accommodate data with zero counts. In addition, assumptions regarding mean counts and variances can be accommodated by estimating a dispersion parameter that adjusts variances for mean counts (McCullough and Nelder 1989). The dispersion parameter is estimated by the Pearson chi-square of the model divided by its associated degrees of freedom (McCullough and Nelder 1989).

The general model included terms for year, location (treatment [mine] and control), Julian day of survey, distance of mine plots from disturbance, and an interaction of year and location. In addition, a model with a binary impact term was assigned for mine sites in and after 2008 that were potentially affected by development. This term, in addition to the other terms, tested for a significant change (i.e., within 95% confidence intervals) in relative abundance in mine sites that would be due to mine effects. Day of survey was entered to account for the fact that later surveys may have influenced counts.

#### Species Richness

Species richness is simply the number of unique species sighted in a PRISM plot. The mean number of species counted per PRISM plot was summarized graphically. In addition, the ANCOVA model was used to test for temporal and spatial trends in species counted using the same general approach as relative abundance analyses.

#### Species Diversity and Evenness

Species diversity indices consider the abundance and richness of species in an area. An area that has a higher density of dominant species, but with few unique species, will exhibit a lower species diversity index than an area that has abundance spread over many species. Species diversity was estimated using the Shannon Weiner H' function (Krebs 1998). The Shannon Weiner H' function is transformed to a N1 index that represented the number of equally common species that would produce a similar H' value (MacArthur 1965). A higher N1 value would indicate that the community is more diverse. In addition, the evenness of communities was compared. The higher the evenness score the more even the abundance of species in a community. Evenness was estimated as the Simpson's evenness index (Krebs 1998). If all species are equally abundant, than this value is 1. As the community becomes less even, this value approaches 0. All indices were calculated in SAS using formulas from Krebs (1998). A jackknife method was used to obtain variance estimates for species diversity and evenness estimates (Manly 1997).

#### 4.4.2 Breeding Bird Transects

Twelve, 3 km long breeding bird transects bisecting the AWAR (approximately 1.5 km on either side of the road) were established for long-term monitoring purposes. In 2015, three of these transects (i.e., 2, 5, and 10) were surveyed. During each survey, results were recorded in 100 m intervals (i.e., total of 30 intervals numbered from west to east). Surveys of the three transects were replicated three times in 2015. Additional details including bird transect locations and dates completed each year are available in previous Wildlife Monitoring Summary Reports. Simple metrics were used to compare 2015 results to previous years.

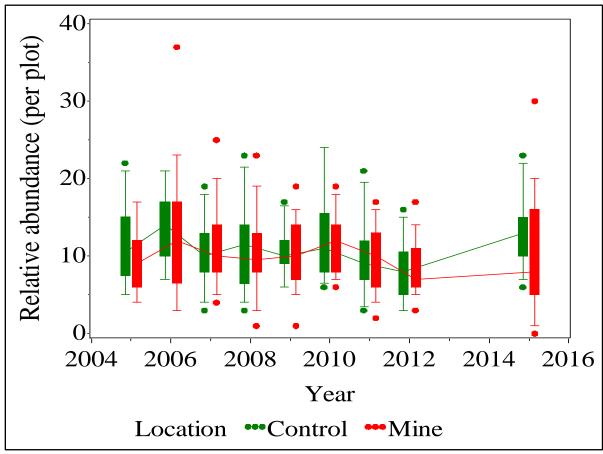
#### 4.5 RESULTS

## 4.5.1 Breeding Bird PRISM Plots

#### Species Relative Abundance

Lapland Longspur (LALO), Horned Lark (HOLA), and Savannah Sparrow (SVSP) were the most common species reported on PRISM plots. Poisson regression was used to explore temporal trends in the abundance of the two most common species, and particularly if there were differences between mine and control areas.

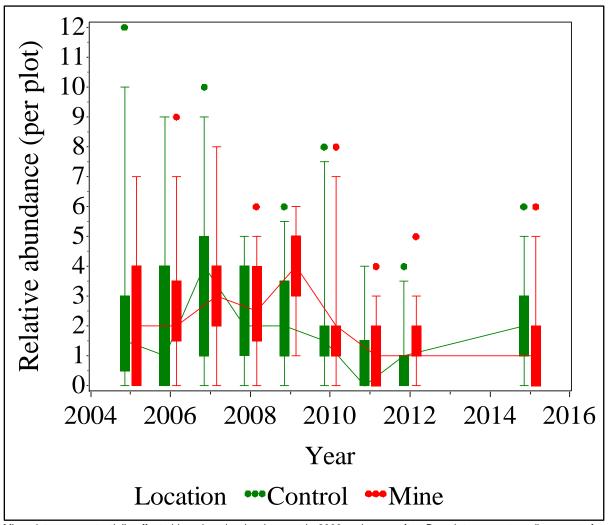
The Lapland Longspur showed no distinctive trends and similar abundances in control and mine plots (**Figure 4.1**). ANCOVA analysis suggested that there were no temporal trends, or differences in abundance between control and mine sites or specific differences (impacts) of mine areas (after 2007). In addition, there was no significant association of longspur abundance with distance from disturbance. This analysis confirms that there have not been any mine-related effects on Lapland Longspur relative abundance.



Mine plots were potentially affected by mine site development in 2008 and years after. Box plots connect median counts for each year. The width of the box delineates the 25<sup>th</sup> and 75<sup>th</sup> percentiles, while the whiskers denote the 5<sup>th</sup> and 95<sup>th</sup> percentiles. Outlier observations are denoted by individual data points.

**Figure 4.1:** Temporal Trends in Relative Abundance of the Lapland Longspur as a Function of Mine and Control Areas.

Horned Lark abundance was relatively similar in mine and control plots with a slight negative trend. ANCOVA analysis detected a linear trend in abundance ( $\chi^2$ =10.7,df=1, p=0.0011); however, no significant effect of treatment (control/mine) or distance from disturbance was detected (**Figure 4.2**). Observation of the distribution of counts suggested similar trends in control and mine plots; therefore, mine-related effects on Horned Lark relative abundance have not been realized.

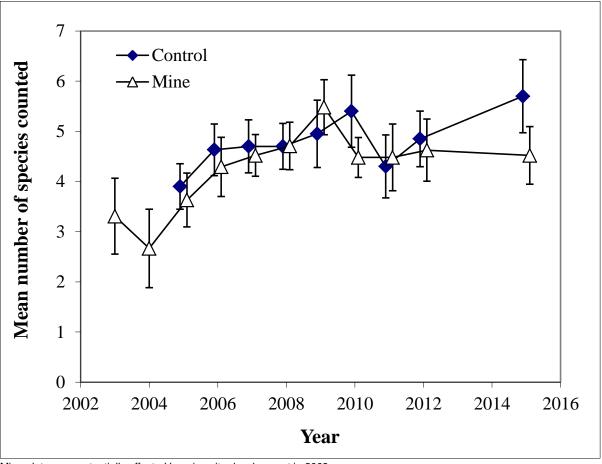


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**Figure 4.2:** Temporal Trends in Relative Abundance of the Horned Lark as a Function of Mine and Control Areas.

#### Species Richness

Species richness (i.e., mean number of unique species counted at plots each year) was initially compared graphically (**Figure 4.3**). Species richness increased up to 2009 then decreased in 2010 and 2012. Richness increased with control plots up to 2015 and remained stable for mine plots. Trends were similar between mine and control plots.



Mine plots were potentially affected by mine site development in 2008.

**Figure 4.3:** Species Richness (mean number of species counted) as a Function of Year of Survey and Plot Locations.

Analysis of covariance suggested that overall trend could be described by a cubic polynomial trend where abundance increased then levelled off after 2010 with all terms significant  $\alpha$ =0.05. A term that allowed separate slopes for treatment and control areas after 2011 was significant ( $\chi^2$ =6.12, df=2, p=0.046); however, the difference in species counted was not significantly associated with distance from disturbance or proportion of plot disturbed (for the mine plots).

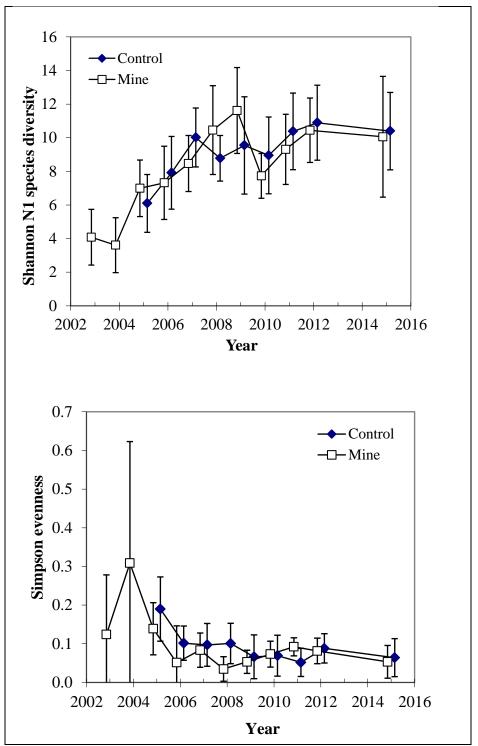
#### Species Diversity and Evenness

Overall species diversity was compared graphically for mine and control plots to assess similarities between plots prior to mine development. A more diverse community should have a more even distribution of species. Mine and control sites were heavily dominated by Lapland Longspur (LOLA), Horned Lark (HOLA), Savannah Sparrow (SVSP), Common Redpoll (CORE), and Rock Ptarmigan (ROPT). Most other species were only occasionally sighted on plots.

The Shannon N1 species diversity and evenness were used to compare species diversity trend across years for mine and control sites. Results suggested that evenness and species diversity were equal for control and mine plots in all years (**Figure 4.4**) as indicated by overlap of confidence intervals. Species diversity increased for both mine and control sites up to 2009 then decreased in 2010 before increasing again. Evenness was higher in 2004; however, a large degree of variance around estimates makes interpretation difficult. Evenness was also relatively similar for mine and control sites as indicated by overlap of confidence limits. Species diversity and evenness was similar for 2015.

#### Summary of Results

The objectives of these analyses were to assess the similarity of mine and control plots, identify potential initial changes in mine area plots as a result of development that occurred after 2008, and assess overall trends in plots up to the 2015 field season. Results show that most community indices are temporally variable with little difference in the overall trends of mine and control plots; therefore, no mine-related effects on bird relative abundance, richness, diversity, and evenness appear to have occurred. Various factors such as seasonality, weather, and larger-scale trends in distribution and abundance could influence the community metrics.



The Shannon-Weiner N1 value represents the number of equally common species that would produce a similar species diversity score

**Figure 4.4:** Species Diversity and Evenness Score for Mine and Control Sites as a Function of Year Surveyed.

#### 4.5.2 Breeding Bird Transects

#### Species Relative Abundance

As was the case in all previous surveys (see 2011 Annual Report), Lapland Longspur was the most common species observed, with more than twice the relative abundance of the second most common species, Savannah Sparrow. Horned Lark, has also been consistent over the years as being the third most common species (see **Figure 4.5**).

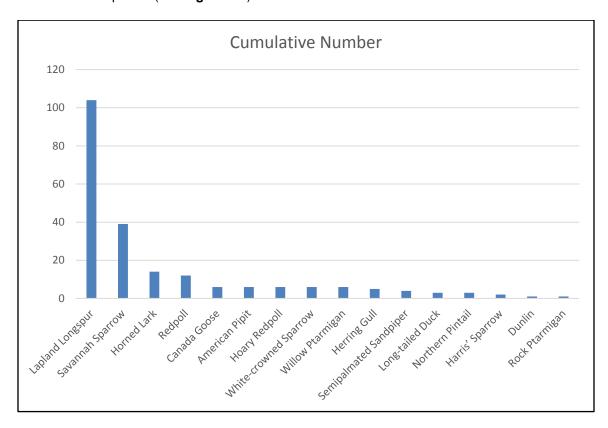


Figure 4.5: Cumulative Number of Birds Seen on Transect Surveys in 2015.

#### Species Richness

In total, 46 species were detected on transect surveys from 2005 to 2011, and in 2015. The number of unique species detected in 2015 was 15 species (on only three transects) compared to a low of 12 species in 2005 and a high of 26 in 2010 (on 12 transects)(see **Table 4.2**). In general, the number of new species that were detected decreased each year whereas the number of previously detected species increased. The only new species seen in 2015 was Harris's Sparrow.

#### **Species Diversity**

As was the case in previous years, transects were dominated by relatively few species (e.g., Lapland Longspur, Savannah Sparrow and Horned Lark), with many species only being seen occasionally (see **Figure 4.5** and **Table 4.2**).

**Table 4.2:** Bird Species and Cumulative Numbers Detected on Three Replicate Surveys of Transects 2, 5, and 10.

Species	Transect 2	Transect 5	Transect 10	Total
American Pipit	2	4		6
Lapland Longspur	36	38	30	104
Savannah Sparrow	16	11	12	39
Horned Lark	6	8		14
Redpoll	4	7	1	12
American Pipit	2	4		6
Canada Goose	1		5	6
Hoary Redpoll	1	5		6
White-crowned Sparrow	2	4		6
Willow Ptarmigan	3	1	2	6
Herring Gull	1		4	5
Semipalmated Sandpiper	3		1	4
Long-tailed Duck		3		3
Northern Pintail		3		3
Harris' Sparrow		2		2
Dunlin			1	1
Total # of Species	12	12	8	15

## 4.6 ACCURACY OF IMPACT PREDICTIONS

## 4.6.1 Breeding Bird PRISM Plots

A summary of the impact predictions identified in the TEMP (Cumberland 2006) is provided in **Table 4.3**. The 2015 analysis of the PRISM plot monitoring data was compared to the impact prediction thresholds to evaluate adherence to the impact predictions and the provision of adaptive management, as either a necessary or proactive measure.

**Table 4.3:** Accuracy of Impact Predictions – Changes in Breeding Bird Populations.

Potential Effect	Threshold	Threshold Exceeded (2015)	Adaptive Management Implemented	Status
Changes in breeding bird populations	20% change from natural	NO	NO	PRISM plot surveys every 3 years (next scheduled for 2018)

#### 4.6.2 Breeding Bird Transects

The breeding bird transect monitoring program is an instrumental component in accurately evaluating bird abundance, richness, and diversity impact predictions. In 2011, the cumulative breeding bird transect data set was compared to the impact prediction thresholds to evaluate adherence to the impact predictions. For all metrics analyzed, no thresholds were surpassed; therefore, road-related effects of the road on bird populations was not considered to be significant. The relative abundance, richness and diversity of species detected on 2015 surveys is comparable to previous years, and there is no indication that effects have occurred (see **Table 4.4**).

**Table 4.4:** Accuracy of Impact Predictions (Based on Breeding Bird Transect Analysis) – Changes in Breeding Bird Populations.

		Threshold Exceeded (2015)	Adaptive Management Implemented	Status
Changes in breeding bird populations  Mine-related reduction in local breeding bird abundance and diversity will not occur. For transect surveys, threshold level is reduced use beyond 100 m of road centreline.		NO	NO	Breeding Bird Transect surveys

#### 4.7 MANAGEMENT RECOMMENDATIONS

To date, PRISM plot data show that most bird community indices are variable with little difference in overall trends between mine and control plots; therefore, no additional management or mitigation considerations are necessary. The next set of PRISM plot surveys are planned for 2018.

For the bird transect monitoring program, a detailed analysis of transect data in 2011 indicated that no road-related effects have been documented; therefore, the breeding bird transect monitoring program had been suspended indefinitely. Surveys of a subset of transects in 2015 were conducted in support of a dustfall monitoring program conducted since 2012. Given the results of the 2015 survey, which reflect data collected in previous years, annual transect surveys do not need to be reinstated in 2016 or future years.

#### **SECTION 5 • RAPTOR NEST MONITORING**

#### 5.1 OVERVIEW

The raptor nest survey monitoring program has been designed to confirm that mine-related activities do not result in inadvertent negative effects on nesting raptors. Raptor surveys along the proposed AWAR alignment in 2005 (i.e., prior to construction) indicated that only low suitability habitat for nesting raptors was available. To construct the AWAR in 2007/2008, excavated and blasted rock materials were used from numerous quarries along the alignment, resulting in the creation of some moderate and high suitability raptor nesting habitat areas characterized by steep rock walls. Established nests within some of these quarries are monitored on an annual basis to evaluate occupancy.

#### 5.2 OBJECTIVE

The primary objectives of the raptor nest survey monitoring program are to:

- 1. Confirm that raptor nest failures are not caused by mine-related activities. The threshold level is one nest failure per year; and
- 2. Confirm that no project-related mortality of raptors occurs. The threshold level of mortality is one individual per year.

#### 5.3 DURATION

Raptor nest monitoring is to continue annually throughout the operation and decommissioning phases of the mine in accordance with the TEMP (Cumberland 2006).

#### 5.4 METHODOLOGY

Between 2000 and 2009, raptors were periodically recorded during AWAR road surveys, waterbird nest surveys, and aerial surveys and investigated further, as required; however, given the overall low probability of raptor occurrence within the LSA and RSA, a specific raptor survey was not scheduled. In 2009, the observed active Peregrine Falcon nest at Quarry 19 prompted the initiation of a dedicated raptor nest survey in 2010. Surveys from 2011 through 2015 continued this work, focusing particularly on quarries along the AWAR. Visual checks of active falcon nest sites were conducted during regular ground reconnaissance surveys along the AWAR. Non-disruptive monitoring techniques, which included monitoring nests from a vehicle within the quarry or from the AWAR, ensured that active nests were not approached by Agnico Eagle personnel.

#### 5.5 HISTORICAL RESULTS

Single nesting pairs of Peregrine Falcon were recorded in 1996 and 2005 in the Mine RSA, but nests in close proximity to mine facilities have only been routinely recorded since 2009, at which time, dedicated nesting surveys were included in the monitoring program. Six Peregrine Falcon nesting sites have been recorded during this period; five of these were located in quarries along the AWAR (observed since 2009) and one nest was on the Portage Pit wall (observed in 2012) (**Figure 5.1**).

#### 5.6 2015 RESULTS

In 2015, four active Peregrine Falcon nests were documented in quarries along the AWAR. Two traditional nest sites were not used in 2015 (Quarries 2 and 18), while a nest was established at a new site (Quarry 16) (see **Table 5.1**). Cumulative information on Peregrine Falcon nests from 2009 to 2015 is summarized in **Table 5.2** and **Figure 5.1**. In 2015, Agnico Eagle conducted raptor nest success monitoring along the AWAR (**Table 5.3**). Environmental personnel performed surveys of the Portage, Goose, and Vault pits to determine if falcons were nesting. Two falcons were observed at the Vault Pit in late June and early July, but did not establish a nest. Specific raptor nest management plans were not warranted at any of the active nest sites. Some observations are included in **Appendix A**.

#### 5.7 ACCURACY OF IMPACT PREDICTIONS

A summary of the impact predictions identified in the TEMP (Cumberland 2006) is provided in **Table 5.1**. The 2015 raptor monitoring data were compared to the impact prediction thresholds to evaluate adherence to the impact predictions and the provision of adaptive management, as either a necessary or proactive measure.

**Table 5.1:** Accuracy of Impact Predictions – Disturbance to Nesting Raptors for the AWAR and Mine Site, and Raptor Mortality.

Potential Effect	Threshold	Threshold Exceeded (2015)	Adaptive Management Implemented	Status
Disturbance to Nesting Raptors	Raptor nest failures will not be caused by mine-related activities. Threshold is one nest failure per year.	ed by mine-related s. Threshold is one		AWAR Surveys  Dedicated Raptor Nest Surveys  Daily / Weekly Systematic Mine Site Ground Surveys
Raptor Mortality	One (1) individual	NO	NO	AWAR Surveys  Daily / Weekly Systematic Mine Site Ground Surveys

**Table 5.2:** Record of Peregrine Falcon Nesting along the AWAR and in the LSA.

		Nest in:						_
Quarry	2009	2010	2011	2012	2013	2014	14 2015	Comments
1	No	No	No	No	No	No	No	Shallow quarry.
2	No	Yes	Yes	Yes	Yes	Yes	No	Good cliff faces for nesting. 2015 first time in five years nesting has not been confirmed. One falcon observed on early July 2015.
3	No	Yes	Yes	Yes	Yes	No	Yes	Nesting confirmed in 2015 after no use in 2014. Three chicks observed that presumably fledged. Up to 2 adults seen.
4 to 6	No	No	No	No	No	No	No	Shallow quarry and/or flooded, so not well suited for nesting.
7	No	No	No	No	No	No	No	Old raven nests. Lots of fractured rock forming cliff faces but limited ledges.
8	No	No	No	No	No	No	No	No cliff faces, so not well suited for nesting.
9	No	Yes <sup>1</sup>	Yes <sup>1</sup>	No	No	No	No	Lots of fractured rock forming cliff faces but limited ledges. Up to 2 adult falcons seen in 2015 but nesting not confirmed.
10 to 11	No	No	No	No	No	No	No	Shallow quarry and/or flooded, so not well suited for nesting.
12	No	No	No	No	No	No	No	Shallow quarry and/or flooded, so not well suited for nesting. One falcon observed on early July 2015.
13	No	No	No	No	No	No	No	Shallow quarry and/or flooded, so not well suited for nesting. One falcon observed on early July 2015.
14	No	No	No	No	No	No	No	Shallow quarry and/or flooded, so not well suited for nesting.
15	No	No	No	No	No	No	No	Shallow quarry and/or flooded, so not well suited for nesting. One falcon observed on early July 2015.
16	No	No	No	No	No	No	Yes	Moderate depth with good cliff faces, no ledges. Up to 3 falcons seen on several occasions in June and July 2015 and nest observed on rock face. Three birds seen in early September suggesting young were fledged.
17	No	No	No	No	No	No	No	Very shallow quarry. Falcon present but no nest.
18	No	Yes	Yes	Yes	Yes	Yes	No	Good, high cliff face but no ledges. First time in 5 years that nesting has not been confirmed. Only 1 falcon seen in mid-June.
19	Yes	No	Yes	Yes	Yes	Yes	Yes	Good, vertical cliff face, some suitable ledges. Four falcon eggs observed in mid-June 2015, but eggs still seen in mid-August suggesting nest was not successful. One falcon observed on early July 2015.
20	No	No	No	No	No	No	No	Very shallow quarry, so not well suited for nesting.
21	No	Yes	Yes	Yes	Yes	Yes	Yes	Good, high cliff face, no ledges. Two falcons and 4 eggs seen on several occasions in 2015, but nesting success was not confirmed.
22	No	No	No	No	No	No	No	Good, high cliff face, but nesting has not been confirmed.
Portage Pit	No	No	No	Yes	Yes	No	No	No falcons observed in 2015
Vault Pit	NA	NA	NA	NA	No	No	No	Two falcons observed in late June, but did not establish a nest
Goose Pit	NA	NA	No	No	No	No	No	No falcons observed in 2015

**Table 5.3:** Raptor Nests Identified and Monitored at the Mine Site and along the AWAR between Baker Lake and the Meadowbank Mine Site in 2015.

Quarry or Pit Location	GN Site	2015 Observation Date	Species	Location (UTM)	Observations
2	4003	01 Sep	Peregrine Falcon	14W 0642097 7147611	1 adult
3	4004	16 Jun	Peregrine Falcon	14W 0638009 7156419	2 adults; nest with 3 eggs
3	4004	11 Jul	Peregrine Falcon	14W 0638009 7156419	2 adults; nest with 3 eggs
3	4004	21 Jul	Peregrine Falcon	14W 0638009 7156419	2 adults
3	4004	08 Aug	Peregrine Falcon	14W 0638009 7156419	1 adult; 3 chicks
3	4004	01 Sep	Peregrine Falcon	14W 0638009 7156419	1 adult
9	4006	16 Jun	Peregrine Falcon	14W 0628553 7171845	2 adults; no nest seen
9	4006	11 Jul	Peregrine Falcon	14W 0628553 7171845	2 adults; no nest seen
9	4006	21 Jul	Peregrine Falcon	14W 0628553 7171845	1 adult
9	4006	08 Aug	Peregrine Falcon	14W 0628553 7171845	1 adult; no eggs
12	ND	01 Sep	Peregrine Falcon	14W 0625893 7182277	1 individual
13	ND	01 Sep	Peregrine Falcon	14W 0626378 7185838	1 individual
15	ND	01 Sep	Peregrine Falcon	14W 0626899 7190718	1 individual
16	4007	06 Jun	Peregrine Falcon	14W 0627212 7193129	2 adults; no nest seen
16	4007	11 Jul	Peregrine Falcon	14W 0627212 7193129	2 adults; nest on rock face
16	4007	21 Jul	Peregrine Falcon	14W 0627212 7193129	2 adults; nest on rock face
16	4007	08 Aug	Peregrine Falcon	14W 0627212 7193129	No adults; nest on rock face
16	4007	01 Sep	Peregrine Falcon	14W 0627212 7193129	3 individuals
18	4008	16 Jun	Peregrine Falcon	14W 0627351 7202109	1 adult left site
18	4008	11 Jul	Peregrine Falcon	14W 0627351 7202109	Not seen; hunters on top of quarry
19	3901	16 Jun	Peregrine Falcon	14W 0628686 7204285	2 adults; nest with 4 eggs
19	3901	11 Jul	Peregrine Falcon	14W 0628686 7204285	2 adults; nest with 4 eggs
19	3901	21 Jul	Peregrine Falcon	14W 0628686 7204285	No adults; eggs
19	3901	08 Aug	Peregrine Falcon	14W 0628686 7204285	1 adult; 4 eggs
19	3901	01 Sep	Peregrine Falcon	14W 0628686 7204285	1 adult
21	4009	16 Jun	Peregrine Falcon	14W 0630781 7211705	2 adults; nest with 4 eggs
21	4009	11 Jul	Peregrine Falcon	14W 0630781 7211705	2 adults; nest with 4 eggs
21	4009	21 Jul	Peregrine Falcon	14W 0630781 7211705	1 adult; eggs
21	4009	08 Aug	Peregrine Falcon	14W 0630781 7211705	1 adult; no eggs

Government of Nunavut (GN) Raptor Database site number
ND = No data

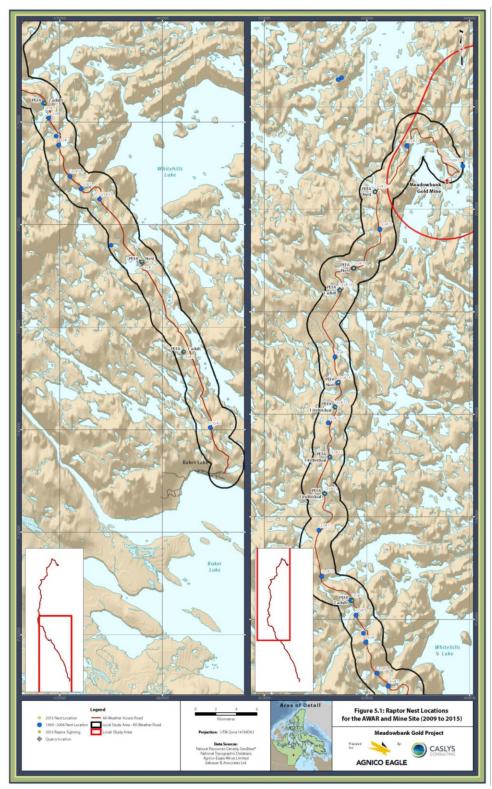


Figure 5.1: Raptor Nest Locations for the AWAR and Mine Site (2009 to 2015)

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#### 5.8 MANAGEMENT RECOMMENDATIONS

Quarrying activities along the AWAR corridor have created moderate to high suitability Peregrine Falcon nesting habitat. Falcons are expected to continue to use select quarries for the foreseeable future, which may necessitate the implementation of a raptor nest management plan for nests if deemed necessary. Agnico Eagle will continue to:

- Conduct raptor nest surveys annually at each of the quarries along the AWAR early in the nesting season (mid- to late June) to confirm the status of previously confirmed raptor nests, assess for the presence of new raptor nests, and determine the need, if any, for a raptor nest management plan;
- Monitor active raptor nests weekly during the breeding season to confirm nest success or failure;
- 3) Ensure that environmental personnel maintain accurate records of nesting activity and success for all active nests for the duration of these surveys in order to determine if thresholds are exceeded;
- 4) Monitor pits and waste rock piles at the mine site to avert nesting attempts by raptors. If a nest is established, the general mine site Peregrine Falcon Management and Protection Plan will be followed; and
- 5) If the Management Plan is not successful in averting falcon nesting in active mining pits, consult with Dr. Franke to discuss site-specific protective measures and, if needed, deterrence recommendations to ensure falcon protection. Dr. Alastair Franke, from the University of Alberta, has been conducting research on raptors in Nunavut since 2003.

#### 6.1 OVERVIEW

The mine site ground survey monitoring program has been designed to verify that impacts to wildlife in and around the mine site LSA are not occurring. The program has a strong emphasis on monitoring mortality of various wildlife groups utilizing habitats in the vicinity of the mine site. In addition, the mine site ground survey monitoring program is an integral component of the monitoring strategy for evaluating sensory disturbance indicators for Caribou (*Rangifer tarandus*).

#### 6.2 OBJECTIVES

The primary objectives of the mine site ground surveys are to:

- Evaluate whether mine-related construction and operation activities preclude Caribou from using suitable habitats beyond 500 m (considered to be an average across various disturbance types) of mine buildings, facilities, and roads. Threshold level within mine facilities is unnatural Caribou use patterns beyond 500 m. The threshold level along the AWAR is unnatural Caribou use patterns beyond 1,000 m (also see Section 7);
- Confirm that Caribou will not be killed through other mine-related mortality such as falling in pits, tailings sludge, or other means. The threshold level of mortality is one individual per year;
- 3. Verify that measures are in place such that no Grizzly Bears (*Ursus arctos*) or Wolverines (*Gulo gulo*) will need to be destroyed at the mine site. The threshold level of mortality for predatory mammals is one individual per year; and
- 4. Verify that high value habitats (e.g., sedge meadows) are avoided, and all activities within 100 m of a bird nest site during the latter part of the nest stage (fledgling) are avoided.

#### 6.3 DURATION

The mine site ground surveys are to be conducted regularly by Agnico Eagle environmental personnel over the operation and closure phases of the mine to verify that changes to habitats around the mine site do not cause effects to wildlife and their use of habitat.

#### 6.4 METHODOLOGY

#### 6.4.1 Mine Site Inspections

In 2015, environmental personnel conducted daily mine site inspections focusing on waste management, spills, hazardous waste management, and wildlife monitoring. Formal mine site inspections were carried out at least weekly as part of the broader environmental on-site management. During these inspections, non-conformities were identified.

#### Weekly inspections included:

- Regular monitoring of Caribou and Muskox (*Ovibus mochatus*) in the vicinity of the facilities.
   Large mammal presence within the mine is documented during daily and weekly (formal) inspections. Any issues related to safety or proximity effects are identified and the appropriate mitigation is implemented. If risks to animal health were perceived, efforts were made to avoid the wildlife and provide them the right of way. In 2016, weekly mine-site ground survey inspections will be conducted:
- Regular monitoring of all large mammals on the site;
- Regular monitoring of breeding birds (especially in the spring); no nests were found in 2015 therefore no additional monitoring occurred; and
- Inspections of waste management areas, bins, and hazardous material storage.

During environment department inspections and wildlife ground surveys, which focus on migratory birds, ungulates, Arctic Fox (*Vulpes lagopus*), Wolves (*Canis lupus*), grizzly bears, and Wolverines, or through general employee observations or incidence reports provided to the environment department, technicians record and follow up as needed to ensure the protection of wildlife near the mine site. These observations, along with monitoring and deterring activities are recorded in **Appendix A**.

In 2015, Agnico Eagle continued mining two pits at the Main Site (i.e., Goose Pit until April 2015 and Portage Pit), and the Vault Pit. The central portion of the Portage Pit was back-filled with waste material from mining operations during 2014 and 2015 as part of fish habitat compensation program. In 2015, Agnico Eagle completed a raise of the Central Dike to e137 m (approved to e150 m), Saddle Dams 3 and 4 to e140 m, and the foundation for Saddle Dam 5. These structures define the South Cell Tailings Storage Facility (TSF).

No ancillary construction activity was undertaken without environmental notification and all activities were within the predicted and approved mine footprint as confirmed through environmental inspections, ground surveys, and coordination with engineering and site services on the mine site. All areas used by the mine have been accepted and approved by regulators and the KIA through submission and acceptance of annual reports and updated management plans. In July 2015 the Meadowbank Water License renewal was approved by the Nunavut Water Board (NWB).

#### 6.4.2 Incidental Mine Site Wildlife Observations

All mine site personnel, including construction and support staff, are required to document and report wildlife observed within the boundaries of the mine as well as ancillary areas (particularly the AWAR). The protocol involves filling out a wildlife log form located in designated areas or by notifying staff in the Environment Department, which is intended to ensure that potential problem animals were identified in accordance with Appendix A - Section 2.2.8 (Reporting Wildlife Observations and Incidents) of the TEMP (Cumberland 2006). Completed incidental wildlife log forms are collected on a regular basis for review by environmental personnel. Pertinent data and daily and weekly mine site inspection reports were consolidated and entered into a database (**Appendix A**). Monthly wildlife reports are submitted to the GN and the KIA.

### 6.4.3 Waste Management and Landfill

Operation and management of on-site waste is an important component of wildlife management at Meadowbank. The monitoring program in 2015 built on the successes and approaches of monitoring in 2014 (see 2014 Wildlife Management Summary Report for details).

#### 6.5 2015 RESULTS

#### 6.5.1 Incidental Wildlife Observations

Mine site incidental observations were consolidated from the daily and weekly inspection reports, and observations by mine personnel (see **Appendix A**). Observations are used by environmental personnel to monitor wildlife activity within the mine site and identify potential problem animals. A summary of observations that were unique or required action are summarized in **Table 6.1** below.

Table 6.1: Unique Wildlife Observations and Wildlife Presence Requiring Action (from Appendix A).

Date	Species	#	Location	Action
03 Jan	Wolverine	1	Sludge dump	Deterred
04 Jan	Arctic Fox	1	Sludge dump	Deterred
27 Jan	Wolverine 1		Wing 12	Deterred (cartridges and bangers)
11 Feb	Wolverine	1	Sludge dump	Deterred
15 Feb	Arctic Fox	2	Behind housekeeping	Foxes fighting. Dead fox found. Fox euthanized
16 Feb	Arctic Fox	1	Mill	Mill employee bitten
19 Feb	Wolverine	1	TPL near assay	Deterred (cartridges and bangers)
01 Mar	Red Fox	1	Mill powerhouse	Deterred (air horn)
03 Mar	Arctic Fox	3	Powerhouse	Deterred (truck horn)
10 Mar	Wolverine	1	Sludge dump	Deterred (truck horn)
10 Mar	Wolf	2	RSF	Deterred (screamers)
09 Apr	Arctic Fox	1	Kitchen reefer	Deterred
22 Apr	Arctic Fox	1	Outside mill	Tied to rope. Released
29 Apr	Caribou	18	Between airstrip and tailings pond	Deterred
29 Apr	Arctic Fox	1	Front steps of main camp	Tried to deter
01 May	Arctic Fox	1 Front steps of main camp		Tried to deter. Euthanized. See Appendix C for Incident Report
07 May	Caribou	20	Airstrip	Deterred
14 May	Ducks and Geese 50		North cell	Cannons installed and pistol used to deter

Date	Species	#	Location	Action	
30 May	Ducks	20	South cell	Cannons installed and pistol used to deter	
16 Jun	Grizzly Bear	1	Vault and AWAR	No action taken	
24 Jun	Peregrine Falcon	2	Vault pit	No action taken	
27 Jun	Tundra Swan	1	North cell	Tried to deter but no response	
28 Jun	Duck	4	North cell	Tried to deter but no response	
02 Jul	Peregrine Falcon	1-2	One adult observed at Quarries 2, 3, 12, 13, 15, and 19. Three adults at Quarry 16	No action taken	
19 Jul	Caribou	1	Vault pit	Deterred	
28 Jul	Caribou	1	Vault waste dump	Escorted to quiet area. Tried to deter but limited response	
30 Jul	Grizzly Bear 1		AWAR 87	No action taken	
05 Aug	Caribou	1	Vault area	Deterred (rubber buck shot and slugs)	
06 Aug	Caribou	1	Vault pit and ring road	Deterred (rubber buck shot and slugs)	
08 Aug	Caribou 1 Vault w		Vault waste dump	Deterred towards tundra	
10 Aug	Caribou	1 Vault area		Deterred	
25 Aug	Caribou 2		RSF near Vault road	Deterred off road	
10 Sep	Duck 1		Truck shop	Found dead. Carcass given to Baker Lake Conservation Officer. See Appendix C for Incident Report	
11 Sep	Canada Goose 1		North cell	Stuck in tailings. Carcass given to Baker Lake Conservation Officer	
11 Oct	Caribou ~150		AWAR 17	Road closure. Tanker escorted from KM 20 to Baker Lake. See Appendix B	
12 Oct	Caribou	400	AWAR 13 to 19	Road closed until reopened. See Appendix B	
14 Oct	Caribou	300- 400	AWAR 78	Road closed for night. See Appendix B	
15 Nov	Short-eared Owl 1		Emulsion plant	Baker Lake Conservation Officer advised	
18 Dec	Arctic Fox 2 Incine		Incinerator	Deterred	
30 Dec	Dec Caribou		Vault waste dump	Deterred	

#### 6.5.2 Breeding Bird Nest Monitoring

No breeding bird nests were found or monitored at the mine site or along the AWAR in 2015.

### 6.5.3 Waterbird Monitoring

To minimize accidental waterbird confinement around the mine site, entrapment in the tailings, and mortality, regular inspections were completed throughout the migratory period and during weekly or daily inspections, as deemed necessary by the environment staff. Beginning in early May until late June, technicians routinely inspected the Tailings Storage Facility for waterbird activities. Deterrents were used if required. Some duck and goose species were observed flying around or near the Tailings Storage Facility in May, requiring the installation and use of deterrent cannons (**Table 6.1** and **Appendix A**). One Canada Goose was confirmed as dying after getting stuck in the tailings pond (see **Table 6.1**).

#### 6.5.4 Raptor Monitoring

Raptor monitoring was conducted as part of routine mine site inspections of the pit and other areas to ensure adequate bird protection and management (see **Table 6.1** and **Appendix A**). Similar to 2014 results, there were no Peregrine Falcons observed nesting in the Portage Pit in 2015. Two birds were seen briefly at the Vault Pit in late June (**Appendix A**).

#### 6.5.5 Caribou Protection

In early August, a single Caribou was deterred several times from the Vault Pit and Road areas (see **Table 6.1**) Additional Caribou protection measures were taken along the AWAR (discussed in **Section 7.6.3**).

## **6.5.6 Predatory Mammal Deterrence and Protection**

Fox activity stayed relatively similar to 2014. Improved practices for waste segregation and incineration, the use of enclosed food waste facilities, and skirting around buildings have improved Arctic Fox protection and decreased fox-human interactions. Weekly inspections by environmental personnel provided monitoring data that indicated re-occurrences of Arctic Fox on-site, but no trapping was required in 2015 (**Appendix A**). One nuisance Arctic Fox was euthanized after deterrence methods were not effective (see **Appendix C** for Incident Report), and another Arctic Fox was found dead after fighting with another fox (see **Table 6.1**).

Throughout 2015, environmental personnel confirmed numerous reports from employees of Wolverines near office buildings, camp, and mine operations. Environmental personnel actively deterred Wolverines following the Bear Wise deterrence training. The sewage sludge disposal area (an area skirting the Tailings Storage Facility) commonly attracted Wolverines, particularly during winter months. Increased deterrence activities were undertaken in this area as a result (see **Table 6.1** and **Appendix A**). Well defined food-handling practices and employee awareness programs at the mine site helped ensure that no wolverine fatalities or wolverine/human interactions occurred at the mine in 2015.

Very few Wolves were observed in 2015 compared to previous years and only on one occasion did Wolves need to be deterred from the mine site. Caribou carcasses from Wolf kills needed to be removed from the mine site on two occasions (March and May 2015). **Appendix A** presents the incident reports, observations, deterrence activities, and environmental personnel responses to Wolf sightings throughout 2015. One Wolf, which had been injured by some non-mine-related event (e.g., attack by other wolves) needed to be euthanized in 2015 (see **Appendix C** for Incident Report).

Grizzly Bears were sighted on only two occasions in 2015 (Vault and AWAR), but in neither case required deterrent action (see **Table 6.1**).

# 6.5.7 Wildlife Mortality – Mine Site

A summary of recorded wildlife fatalities near or within the mine site in 2015 is provided in **Table 6.2**, and a summary of fatalities to date from historical data is provided in **Table 6.3**. Copies of mortality incident reports can be found in **Appendix C**. All AWAR-related fatalities are tabulated and discussed in **Section 7.6.3**.

### 6.5.7.1 Caribou

No Caribou mortalities related to Project activities were reported at the mine site in 2015. All incident reports, observations, deterrence activities, and environment team responses to Caribou sightings are included in **Appendix A**. Caribou mortalities along the AWAR are discussed in **Section 7.6.3**.

Table 6.2: 2015 Mine Site Wildlife Fatality Log.

Date	Species	Count	Location	Comments
13 Jan	Caribou	1	Emulsion plant	Died of natural causes. Carcass removed and incinerated
04 Feb	Arctic Fox	1	Vault road	Apparent road kill
15 Feb	Arctic Fox	1	Main camp	Killed in fight with another fox. Carcass removed and incinerated
06 Mar	Wolf	1	Vault RSF	Injured Wolf needed to be euthanized. Carcass brought to Baker Lake Conservation Officer. See <b>Appendix C</b> for Incident Report
12 Mar	Caribou	1	Vault road	Killed by wolves. Carcass dragged 300 m away from Vault road
23 Mar	Caribou	1	Vault road	Killed by wolves. Carcass not in area of concern.
01 May	Arctic Fox	1	Main camp	Euthanized after not responding to deterrents. See <b>Appendix C</b> for Incident Report
18 May	Caribou	1	Vault road culvert	Killed by wolves. Carcass removed from area of culvert
13 Aug	Arctic Hare	1	Vault road	Apparent road kill. Carcass removed and incinerated

**Table 6.3:** Summary of Mine Site Wildlife Fatality Records for Caribou and Predatory Mammals (2007 to 2015).

Year	Caribou	Grizzly Bear	Wolverine	Wolf
2007	0	0	0	0
2008	0	0	0	2
2009	0	0	0	4
2010	0	0	0	1
2011	0	0	1	4
2012	0	0	0	1
2013	0	0	1	0
2014	0	0	0	1
2015	4 <sup>1</sup>	0	0	1 <sup>2</sup>

<sup>&</sup>lt;sup>1</sup>One Caribou died of natural causes while three were killed by wolves.

# 6.5.7.2 Predatory Mammals

No Wolf, Grizzly Bear, or Wolverine mortalities were reported related to activities at the mine site in 2015. All incident reports, observations, deterrence activities, and environment team responses to predatory mammal sightings are included in **Appendix A**.

One Arctic Fox had to be euthanized in 2015 (see **Table 6.2** and **Appendix C**).

### 6.5.7.3 Other Wildlife

Two waterbird mortalities occurred on the Meadowbank site in 2015. A dead duck was found on September 10 at the truck shop (see **Appendix C** for Incident Report). Cause of death was not determined and the carcass was given to the Baker Lake Conservation Officer. On 11 September, a dead Canada Goose was found stuck in the tailings pond. The carcass was also provided to the Conservation Officer.

### 6.6 ACCURACY OF IMPACT PREDICTIONS

**Table 6.4** provides a summary of the impact predictions identified in the TEMP (Cumberland 2006) that are evaluated, in part, by the mine site ground surveys. Specifically, the 2015 mine site ground survey monitoring data were compared to the impact prediction thresholds to evaluate adherence to the impact predictions and the provision of adaptive management, as either a necessary or proactive measure.

<sup>&</sup>lt;sup>2</sup> Naturally injured Wolf that needed to be euthanized.

 Table 6.4: Accuracy of Impact Predictions – Mine Site Wildlife Disturbances.

Potential Effect	Threshold	Threshold Exceeded (2015)	Adaptive Management Implemented	Status
Sensory Disturbance	Mine-related construction and operation activities will not preclude Caribou and Muskoxen from using suitable habitats beyond 500 m of mine buildings, facilities and roads.	NO	NO	Daily / Weekly Systematic Mine Site Ground Surveys; Incidental Wildlife Reporting; Satellite-collaring Data
Disturbance to Nesting Raptors	Raptor nest failures will not be caused by mine-related activities. Threshold is one nest failure per year.	NO	NO	Daily / Weekly Systematic Mine Site Ground Surveys; Incidental Wildlife Reporting; Dedicated Raptor Nest Surveys; AWAR Surveys
Healthy Prey Populations	Maintenance of healthy prey populations to ensure integrity and health of raptor habitats. Thresholds are qualitative, and can be achieved through management and maintenance of vegetation and healthy prey communities.	NO	NO	Annual PRISM Plot surveys; ELC Habitat Mapping
Disturbance of Nesting, Roosting or Moulting Waterfowl	Mine facilities and activities will not affect the breeding success of waterbirds occurring in the area or disturb large concentrations of roosting or moulting waterbirds. Threshold level is one nest failure per year.	NO	NO	Daily / Weekly Systematic Mine Site Ground Surveys; Waterbird Nest Surveys
Project- related Mortality	Destruction of one problem Grizzly Bear or Wolverine at Meadowbank Site per year.	NO	NO	Daily / Weekly Systematic Mine Site Ground Surveys
Project- related Mortality	One Caribou or Muskoxen mortality per year as a result of mine-related activities (e.g., falling into pits, tailing, sludge or other means)	NO	NO	Daily / Weekly Systematic Mine Site Ground Surveys
Project- related Mortality	Waterbirds will not be killed at the mine site. Threshold is one individual per year.	YES	YES More intensive monitoring during migratory period	Daily / Weekly Systematic Mine Site Ground Surveys
Project- related Mortality	Breeding birds will not be killed at the mine site. Threshold is 50 individuals per year.	NO	NO	Daily / Weekly Systematic Mine Site Ground Surveys

# 6.7 MANAGEMENT RECOMMENDATIONS

The following are specific management recommendations for the 2016 mine site ground survey monitoring program:

- Continue to conduct informal daily and weekly mine surveys to verify that effects to wildlife are not occurring as a result of mine-related activities;
- Continue raptor nest monitoring around the mine site LSA and along the AWAR;
- Continue to apply the Wildlife Protection and Response Plan (AEM 2014, and reviewed by GN DoE), which includes waste provisions, training, incident reporting, and protocols for problem wildlife;
- Continue training and re-education to ensure that incidental wildlife reporting is completed by all mine site personnel such that environmental personnel can remained informed of pertinent wildlife-related activity in the vicinity of the mine site; and
- Monitor tailings ponds daily during the waterbird migration period. Increase the frequency of deterrent use if required.

#### SECTION 7 • ALL-WEATHER ACCESS ROAD GROUND SURVEYS

### 7.1 OVERVIEW

The AWAR systematic ground survey monitoring program has been designed to evaluate sensory disturbance for wildlife, particularly Caribou and Muskoxen, utilizing habitats adjacent to the road. The program also monitors mortality of species with a potential to utilize habitats in the vicinity of the AWAR.

### 7.2 OBJECTIVES

The primary objectives of the AWAR ground survey monitoring program are to:

- 1. Document wildlife utilization along the AWAR corridor systematically;
- Evaluate wildlife trends along the AWAR corridor, including areas where higher densities of wildlife are observed. Evaluate whether AWAR-related operations preclude Caribou from using suitable habitats beyond 1,000 m. The threshold level along the AWAR is unnatural Caribou use patterns beyond 1,000 m;
- 3. Assess the need for adaptive mitigation, such as temporary road closures during peak Caribou migration periods; and
- 4. Confirm that Caribou are not killed through AWAR-related mortality. The threshold level of mortality for ungulates and predatory mammals is one individual per year.

# 7.3 DURATION

The AWAR systematic ground surveys are ongoing and are to be conducted a minimum of once per week throughout the year, and twice per week during Caribou migration (contingent on road access and personnel availability) over the operation phase of the mine. Monitoring of vehicle collisions and mortality is continual. Agnico Eagle is committed to conducting approximately 75 AWAR road surveys per year.

### 7.4 METHODOLOGY

AWAR Systematic ground surveys are ongoing at an average frequency of more than one survey per week, contingent on weather conditions. Beginning in early 2016, road surveys were expanded to include the Vault Haul Road.

The terrain on both sides of the road (to a maximum horizontal distance of approximately 1 km perpendicular from the road edge) is surveyed as the vehicle progresses at a maximum speed of 30 km per hour. The survey team typically includes two observers, one being the driver. For each sighting, the vehicle is safely parked in a road pullout and UTM coordinates are recorded along with the estimated distance of the animal(s) from the road. Where animals are sighted close to roads and a risk of collision with vehicles is possible, the environmental monitor reports the number of animals, location, and direction of travel to the mine radio dispatcher who informs all vehicle operators. In

addition, all vehicle operators report ungulates seen along the road to the dispatcher.

# 7.5 HISTORICAL RESULTS

Ground surveys commenced shortly following the onset of AWAR construction (2007). Sampling intensity has been uniform along the entire length of the AWAR since 2009; surveys along the Vault Road have been irregular since its completion, but will be included in regular surveys in 2016. Over the past nine years, surveys have been completed along the AWAR every 3.9 to 6.1 days. Survey details are provided in **Table 7.1**.

**Table 7.1:** Details of AWAR Surveys from 2007 to 2015.

Connen				Numbe	er of AWA	R Surveys	5		
Season	2007	2008	2009	2010	2011	2012	2013	2014	2015
Spring (April to May)	13	15	15	9	10	14	9*	11	17
Summer (June to July)	24	7	10	9	9	13	13	7	16
Fall (August to September)	8	15	8	12	11	12	10	11	11
Winter (Jan to Mar, Oct to Dec)	33	57	25	36	33	38	31*	38	32
Year End Total	78	94	58	66	63	77	63	67	76
Duration	1-Mar to 31-Dec			21-Jan to 17-Dec	10-Jan to 30-Dec	4-Jan to 29-Dec	2-Feb to 27-Dec	12-Jan to 30-Dec	03-Jan to 18-Dec
Average Frequency of Surveys (over duration)**	4.1 days	3.9 days	6.1 days	5.6 days	6.0 days	4.7 days	6.0 days	5.5 days	4.7 days

<sup>\*</sup> No surveys completed in January or April 2013 due to personnel availability and weather conditions

### 7.6 2015 RESULTS

# 7.6.1 AWAR Surveys

The number of AWAR surveys completed each season in 2015 is provided in **Table 7.1**. The AWAR surveys completed in 2015 (n=76) are comparable to previous years with a survey conducted on average every 4½ days over the course of the year. Survey frequency was highest during months where Caribou movements are known to increase (i.e., nine surveys in May, June, and October). Raw road survey data is provided in **Appendix D**.

Mammal species identified and observed during AWAR surveys in 2015 included Arctic Fox, Arctic Ground Squirrel (*Spermophilus parryi*), Arctic Hare (*Lepus arcticus*), Caribou, Muskox, Red Fox (*Vulpes vulpes*), Wolf, and Wolverine, while bird species included Bald Eagle, Canada Goose, Common Loon (*Gavia immer*), Common Raven, Greater White-fronted Goose (*Anser albifrons*), Herring Gull (*Larus argentatus*), Long-tailed Jaeger (*Stercorarius longicaudus*), Northern Pintail (*Anas acuta*), Peregrine Falcon, Red-breasted Merganser (*Mergus serrator*), Rock Ptarmigan (*Lagopus muta*), Rough-legged Hawk, Sandhill Crane (*Grus canadensis*), Snow Bunting (*Plectrophenax nivalis*), Snow Goose (*Anser caerulescens*), Snowy Owl, and Tundra Swan (*Cygnus columbianus*).

<sup>\*\*</sup> Frequency refers to the number of days between surveys, on average over the year

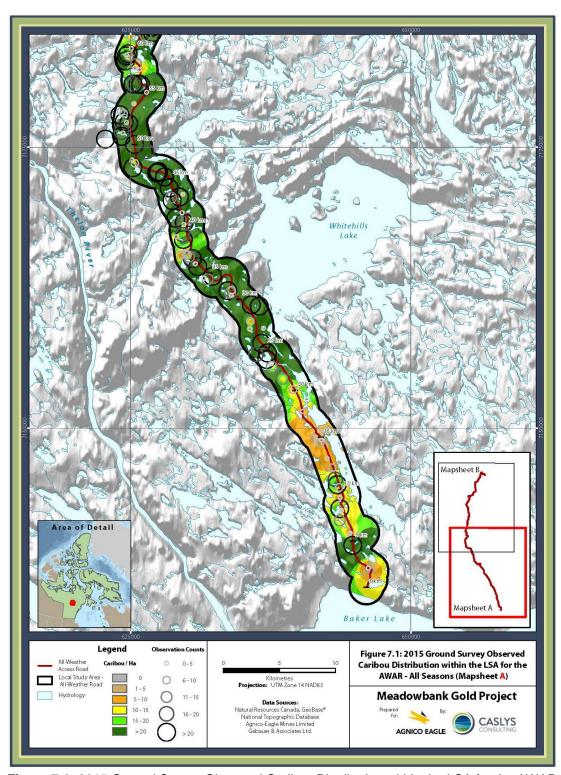
Cumulative Caribou density along the AWAR for 2015 (all seasons) is provided in **Figure 7.1**. The highest Caribou densities in 2015 were from south of Whitehills Lake (Km 20) to west of Tehek Lake (Km 75). Higher densities were also recorded at the north end of the AWAR LSA (km 100) in 2015.

The 2015 Caribou occurrence data were added to the 2008 to 2014 datasets with the resulting cumulative Caribou numbers presented in **Figure 7.2**, which illustrates that over the last nine years of surveys the highest cumulative Caribou abundances along the AWAR continue to be in areas closest to the Hamlet of Baker Lake between Km 0 to 5 and Km 5 to 10 (cumulative density of 1,705 and 1,529 caribou/km, respectively), and south of Whitehills Lake between Km 25 to 30 (1,863 Caribou/km). High Caribou abundances were also observed from Km 50 to 55 (1,381 Caribou/km), and 70 to 75 (1,221 Caribou/km).

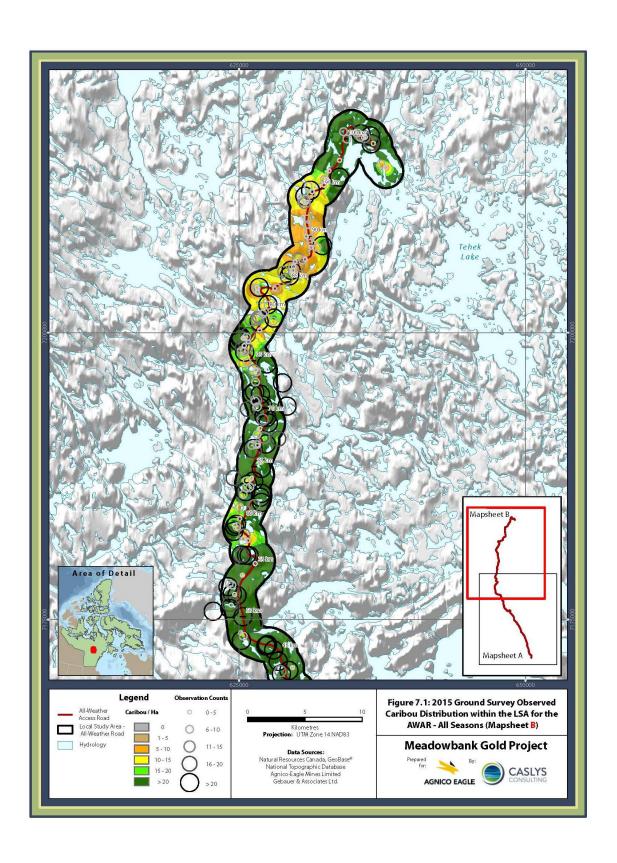
# 7.6.2 Road-related Mitigation

As in previous years, the security department assisted the environment department in preventing wildlife incidences along the AWAR by dispatching regular wildlife warnings. The AWAR supervisors and operators also ensured protection of wildlife by assisting in surveillance and were involved in shutting down the road as needed (see **Appendix B**). Notices reminding operators of the AWAR speed limit were made frequently. During Caribou peak migration along the AWAR, notices were sent to all road occupants, wildlife consultants were notified, and AWAR wildlife survey efforts were increased to at least two times per week.

Larger herds of Caribou were observed along the AWAR in mid-October and late November 2015. As in the past, in mid-October and early November, notices were sent to all employees reminding all those travelling along the AWAR to be aware of the Caribou migration. From 11 to 15 October, the road was closed between the exploration camp and Baker Lake because of Caribou on the road (see **Appendix B**). Later, hundreds of Caribou were observed migrating across the AWAR between 23 and 27 November, prompting the environment department and road operation team to close the road again to all activity until all of the Caribou completed their migration (see **Appendix B**).



**Figure 7.1:** 2015 Ground Survey Observed Caribou Distribution within the LSA for the AWAR - All Seasons (Mapsheet A and B)



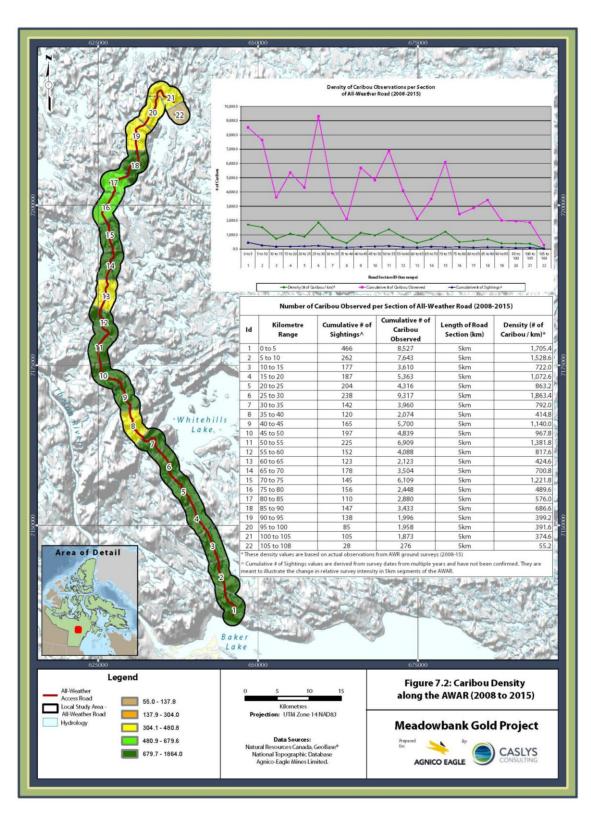


Figure 7.2: Caribou Density along the AWAR (2008 to 2015)

# 7.6.3 Wildlife Mortality – AWAR

Several wildlife mortalities were associated with the AWAR in 2015. Cumulative road kill data along the AWAR are provided in **Table 7.2**. No mortality thresholds were reached in 2015.

**Table 7.2:** Summary of AWAR-related Wildlife Fatality Records (2007 to 2014)

Year	Caribou	Grizzly Bear	Wolverine	Wolf	Fox	Small Mammals	Small Birds	Unidentified Small Animal
2007	3 <sup>1</sup>	0	0	0	0	3	3	0
2008	10 <sup>2</sup>	0	0	2	13	7	17	0
2009	1 <sup>3</sup>	0	0	0	1	6	2	0
2010	1	0	0	0	2	6	2	0
2011	2 <sup>3</sup>	0	0	1	0	5	4	0
2012	2 <sup>4</sup>	0	1	0	0	3	1	0
2013	5	0	0	0	1	1	1	0
2014	0	0	0	0	0	0	0	0
2015	0	0	0	0	1	4	2	1

<sup>&</sup>lt;sup>1</sup> Two confirmed roadkill cases

### 7.7 ACCURACY OF IMPACT PREDICTIONS

**Table 7.3** provides a summary of the impact predictions identified in the TEMP (Cumberland 2006). The 2015 AWAR survey data were compared to the impact prediction thresholds to evaluate adherence to the impact predictions and the provision of adaptive management, as either a necessary or proactive measure.

# 7.8 MANAGEMENT RECOMMENDATIONS

The AWAR survey data are useful for documenting time periods in which the area near the road is utilized by various wildlife species and is important for evaluating the need, if any, for the implementation of adaptive management (e.g., temporary road closures and radio announcements). Moreover, Caribou density can be compared graphically across years, which can be used to track changes in density and preferential migration corridors. The sections of AWAR with higher use are prioritized for temporary road closures, speed reductions or additional adaptive management strategies. The AWAR data are used in conjunction with satellite-collaring and mortality data to successfully manage road operations during heavy wildlife use periods. For the 2016 AWAR systematic ground survey monitoring program, continue to apply the Wildlife Protection and Response Plan (AEM 2014), which outlines wildlife and vehicle interaction protocols and incident reporting.

<sup>&</sup>lt;sup>2</sup> Two apparent roadkill cases

<sup>&</sup>lt;sup>3</sup> Cause of death unconfirmed

<sup>&</sup>lt;sup>4</sup> One cause of death unknown

Table 7.3: Accuracy of Impact Predictions – Sensory Disturbance and Mortality along the AWAR

Potential Effect	Threshold	Threshold Exceeded (2015)	Adaptive Management Implemented	Status
Sensory Disturbance	Mine-related construction and operation activities will not preclude Caribou and Muskoxen from using suitable habitats beyond 1,000 m of the AWAR.	NO	NO	AWAR Road Surveys Satellite-collaring Data
Project-related Mortality	Caribou or Muskoxen will not be killed or injured by vehicle collisions. Threshold level of mortality is one individual per year.	NO	YES (speed limits, notices, road closures)	AWAR Road Surveys Security Surveys
Project-related Mortality	Predatory mammals will not be killed or injured by vehicle collisions. Threshold level of mortality is one individual per year.	NO	NO	AWAR Road Surveys Security Surveys
Project-related Mortality	Small mammals are susceptible to collisions with vehicles, and some mortality is unavoidable. The threshold level of mortality beyond which adaptive management will be required is 100 small mammals per year.	NO	NO	AWAR Road Surveys
Project-related Mortality	Raptors will not be killed along the access road. Threshold is one individual as a result of vehicle collision per year.	NO	NO	AWAR Road Surveys
Project-related Mortality	Waterbirds will not be killed along the access road. Threshold is one individual as a result of vehicle collision per year.	NO	NO	AWAR Road Surveys
Project-related Mortality	Songbirds and other birds are susceptible to collisions with vehicles and windows, and some mortality may occur. The thresholds level of mortality beyond which adaptive management will be required is 50 birds per year.	NO	NO	AWAR Road Surveys

#### 8.1 OVERVIEW

In March 2007, the Baker Lake Hunter Harvest Study (HHS) was initiated by Agnico Eagle in association with the Baker Lake HTO to monitor and document the spatial distribution, seasonal patterns, and harvest rates of hunter kills and angler catches before and after construction of the AWAR.

The study was strategically revised at the end of 2007 as a result of the generally low participation rates. Participation increased steadily during the following years as a result of HTO participation, word-of-mouth, building rapport with local hunters, and an increased check-in frequency. Both Inuit and non-Inuit residents of Baker Lake, at least 16 years of age, are eligible to participate in the harvest survey.

## 8.2 OBJECTIVES

The primary objectives of the Meadowbank Harvest Study are to:

- 1. Gather information on Caribou, Muskox, and Wolverine harvest (i.e., animals retrieved) rates and Inuit hunting patterns in the Baker Lake area;
- 2. Support creel surveys by gathering information on Arctic Char (Salvelinus alpinus), Lake Trout (Salvelinus namaycush), Lake Whitefish (Coregonus clupeaformis), and Arctic Grayling (Thymallus arcticus) catch rates and Inuit-use patterns in the Baker Lake area;
- 3. Understand regional distribution of hunting and fishing activity;
- 4. Investigate seasonal timing of hunting and fishing activity;
- 5. Determine whether increased harvest and catch rates are associated with the AWAR;
- 6. Provide information on fish and wildlife harvesting in the Baker Lake area to regulators.

Note that all information related to fishing and creel study results are provided under separate cover.

### 8.3 METHODOLOGY

Detailed survey methods, survey timing, and promotional strategies are available in previous annual monitoring reports. Briefly, harvest study staff visit hunter harvest study participants on a quarterly basis to document harvests (which are written on the provided annual hunter harvest calendar), and discuss general hunting trends and observations. Staff also conduct radio addresses and post promotional material around the Hamlet of Baker Lake during the quarterly visits. Participation reached a plateau in 2012.

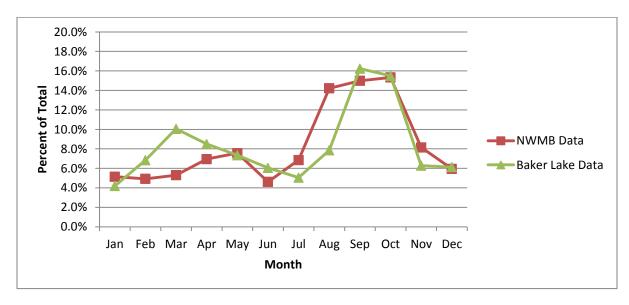
### 8.4 HISTORICAL RESULTS

The Baker Lake HTO member list (provided by Ms. Joan Scottie [HTO Board Member] in 2008) consisted of 683 local area hunters/trappers/fishermen (collectively termed 'hunter' for the remainder of this memo), a number that has likely changed since then. The 2008 member count is anticipated to be a highly conservative (i.e., high) estimate of the number of individuals that hunt, trap or fish in the community as the list typically includes entire families. If just the heads of each household are counted, there were 389 potential hunters within the Baker Lake community in 2008. Although this value is still likely conservative (given that many of these individuals do not actively hunt or fish), the number is more comparable to the comprehensive 5-year Nunavut Wildlife Harvest Study (NWMB 2005) in which 336 Baker Lake hunters were contacted / interviewed.

In 2008, 296 Caribou were reported as being harvested by Baker Lake HHS study participants. Harvest numbers steadily increased to 685 in 2011, and then decreased to 269 in 2014, the lowest reported harvest in seven years. Assuming that an average of approximately 10% of all Baker Lake hunters actively participated in the study (5% estimated for 2014; refer to **Section 8.5** for rationale), extrapolation of historical HHS values suggests approximately 3,000 to 6,000 Caribou are harvested each year in the Hamlet of Baker Lake. These estimates are in general agreement with historical harvest studies. Specifically, using the upper limit of the standard error in the Nunavut Wildlife Harvest Study, between 2,230 and 3,116 Caribou were harvested each year between 1996 and 2001 (NWMB 2005). Similarly, the Interdisciplinary Systems (IDS) report (IDS 1978) estimated an annual Caribou harvest in Baker Lake of 4,100 during the 1970s.

Between 1996 and 2001, 18% of Caribou harvests were estimated to be within 5 km of the AWAR (prior to construction) and 67% of harvests occurred within the RSA (NWMB 2005). In the first year of the HHS study (2007), prior to completion of the AWAR, 34% of harvests were reported within 5 km of the AWAR alignment and 79% were recorded within the RSA. The HHS data (2007 to 2014) fluctuate between 34 and 43% of reported harvest within 5 km of the AWAR, and between 73 and 85% within the RSA. The percentage of harvested Caribou adjacent to the road relative to the total Caribou harvested each year is a good indicator of annual variability in hunting distribution (as compared to total kill counts along the road), as its value is assumed to be independent of the number of study participants (i.e., continuous random sampling of the total population).

Based on the NWMB (2005) and HHS results (2007 to 2014), highest Caribou harvests have occurred in September and October, with a second smaller peak in spring (**Figure 8.1**; **Table 8.1**). The similar pattern between the studies indicates that seasonal hunting preferences have not changed markedly in the last decade.



**Figure 8.1:** Percent of Annual Caribou Harvest for the NWMB (2005) and Baker Lake HHS (2007 to 2015).

## 8.5 2015 RESULTS

At the end of 2015, hunting data had been collected from 36 participants interviewed, which is a continued decrease from a peak in 2012 when 62 were participants interviewed (the highest number of participants in a single study year). The total number of participants recording Caribou harvest during the course of each study year has remained fairly constant (ranging between 35 and 45 hunters each year); however, in 2014 and 2015, only 27 and 28 participants, respectively, recorded Caribou harvests with an average of 6.3 and 7.6 participants recording harvest each month. Lower reported harvest numbers are likely a reflection of participant fatigue and declining response rate, given the length of time the study has been ongoing. Based on 2014 and 2015 results, an estimated 5% of Baker Lake hunters are actively participating in the HHS. Prior to 2014, the estimated rate of participation was 10% of Baker Lake hunters participating, based on the 2008 HTO member list. Increased involvement of the HTO in subsequent years will help refine some of these assumptions.

The hunters participating in the HHS appear to be representative of the hunting population in Baker Lake, consisting of male, female, casual, regular, and intensive hunters. Estimates from HHS data to-date suggest that the 10% of hunters participating in the HHS (until 2014, as noted above) account for 10 to 15% of total Caribou harvests in the Hamlet of Baker Lake, assuming that the participating hunters are likely those that are more actively involved in hunting. The 2005 NWMB study reported a decreasing number of Caribou harvests over time (refer to **Table 8.1**), which was attributed to a decline in the number of hunters interviewed and a declining response rate (i.e., 81% in 1996/97 to 55% in 2000/01). For the Baker Lake HHS, the overall number of participants, the number of interviews conducted, and the response rates appear to be following this pattern and have decreased up to the current year.

Table 8.1: Hunter Caribou Harvest Statistics from the NWMB (2005) Study and Baker Lake HHS (2007 to 2015).

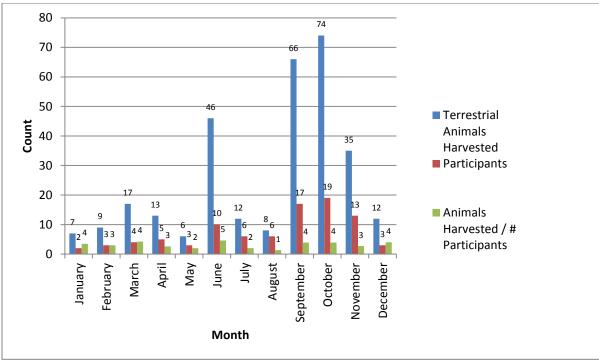
# Baker Lake Wildlife Harvest Study – Agnico Eagle Mines Ltd.

Year	January	February	March	April	May	June	July	August	September	October	November	December	Yearly Total
2007		7	89	22	44	6	6	6	37	14	5	2	238
2008	13	15	14	10	19	14	25	34	56	47	24	25	296
2009	42	52	41	28	28	18	30	88	114	102	11	33	587
2010	27	35	34	66	47	41	46	67	82	117	48	18	628
2011	14	47	64	53	78	39	42	35	123	108	2	75	680
2012	43	30	60	71	41	44	13	19	39	37	72	27	496
2013	5	47	55	28	18	18	20	46	76	40	35	32	420
2014	13	26	20	42	7	11	4	5	43	68	14	16	269
2015	7	9	17	13	6	46	12	8	66	74	35	12	305
Total #	164	268	394	333	288	237	198	308	636	607	246	240	3,919
Average	20.5	29.8	43.8	37.0	32.0	26.3	22.0	34.2	70.7	67.4	27.3	26.7	435.4
% of Total	4.2%	6.8%	10.1%	8.5%	7.3%	6.0%	5.1%	7.9%	16.2%	15.5%	6.3%	6.1%	100.0%

# Nunavut Wildlife Harvest Study - Nunavut Wildlife Management Board (NWMB)

Year	January	February	March	April	May	June	July	August	September	October	November	December	Yearly Total
1996						141	190	490	428	435	202	178	2,064
1997	118	144	146	167	217	159	162	354	322	553	295	196	2,833
1998	137	124	192	193	159	85	163	153	272	407	254	135	2,274
1999	137	131	99	211	222	111	148	433	528	409	74	66	2,569
2000	96	86	75	135	213	76	187	333	309	98	186	163	1,957
2001	150	126	146	156	127								705
Total #	638	611	658	862	938	572	850	1,763	1,859	1,902	1,011	738	12,402
Average	127.6	122.2	131.6	172.4	187.6	114.4	170	352.6	371.8	380.4	202.2	147.6	2,067
% of Total	5.1%	4.9%	5.3%	7.0%	7.6%	4.6%	6.9%	14.2%	15.0%	15.3%	8.2%	6.0%	100.0%

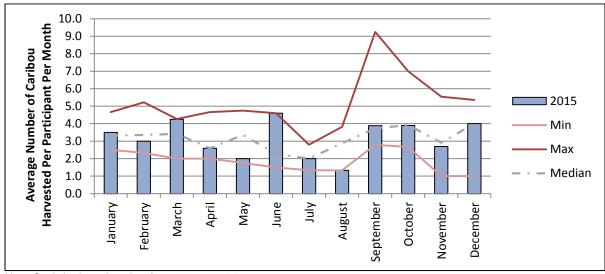
Peak harvest occurred in the spring (March, June) and fall (September and October) in 2015, which was a similar pattern as in previous years (**Figure 8.2**). The average number of participants (recording harvests) per month in 2015 (n= 7.6) was higher than in 2014 (n=6.3), the lowest since the first year of the HHS. The average monthly participation rate was highest in 2010 (n=17 participants per month recording harvest).



Note: Results are rounded to the nearest whole number.

Figure 8.2: Terrestrial Animals Harvested per Month and by Participant in 2015.

In total, 305 animals were reported harvested in 2015, consisting of 304 Caribou and one Wolverine. Total recorded harvest numbers are approximately half of the harvest recorded in 2010 (n=628) and 2011 (n=695). In 2015, monthly Caribou harvest per participant was generally at the median (based on statistics for 2007 to 2015), but showed above average rates in March and June (**Figure 8.3**). The average number of Caribou harvested per month per participant in 2015 (n=3.3) has remained fairly constant through the HHS, ranging from n=3.0 to n=3.5 in previous years.



Note: Statistics based on data from 2007 to 2014.

Figure 8.3: Average Number of Caribou Harvested per Month, per Participant (2007 to 2015).

Caribou harvests within the study area are illustrated in **Figure 8.4**. Annual variation in harvest location and intensity is attributable to numerous factors. For instance, many hunters have stated during informal discussions that they have a 'favorite' hunting area that they frequent each year. Some hunters have stated that they prefer hunting in 'convenient' locations, whereas other hunters prefer remote locations well away from frequented areas. A percentage of hunters also enjoyed partaking in long distance hunting trips over multiple days.

The total number of Caribou harvested along the AWAR increased during the first few years of the HHS, but has been lower over the past three years of data, likely related to an overall decrease in number of participants and total harvest.

In 2015, the percent of harvest within the RSA was 84%, slightly down from 2014 (83%) and higher than the average from 2007 to 2014 (79%; see **Table 8.2**). Comparatively, in the historical NWMB study (i.e., baseline condition), percent Caribou harvest within the RSA was 67%. To date, the threshold level of 20% change in hunting patterns within the RSA has not been exceeded (e.g., in 2015, 67% baseline compared to 84% = 17% change; see **Table 8.2** and **Figure 8.5**)(Note: previous annual reports reported results and exceedances of 20% within 5 km of the road, but according to the TEMP [2006] actual thresholds of 20% are linked to the RSA). The total number of Caribou harvested within 5 km of the AWAR in 2015 was 165 animals, which represented 54% of all harvests recorded by participants and is higher than the average of 40% since 2007 (**Table 8.2**). In the historical NWMB study (i.e., baseline condition), Caribou harvests within 5 km of the road were estimated to be 18% of total harvest year round (**Table 8.2**). As participant rates decline, interpretations of data become more challenging because of the inherent biases of a smaller sample set.

Reported counts for Muskox and Wolverine remained low, precluding any interpretation of potential mine-related effects. Low densities of these species and their general aversion to humans require hunters to hunt well away from the AWAR; therefore, the presence of the AWAR is thought to have little effect on participant hunting patterns for Muskox and Wolverine. Wolverine harvest reports have decreased from a maximum of 15 animals in 2010 to one animal in 2015.

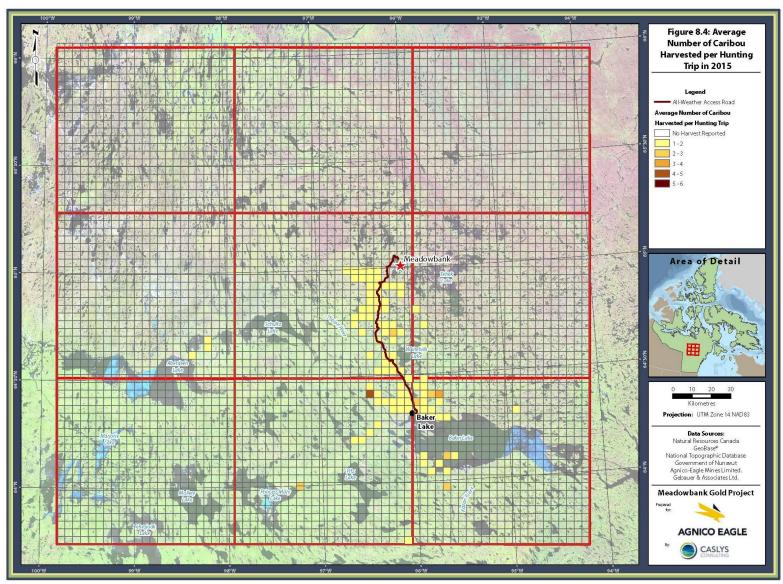
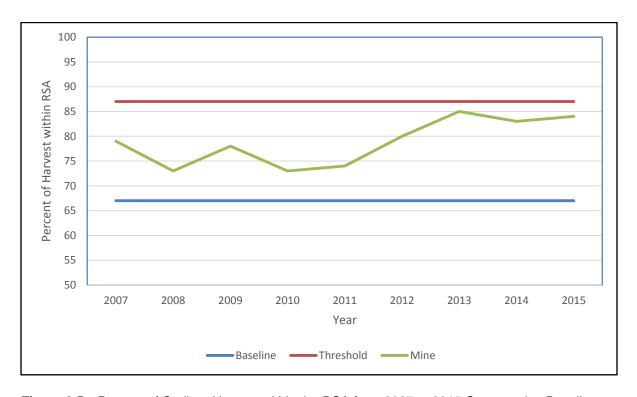


Figure 8.4: Average Number of Caribou Harvested per Hunting Trip in 2015



**Figure 8.5:** Percent of Caribou Harvest within the RSA from 2007 to 2015 Compared to Baseline and Threshold Levels.

**Table 8.2**: Caribou Harvest Distribution along the AWAR and within the Meadowbank LSA and RSA (1996 to 2001, and 2007 to 2015).

Study	Participation Rate within 5 km of AWAR	Average Caribou Harvest within 5 km of AWAR per participant	% of annual harvest within 5 km of AWAR	% of harvest within Meadowbank LSA	% of harvest within Meadowbank RSA
NWMB 1996 to 2001	n/a	n/a	18%	7%	67%
Baker Lake HHS 2007	17 (49%)	4.8	34%	12%	79%
Baker Lake HHS 2008	16 (94%)	6.9	37%	28%	73%
Baker Lake HHS 2009	27 (75%)	7.9	36%	20%	78%
Baker Lake HHS 2010	33 (89%)	7.3	38%	22%	73%
Baker Lake HHS 2011	40 (85%)	7.1	42%	25%	74%
Baker Lake HHS 2012	31 (67%)	5.6	35%	20%	80%
Baker Lake HHS 2013	38 (86%)	4.8	43%	27%	85%
Baker Lake HHS 2014	19 (70%)	5.7	40%	28%	83%
Baker Lake HHS 2015	24 (67%)	6.9	54%	34%	84%
Average (2007 to 2014)	27 (76%)	6.3	40%	24%	79%

## 8.6 ACCURACY OF IMPACT PREDICTIONS

**Table 8.3** provides a summary of the impact predictions identified in the TEMP (Cumberland 2006). The 2015 HHS data were compared to the impact prediction thresholds to evaluate adherence to the impact predictions and the provision of adaptive management, as either a necessary or proactive measure.

Table 8.3: Accuracy of Impact Predictions – Baker Lake Hunter Harvest Study

Potential Effect	Threshold	Threshold Exceeded (2015)	Adaptive Management Implemented	Status
Hunting by Baker Lake Residents	The AWAR will not result in significant changes in the spatial distribution, seasonal pattern, or harvest levels of caribou kills by Baker Lake hunters. Changes will not exceed 20% of historical harvest activities within the RSA	NO (average of 79% [max of 85%] harvest within RSA since 2007 compared to 67% pre-project)	Future discussion with HTO and GN representatives required to identify management options	Hunter Harvest Study
Hunting by Baker Lake Residents	Caribou herds will not be significantly affected by year-round access to the RSA.	NO	YES; AWAR Access Protocols	Satellite-collaring Data Hunter Harvest Study

## 8.7 MANAGEMENT RECOMMENDATIONS

As stated in the TEMP (Cumberland 2006), the HHS was established to monitor the spatial distribution, seasonal patterns, and harvest rates prior to and following construction of the AWAR. Declining participant rates in 2014 and 2015, likely due to participant fatigue, has led to reconsideration of the HHS approach in 2016. Lower participant rates and reduced data make it increasingly difficult to determine hunting patterns in the Baker Lake area and along the AWAR, and to answer fundamental questions on the effect of the mine on regional Caribou populations. Agnico Eagle has suspended the program for 2016, but will be consulting with the Baker Lake HTO and GN representatives to discuss the findings of the study to date, explore other options for collecting hunting and fishing data in the Baker Lake area, and facilitate greater involvement of the local community, including the HTO, in future years of the study.

#### SECTION 9 • CARIBOU SATELLITE-COLLARING PROGRAM

### 9.1 OVERVIEW

Agnico Eagle is participating in the GN DoE Caribou satellite-collaring program that includes data collected within the Meadowbank RSA. The GN biologists discuss collar deployments with hunters and elders, and get approval prior to proceeding. In 2016, Agnico Eagle will discuss with GN the best path forward to ensure caribou maps continue to integrate elders and local HTO input.

Information pertaining to the identification and location of various herds that use the RSA at different times of the year are important components of ongoing monitoring and management efforts at the mine site and along the AWAR.

#### 9.2 OBJECTIVES

The satellite-collaring program was developed to provide information on the distribution of Caribou occurring within the Meadowbank RSA and contribute data to other ongoing satellite-collaring programs for the Ahiak, Qamanirjuaq, and other herds. The satellite-collaring program, along with GN DoE regional data, is an important monitoring and management tool that provides a regional perspective on Caribou activity near mine operations.

#### 9.3 DURATION

The satellite-collaring program was initially designed to continue for five consecutive years in accordance with the TEMP (Cumberland 2006), but collar monitoring has continued beyond this period. Caribou in the Baker Lake area were collared in May 2008, November 2009, April 2011, April 2013, and April 2015. Monitoring of collars will continue in 2016 (i.e., 9<sup>th</sup> year of collar monitoring). Agnico Eagle is committed to providing funding for this program moving forward.

### 9.4 METHODOLOGY

Caribou are carefully netted by the contracted satellite-collaring crew via helicopter and fitted with an Advanced Research and Global Observation Satellite (ARGOS) GPS Type IV radio-collar. Collar data are regularly<sup>1</sup> retrieved electronically via satellite and distributed to GN DoE and Nunavut Environmental personnel by CLS America, the data-management company.

Deployed collar data were included in a population distribution analysis completed for the GN (Nagy et al. 2011). The clustering and movements of each collar were examined and assigned to the sub-population (i.e., Ahiak, Beverly, Lorillard, Qamanirjuaq, and Wager Bay) that best fit that collar's movement characteristics.

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<sup>&</sup>lt;sup>1</sup> Data are often retrieved on a daily basis, but may vary depending on signal strength and weather conditions.

### 9.5 HISTORICAL RESULTS

Collaring was originally scheduled to commence in 2007, but was postponed for one year due to logistical constraints. Five deployments have been completed in the area around Baker Lake since Agnico Eagle became involved in the collaring program, with the following number of collars successfully deployed:

- 9 collars (Agnico Eagle) in May 2008;
- 21 collars (shared by Agnico Eagle and AREVA) in November 2009;
- 13 collars (Agnico Eagle) in April 2011; and
- 15 collars (shared by Agnico Eagle and AREVA) in April 2013.
- 10 collars (Agnico Eagle) in April 2015.

Historical collar data have all been assigned to one of the five major sub-populations, as discussed above. Also included in **Section 9** figures are collared Caribou from the Qamanirjuaq herd, which are part of a separate GN program. These telemetry data are included because of the proximity of animals of this herd to the Meadowbank RSA.

## 9.6 2015 RESULTS

As of December 2015, 15 collars were active, seven from the 2013 deployment and eight from the 2015 deployment. A summary of 2015 locations and movement patterns for animals collared around Baker Lake is provided below and summarized in **Figure 9.1**. Movements for Qamanirjuaq herd collared animals, a program also supported by Agnico Eagle, are provided for context. Movements of collared Caribou in close proximity to the Meadowbank RSA and LSA in 2015 are shown in **Figure 9.2**. Seasonal movements are discussed below.

#### Late Winter (January 1 to March 31)

In late winter, collared Caribou were located east of Baker Lake, northwest of Aberdeen Lake, and east of Bathurst Inlet (**Figure 9.3**). These areas are historical wintering areas for Caribou from the Ahiak, Lorillard, and Wager Bay herds. Most collared animals from the Qamanirjuaq herd were in the northeast Northwest Territories and northern Manitoba, presumably within the treeline (**Figure 9.3**). To date, no Caribou collared in the Baker Lake area have been present within the Meadowbank LSA or RSA during the late winter season; however, historical data for other satellite-collared animals have shown wintering Caribou from the Lorillard, Wager Bay, and Qamanirjuaq herds as occurring within the Meadowbank RSA.

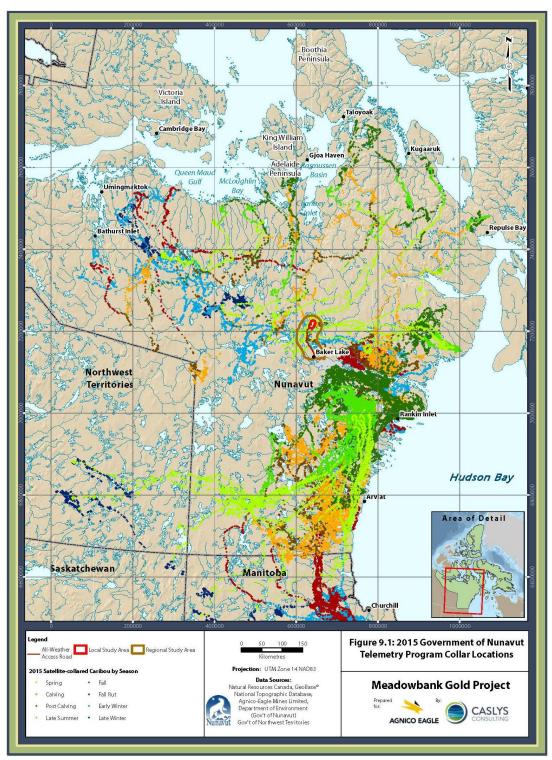


Figure 9.1: 2015 Government of Nunavut Telemetry Program Collar Locations

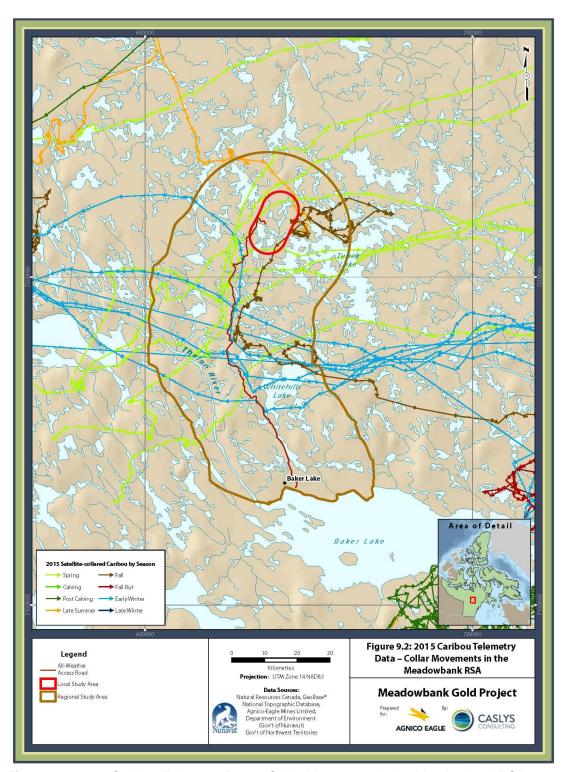


Figure 9.2: 2015 Caribou Telemetry Data – Collar Movements in the Meadowbank RSA

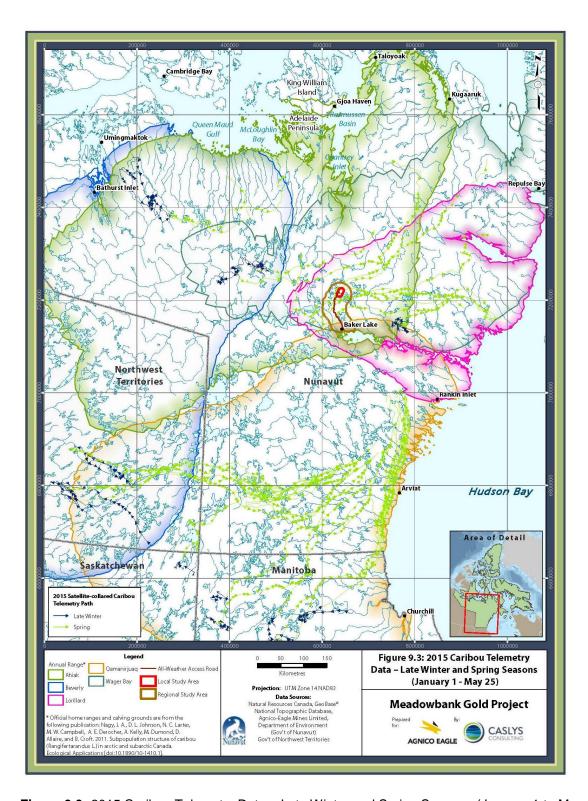


Figure 9.3: 2015 Caribou Telemetry Data – Late Winter and Spring Seasons (January 1 to May 25)

## Spring (April 1 to May 25)

Seven Caribou migrated through the Meadowbank RSA during the spring period and in some cases, collared individuals appear to be avoiding the AWAR for some time (Figure 9.2). Collared Caribou migrating through the Meadowbank RSA moved considerable distances to Wager Bay and Lorillard calving grounds between Chesterfield Inlet and Wager Bay (Figure 9.3). At least two collared Caribou migrated north towards Adelaide Peninsula and the Ahiak calving grounds, and collared individuals wintering in the Bathurst Inlet area moved toward the Beverly and Ahiak calving grounds (Figure 9.3). Qamanirjuaq collared animals underwent an extensive migration from all wintering areas to calving grounds between Rankin Inlet and Arviat. Most Caribou collared in the Baker Lake area remained within areas frequented historically by Ahiak, Wager Bay, and Lorillard herds (see ranges in Figure 9.3).

#### Calving (May 26 to June 25)

The greatest aggregation of collared Caribou during the calving season was on the Lorillard calving grounds between Chesterfield Inlet and Wager Bay (see **Figure 9.4**). Other collared Caribou (Ahiak herd) spent the calving season in vicinity of Mcloughlin Bay, the Adelaide Peninsula, the Boothia Peninsula, Taloyoak, and Repulse Bay (**Figure 9.4**). Most of the collared Caribou from the Qamanirjuaq herd remained near their traditional Qamanirjuaq calving grounds west of Rankin Inlet. No collared animals occurred within the Meadowbank RSA during the 2015 calving season (**Figure 9.4**).

#### Post-Calving (June 25 to July 31)

Collared Caribou in northern areas generally started moving south and east during the post-calving period, while collared animals from the Lorillard herd remained between Wager Bay and Chesterfield Inlet (**Figure 9.4**). Most collared animals from the Qamanirjuaq herd moved north along the southern edge of Chesterfield Inlet and Baker Lake (**Figure 9.4**). No collared Caribou were situated within the Meadowbank LSA or RSA during the post-calving season.

#### Late Summer (August 1 to September 15)

Many collared animals continued to move south during this period, with one individual that had spent the calving period in the Taloyoak area moving into the northern end of the Meadowbank RSA and the northeastern corner of the LSA (see **Figures 9.2** and **9.5**). Individuals from the Lorillard herd moved closer to Baker Lake but remained on the north side of Chesterfield Inlet, while Qamanirjuaq collared animals had spread out considerably, occurring from the south side of Chesterfield Inlet to northern Manitoba (**Figure 9.5**).

#### Fall (September 16 to October 14)

The collared animal in the northern end of the Meadowbank RSA during the late summer period moved south through the LSA and along the AWAR to just north of Whitehills Lake before moving to the east to join collared Lorillard animals (see **Figures 9.2** and **9.5**). Two collared animals summering in the Adelaide Peninsula and Boothia Peninsula moved west toward Bathurst Inlet (**Figure 9.5**). Collared Lorillard and Qamanirjuaq animals generally stayed in the same area as during the late summer period (**Figure 9.5**).

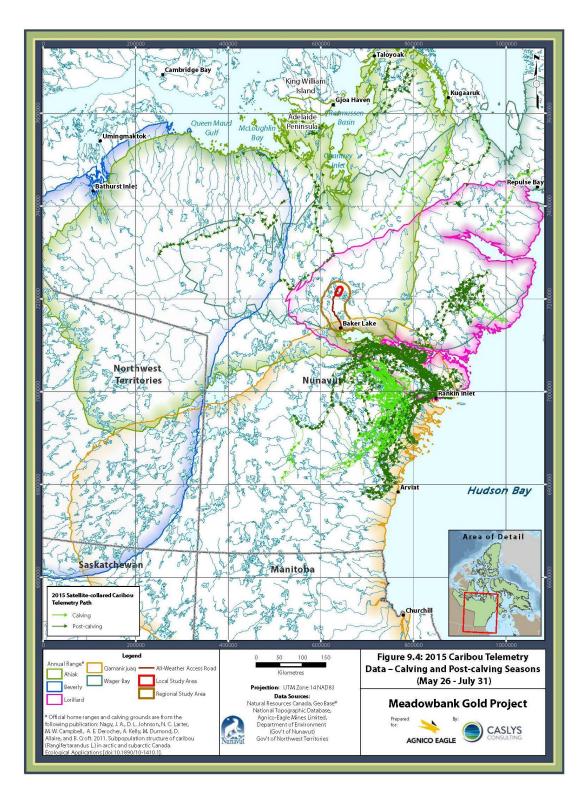


Figure 9.4: 2015 Caribou Telemetry Data – Calving and Post-calving Seasons (May 26 to July 31)

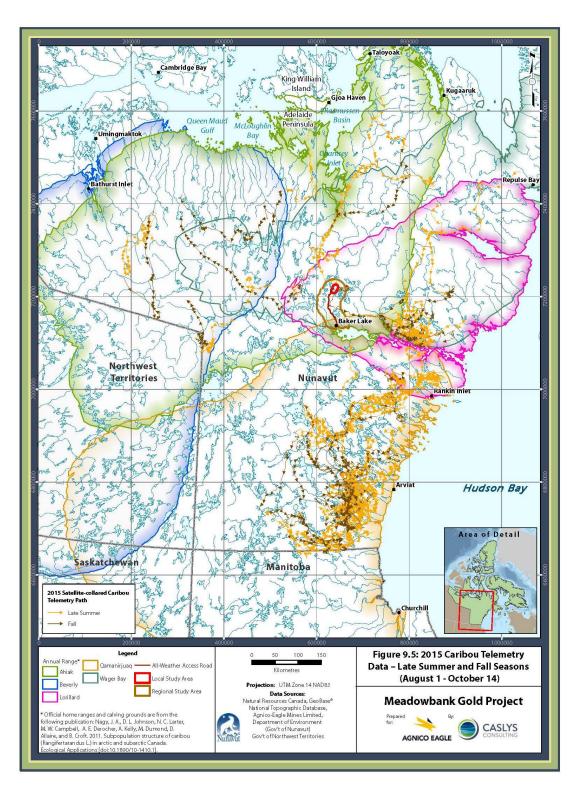


Figure 9.5: 2015 Caribou Telemetry Data – Late Summer and Fall Seasons (August 1 to October 14)

### Fall Rut (October 15 to November 7)

In the fall rut season, individuals were generally distributed in three discrete areas: 1) east of Baker Lake and north of Chesterfield Inlet (Lorillard herd); 2) south and west of Bathurst Inlet and Umingmaktok (Ahiak herd); and 3) in northern Manitoba and coastal areas around Rankin Inlet and Arviat (Qamanirjuaq herd) (**Figure 9.6**).

#### Early Winter (November 8 to December 31)

In early winter, collared animals from the Lorillard herd moved from east to west through the Meadowbank RSA (**Figures 9.2** and **9.6**). Most animals appeared to walk along the AWAR before crossing Several collared individuals remained east of Bathurst Inlet (**Figure 9.6**). Most collared Caribou from the Qamanirjuaq herd moved further south into northern Manitoba while one animal remained in the Rankin Inlet area (**Figure 9.6**).

#### All Seasons

An overview of collared Caribou distribution in 2015 for all seasons is provided in **Figure 9.1.** These data include all remaining active collars from 2013 and 2015 deployments around the Baker Lake area. General trends in seasonal distribution are evident and are comparable to findings from previous years for animals collared in this area. Collared Caribou calved (medium green symbol) in four distinct areas: 1) McLoughlin Bay (Ahiak herd); 2) the base of the Boothia Peninsula, between Rasmussen Basin and Kugaaruk (Ahiak herd); 3) between Chesterfield Inlet and Wager Bay (Lorillard herd); and 4) south of Chesterfield Inlet in the traditional calving grounds of the Qamanirjuaq herd. In winter, animals were either north of the Thelon River system from east of Baker Lake to east of Bathurst Inlet, or on Qamanirjuaq wintering grounds (see discussion below).

Within the Meadowbank RSA, collared Caribou were present during the spring, late summer, fall, and early winter (**Figure 9.2**). Movements of collared Caribou across the Meadowbank AWAR in 2015 occurred during the spring and fall migrations of the Lorillard herd (see **Figure 9.2**). As in most monitoring years to date, no collared Caribou were found within the Meadowbank RSA during the calving or post-calving seasons.

At the end of 2015, 15 satellite collars originally deployed near Baker Lake continued to be active and tracked, with results being downloaded on a regular basis. Caribou collaring maps are posted at the Meadowbank mine site for staff to observe.

## 9.7 CARIBOU MIGRATION PATTERNS

A summary of Caribou migration patterns, which synthesizes migration information from satellite-collaring data to 2012 and was developed by the GN for the spring and fall migrations, was provided in the 2014 annual report. As these figures have not been updated, they are not discussed in this year's report.

**Figure 9.7** shows all walk lines of collared Caribou within the Meadowbank RSA since 2011 (5 years). A pattern of animals being deflected from the AWAR appears to be evident (see also **Figure 9.2** for 2015 results only). Movements of Caribou through the Meadowbank RSA are most evident in the spring and fall migratory periods (see **Figures 9.2, 9.3** and **9.5**). In 2016, Agnico Eagle will discuss with GN the best path forward to ensure caribou maps continue to integrate elders and local

# HTO input.

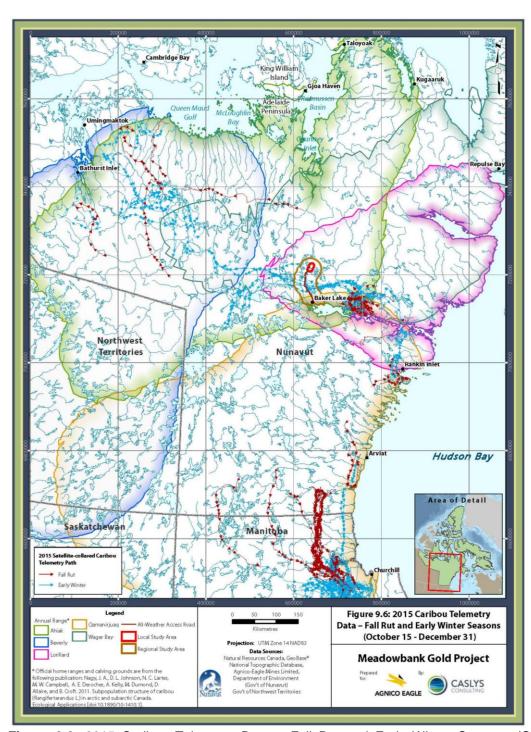


Figure 9.6: 2015 Caribou Telemetry Data - Fall Rut and Early Winter Seasons (October 15 to December 31)

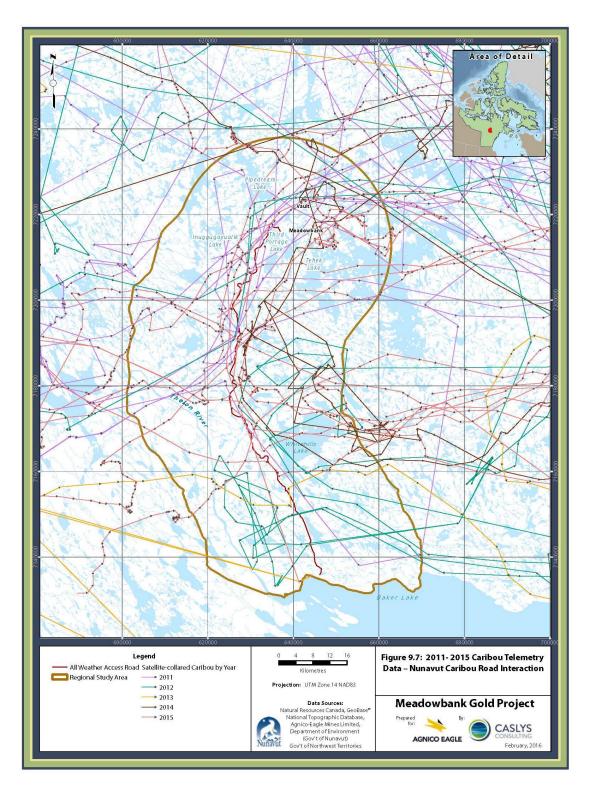


Figure 9.7: 2011 to 2015 Caribou Telemetry Data – Nunavut Caribou Road Interaction

# 9.8 ACCURACY OF IMPACT PREDICTIONS

A summary of the impact predictions identified in the TEMP is provided in **Table 9.1**. The 2015 satellite-collaring data were compared to the impact prediction thresholds to evaluate adherence to the impact predictions and the provision of adaptive management, as either a necessary or proactive measure.

Table 9.1: Accuracy of Impact Predictions – Satellite-collaring Data

Potential Effect	Threshold	Threshold Exceeded (2015)	Adaptive Management Implemented	Status
Sensory Disturbance	Mine-related construction and operation activities will not preclude Caribou and Muskoxen from using suitable habitats beyond 500 m of mine buildings, facilities and roads. Threshold is unnatural caribou use patterns beyond 1,000 m.	POSSIBLE	YES. Road closures and notices. Further analysis will be conducted by GN (in partnership with Agnico Eagle)	Satellite-collaring data  Daily and weekly minesite ground surveys  AWAR Road Surveys
Hunting by Baker Lake Residents	Caribou herds will not be significantly affected by year-round access to the RSA.	NO	NO	Satellite-collaring data Hunter Harvest Study

### 9.9 MANAGEMENT RECOMMENDATIONS

The satellite-collaring data depict Caribou movements within and through the Meadowbank RSA and LSA during the spring, late summer, fall, and early winter seasons with no occurrences during the other seasons. As was noted previously, the AWAR appears to be altering natural movements patterns by collared Caribou (see **Figures 9.2** and **9.7**). An analysis of collar data by the GN (in partnership with Agnico Eagle) as part of the caribou collaring and monitoring program, will be conducted to determine project-related effects due to the AWAR.

Agnico Eagle environment department should continue to closely monitor Caribou movement in the weeks leading up to these annual migrations using the latest available satellite-collaring and AWAR survey data as well as incidental reports from staff utilizing the AWAR on a regular basis (e.g., security personnel). Notification and announcements, staff re-education, specific dispatch protocols, and temporary road closures should continue to be implemented, as in previous years, as a proactive adaptive management strategy. As well, the GN, with support from Agnico Eagle, is planning on deploying additional collars on Caribou in the Baker Lake area in 2016, which will ensure that ongoing satellite-collaring information on Caribou movements and distribution are accessible to Agnico Eagle for monitoring purposes.

### **SECTION 10 • SUMMARY**

The 2015 Wildlife Monitoring Summary Report describes the data collected to date from the various monitoring programs, and describes natural and mine-related variability and potential mine-related effects within wildlife populations.

In 2015, monitoring efforts continued to focus on areas immediately around the mine site and AWAR. At this local scale, emphasis was on monitoring presence and success of breeding birds, waterbirds and raptors, as well as monitoring and management of wildlife presence near the mine facilities and infrastructure. More regional-scale monitoring efforts focused on Caribou movement through ongoing satellite-collaring studies, while hunter harvest surveys collected information on the use of wildlife (mostly Caribou) by the community. As well in 2015, another set of PRISM plots was conducted and a detailed analysis of project-related effects on upland breeding birds was undertaken. A small subset of bird transects was surveyed in 2015 in support of the dustfall study.

In 2015, threshold levels were exceeded for mine-related waterfowl mortality at the mine site, and possibly Caribou movement patterns. Discussions with HTO and GN personnel will be planned to discuss more effective management and mitigation strategies. A summary of potential project effects, threshold levels, and the 2015 monitoring results is provided in **Table 10.1**.

Monitoring programs will continue to evolve throughout the life of the mine, contingent on data quality objectives and the necessity for adaptive management strategy implementation and subsequent effectiveness monitoring. Adjustments to the intensity and frequency of monitoring and the extent of statistical analyses will vary between years depending on observed trends to date, data gap analysis, and determinations of effect.

March 2016 Summary

 Table 10.1: Potential Project Effects, Thresholds, and Results of Monitoring in 2015.

Potential Effect	Thresholds	Monitoring Methods	Frequency	Completed in 2015	Threshold Exceeded (2015)
Vegetation (Wildlife Habitat)					
Habitat Loss	Mine Site – 867 ha AWAR – 281ha	Ground Surveys, Mapping, GIS Analysis	Every three tears (next is 2017)	NO	NA
Habitat Degradation by Contamination	See SLRA 2014	Vegetation and Soil Samples	Every three years	NO	NA
Habitat Reclamation following Mine Closure	NA	Ground Surveys, Vegetation Plots, Mapping	Every three years to 11 years post- vlosure	NO	NA
Ungulates					
Habitat Loss and Degradation	Growing – 240 ha of High Suitability Habitat Winter – 191 ha of High Suitability Habitat	Ground Surveys, Mapping, GIS Analysis	Every three years (next in 2017)	NO	NA
Sensory Disturbance	Mine Site - 500m AWAR – 1,000m	Ground Surveys, Satellite- collaring	Daily / weekly	YES	POSSIBLE Indication of disturbance (follow up work by GN on road-related effects)
Vehicle Collisions	1 individual	Ground surveys, Collision Reporting System	Mine site – daily AWAR - >1/week	YES	NO No mortality in 2015
Hunting by Baker Lake Residents	20% Change in Harvest Patterns in RSA from Historic	Hunter Harvest Study	Yearly	YES	NO 84% of harvest within RSA in 2015 compared to 67% prior to project HHS being revisited to improve data collected
Other Mine-related Mortality	1 individual	Ground surveys	Daily	YES	NO No mortality at mine to date
Exposure to Contaminated Water or Vegetation	See SLRA 2014	Vegetation and Soil Samples	Every three years	NO	NA
Predatory Mammals					
Project-related Mortality	1 individual	Ground Surveys, Collision Reporting System	Mine site – daily AWAR - >1/week	YES	NO

Table 10.1: Continued.

Potential Effect	Thresholds	Monitoring Methods	Frequency	Completed in 2015	Threshold Exceeded (2015)
Small Mammals					
Habitat Loss and Degradation	178 ha of High Suitability Habitat	Ground Surveys, Mapping, GIS Analysis	Every three years (next in 2017)	NO	NA
Project-related Mortality	100 Individuals	Ground Surveys, Collision Reporting System	Mine site-daily AWAR - >1/week	YES	NO
Exposure to Contaminated Water or Vegetation	See SLRA 2014	Vegetation and Soil Samples	Every three years	NO	NA
Raptors					
Healthy Prey Populations	See SLRA 2014	Vegetation and Soil Samples	Every three years	NO	NA
Disturbance of Nesting Raptors	1 Nest Failure	Active Nest Monitoring	Nests within 200 m - daily Nests from 200 to 1000 m - weekly	YES	NO
Project-related Mortality	1 individual	Ground Surveys, Collision Reporting System	Mine site - daily AWAR - >1/week	YES	NO
Waterbirds					
Habitat Loss and Degradation	518 ha of High Suitability Habitat	Ground Surveys, Mapping, GIS Analysis	Every three years (next in 2017)	NO	NA
Disturbance of Nesting Waterfowl	1 Nest Failure	Waterfowl Nest Surveys	Yearly - for active nests within 200 m	YES	NO
Exposure to Contaminated Water or Vegetation	See SLRA 2014	Vegetation and Soil Samples	Every three years	NO	NA
Project-related Mortality	1 individual	Ground Surveys, Collision Reporting System	Mine site - daily AWAR - >1/week	YES	YES 1 dead duck and 1 Canada Goose at mine site

Table 10.1: Continued.

Potential Effect	Thresholds	Monitoring Methods	Frequency	Completed in 2015	Threshold Exceeded (2015)
Other Breeding Birds					
Habitat Loss and Degradation	322 ha of High Suitability Habitat	Ground Surveys, Mapping, GIS Analysis	Every three years (next in 2017)	NO	NA
Project-related Mortality	50 Individuals Per Year	Ground Surveys, Collision Reporting System	Mine site - daily AWAR - >1/week	YES	NO
Exposure to Contaminated Water or Vegetation	See SLRA 2014	Vegetation and Soil Samples	Every three years	NA	NA
Changes in Breeding Bird Populations	20% Change from Natural	Breeding Bird Plots and Transects	PRISM – every three years (next in 2018) Transects - suspended	YES	NO

#### 2015 WILDLIFE MONITORING SUMMARY

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APPENDIX A	7
2015 Wildlife Observation Record	sk
2015 Wildlife Observation Record	ds

Appendices

March 2016

# Meadowbank Wildlife Log - January-May 2015

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2015-01-01	9:00	Reported	Wolverine	2	East Dike	Crossing Lake	Orest - D/D	None
2015-01-01	13:00	Reported	Wolf	1	Pit B	Crossing Pit B to East Dike	Mine	Patrolled Area - Wolf emerged near East Dike and went towards Dogleg
2015-01-02	10:00	Observation	Wolverine	1	Water Treatment Plant	Crossing Road from Tailings	Tom T	None
2015-01-02	13:00	Reported	Wolf	1	Pit E	Crossing Pit E Ramp	Mine	Patrolled Area - No sign
2015-01-03	14:00	Reported	Wolf	1	FGL Lake Side	Crossing Lake	Unknown	Patrolled Area - No sign
2015-01-03	15:00	Observation	Wolverine	1	Sludge Dump	Scavenging	Tom T	Deterred
2015-01-04	7:30	Observation	Fox	1	Sludge Dump	Scavenging	Tom T	Deterred
2015-01-07	12:30	Reported	Wolverine	1	Kitchen/Wing 12	Crossing road	S/S	Patrolled Area - No sign
2015-01-20	11:00	Observation	Wolverine	3	Sludge Dump/EMR/Vault	Walking	Randy S/Jamie K	None
2015-01-25	16:04	Reported	Wolverine	1	Sludge Dump	Scavenging	Site Services	None
2015-01-26	7:30	Observation	Red Fox	1	Sludge Dump	Scavenging	Tom T/Robin A	None
2015-01-27	10:00	Reported	Wolverine	1	Main Camp Doors	Unknown	Security	Patrolled area - no sign. S/S reported that Wolverine was on the move near wing 12.
2015-01-27	10:05	Observation	Wolverine	1	Wing 12	Crossing Tundra	Tom T/JP	Deterred with scare cartridges and Bangers. Detered again near Catdome and again at FGL Shop until wolverine crossed lake towards Fresh Water Barge and away from Camp.
2015-02-02	14:08	Reported	Wolverine	1	Airstrip Lakeside	Crossing Lake/Tundra	Michel Anger	Patrolled Area
2015-02-04	10:48	Reported	Wolverine	1	Sludge Dump	Crossing Tailings to EMR	Rene S/S	None
2015-02-04	16:00	Observation	Wolverine	1	Sludge Dump	Scavenging	Martin T	None
2015-02-04	17:30	Observation	Caribou	4	TPL near saddle dam	Grazzing	Martin T	None
2015-02-05	6:15	reported	Fox	1	DD near vault road	Seems injured	mine dept	Patrolled Area - No sign
2015-02-05	9:10	Observation	Wolverine	1	Sludge Dump	Scavenging	Martin T	None
2015-02-06	14:00	Observation	Caribou	6	TPL near assay lab	Grazzing	Martin T	None
2015-02-07	15:00	Observation	Caribou	10	by AWAR and TPL	Grazzing	Jamie K/Martin T	None
2015-02-08	9:15	Observation	Wolverine	1	Sludge Dump	Grazzing	Jamie K	Ran away while vacuum truck was being pulled out.
2015-02-09	9:10	Observation	Red fox	1	Sludge Dump	Marking territory	Martin T	None
2015-02-09	10:30	Observation	Caribou	6	End of airstrip	Grazzing	Martin T	Monitor, went back before plane, ok for plane landing.
2015-02-10	10:00	Observation	Wolverine	2	Sludge Dump	Scavenging	Jamie K	1 wolverine was heading to sludge dump.
2015-02-11	9:15	Observation	Wolverine	1	Sludge Dump	Scavenging	Martin T/Jamie K	Deterred.
2015-02-13	12:00	Observation	Caribou	9	WTP lake side	Grazzing	Robin A	None
2015-02-15	7:00	Death/Euthani zation	Fox	1	Behind housekeeping	Dead	Robin A/Jamie K	Joshua reported having seen two foxes fighting at bin. One dead fox was found on arrival. Asked Coordinator if needed to report.
2015-02-15	11:00	Reported	Wolverine	1	Sludge Dump	Walking	SS Joe	None
2015-02-16	12:00	Reported	Fox	1	Mill door B	aggressive	Mill staff	Mill employee was bitten by fox. See report.
2015-02-19	10:00	Observation	Wolverine	1	TPL near assay lab	Moving towards Camp	Tom T/JP	Deterred with scare cartridges and bangers.

2015-02-21	16:39	Reported	Wolverine	1	Behind WTP	Moving towards Pit	Daniel S/S	None
2015-02-24	14:03	Observation	Caribou	5	On TPL behind FGL	Walking	Robin A	None
2015-02-26	10:00	Observation	Caribou	10	Vault Fuel Farm	Grazzing	TT/JP	None
2015-02-28	12:30	Reported	Fox	2	In Front of Assay Lab	Walking	Assay Worker	None
2015-02-28	4:00	Reported	Fox	1	Between Assay & Mill	Walking	Assay Worker	None
2015-03-01	11:30	Reported	Red fox	1	Mill and powerhouse	Aggressive	Powerhouse worker	Investigated area which animal was seen.
2015-03-01	14:00	Reported	Red fox	1	Mill and powerhouse	Aggressive	Randy Schwandt	Deterred with air horn - No response from animal.
2015-03-02	10:22	Reported	Wolverine	1	Sludge Dump	Scavenging	Mine dispatch	None
2015-03-02	10:55	Observation	Wolverine	1	Heading toward sludge dump	running	Randy Schwandt	None
2015-03-02	10:55	Observation	Caribou	9	On lake by airstrip	Walking	Randy Schwandt	None
2015-03-03	13:30	Observation	Wolverine	1	Sludge Dump	Scavenging	Randy Schwandt	None
2015-03-03	10:30	Observation	Fox	3	Powerhouse area (side)	Scavenging	Randy Schwandt	Deterred with truck horn.
2015-03-06	8:00	Observation	Wolverine	1	Sludge Dump	Scavenging	Jamie Kataluk	Ran away when it saw us. Heading towards RSF.
2015-03-06	Unknown	Observation	Wolf	1	Vault Waste pile	Walking	Haul truck operator	Appeared to be limping, had a hard time climbing side of waste rock pile.
2015-03-08	11:45	Observation	Wolverine	1	Waste pad	Walking	Mine dispatch	None
2015-03-09	11:15	Observation	Wolverine	1	Vault camp	Walking	Mine dispatch	None
2015-03-10	10:00	Observation	Wolverine	2	Sludge Dump	Scavenging	Martin T	Deterred with truck horn.
2015-03-10	10:55	Observation	Caribou	8	TPL in front the mill	Walking	Martin T/Jamie K	None
2015-03-10	17:50	Reported	Wolf	2	RSF	Eating	Wesley(Mine)	Observed at Vault road, than at RSF thru ST-16, NPAG pile than to TSF sludge dump. Deterred from area using screamers.
2015-03-12	13:30	Observation	Wolves	8	Blind hill EMR	Unknown	Isaac (SS)	Arrived to EMR from the south, circled around hill than headed back south.
2015-03-16	9:50	Reported	Wolverine	1	Airstrip	Walking	Daniel Guerin	None. Blizzard condition
2015-03-20	13:00	Observation	Caribou	4	Near WTP	Walking	Tom T	None
2015-03-21	15:00	Observation	Caribou	4	Near WTP	Grazzing	Tom T/Robin A	None
2015-03-23	7:37	Observation	Caribou	12	Near WTP	Walking	Dewatering	None
2015-03-23	10:00	Observation	Wolf	2	Vault Rd.	Eating Caribou	JP/KB	2 Wolves eating Caribou
2015-03-24	7:24	Reported	Wolf	2	Vault Rd.	Eating Caribou	Eric - Geology	None
2015-04-01	Unknown	Reported	Wolf	1	Vault Rd.	Walking	Courtney S	None
2015-04-02	8:30	Observation	Caribou	2	AWAR km 106	Grazzing	MT/JK	None
2015-04-07	9:50	Reported	Wolf	1	AWAR km 102	Unknown	Fuel truck	None
Unknown	11:20	Reported	Wolverine	1	Between airstrip and truckshop	Unknown	Warehouse guy	Environment Department notified. No action.
2015-04-09	13:00	Observation	Fox	1	Kitchen reefer	Blocked inside	Robin A/ Tom T	Deterred.
2015-04-10	14:00	Observation	Caribou	10	Air shelter emulsion	Grazzing	Robin A	None
2015-04-11	8:00	Reported	Fox	1	Inside incinerator	Blocked inside	Christoper ss	None
2015-04-15	3:00	Reported	Caribou	15	AWAR km 90	Walking	Alex arcand	None
2015-04-16	17:00	Reported	Fox	1	Pushback parking	Walking	lan bourassa	Seemed injured back leg
2015-04-18	13:00	Reported	Fox	1	Sites Services building	Walking	Carpenter	Seemed injured back leg
2015-04-22	3:00	Reported	Fox	1	Outside mill	Tied to rope	Ken M	Released by mill workers
2015-04-22	11:24	Reported	Caribou	8	EMR	Walking	Dispatch	None
2015-04-22	11:30	Reported	Caribou	12	EMR area (lake side)	Walking	Dispatch	None
2015-04-23	10:30	Reported	Wolf	1	PiT E3	Moving towards east dyke	Mine dispatch	Patrolled Area - No sign

2015-04-24	4:00	Reported	Fox	1	Outside mill	Injured leg	Ken M	None
2015-04-25	10:00	Observation	Caribou	approx. 200	AWAR km 77 to 92	Grazzing	Martin T/Randy S	None
2015-04-26	10:00	Observation	Caribou	15	North West of TSF	Grazzing	Martin T/Randy S	None
2015-04-26	10:30	Observation	Caribou	approx. 200	AWAR km 75 to 93	Grazzing	Martin T/Randy S	None
2015-04-26	13:00	Observation	Fox	1	Site Services parking	Injured leg	Martin T	None
2015-04-28	16:30	Reported	Fox	1	Front Steps - Main Camp	Scavenging	Front Desk	None
2015-04-29	13:00	Observation	Caribou	18	Between airstrip and tailing pond south cell	Grazzing	Martin T/Tom T	Deterred away from airstrip.
2015-04-29	11:00	Reported	Fox	1	Front Steps - Main Camp	Scavenging	Front Desk	Patroled Area. Try to deter him.
2015-04-29	18:30	Reported	Fox	1	Front Steps - Main Camp	Scavenging	Front Desk	Patrol Area
2015-04-30	15:30	Reported	Fox	1	Front Steps - Main Camp	Scavenging	Amanda Front Desk	Patrol Area
2015-05-01	5:30	Reported	Fox	1	Front Steps - Main Camp	Eating	Amanda Front Desk	Patroled Area. Try to deter him.
2015-05-01	8:30	Reported	Fox	1	Inuksuk Side	Scavenging	Yannick - Dikes	Patrol Area
2015-05-01	12:50	Reported	Fox	1	Front Steps - Main Camp	Eating	Amanda Front Desk	Detered him. Killed with the approbation of BL wildlife officer.
2015-05-02	9:30	Observation	Caribou	20	AWAR km 104	Grazzing	Martin T/Randy S	Advised road users.
2015-05-04	10:00	Reported	Wolverine	1	Sludge Dump	Scavenging	Issac/site services	Patrolled Area - No sign
2015-05-06	14:02	Reported	Wolverine	1	Heading towards EMR	Running	Issac	None
2015-05-07	9:30	Observation	Caribou	20	Airstrip	Grazzing	Martin T/Jamie K	Deterred away from airstrip.
2015-05-08	11:30	Observation	Caribou	6	Near airstrip /south cell	Grazzing	Robin A	Patroled areas during cargo plane landing
2015-05-09	14:00	Observation	Caribou	14	AWAR km 105	Grazzing	Robin A	BL dispatch notified
2015-05-11	12:00	Reported	Caribou	15	EMR hill	Grazzing	Robin A	None
2015-05-13	8:00	Reported	Falcon	1	Front desk	Flying	Robin A	None
2015-05-14	10:00	Observation	Ducks-geese	50	North cell	Standing	Robin A	Cannons were installed - Pistol used to deter.
2015-05-15	11:00	Observation	Caribou	14	WTP lake side	Grazzing	Robin A	None
2015-05-16	11:00	Observation	Caribou	14	WTP lake side	Grazzing	Robin A	None
2015-05-18	11:00	Observation	Caribou	14	WTP lake side	Grazzing	Robin A	None
2015-05-18	14:00	Observation	Caribou	8	AWAR km 46	Walking	MBA/RS/JK	None
2015-05-21	9:00	Observation	Geese	8	North cell	Unknwon	Martin T	Cannons were installed
2015-05-24	11:30	Observation	Wolf	1	Vault road	Hunting	Martin T/Tom T	Patrol area until out of sight.
2015-05-30	8:00	Observation	Ducks	20	TSF South cell	Unknown	Martin T	Cannons were installed - Pistol used to deter.

### Meadowbank Wildlife Log - JUNE 2015

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action	Comments / Details
2015-06-13	12:55:00	Reported	caribou	?	KM 81 west side	walking	Geroge Aniriniq	No Action	
2015-06-13	7:40:00	Reported	Musk Ox	8	KM 53	walking	George Anirniq	No Action	
2015-06-15	9:10:00	Reported	caribou	3	km 2 (west side)	walking	Frank Tootoo (PEL Driver)	No Action	
2015-06-16	2:00AM	Reported	Grizzly Bear	1	Vault truck parking	walking	Roch Chabot	Informed Rob/Russel by email that bear was spotted	
2015-06-16	6:00AM	Reported	Grizzly Bear	1	AWPAR 100	walking	Randy Pidgeon	Informed Rob/Russel by email that bear was spotted	
2015-06-17	10:15AM	Reported	Musk Ox	1	Switchback East side	walking	John Katuaq	No Action	
2015-06-19	10:40:00	Reported	Musk Ox	2	West side of km 45	Grazzing	John Katuaq	No Action	
2015-06-24	12:30:00	Observation	falcon	2	Vault pit	flying	Mario Roberge	none, observed	
2015-06-25	14:30:00	Reported	falcon			No Visual		Follow up from the 24th - None observed	
2015-06-27	15:30:00	Observation	Swan	1	North Cell	Wading	Tom T	Tried to Deter with air horn- no response from animal	
2015-06-27	16:30:00	Reported	Falcon		Vault	No Visual		Follow up from the 24th - None observed	
2015-06-28	15:00:00	Observation	Ducks	4	North Cell	Wading	Tom T	Tried to Deter with air horn- no response from animal	

# Meadowbank Wildlife Log - July 2015

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2015-07-07	10:00:00	Observation	Musk Ox	20	KM 102	Grazzing	MBA/RS	No Action
2015-07-08	14:00:00	Observation	Wolverine	1	KM 19	hunting	MBA/RS	No Action
2015-07-14	11:00:00	Observation	Musk Ox	2	km 19	Grazzing	RS	No Action
2015-07-14	11:40:00	Observation	Musk Ox	6	Km 64	Grazzing	RS	No action
2015-07-14	17:10:00	Reported	Musk Ox	2	Km 25	No visual	Alec Amitnak	No action
2015-07-18	12:10:00	Reported	Musk Ox	10	Km 46	Grazzing	AFS truck driver	No action
2015-07-19	13:45:00	Reported	Caribou	1	Vault Pit area	Walking around	Mine dispatch	Kept it away from the pit
2015-07-20	17:15:00	Reported	Muskox	4	North of Baker Lake	Grazzing	Tom Thomson	
2015-07-21	17:46:00	Reported	Caribou	1	EMR		Dyno explosives truck	
2015-07-23	16:10:00	Reported	Caribou	1	Vault Pit area	Walking around	Mine dispatch	Patrol the area in the morning but no sight
2015-07-24	9:23:00	Reported	Musk Ox	1	Km 56 East side		Christine Wilson	Observed while going to Meadowbank
2015-07-24	14:08:00	Reported	Musk Ox	3	West Side Km 59		John Kautaq (daily ride)	• •
2015-07-25	17:25:00	Reported	Caribou	1	Km 63		Paul Boudreau	
2015-07-26	11:00:00	Reported	Caribou	1	Km 82		Ernie Lischinski	
2015-07-27	night shift	Reported	Caribou	1	Vault Pit area	Walking around	Mine dispatch	Patrol the area in the morning but no sight
2015-07-27	4:26:00	Reported	Musk Ox	1	Km 6	Training around	Randy Pidgeon	r and the area in the menting partie digit
2015-07-27	9:00:00	Reported	Caribou	1	EMR		Sylvain Simard	
2015-07-27	11:50:00	Reported	Wolf	1	Quarry 19		Shawn Attungala	
2015-07-27	16:15:00	Reported	Wolf	1	Exploration camp		Donald Gauthier	
2015-07-28	8:00:00	Observation	Caribou	1	Vault waste	Laying down	Martin Theriault	Escort it towards a quiet area and left it alone, looks pretty sick, not running away, urinating all the time
2015-07-29	10:30:00	Observation	Sand hill cranes	3	Km 82	Grazzing	Randy Schwandt	No action
2015-07-29	16:30:00	Observation	Caribou	1	Vault Pit ring road	Laying down	JK/RS/CO	Assessed the condition of the caribou as per Conservation officers request
2015-07-29	17:00:00	Observation	Caribou	1	Vault Pit/ haul truck road	Laying down	CO/RS	Tried to deter off high activity road, very little response from caribou
2015-07-29	18:15:00	Reported	Caribou	1	Vault Pit ring road	Laying down	JK/RS/CO	Not observed
2015-07-30	21:00:00	Reported	Caribou	1	Vault Pit ring road	Walking around	Mine dispatch	Informed environmental mangement through pager
2015-07-30	9:00:00	Reported	Caribou	1	Vault Pit ring road		JK/RS/CO	Tried to locate caribou, was going to try deterents to deter away from pit area
2015-07-30	21:25:00	Reported	Grizzly	1	Km 87 West side of AWAR		Pierre Verdon	Reported to enviroment department

# Meadowbank Wildlife Log - AUGUST 2015

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2015-08-04	20:15	Observation	caribou	1	Exploration camp	Grazzing	Jamie Kataluk	No action
2015-08-05	8:45	Reported	caribou	1	Vault area	Walking around	TT/JK/MA	Used rubber buck shots and rubber slugs to deter.
2015-08-06	8:25	Reported	caribou	1	Vault pit ring road	Laying down	Yan	No action
2015-08-06	10:00	Reported	caribou	1	Vault pit ring road	Laying down	Mine dispatch	Used rubber buck shots and rubber slugs to deter.
2015-08-08	7:00	Reported	caribou	3	Vault pit ring road	Laying down	Troy	Area monitored after sampling. Tracks of caribou present but no observation.
2015-08-08	9:00	Reported	caribou	2	Vault Pond D	Laying down	Orest	Area monitored after sampling. Tracks of caribou present but no observation.
2015-08-08	11:57	Observation	caribou	1	Vault waste dump	Laying down	Mine dispatch	Caribou detered towards the tundra.
2015-08-09	17:00	Reported	caribou	1	Vault pit	Walking around	Mine dispatch	Area monitored. Caribou detered towards the tundra.
2015-08-10	08:30-10:00	Reported	caribou	1	Vault pond D/Vault pit ring road/Vault haul truck road/Vault rock storage	Grazzing/Running/Laying down	RS/MBA	Caribou detered out of Vault pit, into the ring road, the Vault rock storage, Vault haul truck road and then Vault Pond D.  Caribou went out of sight afterwards.
2015-08-14	All day	Reported	caribou	2	Vault area and FGL crusher area	Walking around	Mine dispatch	Area monitored around 10:00.
2015-08-16	14:56	Reported	caribou	1	EMR	walking around	BL dispatch	No action
2015-08-16	20:21	Reported	caribou	2	EMR		Joseph McLaren	No action
2015-08-16	21:00	Reported	muskox	heard	AWAR km 85		Donald Gauthier	No action
2015-08-17	4:55	Reported	wolverine	1	AWAR km 12		AFS truck driver	No action
2015-08-18	6:00	Reported	muskox	15	AWAR km 75		AFS truck driver	No action
2015-08-19	7:28	Reported	caribou	1	AWAR km 101	Walking west	AFS truck driver	No action
2015-08-19	16:00	Reported	caribou	1	AWAR km 95		BL dispatch	Area monitored following multiple sightings on the road. Caribou which was on the side of the road started walking away before laying down about 100 meters from the road. No sign of injury or illness.
2015-08-21	15:20	Reported	caribou	1	AWAR km 95	Walking	BL dispatch	No action
2015-08-22	9:29	Reported	caribou	1	AWAR km 93	Walking	BL dispatch	Area monitored following multiple sightings on the road. Caribou not present during monitoring activities. No attractant on site.
2015-08-23	18:40	Reported	caribou	1	EMR	Reported	Dyno	No action
2015-08-23	16:00	Reported	caribou	3	North cell	·	Jerome Collard	No action
2015-08-24	7:36	Reported	caribou	1	Exploration camp		AFS truck driver	No action
2015-08-24	8:00	Observation	caribou	1	Vault road		MT/JK	No action
2015-08-25	14:00	Observation	caribou	2	RSF near Vault road		RS/MT	Detered off the road.
2015-08-26	8:30	Observation	caribou	2	NP2 South	Grazing	RS	No action
2015-08-29	12:45	Observation	caribou	1	Vault road	Grazing	RS	No action as caribou was located on the east side of the road

### Meadowbank Wildlife Log - SEPTEMBER 2015

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2015-09-01	13:53	Reported	Muskox	1	Km 75	Grazing	BL dispatch	No action, was on the tundra on the east side of the road
2015-09-02	7:00	observation	peregrine falcon	1	Quarry 2	flying	RS/YB	No action
2015-09-02	8:00	observation	peregrine falcon	1	Quarry 3	flying	RS/YB	No action
2015-09-02	11:00	observation	peregrine falcon	1	Quarry 12	flying	RS/YB	No action
2015-09-02	12:00	observation	peregrine falcon	1	Quarry 13	flying	RS/YB	No action
2015-09-02	12:45	observation	peregrine falcon	1	Quarry 15	flying	RS/YB	No action
2015-09-02	13:00	observation	peregrine falcon	3	Quarry 16	flying	RS/YB	No action
2015-09-02	13:25	observation	peregrine falcon	1	Quarry 19	flying	RS/YB	No action
2015-09-04	11:30	observation	caribou	1	NP-2 West	Grazing	Joshua and RS	No action
2015-09-05	14:00	observation	caribou	2	R4 Noise Meter	Grazing	TT/RA	No action
2015-09-08	15:14	Reported	wolverine	1	Km 101	moving across the tundra	BL dispatch	No action
2015-09-09	11:56	observation	wolverine	2	KM 10	moving across the tundra	RS	No action
2015-09-10	14:30	observation	Duck	1	Truck shop	dead	MT/JK	Conservation Officer in Baker Lake informed. The carcass was transported and provided to CO.
2015-09-11	9:00	observation	Canada Goose	1	North cell	stuck in tailings	MT/JK	Conservation Officer in Baker Lake informed. The carcass was transported and provided to CO.
2015-09-12	8:15	observation	Caribou	37	North of NP-2 Lake	grazing/resting	JK	Warned Mine dispatch to inform road users to use caution
2015-09-12	11:30	observation	Caribou	40	West of Vault road	grazing/resting	MT	No action
2015-09-12	11:45	observation	Caribou	30	North of NP-2 Lake	grazing/resting	MT	No action
2015-09-14	7:00	observation	Caribou	40	West of Vault road	grazing/resting	MT	Warned Mine dispatch to inform road users to use caution
2015-09-14	7:30	observation	Caribou	30	North of NP-2 Lake	grazing/resting	MT	No action
2015-09-14	10:15	observation	Caribou	herd	Km 82		AFS truck driver	Warned AWAR users
2015-09-14	12:05	observation	Caribou	16	km 87 west side of AWPR		AFS truck driver	No action
2015-09-14	12:15	observation	Caribou	herd	km 76-77		PEL driver	No action
2015-09-15	15:00	observation	Caribou	herd	Along Vault road		MT/JK	No action
2015-09-16	8:05	observation	Caribou	herd	km 76-78		AFS truck driver	No action
2015-09-16	12:45	observation	Caribou	herd (100)	Q 19 and bridge 9		AFS truck driver	No action
2015-09-17	8:40	observation	Caribou	herd	km 104-105		AFS truck driver	Jamie to do a wildlife inspection on the road
2015-09-18	7:35	observation	Caribou	herd	EMR		AFS truck driver	Jamie to do a wildlife inspection on the road on his way back
2015-09-18	17:05	observation	caribou	14	North tip of Waste rock pile	grazing	Jamie K/Martin T	No action
2015-09-18	17:20	observation	caribou	1	NP-1	running	Jamie K/Martin T	No action
2015-09-19	16:40	observation	caribou	10	North cell diversion ditch	grazing	Jamie K/Martin T	No action
2015-09-20	14:20	observation	caribou	~20	Vault road	grazing/resting	Jamie K/Martin T	No action
2015-09-20	14:35	observation	caribou	3	North cell diversion ditch	grazing	Jamie K/Martin T	No action
2015-09-21	11:08	observation	caribou	herd	km 77		AFS driver	No action

2015-09-22	6:45	observation	caribou	~40	km 78	crossing road	Jamie Kataluk	Advised Gatehouse to inform drivers to use extra caution when driving by Km 77
2015-09-22	13:30	observation	caribou	10	Km 81	grazing	Clinton Anirniq	No action
2015-09-22	16:25	observation	caribou	4	pad behind FGL	grazing	JK/MT	No action
2015-09-23	7:20	observation	caribou	30	Km 97	grazing	Randy Pidgeon	No action
2015-09-23	10:00	observation	caribou	30	North of NP-1	grazing	MT	Monitor
2015-09-24	9:07	Reported	caribou	12	Km 92	grazing	Paul BL Dispatch	No action
2015-09-24	9:07	Reported	caribou	2	Km 97	grazing	Paul BL Dispatch	No action
2015-09-30	6:44	Reported	caribou	herd	Km 53	grazing	Paul BL Dispatch	No action
2015-09-30	6:44	Reported	caribou	herd	Km 60	grazing	Paul BL Dispatch	No action

### Meadowbank Wildlife Log - October 2015

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Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2015-10-03	11:00	observation	caribou	5	East dyke	grazing	RA/TT	None
2015-10-03	9:00	Observation	caribou	herd	AWAR Km 75	grazing	Manon T	None
2015-10-04	14:00	observation	caribou	800	Tehek lake north shore	grazing	RA/TT	None
2015-10-10	13:47	observation	muskox	1	AWAR Km 87	grazing	Arctic fuel driver	None
2015-10-11	6:24	observation	caribou		AWAR Bridge 1 to Km 20	walking	Dino S	None
2015-10-11	17:00	observation	caribou	~150	AWAR Km 17	walking	Jamie K	Caribou presence monitored. Closure of road. Tanker escorted to Baker Lake from Km 20 to ensure caribou are crossing the road safely.
2015-10-12	18:15	observation	caribou	~400	AWAR Km 13-19	walking	Jamie K	Caribou monitored by Environmental Department during road closure.
2015-10-12		observation	caribou	30	AWAR Km 15	walking and grazing	Jamie K/Justin M	Last part of caribou herd that is heading south. Gave the order to re-open the road.
2015-10-12		observation	caribou	~60	AWAR Km 30	walking and grazing	Jamie K/Justin M	Kept monitoring caribou presence to determine where the herd is heading - North.
2015-10-13	10:00	observation	wolverine	1	Sludge dump	grazing	Yannick	Environmental technician monitored the area. Wolverine ran off when technician arrived. It was heading north.
2015-10-13	11:05	observation	caribou	unknown	AWAR Km 70	walking	Jason L	Wildlife survey on AWAR will be conducted in the afternoon.
2015-10-13	14:15	observation	caribou	~40	AWAR Km 55	grazing	JK/VA/JM	Shut-off head lights and strobe light and drove 15 km/h until truck far from them
2015-10-13	17:30	observation	caribou	~60	AWAR Km 65	grazing	JK/JM	Shut-off head lights and strobe light and drove 15 km/h until truck far from them
2015-10-14	7:55	observation	wolves	2	AWAR Km 92.5	walking	Robert - AFS	None
2015-10-14	17:37	observation	caribou	300-400	AWAR Km 78		Glen U	Road was closed for the night.
2015-10-16	7:00	observation	wolverine tracks	1	Transit laydown		Sylvain S	Area was inspected. No wolverine sighted.
2015-10-20	8:20	observation	caribou	1	AWAR	appear sick or wounded	Ronald F	Area was inspected. No caribou sighted.
2015-10-20	8:00	observation	fox	4	Sludge dump	playing around	Martin T	None
2015-10-24	16:00	observation	muskox	9	AWAR EMR	standing	Dyno Crew	None
2015-10-28	11:30	observation	muskox	9	AWAR Km 96	grazing	PL driver David	None
2015-10-28	8:30	observation	fox	1	Rock storage facilty	playing around	Randy S	None
2015-10-28	17:28	observation	muskox	20	Exploration camp	standing/grazing	Grader operator Steve	None

# Meadowbank Wildlife Log - November 2015

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action
2015-11-02	20:00	observation	Muskox	1	AWAR km 41	Laying down	Randy S	None
2015-11-03	13:15	observation	Arctic Fox	1	Site Service Parking	Running	Randy S	Looked for wildlife attractants in parking lot. None observed.
2015-11-05	14:09	observation	Wolverine	1	EMR hill	Running	AFS Paul B	None
2015-11-08	11:52	observation	Muskox	Unknown	AWAR km 93	Unknown	Donald G	None
2015-11-13	8:10	observation	Wolverine	1	Sludge dump	Unknown	Putuak (Site services)	Environment Department monitored the area. No sighting.
2015-11-13	14:30	observation	Caribou	1	Third Portage Lake North	Injured	Martin T/Manon T	None
2015-11-15	16:00	observation	Short eared owl	1	Emulsion plant	Flying around	Martin T/Manon T	Advised BL Conservation Officer. No action was required.
2015-11-19	7:00	Reported	Wolverine	1	Pit E3	Tracks observed	JF from Geology	Environment Department was notified.
2015-11-19	16:00	observation	Rabbit	2	South Cell Reclaim	Unknown	Randy S and Tom T	None
2015-11-21	2:30	Reported	Wolverine	1	EMR hill	Running	Zach C	Environment Department was notified.
2015-11-21	3:00	observation	Caribou	1	Teardrop lake	Standing	Mine Dispatch	Environment Department was notified.
2015-11-21	6:30	observation	Caribou	1	Rock storage facilty	Walking	Troy (Haul truck driver)	None
2015-11-23	10:30	observation	Rabbit	2	Vault WTP	Unknown	Tom T	None
2015-11-23	12:00	Reported	Wolverine	1	Vault camp	Walking	Geology Crew	None
2015-11-24	11:00	observation	Rabbit	1	FGL	Unknown	Tom T	None
2015-11-24	11:55	Reported	Caribou	1	Vault Road	Walking	Tony G	None
2015-11-24	18:00	Reported	Wolf	1	BL gatehouse	Walking	Road Dispatch	None
2015-11-25	9:00	observation	Arctic Hare	3	FGL	Running	Randy S	None
2015-11-27	15:00	Observation	Caribou	1000+	TPL Lake	Walking/Grazing	Tom T	None
2015-11-28	11:00	Observation	Caribou	1000+	TPL Lake	Walking/Grazing	Tom T	None
2015-11-29	8:00	Observation	Fox	1	Airstrip	Walking across road	Tom T/Robin A	None
2015-11-29	8:45	Observation	Caribou	6	Vault Road	Grazing	Tom T/Robin A	None
2015-11-29	9:00	Observation	Fox	1	FGL Shop	Walking across road towards Goose	Tom T/Robin A	None
2015-11-30	7:00	Observation	Caribou	30	EMR	Walking towards Meadowbank	Randy S	None
2015-11-30	8:30	Observation	Caribou	100	EMR	Walking towards Meadowbank	Randy S	Environment Department was notified.
2015-11-30	11:00	Observation	Fox	3	FGL	Playing around	Randy S	None
2015-11-30	15:00	Reported	Caribou	50	AWAR km 76	Walking	Arctic fuel driver	None

# Meadowbank Wildlife Log - December 2015

Date	Time	Categorie	Wildlife Species	Quantity	Location	Behavior	Observer Name	Action		
2015-12-01	13:00	Observation	Muskox	2	Exploration camp	Walking	Randy S	None		
2015-12-01	8:00	Observation	Fox	1	Vault pushback parking	Walking	Jen	Fox was being reported as injured. Environmental Department monitored the area. Animal was not seen.		
2015-12-01	15:22	Observation	Wolverine	1	Portage rock storage facilty	Walking	Mine dispatch	None		
2015-12-18	9:30	Observation	Fox	2	Incinerator area	Playing on the hills	Randy S	None		
2015-12-18	11:00	Observation	Fox	2	Incinerator area	Walking around the secondary incinerator outside	Randy S	Deterred away by driving closer to the incinerator.		
2015-12-18	13:20	Reported	Wolf	1	AWAR km 38	Walking	David (PL driver)	None		
2015-12-19	15:00	Observation	Caribou	2	Vault Road	Walking	Tom T/Randy S	None		
2015-12-21	8:00	Observation	Fox	1	Incinerator area	Playing around	Randy S	None		
2015-12-22	7:30	Observation	Fox	1	Site Service Parking	Running	Randy S	None		
2015-12-23	8:00	Observation	Fox	1	Sludge dump	Running	Randy S	None		
2015-12-29	9:00	Observation	Wolverine	1	Sludge dump	Eating the Sludge	Randy S	None		
2015-12-30	11:06	Reported	Caribou	2	Vault waste dump	Walking	Mine dispatch	Area was monitored. Caribou was deterred away from mining activities.		
2015-12-31	10:30	Reported	Caribou	2	Vault ring road	Foraging	Haul truck driver	Area was monitored. Caribou was deterred.		
2015-12-31	14:30	Observation	Caribou	8	North of Vault camp	Foraging	Jamie K	Area was monitored to determine direction of travel (i.e south).		



# **APPENDIX B**

2015 Wildlife Mitigation Documentation

From: Erika Voyer

To: Mathieu Paradis; Alexandre Arcand; Gatehouse Baker Lake Meadowbank Environment; Security Service Meadowbank Cc:

Subject:

Date: Sunday, October 11, 2015 6:35:21 PM

Attachments: image001.jpg

image002.jpg image003.jpg image004.jpg image005.png

#### Good evening,

Jamie will stay in Baker tonight and come back tomorrow morning – he will update us on the situation.

Gatehouse Dispatch – Please be advised that Jamie Kataluk will be on the road around 6am tomorrow to monitor the caribous.

#### Thanks!

#### Erika Voyer

T: 819.759.3555 ext.6980

From: Mathieu Paradis

**Sent**: October-11-15 6:08 PM

To: Meadowbank AEM; Meadowbank Contractors

Subject: Road close

Good evening everyone,

Just to inform you, due to the caribou herd around KM 16, the road between exploration camp and baker lake is close.

We will keep you update on the road status, Sorry for the inconvenient .

#### **Mathieu Paradis** Field Service Team Leader

mathieu.paradis@agnicoeagle.com

T: 819.759.3555 x6712

Agnico Eagle Mines Limited Meadowbank Division Baker Lake, Nunavut, Canada X0C 0A0









From: <u>Stephane Larose</u>

To: Road Status Meadowbank
Subject: FW: CARIBOU HERD AT KM 78

Date: Thursday, October 15, 2015 5:33:08 AM

Attachments: <u>image001.jpg</u>

image002.jpg image003.jpg image004.jpg image005.png

#### Good morning,

AWPR is now open to all traffic, no more caribou herd on the road.

#### Good day,

# Stephane Larose Baker Lake / Road and Field Supervisor

stephane.larose@agnicoeagle.com

T: 819.759.3555 #6902 Cell: 867.793.1303

Agnico Eagle Mines Limited Meadowbank Division Baker Lake, Nunavut, Canada XOC 0A0

agnicoeagle.com



agnicoeagle.com



From: Stephane Larose

Sent: October-14-15 6:46 PM To: Road Status Meadowbank Subject: CARIBOU HERD AT KM 78

Hi,

Please be advised, the AWPR will closed tonight between Exploration Camp and Baker Lake (caribou herd at KM 78)

Road patrol will be done by the road crew around 5h00 am before sending the fuel tanker.

Thanks for your usual cooperation,

Stephane Larose Baker Lake / Road and Field Supervisor

#### stephane.larose@agnicoeagle.com

T: 819.759.3555 #6902 Cell: 867.793.1303

Agnico Eagle Mines Limited Meadowbank Division Baker Lake, Nunavut, Canada X0C 0A0

agnicoeagle.com









From: <u>Alexandre Arcand</u>

To: <u>Mathieu Paradis; Meadowbank AEM; Meadowbank Contractors</u>

Subject: ROAD RE-OPEN

Date: Monday, October 12, 2015 5:20:20 PM

Attachments: image001.jpg

image002.jpg image003.jpg image004.jpg image005.png

#### Good afternoon,

The road is now re-open for all traffic but just be vigilant about the caribou.

If you see any herd of caribou please advise the Baker Lake gatehouse.

Thank you!

From: Mathieu Paradis

Sent: Sunday, October 11, 2015 6:08 PM

To: Meadowbank AEM; Meadowbank Contractors

Subject: Road close

Good evening everyone,

Just to inform you, due to the caribou herd around KM 16, the road between exploration camp and baker lake is close.

We will keep you update on the road status, Sorry for the inconvenient .

#### Mathieu Paradis Field Service Team Leader

mathieu.paradis@agnicoeagle.com

T: 819.759.3555 x6712

Agnico Eagle Mines Limited Meadowbank Division Baker Lake, Nunavut, Canada XOC 0A0





To: Toolooktook, Russell; bakerhto@giniq.com Cc: Harmer, Rob; Meadowbank Environment Subject: Meadowbank AWAR Closed\_November 23rd Date: Monday, November 23, 2015 2:02:26 PM

Attachments: image002.jpg

image003.jpg image004.jpg image005.jpg image015.png

#### Good day,

Since a large group of caribou was reported along Meadowbank's AWAR (km 28), we've decided to close the road for the day.

Be assured that AEM will continue to monitor the situation and will keep you informed of any change and/or development.

If you have any questions, please do not hesitate,

#### **Robin Allard Environmental - Acting Coordinator**

robin.allard@agnicoeagle.com

T: 819.759.3555 x6747

Agnico Eagle Mines Limited Meadowbank Division Baker Lake, Nunavut, Canada X0C 0A0

agnicoeagle.com









agnicoeagle.com

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From: <u>Stephane Larose</u>

To: <u>Kevin Buck; Meadowbank Environment; Robin Allard</u>

Cc: Alexandre Arcand
Subject: CARIBOU HERD

Date: Tuesday, November 24, 2015 6:26:53 AM

Attachments: <u>image001.jpg</u>

image002.jpg image003.jpg image004.jpg image005.png

#### Good morning,

AWAR still closed this morning, caribou herd between KM 20 and switchback.

A+

# Stephane Larose Baker Lake / Road and Field Supervisor

stephane.larose@agnicoeagle.com

T: 819.759.3555 #6902 Cell: 867.793.1303

Agnico Eagle Mines Limited Meadowbank Division Baker Lake, Nunavut, Canada XOC 0A0

agnicoeagle.com





To: Toolooktook, Russell; bakerhto@giniq.com; landsbaker@kivalliqinuit.ca

Cc: Harmer, Rob; Meadowbank Environment Subject: Meadowbank AWAR Closed\_November 24th Date: Tuesday, November 24, 2015 1:56:31 PM

Attachments: image001.jpg

image002.jpg image003.jpg image004.jpg image005.png

#### Good day,

Caribou were observed from km 23 to km 40 and a few other spots along the AWAR. The road will remain closed until further notice.

Be assured that AEM will continue to monitor the situation and will keep you informed of any change and/or development.

If you have any questions, please do not hesitate,

#### **Robin Allard Environmental - Acting Coordinator**

robin.allard@agnicoeagle.com

T: 819.759.3555 x6747

Agnico Eagle Mines Limited Meadowbank Division Baker Lake, Nunavut, Canada X0C 0A0

agnicoeagle.com









To: Toolooktook, Russell; bakerhto@giniq.com; landsbaker@kivalliqinuit.ca

Cc: Harmer, Rob; Meadowbank Environment Subject: Meadowbank AWAR Closed\_November 25th Date: Wednesday, November 25, 2015 4:13:08 PM

Attachments: image001.jpg

image002.jpg image003.jpg image004.jpg image005.png

#### Good day,

Caribou are still being reported along the AWAR from km 30 to km 40 and a few other spots along the AWAR.

The road will remain closed.

Be assured that AEM will continue to monitor the situation and will keep you informed of any change and/or development.

If you have any questions, please do not hesitate,

#### **Robin Allard Environmental - Acting Coordinator**

robin.allard@agnicoeagle.com

T: 819.759.3555 x6747

Agnico Eagle Mines Limited Meadowbank Division Baker Lake, Nunavut, Canada X0C 0A0

agnicoeagle.com









To: Toolooktook, Russell; bakerhto@giniq.com; landsbaker@kivalliqinuit.ca

Cc: Harmer, Rob; Meadowbank Environment Subject: Meadowbank AWAR Closed\_November 26th Date: Thursday, November 26, 2015 3:30:18 PM

Attachments: image001.jpg

image002.jpg image003.jpg image004.jpg image005.png

#### Good day,

Caribou are still being reported along the AWAR from km 49 to Exploration camp. Although they were moving farther from the road (>1 km) we will keep the road closed until tomorrow.

Be assured that AEM will continue to monitor the situation and will keep you informed of any change and/or development.

If you have any questions, please do not hesitate,

#### **Robin Allard Environmental - Acting Coordinator**

robin.allard@agnicoeagle.com

T: 819.759.3555 x6747

Agnico Eagle Mines Limited Meadowbank Division Baker Lake, Nunavut, Canada X0C 0A0

agnicoeagle.com









To: Toolooktook, Russell; bakerhto@giniq.com; landsbaker@kivalliginuit.ca

Cc: Harmer, Rob; Meadowbank Environment Subject: Meadowbank AWAR Closed\_November 27th Date: Friday, November 27, 2015 4:01:34 PM

Attachments: image001.jpg

image002.jpg image003.jpg image004.jpg image005.png

#### Good day,

Caribou are still being reported along the AWAR from km 60 to km 80, farther from the road. Another bunch is also being reported between Exploration camp and Emulsion plant, closer to the road. The road will remain closed.

Be assured that AEM will continue to monitor the situation and will keep you informed of any change and/or development.

If you have any questions, please do not hesitate,

#### **Robin Allard Environmental - Acting Coordinator**

robin.allard@agnicoeagle.com

T: 819.759.3555 x6747

Agnico Eagle Mines Limited Meadowbank Division Baker Lake, Nunavut, Canada X0C 0A0











# **APPENDIX C**

2015 Wildlife Mortality Reports



### **Wildlife Incident Report**

Date: 2015-05-01 From: Martin Theriault, Senior Environment Technician

### **Incident Description:**

On April 24<sup>th</sup>, the Environmental department was informed by a Mill worker that there was an injured fox (leg) near the mill. The fox was then seen on other occasions roaming near the site services parking lot and the main camp. On April 28<sup>th</sup>, the fox was reported numerous times near the main entrance. An environment technician when to observe and noted that the fox was in poor condition and was showing no fear of humans. On April 29<sup>th</sup>, the environment department called the Baker Lake wildlife conservation officer to inform him regarding the situation and received the approval to put the fox down. The technician patrolled the area before the end of the day but did not see the animal. The next day, Apr 30, the technicians patrolled the area a few times but with the bad weather, the fox wasn't seen while patrolling. On May 1 the fox was observed a few times at the main entrance. The environment department deterred the fox away from the main entrance for safety reasons and proceed to dispatch the animal at 13:15.

### **Action and Recommendations:**

With the assistance of the Security on-site, the injured fox was dispatched with a single shot using a 12 gauge with buckshot #6 as recommended by the wildlife conservation officer.

The animal was placed in a bag and in the freezer and will be brought to the Baker Lake wildlife conservation officer on Monday May 4, 2015.

Martin Theriault

Senior Environment Technician

Meadowbank Division

Agnico Eagle Mines Ltd.

martin.theriault@agnicoeagle.com



### Morning Martin,

As discussed on the phone last night, you can go ahead and put the fox down. Please provide the body to our office in Baker Lake on your next visit. Thank you for informing us of the wildlife occurrence.

Rob

### Rob Harmer, Acting-Regional Manager

Kivalliq Region
Wildlife Management Division – Department of Environment
Government of Nunavut
P.O. Box 9 Baker Lake, NU X0C 0A0
Ph# 867-793-2940
Cell# 867-222-0067
Fax# 867-793-2514

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From: Martin Theriault [mailto:martin.theriault@agnicoeagle.com]

Sent: April 29, 2015 6:33 PM

To: Harmer, Rob Cc: Kevin Buck Subject: injured fox

Hi Rob,

As discussed with you, we will dispatch the injured fox and bring it to you on Friday.

Thanks

Martin Environmental Theriault Technician

martin.theriault@agnicoeagle.com





No Problem

Rob Harmer, Acting-Regional Manager

Kivalliq Region
Wildlife Management Division – Department of Environment
Government of Nunavut
P.O. Box 9 Baker Lake, NU X0C 0A0
Ph# 867-793-2940
Cell# 867-222-0067
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From: Martin Theriault [mailto:martin.theriault@agnicoeagle.com]

Sent: May 1, 2015 1:59 PM

To: Harmer, Rob Cc: Kevin Buck Subject: fox

Hi Rob,

We finally had a safe shot and put it down just after lunch. Tom left this morning so we're understaffed and we have a meeting at 15h so it will be impossible for me to bring it today. I will put it in our freezer and I can bring it during the week end or Monday. Let me know what's the best timing for you.

Regards

Martin Environmental Theriault Technician

martin.theriault@agnicoeagle.com





### Wildlife Incident Report

Date: 2015-03-06 From: Jamie Kataluk, Erika Voyer

#### **Incident Description:**

On March 6<sup>th</sup> at 6:50 am, the Environmental department was informed there was an injured wolf by the Waste Rock Storage Facility by the Vault pit. Upon receiving the information, technicians went to the area to look for the wolf. Technicians did a complete inspection of all the Vault area including the Vault camp site to ensure the wolf was not hiding anywhere by buildings or parked vehicles. After doing a complete inspection of the area the wolf was not observed. At approximately 10:45 am, technicians went to Vault area to do another inspection to look for the wolf. Immediately after leaving the Vault Waste Rock Storage Facility the wolf was observed on the road. The animal appeared to be injured and the right side muzzle was bloody. Technicians immediately reported the wolf to the Environment coordinator and waited for further instruction. The coordinator proceeded to contact the Conservation Officer in Baker Lake by telephone. The Environmental Technician was asked to speak to the Conservation Officer for more information and to describe the condition of the injured wolf. After agreement with the Conservation Officer, it was decided to put down the animal and to bring the remains to Baker Lake for inspection by the Officer. The Environmental Technicians dispatched the injured wolf in the afternoon at 2:20 pm. The remains of the animal were placed in a bag and will be brought to the Conservation Officer's office as agreed.

#### **Action and Recommendations:**

With the assistance of the Security on-site as the "back up", the injured wolf was dispatched with a single shot to the neck with a .223 rifle.

A photo of the dispatched wolf and emails from AEM to the Conservation Officer are attached to this report.





Photo 1: Wolf dispatched at 2:20 pm



#### Erika Voyer

From: Toolooktook, Russell <rtoolooktook@GOV.NU.CA>

Sent: March-06-15 3:15 PM

To: Erika Voyer

Cc: Meadowbank Environment; Kevin Buck; Brock Johnston
Subject: RE: Injured Wolf\_Actions to be taken March 6, 2015

Hi Erika,

Thanks for the information; Jamie can call me on my work cell 793-1692 when he arrives into Baker Lake.

#### Russell

From: Erika Voyer [mailto:erika.voyer@agnicoeagle.com]

Sent: March 6, 2015 3:13 PM To: Toolooktook, Russell

Cc: Meadowbank Environment; Kevin Buck; Brock Johnston Subject: RE: Injured Wolf\_Actions to be taken March 6, 2015

Hi Russell,

Please note that due to poor visibility on the road, Jamie will go to Baker Lake only tomorrow. Thanks.

Regards,

Erika Voyer

T: 819.759.3555 ext.6980

From: Erika Voyer

Sent: March-06-15 1:29 PM To: <a href="mailto:rtoolooktook@gov.nu.ca">rtoolooktook@gov.nu.ca</a>

Cc: Meadowbank Environment; Kevin Buck; Brock Johnston Subject: Injured Wolf\_Actions to be taken March 6, 2015

Hi Russell,

As per our conversation and agreement this morning, the environmental technician will put down the injured wolf located in the Vault area at Meadowbank. The animal was not hurt by mining activity, but likely more by another animal. The wolf appears to be severely injured. Jamie Kataluk will bring the remains to your office in Baker Lake later this afternoon. Jamie will also have the camera containing the photos and videos from the injured animal taken this morning.

A report will be issue to you shortly summarizing the situation and the actions taken as mentioned above.

Thanks for your help with this situation, this is greatly appreciated.

Best regards,

Érika Voyer, Eng., M.Sc. Environmental Coordinator



### **Wildlife Incident Report**

Date: 2015-09-10 From: Martin Theriault, Senior Environment Technician

#### **Incident Description:**

On September tenth, a duck was found dead next to the maintenance shop, five feet from the wall. No blood was found and the wings were in good condition. Its seems like he might have flew into the building. The duck was picked up and will be brought to the Baker Lake wildlife officer.

#### **Action and Recommendations:**

No actions or recommendations are necessary as the incident seems to be natural event.

Martin Theriault Senior Environment Technician Meadowbank Division Agnico Eagle Mines Ltd. martin.theriault@agnicoeagle.com



# **APPENDIX D**

2015 Road Survey Forms



# Meadowbank Access Road Wildlife Survey Field Sheet This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date: 2015-0	01-03	Tim	e Started:	9:15	Time Ended:	.00
Temperature:	34°c	Wi	nd Speed:	12 Km/hr	Wind Direction:	NW
Visibility (check):	☐ 100m	□ 500m	☐ 1 km	Precipitation:		
Field Team:	Ton	Thomson				

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
306	Caribou	7	Cake	walking	$\sim$	W	500	31	14	0634010	7162269
	Caribou	2	Lake	Walking	$\sim$	W	300	72	14	0636861	7194889
	Fox	1	Road	Crossing Rodd	E	E	5	77	14	0626374	7200057
4:56	Wolverine	1	Road	Walking Walking Crossing Rodd Scaveging	E	E	(00)	103	14	06393/6	7213937
								-			
								1			
							1				



# **AGNICO EAGLE**

# Meadowbank Access Road Wildlife Survey Field Sheet This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date: January 10	2015 Time Started:	09:00 a.m	Time Ended: 04:00 p.m.
Temperature:	Wind Speed:	4 Km/h	_Wind Direction:
Visibility (check):   100m	□ 500m ☑ 1 km	Precipitation: _ Chance	of flurries
Field Team: V. Utatrag	fassenge Bu		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	Zone	Easting	Northing
11:11	Artha	1	AWPR	11-9	Varioble				14W	0625701	7173535
11:19	Arta ArFo	1	AWPK	Mall	11	W				062-5472	7173535 7174483
,	44								1 2		y .
											1
											1
			12								



Date: Januar	13-2015	Time Started: _	09:00 qin	Time Ended: 03 30 p.	
Temperature:	1-29° c	Wind Speed:	38 km/L	Wind Direction:	
Visibility (check):	☐ 100m ☐ 5	000m 1 km	Precipitation: Dei	fting snow	
Field Team: V. U	tatnay	Passenge	rvan		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
10:53	RaTa	4	4:11	Walk	58	2	500m		14W	0629171	7170810
14:27	ArFo	1	AWRR	Walk	٤				1400	06.25019	7176648
15:16	Rata ArFo Raven	2	AWAR Bridge	Walk Perch						0643747	7170810 7176648 7143334
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								-			7.192
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#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date: Januar	, 16,20	5 Time Start	ed: 09:00 a	Time Ended: 04.	:00 pm
Temperature:	-40°c	Wind Spec	ed: 8 Km/h	Wind Direction:	NIW
Visibility (check):	☐ 100m	□ 500m 🖬 1	km Precipitation:		
Field Team:	V. etata	7. J. Kat	aluk		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
13:56	DUMO	25	HIII Rocky HT AWPR Bridge	stand		W	1km		14W	063/3/0	7212143
14:01	Lata	10-	Rocky HT	Well	HNE	٤	100 m				
15:09	Arfo Roven	1	AWER		_	W	50m			0630656	7208176
15:42	Raven	2	Bridge	Perch	_					0643769	7143361
			=								
											,

Page / of/



	Date:	January	23,2115	Time Started:	09:00 9,m	Time Ended: 04.00 p.m.
N	Tempe	rature:	-29°c	Wind Speed:	ZIKMA	Wind Direction: /Yw
	Visibili	ity (check):	☐ 100m	☐ 500m ☐ 1 km	Precipitation:	
	Field T	eam: V	utatnay	M. Gebauer		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
10:56	Arfo	1	AWPR	Walle	2	٤			17W	0625442	7174623
11	Raven	-	ANPR	Fly	Minns				И	и	
10'58	Rosen Roskill	1	N		1	-	0		14W	0425431	7174638
14:33	ArFo	1	AWPR	eat rdkill			-0				7174634
15:39	Raven	3	AWFR	FIZ	W	E-W	2		15W	0356376	7136596
				,							
			- 1000								/A
			W. C. S.								
		,									



Date: February 06, 2	-015 Time Started:	09:00 a.m.	Time Ended: 03.30 p.m.
Temperature:38°c	Wind Speed:	42 Km/L	Wind Direction: NW
Visibility (check): 100m	□ 500m □ 1 km	Precipitation:	
Field Team: Jutatra	, J. Kataluk		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
13:30	Raven	5	195001	Scavenge	_	٤	20 m		3	F 2 1	4 7
14:13	Roft	3	Lagoon	scavenge Welk		i	50 m		14W	0625135	7183181
	1					2 . 5	= 7 ' =		1.2		42
	11				a i g					- 3	
			Water Hall Base								



Visibi		2	*	Wind Speed:	30 Km //			d:	146		22
Date: 2015-02-10 Time Started: 10140 Time Ended: 14160  Temperature: -54 Wind Speed: -30 Km/h Wind Direction: NW  Visibility (check): 100m 500m 1 km Precipitation: 1000  Field Team: 10110 100m											
ime	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
1h20 1	Carbon	3		Grazzina	West	West	300m	92	1441	0630996	7211229
		±30		Grazzing Rest	WM -	West	800 m		14w	0630901	709J17
h40 (	Caribou	3		Laying down		East			146	0630691	7206378
11100	. 1 (										
thW	red fox			Kunningarous	no specific		Sm	4	Bak	er Lake g	rtelpuse
										0	
				2 2							
								_			
-			-								



Date: February 13,2	-015 Time Started:	09:00 a.	Time Ended:	1:00 p.m.
Temperature:37°c	Wind Speed:	32-43 K	wind Direction:	HNW
Visibility (check): 100m	500m 1 km	Precipitation:	Blowing Snow	
Field Team: V. Wothers	J. Kataluk		/	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
13:16	Rota	7	Rocky HT	Fo, stand		5	50n			0637344	7214671
13:34	Rata	9		Fo, stand Fo Reit		$\sim$	35m			630915	721/613
13:37	Rota	9	LL	Fo Rest		٤	502			6309a	7209899
14.06	ArHa	1	Sea Can	HOP	٤	٤	20 m			626798	7214671 7211613 7209899 7195586
						***************************************			Sanda - Cara		
								$\vdash$			
								-			



#### Meadowbank Access Road Wildlife Survey Field Sheet

	This f	orm is for	r collaborative system	natic monitoring of the	access; it is imp	portant all field	s in the table l	below	are comp	leted	
Date	: <u>(018/0</u>	2/6	От	ime Started:	5		Time Ende	i:	100		
				n 🗌 1 km Pre	cipitation:	NOWE.					
Field	Team:	abin.	ALLARD								
Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	M	GPS Zone	Easting	Northing
1300	(ARI BOU	10	TOWDRA	GRAZING.	W	300m	W	96			
604	HARE	3	TUDEA	GRAZING. WALKING	E	100~	E	23			
				-							

Page \_\_\_ of \_\_\_



Date:	Februar	-427	2015 TH	me Started: _	09:00 am		Time Ende	d:	3:30	o pim.	
					13 Km/h		_Wind Direc	ction:		54	
Visib	lity (check):	□ 100	0m	1 km	Precipitation: _						
Field	Team: V.u	totrag	R. Schwa	ndot	A CONTRACTOR OF THE PARTY OF TH						
me	Species	Qty	Habitat Type	Behavious	r Direction	Direction	Distance	K	GPS		T

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
13°, 6'	Rata	8		fo Stand	-	٤	51-		14W	2631221	7207802
13:014	Wift	6			N	٤	51			0631221 06.25542 0638062	7/8407
1K:40	AcHa	1		Hop	5	W	Som			0638062	7155795
14:44	Laven	1		FIY	variable	w	10 m			639552	7153569
							<u>.</u>				
											ne vanaza a ev
								-			
								$\vdash$			
								-			
								-			
·											

#### AGNICO-EAGLE MINES LTD. - ALL - WEATHER PRIVATE ACCESS ROAD SURVEYS - 2009

Date (day/month/year): 07/03/20/5	Time Started:	Time Ended:			Page	of
Start Location: (UTM) Meadow bank	End Location:	Saker Lake	<b>Observer Names</b>	: Janie	Kataluk	
Temperature: <u>-27</u> Wind Speed: (km/hr):	25 Wind Direction: 🖊	Visibility (circle):	: 100m 500m 1	km (km)	Precipitation	

Time	Species Name	Number, Sex and	Habitat Type	Behavior	Direction of Travel	Distance from Road	Direction from Road			(GPS Coordinates)	Comments
		Age	(ELC)			(m)	(N or S)	Zone	Easting	Northing	-
13:29	caribou	4	Ro	Fo .		1km	South	14W	0637817	7214391	
3:35	wolverine	-	tailing	Fo		Ikm	East	14W	0637269	7216/50	
14:00	caribou	46	LR	Fo		Ikm	East	14W	0631278	7207588	
	500										
							, 1				
							1				
									10-1-1-1-1-1		
									· V		
	N .										

<sup>1</sup> Sex = M (male) or F (female); Age = C (calf, chick, cub or pup), Y (yearling), and A (adult)

<sup>2</sup> Habitat = WA (water), SE (sedge), BR (birch and riparian shrub), HT (hearth tundra), LIL (lichen), LR (lichen - rock), RC (ridge crest/esker/avens), RO (rock and boulder), and DI (disturbed)

<sup>3</sup> Behaviour = RE (resting), FO (foraging), WK (walking), RU (running), ST (standing), MI (milling), CO (courting), FL (flying), and NE (nesting)

<sup>4</sup> Direction of Travel = N (North), NE (Northeast), E (East), SE (Southeast), S (South), SW (Southwest), W (West), and NW (Northwest)



Date: March	13,2015	_Time Started:	09,00 am.	Time Ended: 04.00 p.m.
Temperature:	-32°c	_ Wind Speed:	265 Kmh	Wind Direction:
Visibility (check):	□ 100m □ 50	Om 1 km	Precipitation: 60%	chance of fluries
Field Team: V.ut	atney Jamie	Kataluk		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
13:46	oumo	3	Rocky HT	Fo Stand	_	N	500~	1	146	0634352	7217660
15:30	oumo Acta	2	Bridge	Fo Stand Hop, rest		W	50m		14W	0638067	7217660
,											
								_			
								_			



Date: February 20,2015 Time Started: 09:00 0.	Time Ended: 04.00 em
Temperature: Wind Speed:	Wind Direction:
Visibility (check): 100m 500m 1km Precipitation:	
Field Team: V, utchy T. Thompson	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
11:52	Rata	10	near quarry	Walk	1	$\sim$	150 m		14W	0-27386	720/795
12:13	Rata	3	77	Walk	NV	~	100 m		14W	0632962	7214088
13:69	RaTu	4	27	Fo. Stank		W	50m			5637331	720/795 72/4088 +215282
								-			



### Meadowbank Access Road Wildlife Survey Field Sheet This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date: //acch 2 + 2015 Time Started: 97.00 g ~ Time Ended:	01.0	0 p.m	
Date: March 2 + 2015 Time Started: 99.00 g Time Ended:  Temperature: - 12° Wind Speed: 16 km Wind Direction	ion:	NW	
Visibility (check): 100m 500m 1 km Precipitation:			
Field Team: Vutotrag T. Thompson			
	K GPS M Zone	Easting	Northing
14:05 Rata 9 Tundra WOLK NNE ~ 500m	140	0626211	7187098
14:05 Rata 9 Tundra WOLK NNE ~ 500m	14W	0625299	7147098
			A.
		-	
	-		

Page \



	: March	03,2	2015	lime Started: _	09:00 C.V	u .	Time Ended	l: _0	3:30	p.m.	
Visib	ility (check):	□ 1		m 🗌 1 km	Precipitation:						
lime	Species	Qty	Habitat Type	Behaviou	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Nort
/			2 1	Posch on		9					

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
15:10	Raven	8	Bridge#1	ferch on snowbank		۶	20 m				
										١.	
3		ļ									
								_			
		-						-			
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Date: April a	7,2015	Time Started:	09:00 9	m. Time Ended: 03: 30 p.m
Temperature:	-31°c	Wind Speed:	3 Kanh	Wind Direction:
Visibility (check):	□ 100m · □	500m 1 km	Precipitation: _	
Field Team: V.Ut	atney J.K	ataluk	(4)	And the state of t

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
1/:05	Arwo	1	AWFR	Look walk &	~	٤	10 m	93	1445	0630991	7208776
13:56	Arte	1	HT	Hop	_	٤	Zon		1400	0626785	7195471
14.04	Rata	15	47	Look walk & Hop Rest	-	٤	350 mg		14W	0626862	7208776 7195471 7190839
		-									
											21
		-						-			



Date: April 12/15 Time	Started: 7:20an	Time Ended: 9:25
Temperature: - 24/°C Wind	Speed:	Wind Direction:
Visibility (check): 100m 500m	1 km Precipitation:	
Field Team: Ton Thomson +	RYAN VANENGEN	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
8:36	(aribon	24	Bulden fipl	dorari-a	NW	MIST	250	40	14	0630040	7/68309
8:47	Cariban	3	Heath	Travelling	W	w	400	31	144	0633978	71663035
9:00	(uriles4		Lake	laying down	single.	w	300	24	140	10637505	715668
9:01	Archilla	4	Achi Ma	on move	West	W	10	23	140	0638027	7156141
9013	Cariban	6	Heath	on the moss	Worth	· W	100	17	14h	1064308	3714647
9:19	Actich	. 3	gybose!	sitting	NE	E	100	6	15W	0335187	7140035
			J	y							
11:39	Caribon	150+	Cake	Travelling	NW	W	500	72	14	0626867	7194834
		*					117				
	V										
						. 1					



Date: Apri)	14,2015	Time Started:	09:00 a.m	Time Ended: 63:30 p.~	
Temperature:	-25°c	Wind Speed:	Z9 Kmh	Wind Direction: ως ω	
Visibility (check):	☐ 100m	. ☐ 500m ☐ 1 km	Precipitation:	riften snow?	
Field Team: V.C	etatnoz	Robin A.			

Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
aniban	5	Turcher	Wallie	N	W	200	36	MU	W2392C	7180620
Ц	3	thide	W	$\sim$	W	300				
i,	18	Tudac	W	W	W	200		14W		
ч	6	Tida	W	N	W	600		14W	06263 19	7197418
v.	10	LAKE	W	$\mathcal{N}$	W	800	93	14W		7211963
16	12	HT	~	N	W	500		140		7201108
Raven	2	AWPR		variable		on	43	140		7195900
	15	AT	~	N	$\sim$	500		14w	0626987	7194104
					71					
	Carifran	milan 5  n 3  n 6  n 10  n 12  Raven 2	Cariban 5 Turcha 4 3 thuche 4 10 Turcha 4 10 LAKE 4 12 AT Raven 2 AWPR	Cariban 5 Turchan Walling  4 3 thuch W.  4 10 Turchan W  4 10 LAKE W  1 12 HT W  Rayen 2 AWPR	Cariban 5 Tuda Wallie N  4 3 thuch W. W.  4 1 Tudac W W  4 6 Tudac W W  4 10 LAKE W W  Rayen 2 AWPR Variable	Covidan 5 Turdra Walling W W  4 3 thick W W W  5 Turdra W W W  6 Turdra W W W  10 LAKE W N W  11 12 HT W N W  Rayen 2 AWPR Variable —	of Travel from Road (m)  Christian S tuchen Wallie W V 200  4 3 thich W W 360  4 10 Tuche W W W 500  4 10 LAKE W W W 500  Rayen 2 AWPR Variable — on	of Travel from Road (m) M  (without 5 turber Wallie W V 200 56  4 3 thick W W 300 67  4 10 Turber W W 500 78  4 10 LAKE W W 800 93  Rayen 2 AWPR Variable — on 7)	Of Travel from Road (m)   Zone	Of Travel from Road (m)   Zone   Easting   Christian   Studies   Walling   W   Zone   Easting   Walling   W   Zone   Con 36 MW (62392C)   W   Zone   Walling   W   Zone   Con 36 MW (62392C)   W   Zone   W   Zone   Con 36 MW (62392C)   W   Zone   W   Zone   Con 36 MW (62392C)   W   Zone   W   Zone   W   W   Zone   Easting   W   W   Zone   Easting   Walling   W   W   Zone   Easting   Walling   W   W   Zone   Easting   W   W   Zone   Easting   Walling   Walling   W   W   Zone   Zone   Walling   W   W   Zone   Easting   Walling   W   W   Zone   Zone   W   Walling   W   W   Zone   Zone



Date: April 16,2015	Time Started:	09:00 am.	Time Ended: _//; 45 a.m.
Temperature: -14° c	Wind Speed: _	16 Km/h	Wind Direction: 58
Visibility (check): 100m	□ 500m □ 1 km	Precipitation:	Snow
Field Team: V. Utatacy	J. Katalyk		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
10:27	Rata	9	HT	Fo, Walk	N	W	700n		1110)	0625081	7178011
10:34	Rata	4	1.1	i c	1/	W	500m		14/2	0625142	7183211 7184145
10:36	Rata	40	ч	Walk	N	$\sim$	2 Km		140	0625582	7184145
10:48	Rata	9	и	Fo Walk	1	W	600 m		14W	0627213	7193539
,	2		3.00	,							
											NO. VENTON ETTERON ETTERON
									************		
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					1						
	·	-						_			



Date: April 18, 2019	Time Started: _	09:00 9.11	Time Ended: 12 00 p	n.n/.
Temperature:/8°c	Wind Speed:	3 Km/h	Wind Direction:	
Visibility (check): 100m	□ 500m □ 1 km	Precipitation:		
Field Team: V. Utatrog	J. Kataluk, x	Alain,G.		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
9:53	Rata	35	HT.	Walk	NE	W	800m		14W	095814	799197
9:54	v	2	AWPR Mear AWPR	Walk	NE	V-E			ν.	v.t	ч
9.56	v	15	Necer AWPR	Walk	N	2	50~		1400	0625659	7198629 7165259 7168876 7144953
10:49	, ti	15	Lake	walk	14	w	8000		140	0630418	7165259
11:01	U	5	Rocky Turde	FD		٤	600n		145	0636215	758871
11:20	ч	28	u ( ~	Fo, wolk	55W	W	2000		14W	0643648	7144953
				<u> </u>			1				
						11					



Date: April	22, 2015	Time Started:	09:00 q.m.	Time Ended: 63	30 pm
Temperature:	-17°c	Wind Speed:	28 Km/L	Wind Direction:	NNW
Visibility (check):	☐ 100m	. ☐ 500m ☐ 1 km	Precipitation:		
Field Team:	utatrag	A. Schwandt			

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
11:26	Rata	5	H.T.	Fa		E	30 m		14W	0636697	7216489
12:46	Arfo	1	4:1	VOLK		w	2000			0634240	7217376
13:07	Rata	15		Fo	_	$\sim$	500m			0629662	720 4665
13:40		28	H= 11 20011	Walk	52	w	400~			0627231	7193465
14:14	V.	18	H	ιι	и	~	400~				7167202
14:17	lx	6	Rocky Turdra	Fo	_	~	350m			0630429	7165410
14:27	ч	14	42.	Walk	52	$\sim$	250 m			0634145	7162014
				10.4							



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#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

	Date: AAG	24,2015	Time Started:	09:00 a.m	Time Ended: _ 63'. 30 p.m.	
	Temperature:	1-7°c	Wind Speed:	17 Kmh	Wind Direction: N E	
値.	Visibility (check):	☐ 100m	□ 500m □ 1 km	Precipitation:	Light show	
	Field Team:	utatros d	andy Schwandt		7	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
9:57	Rata	12	Rocky Tundry	Stand fo	-	W	350		140	0632215	7163243
10:19	Rata	45	hake	Welk fo	N	W	500		14~	0624970	7177260
10:26	Rata	50	AT.	Wolk	MINW	$\sim$	800		14w	0625336	7182669
10:46	اد	15	H.T.	Walk	NW	$\sim$	450		14W	0627157	7201283
12:53	-	8	7	Fo	_	W	4/00		14W	0636013	7217013
13.06	1	12	ч	Walk	N	$\sim$	300		1400	0630921	7211522
/3:13	L1	15	٣	Fo		~	700.		17W	0630886	7206470
13:20	į, į	35	ν.	VIK	M	~	7-00		14W	0627468	7203936
13:42	t e	20	H. (1	Walk	11	W	400		14W	0626722	7189715
14:41	16	32	Lake	walk	N	W	400		140	0626156	7186757
14:50	l'	25	Hill	walk	14	V	500		14W	0625121	7183117
14.22	ei	50	14:116'de	W9111	5	~	300		140	0629003	7170253
14:29	V	30	4-	Rest	_	$\sim$	500		14W	0630199	7166782
14:72	ч	10	7	St. Fo	_	$\sim$	500		140	0630403	7165556
14:48	V	25	HT	Wak	N	$\sim$	900		140	063803	7156101
14:58	3	13	Hill TOP	Fo Stud	_	~	600		14W	639152	7154380
14:55	haven	1	Bribe	berch	_					064035	of 15 1071



#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date: April 2:	8,2015	_Time Started:	09:00 a.n	Time Ended: 03:30 p.m.
Temperature:	1-16°c	Wind Speed:	Calm	Wind Direction: Calm
	□ 100m □ 5		Precipitation:	
Field Team: 1.01	atnag Martin	D		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
9:44	Artha	1	HeathTuch	1400	sariable	2	50 m			0638368	7155527
9:52	Rata	6	HILLTOP	Wollk	5	W	450 m			0636121	7159500
11:01	Ptarmigan	3	bridge		variable	$\sim$	58			0627516	7192199
11:16	AcHa	1	0	(es+		2	30m			0627065	7201135
11.38	Rata	15	Ψ.	Rest		$\omega$	300~	_			7211302
13:49	Rate	20		Valle	N	W	9000			0625409	7187315
14.11	Rata	75	H111	Fs.		$\sim$	1 km			0626210	717 7178
14:12	Reta	50	Hill top	to Stand		W	600~	_		0627936	4172709
14:32	Rata	5	HT	wolk	5	~	500 m			0638056	7155725
								_			
					ļ			_		Harana	
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#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date: May of	2015	Time Started: _	19:00 am.		p.m_
Temperature:	-300	Wind Speed: _	27 Kmh	Wind Direction:S \	J
Visibility (check):	□ 100m □ 5				
Field Team:	/ utatay	Passenger V	an.		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
11:24	Rata	15		Stand note	N	$\sim$	700			0644362	7141786
12:09	RaTa	12	Quarry 1	Walk	M	$\sim$	400~			06:29004	7176513
12:32	Rata	25	,	Walk, run	N	$\sim$	300~				7180601
12:59	Raia	100		Fo		$\sim$	900 m				7199507
13:20	KaTa	2		Wilk, run	N	$\sim$	300 m			0630903	7210032
15:26	Kata	30		2dx	1<	~	700n			0626871	794620
15:45	Raty	16		Walk	8-W	I-W	_				7180629
16:23	Rata	100		Wall FO		W	900 m			0633209	7163497
										)   	
								_			
			)					_			
				χ.							<u></u>



Date: May	06,2015	Time Started:	09:00 am	Time Ended:	80 p.m.
Temperature:	-19°c	Wind Speed:	28 kmh	Wind Direction:	\(\omega \)
Visibility (check):	□ 100m	□ 500m ☑ 1 km	Precipitation:		
Field Team: V.	tootrag	Passenger Le	32 Bus		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
16:09	RaTa	4	<i>\psi</i> ,11	Fo Stand	_	W	1 Km		14W	0630078	7167037
6.55		5	Tuntra	Walk	N	W	600 m		140	0625973	7167037
6:58		15	u	run	N	w	600 m		140	0627222	7201386
7:10	Rata	6	F)	run	N	$\sim$	500 n		140	0631667	7218793
7:12		5	_ u	run	N	$\sim$	700~		142	0620947	7210408
			1.20								



Date: May	08, 2015	Time Started:	08:00 911	M. Time Ended: 03'.30 p.m.
Temperature:	-15° c	Wind Speed:	18 K	wh Wind Direction: NW
Visibility (check):	□ 100m □	500m 1 km	Precipitation:	
Field Team:	lutating ?	5. Katalula		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
09:20	ArFo	/	Locky	st.	N	٤	45 m			0623929	7162546
9:33	hata	16	14:11	Fo Stand		$\sim$	250m			6630010	7188182
9:35	OrMo	5	Nelltop	Rest	_	J	300m			6630076	7168506
9:38	vt -	2	ч .	Rest		W	300_			0629941	7148925
10:19	Rata	6		Walk	MNE	$\sim$	600~			6(27027	7194026
10:45	Rati	3	2016.	Valk	N	W	70000				7211878
13.50	gata	6	Lake	Walk	MNW	$\sim$	900 ~			0626269	7185892
14:34	Rota	12	Tundra	Walk	N	N	90000			66,38484	7155450
								_			
								_			
					ļ						
					-			_			
								_		L	



Date: May	2,2015	Time Started:	09:00 am.	Time Ended: 03:30 p.m.	
Temperature:	_/0	Wind Speed:	3 knh	Wind Direction:	
Visibility (check):	□ 100m · □	] 500m 🗹 1 km	Precipitation:		
Field Team:	Itathag fo	Kenzer Var	J. Kataluk		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
10:24	Arpo	1	HT	Sewin	5	٤	250 m		144	0625471	7174379
10:31	ArHa	2	Hilside	Hop (es)	_		100 m			0625439	7174616
10-50	Rata	10	Lav	Waller	MINN	W	300~			0626874	7191116
10.51	Arta		Rocky Twelve			V	75~			X 27481	7192268
11:03	Rata	6	Duarry	fo		W	100m	School		0627654	7202382
11:09	Rata	4	Rocky Turde	W.(K	14	~	15000				7205659
11:25	Robetta	l	Hill	Fly	W	$\sim$	350m			0634894	7217895
13:14	Rate	12	141		14	~	256n			0630970	7211395
13:34	Rata	18	IK	Valk	K(	$\sim$	300 -	a).		0625651	7198712
			*								
				44							



Date: May	15,2015	Time Started:	07:00	a.m. Time Ended: 12:30 p.m.	
Temperature:	1-10c	Wind Speed:	22 K	Wind Direction: 58	
Visibility (check):	□ 100m	<b>∑</b> 500m - <b>□</b> 1 km	Precipitation:	Light snow, cain	
Field Team: V.	statnag -	I. Pratt			

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
10:35	Raven	)	ZWER	F'm	5 W	>			14W	0429730	7205082
10:41	5nB-	50	AWPR	Fly	Z	)	_		1400	0627129	7203913
11:42	Raptor	1	К.	Fly	55W	$\sim$	400m		14W	0631019	7164778
11-42	Ptasun	5	и	Fo walk					1405	0636414	7157836
12:,00	Salr	4	ч	Fig	٤	٤	200-		1400	0638083	7155837
12:00	5,60	2	·(	F13	NW	$\sim$	_		14w	·n	-
12:07	Pefa	,	"	Fly	NKW	$\sim$	300		14W	0639491	7153704
								1			
	Lara	e ni	imber of	Snow George	- flyi	ng ove	AWDI	R	const	antly	
	, , , , , , , , , , , , , , , , , , ,		,		(	/					
							1200				



Date: May 2.	0, 2015	_Time Started: _	09:00 am	Time Ended:	3:30 p.M.
Temperature:	-6°C	_ Wind Speed: _	41 Km/L	Wind Direction:	NV
Visibility (check):	□ 100m · □ 50	00m 🗌 1 km	Precipitation:		
Field Team: V. Uta	trea TiThon	reson J. K	atalule G. Schwar	dt	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
10:48	Roleha	/	AWPR	Fly	Jaciable					0625205	7128302
10:54	11	1	н	n	n_		_			06.25244	7183422
11:-31	u	1	u	chased by	, t	-	-			0630911	7211649
1/31	Peta	į.	vt.	Chasine Roleta	į.		_			11	e t
11:42	Robetta	1	N,	FÍn		V	50 m			0630905	721/602
12:25	Sacr	1	HT	stand Nalle	variable	$\sim$	75m			0637885	7214046
12:43	Raven	1	AWPR	Fly	a.	L.	и			K	и
12:43	Hebu	- 1	AWPR	Fla	n	٧	n			V	\$1
L	Siksile	1	2	ru a	и	2	10~			И	и
12:55		1	AWIR	fly	فر	W	200			0630905	72/1602
u	Siksik		AWPR	run	2	2	2000			, ls	L,
13:09	Sale	10	HT	5 tand		٧	150 -			0627156	7202302
13.16	Siksik	1	Awla	run	. ~	W	50 -			0626956	7190254
15:01	Sale	3	HT	Stand Walle	-	~	4000			0640342	7151074
15:20	CaGo	)	HT	FIG	N	2	300~			0644761	7140612



Date: May 22	2015	Time Started:	09:00 g.m	Time Ended:3	:30 p.n.
Temperature:	-1°c	Wind Speed:	33 Km/h	Wind Direction:	NHW
Visibility (check):	□ 100m □	500m 🛮 1 km	Precipitation:		
Field Team: V. Uta	Anger T. 7	Lomson			*

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
9:53	PeFa	1	AWPR	Fly	5				14W	0638000	7156224
10:21	Rata	10	Hillsida	wa(k	5	$\sim$	300~			00000	
10:38	Rata	12	Hall	Walk	N	V	2000			0625675	7182392
10:44	Rata	6	Lake	Walk	1	~	300~			0626256	7186538
11:14	haty	3	4	Walk	N	$\sim$	2000			0631093	7208354
12:35	594	14	HT	Stand	_	~	75-				7215237
14.40	RaTa	2	145	Fo	_	~	150-			0636123	7217038
12:45	Rata	10	Lake	Valle	N	$\sim$	100m			0634230	7217512
12:58	ArWo	1	Rocky Tundia	feed on earcies	~	<i>ب</i>	154			0630920	7211594
13:38	Acta	14	Lete	wolle	11	$\sim$	350~			0627418	7192409
14:08	hata	2	HT	Valk	N	w	800 -			0625118	7176241
14:15	siegik		AWER	5+	_	W					7170574
14:56	Sale	2	5 rx -	stud		$\sim$	75m	_		0637954	7156342
14:56	(46.	3	J/	Rest Stand	-	$\sim$	50-			*	4\
14.59	Role Ha		AWPL	Fly	1	2	75~			0638665	7155212
				(							

Page of \_\_\_\_



Date: May 26	2015	Time Started:	09:00 am	Time Ended: DY: 00 p.m.
Temperature:	-6°C	Wind Speed:	23 Ka/ 6	Wind Direction:
Visibility (check):	□ 100m □ 5	00m 1 km	Precipitation:	The second secon
Field Team: Ville	T.T.	000100	740	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
09:56	ReLetta	)	AWPR	F19	variable				146	0641530	7149793
10:18	Rata	1	Lake	Stan	_	~	6000		N	0632156	7163328
11:23	Rata	11	41	fo, stand, rest		٤	300~		ч	0629922	7205850
13:35	Peta	2	Questy 19	feech	_	~	Ton		6	0628693	7204224
13:10	PoleHa	\	ú	Fly	Variable	٤			ě,	1/	(1
15.57	Hormis c	25	11+			w	50 m		ч	06.26786	7185510
14:10	Rata	1	MI	Welk	1\1	2	500~		n,	0626331	7188695
14:19	596	2	1-1	Valle		W	2500		tv	062544	7183811
14:42	Ratu	3	<i>i</i> -1	walk	5	W	400~		£1	0625533	7173828
15:01	YL	7	leke	Walk	5	$\omega$	900m		fe.	0630424	7165412
15:14	19	3	HT	Walk	N	~	360m		į,	0634316	716/829
15-21	Sele	٠(	+KT	sted, Wh		~/	75 ~		N	0636838	7157362
15:22	( t	2		и		t.	u		1,	0637689	7155/04
15:29	500			Fly land	11/	E	1000		. ,/	0639148	715 4381
15:41	sacr	2	Rocky HT	Walk	^	V	Hopen		11	0642228	7148672
15.59	Scra	2	n l	walle fly	NE	٤	500		"	0355398	7138393



Date: May 29, 2015	Time Started:	09:00 a.n	Time Ended: 07:30
Temperature:	Wind Speed:	9 Km/L	Wind Direction: WNW
Visibility (check):   100m	. ☐ 500m ☐ 1 km	Precipitation:	
Field Team: V. Wtofrag	J. Kataluk		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Resting	Northing
10:56	Rata	8	HT	Walk	N	~	300~			0625778	7198336
11.09	Rata	25	HT	FO Walk	N	3	250~			1	7205430
11:29		5	14:115ile	Fo	_	~	75m				7216941
11:31		20	47	Fo		~	50m				7216528
13:25		1	AWPR	Hover		~	50m			0637212	7214820
13:52		6	147	Fo Stand		E	500 -			0631325	
17:55	RoLeHa		Mound	Perch		E	50m			0628319	7204066
14:00	Acita	8	Lake	N. 16	NW	4	600m			0627734	7203882
14.20	Ptamigan	18	145			9	50-				7/92112
14:32	Lata	7	HILL	Fo		$\sim$	800 m				7184791
14:40	Robetta	1		Fly	variable		_				7181709
14:47	Rata	30	17	fo	phone.	$\sim$	700~			0625911	7180641
15:31	Hegy	8	Durin 3	Feed on rd Ell	,	٤	50m			0638030	7156112
15:31	Hawk	1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(- 0)		ξ	V			и	4
15:51	Poven	2	ч	,	, —	2	~			£.*	v
15:51	5a(c	2	11x	Walk		٤	75m			0642835	7147142



Date: Jun. 05, 20	15 Time Started:	09:00 a.m.	Time Ended:3:30
Temperature:	Wind Speed:	19 Km/h	Wind Direction: 252
Visibility (check): 100m	□ 500m □ 1 km	Precipitation:	
Field Team: Vutata	J. Kataluk		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
10:04	Rata	5	14	fo, Stand	~	$\sim$	600 m		11W	0636237	7158816
10:56	Rata	8	HT	Walle	2	~	808 m			0626926	7190178
11.07	Rata	5	HT	FO	_	$\sim$	500 ~			0626028	7199545
13:38	Sn Go	46	45			~	750		14W	0631341	7207248
14:40	RaTa	4	Rocky HT	W-16			60~				7205381
14:00	SnGo	6	1+-	5 tend rest	-	W	50~				7192723
14:06	5,69.	25	1+ T	stand rest	_	$\sim$	75 n				7190769
14:16	Sno	41	~1	rest		~	50~				7187488
14:27	Rata	20	H:1(	Fo stand		$\sim$	9000	-			7176342
14:17	5 n.G.	22	HT	(est	1	~	150~				7173552
14:40	50,60	106	HT	(est	_	~	150-				7172866
14:48	Ratu	4	B. H-01 H.11	Jolk	{	~	100-				7169165
14:55	Rata	33	1-1-	Walk	1	~	100~				7165097
15:02	5ng.	200	HT	Reit		5_	50-			0133692	
15:17	5-60	16		Reit Fly	Kl	2	50~			0639283	
15.131	Reta	7	147	Welk	5	W	100~				7144721



Date: June 09	2015 Ti	ne Started:	09:00 am	Time Ended:	14:00 p.m.
Temperature:	/°c w	ind Speed:	7 Kn/h	_Wind Direction:_	ENE
Visibility (check):	100m 🗀 500m	☐ 1 km	Precipitation: Chance	9 showers	for patches
Field Team: V. Uta	tree Mike		Victoria de la composición del composición de la	6	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
11:43	Reta	6	Hill	Stand, Fo		w	400 m		14W	0626945	7190235
11:49	Rata	10	Km 73	Walk	N	W	350	73			7195695
12:01	PeFa		Quarry 19	Pelch 1		~	100 m			0628756	7204244
13:43	C4 G0	2	Cone	Svin		W	50m			062866)	7201223
15:56	Pefa	1	Quarry 16 Bridge	fly Hover		~	100m		70.	0627435	7202047
14:01	Rata	10	Bridge	Fo Stand	-	W	200 ~			0626754	7196586
15:03	Artha	1	HT	HOP	veriable	E.	50~		2	0632134	7163420
	A CONTRACTOR OF THE CONTRACTOR										
					9						



Date: June	12,2015	Time Started:	08:00 a.w.	Time Ended: 03:30 pm
Temperature:	1°c	Wind Speed:	11 Kulh	Wind Direction: 558
Visibility (check):	☐ 100m	. ☐ 500m ☐ 1 km	Precipitation:	
Field Team: V.	tataca R	· Schwardt		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
8:16	Sico	1	HT.	51-2	_	W	1000		15W	0355923	7135736
8:29	Rata	5	HT	W = (K	5	w	300~		1400	0643993	7143809
8:32	Ptermiger	1	AWTR	F17	_	-			vt	0643537	7145220
8:36	Rata	5	147	W-IIL FO	NW	W	250~		14	06 42 791	7147277
8:18	Rata	6	Hillside	welk		~	300~		и	0642222	7148695
9:24	Ar Ha	1	ANIR	Rest			50-		j-	0626393	7173117
9:44	LeTaJa	\		fly	2	2			n	0625196	7182808
10:01	Roll	1	AWPR	rood kill	_				( (	0627147	7193709
10:28	CaGo	8		FIS	Nw				. (	0630964	7209798
10:38	AlHa	\	Awra	Ret	_	-	50m		1,	0633939	7215318
14:24	GWFG	2	lone	swin, sly	52	٤	100m			0629774	7167112
14.04	Rata	9	HT	to walk	H	~ ·	150m			063 9643	7153427
				,							
					12						



#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date	2015-06-14	<u> </u>		Time Started	d: <u>16:30</u>		Time Ended	: <u> </u>	19:00		
Temp	perature: 2C			Wind Speed:			_Wind Direc	ction			
Visib	ility (check):	□ 1	00m 🗌 500ı	n 🛭 1 km Pre	cipitation: _l	Drizzle					
Field	Team: Jeff	Pratt /	Robin Allard								
Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zon e	Easting	Northing
	Caribou	1	Tundra	Walking	South	West	100	96			
	Peregrine Falcon	1	Quarry 19	Flying				84			
	Peregrine Falcon	1	Quarry 18	Flying							
	Caribou	11	Tundra	Walking	South	West	500	74			
	Caribou	9	Tundra	Walking	South	West	600	63			
	Caribou	6	Tundra	Walking	South	West	1000	53			
	Peregrine Falcon	1	Quarry 9	Flying				44			
	Peregrine Falcon	1	Quarry 7	Flying				39			
	Peregrine Falcon	1	Quarry 3	Flying				23			

Page	of



Peregrine

Peregrine

Falcon

**Falcon** Peregrine

Falcon Peregrine

Falcon Caribou 2

1

2

2

1

Quarry 16

Quarry 18

Quarry 19

Quarry 21

Tundra

Flying

Flying

Walking

Flying/nest/eggs

Flying/nest/eggs

	171005	01111 W J O	restraisorante egeter	table morthorning of the ac	ecco, u w unq	sortare ar juica	o tre tree course b		ac compi	cica	
Date	2015-06-16	5		Time Started:	12:00		Time Ended:	1	<u> 15:40</u>		
Temp	perature: OC			Wind Speed:			_Wind Direc	ction			
Visib	ility (check):	□ 1	00m 🗌 500ı	n 🛛 1 km Preci	pitation:	Drizzle					
Field	Team: Fred	Choin	iere / Robin Allar	d							
ime	Species	Qty	Habitat Type	Behaviour	Directio	Direction	Distance	K	GPS		
	-				n of Travel	from Road	from Road (m)	M	Zon e	Easting	Northing
	Caribou	5	Tundra	Walking	South	West	1000	18			
	Peregrine Falcon	1	Quarry 3	Flying/nest/eggs				23			
	Peregrine Falcon	2	Quarry 9	Flying				44			
	Caribou	3	Tundra	Walking	South	West	300	52			
	Caribou	3	Tundra	Walking	South	West	500	58			

South

West

100

71

84

92

93

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Date: June	18.2015	Time Started:	09:00 an	Time Ended: 12:12	
Temperature:	6°C	Wind Speed:	10 Km/h	Wind Direction:	
Visibility (check):	☐ 100m	□ 500m ☑ 1 km	Precipitation: 3	% chance of showers	
Field Team: Vut	atra, M	Gebouer K. 1	nartee	0	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
9:02	51K-51K	Z	AUPR	RZ K:11			<i>`</i>		15W	03562 95	7136483
9'.17	u	/	и	* (					14W	0644760	7140938
9:29	Sacs	7	HT	st	_	$\sim$	60-		14W	0642894	7147001
9:.33	C960	12		Fly	N	W	800~				7148413
9:40	Bala	1		Fly	5	w	950m	1	14W	0640344	7151354
9:40	Sili	1		Fly						. 10	4
9:56	Sale	4		VL \		W	400 n			0631201	7188310
9:59	ArFo	1	Den	W/pyps		5	50m			do36072	7159630
9:59	Actopup	7	~	, ,		٤	50~			ч	~
10:14	Rata	5	Keelen Tund	, fo.st.	_	w	300~		14W	0631078	7164608
10.33	holt	1	AWPR	LE LIU					_	0626649	7173016
11:50	Peta	1		Hover	Valiable	٤	150-			0625BO	7179050
10:56	hata	4	Rocky tundas	J-1(C	N	~	100~			0625881	7181883
10:59	Ratu	2	14+	FO		<u></u>	250~			0625122	7182979
1105	Sell		,-J.T	54.		. W	5.00			0626228	7186550
11.76	5a(1	(		5+.	_	2	^			0629672	7204179



#### **AGNICO EAGLE**

#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northizzg
7:14	Arta	2	Rocky Tandre	wh			1000		14W	0635095	7217400
7:39	Sacr	2	1-0	5fa.	-	~	150-				
7:45	660	4	else 8 hill	rest, Sla	$\mathcal{N}$	~	56.				7205380
7:48	CaG0	12		Fla	N	E/W	2000				720 1309
7:52	Artha	1	Rock Tundo	X	14	w	10h	$\vdash$	_		7202882
7:58	Rata	7	Grass, Tand	Walk	NW		500 m				
7:22	Rata	1	45	wc'k	N		350~				7198422
7:24	lata	7	LI T	will	5		300~	_		0625419	
:25	C4 G0	2	Lake	cest	-	5	450n	$\dashv$		11	7183097
-1.12	LoTaJa			Fly	variable	5-	460-	$\dashv$			
1:23	Robeta	2_	H	FL	- 4	W	4	+	+		7179585
7:34	Artha	1	Rock Tundage	(@5)	v	W	100~	$\dashv$	-	12000	2000111
: 35	Rata	3	47	60		w	350m	+	+	625653 11	7178864
42	5016	2	HT	Stund	1-	~		+	++		7 7 1/20
ιι	Laven		ANPA	Parch		~	350m	+		625857	2177408
:50	SiLsiL	(	Л	Ad Xiu		~	1000	+	1 4W	627751	7171789

Page of Z



Date: June	21,2015	Time Started:	07:00 q.m.	Time Ended: /8:00 and	
Temperature:	300	Wind Speed:	36 gurt 46 k	Wind Direction: NNW	A .
Visibility (check):	☐ 100m	. ☐ 500m ☐ 1 km			
Field Team: 1). U	tatacis n	1. Gebauer		,	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Resting	Northing
8:53	Pefa	1	ocarry 9	Fly, Hover		}	160 ~		14W	0628634	7171671
9:05	Roven	2	Quarry 6	Fly		~	50m		]		2164712
9:06	Alta	1	Rock Troden	res.	_	E	500			Annual of the second of the se	7163814
9:1(	Sacr	Į.	AUPR	Stand		3	10 m				7162858
9.21	CaGo	2	Querry 3	Stend	_	2	70~			0437984	7156285
9:22	Arta	2	v.	(21)	_	v	V			v	en /
9.32	5alr	2	Two	st walk		L	50m			0641937	7149213
9:33	Sale	2	ч	'u	(		25~			0642400	2148200
9:15	Ca50	8	Pond	5~:m		}	2000		144	64136	7146330
4.45	5:6512	2	AWPR	dkil	_		1		15W	355/62	7139464
9:52	CaG0	2	Pand	Swim	1	2	150m		15W	0356136	7136068
1			,								
				-							
	-			100 mm (2) mm (2							

P 32 of 2



Date: June	26,2015	Time Started:	09:00 a.m.	Time Ended: 05:30 0.4.	
Temperature:	50c	Wind Speed:	15 mph	Wind Direction: NNW	
Visibility (check):	□ 100m □	500m 🖂 1 km	Precipitation:		
Field Team: V. U	tatione 5.	Kataluk	*	A STATE OF THE STA	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
09:30	Ar Ha	1	Awre	cross rd	$\sim$	€-W	_		15W	0355255	7138744
09:30	GNEG	2	Pond	stad, rest	<del></del>	$\sim$	200		V	· . L	4/
69:34	ARHA	1	Gatehse	e1035 (6	w	2-W	_		14W	0644811	7140185
09:43	RATA	5	14+	walk	5	~	200m			0644018	7142670
10:09	CAGO	2	Quarry 4	st. reit	-	~	58 m			0633936	7162485
10:14	DuMo	1	147	Fo	_	4	2000			0631653	7164048
11:10	RATA	١	hock Turde	Stad Fo		~	300 m			0626932	7203525
63:13	Pera	2	Ducky 21	Perch	)	3	75m		14W	0630871	7211783
03:31	Peta	\	Dercy 19	Perch Fly	$\sim$	W	500				7202094
3:17	Rata	5	Brushn Tandra	J+21 6		$\sim$	300~			0627120	7191626
4.02	66a	11	Vafia ble	A,	N	2	500-			9855386	
4:32	Tusw	1	hatel	500	_	2	350-	7		A CONTRACTOR OF THE PROPERTY OF THE PARTY OF	7170583
										1000	714 3 3

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#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date: June 30	20115 Time Started	: 09:00 a.M.	Time Ended: 03'36 g.m.
Temperature:	/o° € Wind Speed:	15 mph	Wind Direction: NAW
Visibility (check):	100m 500m 1km	Precipitation:	
Field Team: V. Wtate	rag J. Kataluk		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
09:43	5,00		Loke shere	fly land	N	$\sim$	300 n.		14w	0643985	7142776
10:08	Arto	1	Den	Rest	_	٤	50~		1	0636047	7159675
10:08	ArFogys	4	LL	L	u	L	и			ıı	ч
10-15	Artha	(	Lock Turdin	Vovo	I	2	75m			0632506	7163135
11.21	CaGo	١	Loke	cest, fly	E	5	250m				7204275
11-25	Rata	4	4:11	Fo , 20(1)	Vorido	J.F	400m			CONTRACTOR AND ADDRESS OF THE PARTY OF THE P	7206183
13:28	Peta	1	Duary 19	Parch Fly	~ (	\$	75~		0.0000		7204202
13:42	HeGu	7	HT	feeding at XII		{	300~			0625651	7198706
13:45	RaTa		Leke Ston	walk	N	$\sim$	300~				7196723
14:14	7.50	1_	hake	Swin		5	550m				7/60730
										1	

Page of

# Agnico-Eagle Mines: Meadowbank Access Road Wildlife Survey This form is for research and weekly monitoring purposes

· · Orless Extracted

Date:	July 03 2	2015	Time Sta	rted: <u>09:33</u>		Time End	ed: /	2:00 pan	la si			
Tempe	rature:	300	Wind Sp	rted: <u>09:30</u> o	4	Wind Dir	ection:	N '				
Visibili	ity (check):	100m	500m	1 km Precipitation:								
Field T	eam: Vutat	~~~~	Passenger Ven	Passenger Ven								
Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Distance from Road (m)	GPS ZONE	Easting	Northing			
1/0:00	Wolverine	3/2	Hill	stand.	variable	2000	1:14/	Km 13				
11:42	Rata	2	Holler = 1	Wall -	NW	noon	14W	Km 13 0632420	7-212851			
	-											
		20										



#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date:	2015-07-06			Time Started	: 13:00			_Tim	e Ende	<b>1:</b> <u>16:00</u>	
Temp	perature:	+18		Wind Speed: 25			Wind Dir	ecti	on:	North	_
Visib	ility (check):	<b>1</b>	00m 🗌 500n	n 🔲 1 km Pred	cipitation:	None				_	
Field	Team: Rand	y Schwa	<u>andt</u>								
Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
	Musk-ox	30	Tundra	grazzing	north	East	~1 km	54	14w	0638196	7213523
	•	•	•		•	•	•	•	•	Page	of



Date: July 13 201	Time Started:	09:00 a.n	Time Ended: /2:30 p.m
Temperature:	Wind Speed:		Wind Direction:
Visibility (check):   100m	☐ 500m	Precipitation:	
Field Team: V. Utatras M	ika .	8 110	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
10:25	HeGu	- (	Lake	Fly-Land	-	~	430 m		140	0626821	7195218
10:48	ReB. Me	1	Lake	Swin fly	313	W	150~		14W	0625889	7181715
11.14	54(0	2	4: N	Rept F1	5	~	75~		14W	0628641	717/598
11:22	OuM o	1	Grassy March	Po, Stand			580-		14W	0631463	7164181
			1 H								
					1						
				1 1 1 1							
							3				
		III.	- 1117								
				ille ille							
			122.01								



Date: July 1	7,2015	Time Started:	09:00 a.m.	Time Ended: 7.00 p.m.
Temperature:	12°C	Wind Speed:	9 mph	Wind Direction:
Visibility (check):	□ 100m	☐ 500m ☐ 1 km	Precipitation:	
Field Team: \. ut	atnar			

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
09:49	ArHa	1	Quarry			2	50m		14W	0637944	7156390
09:54		i		Stand		٤	75~			0635416	7/60697
09:58		2		stand, wolk	_	É	/00 ~			0633922	7163506
09:58		1		Stand	_	٤	300-			0(33338	7163632
10:09	Pefa	1	Quarry 8			W	100-			0629114	7169989
10:37	GG 6	)	take	swim fly	5	2	300m			6626191	7187021
10:42	Bala			Perch		W	150-			0627474	7192026
			L. 1								
										1	
	I V							¥			6 1



#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date	<u>2015-08-17</u>			Time Starte	<b>d</b> : 13:30			_Tim	e Ended	l: <u>17:30</u>	
Tem	perature:	+18		Wind Speed: 2	5		Wind Dir	ecti	on:1	lorth	-
Visib	ility (check):	□ 1	00m	n 🗌 1 km Pre	cipitation: <u>I</u>	ight rain					
Field	Team: Rand	y Schw	andt, Crayston Ow	ingayak, Patrick Al	<u>hern</u>						
Time	Species	Qty	Habitat Type	Behavior	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
	Musk-ox	4	Tundra	Walking	South	East	~3 km	91			
	Caribou	3	Tundra	Grazing	North	west	~5km	75			
	Sand hill cranes	1	Tundra	Grazing	North	west	~1km	30			
	Seagulls	3	Wetland/stream	observing	North	west	~1km	10			
		1									

Page	of	· 
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Date: July	20,2015	Time Started: _	01:00 pm	Time Ended: 04:00 p
Temperature:	8°C	Wind Speed:	19 km/h	Wind Direction:
Visibility (check):	□ 100m □ 5	00m 🗹 1 km	Precipitation:	
Field Team:	Utetnez, T	Thomson	n R. Schwandt	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	Zone	Easting	Northing
13:4	Noti	1	Lake	. swim		w	150m		14w	0629774	7205319
13:44	PeFe	1	Quarry19	Pesch		w	75 ~ 50 ~			062869	7204219
14:09	Pata	,	aucry 16	Nesting			50~			0627225	7193098
14:48			HT	Standoll		$\sim$	100~			0626839	7172932
K:03	Raven	1	Questyl	Parch		$\sim$	200-			063/010	7164782
			<u> </u>							1	
						-					
			-11111								
					-						
			12.1								
		le le	6								
									ii .		
**   112*											



Date: July	24,201	Time Started:	09:00 am	Time Ended: 03:30 p.n.	
Temperature:	700	Wind Speed:	43 Km/L	Wind Direction:	
Visibility (check):	☐ 100m	☐ 500m ☐ 1 km	Precipitation: Rain	s howers	
Field Team: V	utatre	Passenger V	lan	ne promote and the	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
10:15	Jumo	1	11	Stand	_	2	250m		140	0625546	7173798
10:31	0 M 6	(	1-17	Fo, Stand		~/	30000			0625175	7182836
11:05	PeFa	2	Quarry 21	Fly	variable	$\sim$	75m			0630894	7211729
14:04	DuMo	3	14:11 51 be	to Stand	_	~	300 m			0625122	7183080
14:11	Dumo	1	Rocky Tuda	Stand		~	300m			0625243	7178380
15:06	Sacc		HT	walkstand		$\omega$	200 m			0643956	7142847
15					1E						
			1-1 10								
				III							
		= -									



Date: Tuly	29,2015	Time Started: _	09:00 am	Time Ended: 03:30 p	·m
Temperature:	14°C	Wind Speed:	18 K-/h	Wind Direction:	
Visibility (check):	□ 100m □	500m 1 km	Precipitation:		
Field Team:	· utatnas	, Passenger	Van		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
9:42	Ducklinss	30	Lake	swin	_	9	100 ~		15W	0356305	7136202
10:04		1	HT	stand	_	W	350m	Ļ	140	0640626	750751
17:37	le Fa	\	Quarry	Perch	_	$\checkmark$	75m				7 (71844
14:03	Roleta	1	H:11	Perch, Fly	varioble	$\sim$	150 ~			0625690	
14:26	0.M8	1	AT	FO Stand		٤	1 Km				717/085
							4				
				-						9	
					- 1						
	11.										
	15										
				=							



Date: August oc	1,2015	_Time Started: _	09:00 aim	Time Ended:	3:30 p.m.
Temperature:	12°C	_ Wind Speed: _	3/2 km/1	Wind Direction:	ENE
Visibility (check):	100m _ 50	0m	Precipitation:		
Field Team: V. U.	atnag, Pas	Songer V	an. J. Katalu	ζ.	

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
19:56	ArHa	- (	AWPAR	Hop.	varioble	-	-		140	0644807	7140192
0:37	OMIG	2	47	Hop.		W	250 m			0629862	
1:08	o Muc	4	1-17	- Lu		W	500 m			0626828	718 1959
2:52	Ptain	2	AWPAR	walt	_		_			0634273	7217019
4.21	Pefa	2	Quarry 9	Fly	variable	~	50-			0628624	7171750
-				i i							
			A 51								
							-				
								-			
				750							



Date: Angus	+ 07,20	Time Started:	09:00 a.m	Time Ended: 03:30 p.m.
Temperature:	1/00	Wind Speed:	14 km/h	Wind Direction: 55 W
Visibility (check):	☐ 100m	☐ 500m	Precipitation:	
Field Team: V. U	tetrany	Possenger Van		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
10:56	omo	20	Hill top	5 tan	_	٤	200m		140	0624978	7177462 7203812 7214538 7137962
11:25	OMO		HT	Stand		٤	150 m		(46)	0628097	7203812
11:37		18	HT	Fo, Stand		٤	3000		14 W	0633460	7214538
15:35	Sacr	2	fel T	stand fly	E	٤	50 m		15W	0355649	7137962
				( )							
li .											
	geV -			E 5							51 11
			: e								
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-1-	N		== 1 = = = = = = = = = = = = = = = = =		111						
			120								



Date: August 11,2	OISTime Started: _	08:00 am	Time Ended: 03.70 p.m.	
Temperature: / 0 ° C	Wind Speed:	17 Km/L	Wind Direction:	
Visibility (check):   100m	☐ 500m ☐ 1 km	Precipitation:		
Field Team: V.utetne	R. Allard			

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
09:26	Pifq Chick	3	Querry 3.	ia nest		٤	512		145	59978	7156363
09:27	ALHa	Ţ	te 1	1700		2	56~		ч	6.6	4
10:32	3	\	Rocky Tundra Duarry 16	food Fly	_	T	100 ~		n	0627408	7192448
10:42	Peta Nes	4	Durry 16			$\sim$	100 m		W.	2627224	7193121
11:02		Z	avering 19	Fla	_	$\sim$	50-		u	0628692	720 4222
11:32	PeFa		Querry 21	F's	H.				W	06236887	
=1102											
				110							
	= = = .			-							
				H 20 H							
	2017			20 10 10 10 10 10 10 10 10 10 10 10 10 10							
			12								
			- 1 2								
11											
	12 7										



Date: August 21 20		09:00 cm		
Temperature: 7°C	Wind Speed:	30 gust 40	Ku/L Wind Direction: ESE	
Visibility (check):   100m	☐ 500m ☑ 1 km	Precipitation:		
Field Team: V. Utatnes	M. Theriault			

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
11:01	ALFO	1	AWIR	Nalk	W	2-6				0633916	7215251
11:04	Sacr	2	HT	Stand		~	· 40 -			0635008	7217604
12.48	ArFO	2		walk	٤	E	30~			0633774	7215015
0(:((	Saksk	1	AWPR	(1051 rd	2	W				0629174	7204381
01:15	Sn40	100	Lake	rest.		$\sim$	150 m			0627492	720953
01:35	Sirsik	1	AUPP	stand			0			0626947	7194207
01:38	6.4	И	4	Stand, NOK		_	0			0627503	7192213
01:43	ArFo	1	Que 1- 15	~ a(4	_	$\sim$	50m			0626974	7190681
02.04	5 n Go	12	1+= 1	hes +	_	$\sim$	200 -			0625085	7178020
07:38	5:85:8	1	ANPR	stand			9			0632607	7163128
03:00	e (	43	vl	stand.	_					0640180	2152217
03-30	ч	2	ANDR	welk		Efw	0		15W	0356187	7136127
					119						



Date: August 28, 2015	Time Started:	08:00 a.m	Time Ended:	3:30 pm
Temperature: 5°C	Wind Speed:	5 Km/1	Wind Direction:	NNW
Visibility (check): 100m 5	00m	Precipitation:		
Field Team: V. Wotne R.Se	she and +			

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
08:30	Acto	(	AWPR	Hop	5	3	50-		14W	2644311	7141898
68:31	Wolverin		Hillside	run uphill	5	2	75m		-	10	4
8:33	5, 6.	100		Fly	WNW	3	900 m			0643713	7143317
8:38	5,90	21	Toweren	stud cost		٤	50-	5		0643235	7146061
8 18	OuMo .	1	1-1-	Rest		W	75~	of .		0640021	752721
9:13	CoLo	2	lond	Swin dun		5	7500			0630814	7/64881
7.43	Ca 600	2 4	Fordon	stand rest		2	10000			0625331	7183590
li	Sac1	5	23	stro, walke		2	200~	in.			-
	AUMIL :	/ 9	Form		The second second			TOTAL NO.	NACE OF STREET	Q2027)	717677
10:6	6 Mus	10	HT	60	1	£	1 km				7196762
10-17	6,060	9			1	يهاد	100 -			0628747	7264221
10:19	5,40	30	1/2	Kest	)	W	youn			0630959	7211893
10.31	<b>h</b>	32	11	ч		$\sim$	300 m			0631861	7212398
13:43	Peta	(	Ricky Tunda	Fly	N	٤	150 m		14W	0626993	7190612
	5,	A									
				8							



Date: September 07	2015 Time Started:	09:00 am	Time Ended:
Temperature: H° C	Wind Speed:	19 Km/h	Wind Direction:
Visibility (check):	☐ 500m ☑ 1 km	Precipitation:	
Field Team: Viltata	Thomas		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
69:07	Sacr	1	AWPR	60		2	Zn		15W	6355972	7137766
~	Hely	(	~~	L			<u>~</u>		レ	h.,	H
₩	Artha	1	n	rock kill	_	N	4		1.4	L	Com
1244	5260	75	A			4	- A			0636682	7216497
01:15	Lata	,	+17	walk	NN		100 m			0629867	7205753
01:18	5,60	250	F-	Rost			300 m			0629622	7204583
81:21	5n6	50	Kt	rest		٤	300m			0628673	727217
01:19	5,60	11	3-	Legt fly	N	W/	100			0627386	7201860
01-48	Sale	2	H:11	St Malle		5	800 n			0627215	7(93/8)
01:49	5,60	1000	HT.	Pert			500 m			11	44
01:55	525	150	H Tswans	Reit		٤	300~			0621888	7191227
01-04		2	/	Nalk		2	30 m			0626221	7186550
62:08	506	150	Lekestore	hes t		W	300m			0625963	7184880
07:26	C660	10								0625793	7181647
02-13	541	2	1-17	Fo, Walk		~	100 -			0625119	7183118
	5,160	500	HT	/		$\sim$	1 / Km			Pene V	( )



Date: 5egt.	04,2015	Time Started: _	09:00 2	Time Ended:	04:30 p.n.
Temperature:	40 C	Wind Speed:	19 Km	Wind Direction:	NE
Visibility (check):	☐ 100m ☐ 5	500m 1 km	Precipitation:		
Field Team: 1/ 1/14	tocs T Tho	MSOO			

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
02:26	516.	30	4-	Reit		2/w	100-			0625009	7177680
~	Calo	2_	Leke	Swin		$\sim$	400m			L '	И
02:30	5,60	40	Locky Turds	Kest		5	30-75-			0625122	7176678
02:30	5461	2	'n	walk		9	5 5 m			n	7
02.40	546	2	H:11 Top	Stand		<b></b>	300~	49	140	0625444	7174614
02'.46	5,60	150	•	Rest		~	100 ~			0625558	7173715
02:08	Salc	2	Tand-	W-16	-	5	25 m			0627667	7172815
02:54	5060	30	1	Leit		٤	100 m			0629102	7170954
02:56	5000	100	Lake & voce	(e.f		$\sim$	75-	10.4		0629033	7170179
02:59	No. of Contract of	300		и	_	2/~	50-100-			0629718	7 (69076
03:02	`	50		~	-	2/2	90 -			0630043	7168336
PO. 10	٧	175	1	Les t		2/~	100 ~			06299 70	7167564
07:07	u	100	H	~	_	( )	1500			0630195	7166778
03111	Ly	200		и		1/w	50-200n			0630514	7165238
43:15	ч	300	Y	L	_	W	5 200n			0631774	7163965
03:17	N	150	3	٦		2	50 - 200n			0632142	7 6 3 3 50



Date: Sept	04,205	Time Started:	09.00 g.~	Time Ended: 04: 30 p.n.	
Temperature:	4°C	Wind Speed:	19 Kn/L	Wind Direction:	
Visibility (check):	☐ 100m	□ 500m ☑ 1 km	Precipitation:	Name of the Control o	
Field Team: V	tatura Ti	Thomson			

	ream: V		1+ 11coms 6								
Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
03:15	5 n G 0	300	HT.	Kort	_	$\sim$	50-300~		140	0633647	7163662
3:22	~i	200	Ht	n	_	٤	56-200,			0633973	463425
3:26	~	75	u	h		2/~					7162237
3:30		156	-11	h		Elw	460~			6635534	7160564
3:35	u	190	n	. ~		2	150			063(462	757763
3:40	п	175		L-		٤	100 00			4378(4	715 (487
3:51	N	150	Hillsia	بر	~	W	700-			0640303	7151652
3:56	N	100	u	7	_	2/0	100-50m			0641545	7151652
			* x	-		1				10	

#### AGNICO-EAGLE MINES LTD. - ALL - WEATHER PRIVATE ACCESS ROAD SURVEYS - 2009

Date (day/month/year): 205-09-12	Time Started: 13:15	Time Ended: 16:30 Page / of	30
Start Location: (UTM)	End Location:	Observer Names: James Kasalak	
Temperature: Wind Speed: (km/hr): _	30 Wind Direction: South	Visibility (circle): 100m 500m 1km 1km Precipitation	-

Time	Species Name	Number, Sex and Age	Habitat Type (ELC)	Behavior	Direction of Travel	Distance from Road (m)	Direction from Road (N or S)	Location on Access Road (GPS Coordinates)  Zone Easting Northing	Comments
13:19	Snow geese	23	HT	Fo		30m	East		
13:23	n "	8	HT	FO/RE		5m	North		Km 105
3:33	11 11	53	HT	Fo		15m	West		Kn 99
13:41	Caribou	3	HT	Fo		200m	west		Km 96
14:01	11 0	8	HT	Fo		2km	West		North of Quily 19
14:07	Snow geese	~45	HT	RE		200m	East		Km 86
4:10	w 31,1	50	Hr	RE		150m	west		Km 95
14:29		9	HT	Fo	4	30 m	East		Km 74
14:29	10 0	9	HT	Fo		10m	West		Quarry 15
15:27	W	7	HT	FO		50m	East		Km 36
15:34	in the	260	HT			2km	East		Km 32
5:45		11	47	FS		20 m	East		Km 23
5:53	, e	~ 20	HT	FO		150 m	West		Km 13
5:54	r .	~ 150	HT/E	FO'/RE		Ikm	East		Ken 18
15:59	, , , , , , , , , , , , , , , , , , ,	~40	HT	FO/RE		150 m	East	2	Km 15
6:03	4 10	~60	HT	FO /RE		100m	East		Kn 13
6:06	, UL	63	141	FO/PE		40m	West		Km 12

<sup>1</sup> Sex = M (male) or F (female); Age = C (calf, chick, cub or pup), Y (yearling), and A (adult)

<sup>2</sup> Habitat = WA (water), SE (sedge), BR (birch and riparian shrub), HT (hearth tundra), LIL (lichen), LR (lichen - rock), RC (ridge crest/esker/avens), RO (rock and boulder), and DI (disturbed) 3 Behaviour = RE (resting), FO (foraging), WK (walking), RU (running), ST (standing), MI (milling), CO (courting), FL (flying), and NE (nesting)

<sup>4</sup> Direction of Travel = N (North), NE (Northeast), E (East), SE (Southeast), S (South), SW (Southwest), W (West), and NW (Northwest)

#### AGNICO-EAGLE MINES LTD. - ALL - WEATHER PRIVATE ACCESS ROAD SURVEYS - 2009

Date (day/month/year):	Time Started:	Time Ended:	Page 2 of 2	
Start Location: (UTM)	End Location:	Observer Names:	The second second	
Temperature: Wind Speed: (km/hr):	Wind Direction:	Visibility (circle): 100m 500m 1km	1km Precipitation	

Time	Species Name	Number, Sex and Age	Habitat Type (ELC)	Behavior	Direction of Travel	Distance from Road (m)	Direction from Road (N or S)	Location on Access Road (GPS Coordinates)  Zone Easting Northing	Comments
16:08	Snow geese	N 80	HI	RE/FO		60m	East		Km 11
Ú.		35	HT	RE/FO		Bom	West		Knu
				8					
	(C. V.				-				

<sup>1</sup> Sex = M (male) or F (female); Age = C (calf, chick, cub or pup), Y (yearling), and A (adult)

<sup>2</sup> Habitat = WA (water), SE (sedge), BR (birch and riparian shrub), HT (hearth tundra), LIL (lichen), LR (lichen - rock), RC (ridge crest/esker/avens), RO (rock and boulder), and DI (disturbed)

<sup>3</sup> Behaviour = RE (resting), FO (foraging), WK (walking), RU (running), ST (standing), MI (milling), CO (courting), FL (flying), and NE (nesting)

<sup>4</sup> Direction of Travel = N (North), NE (Northeast), E (East), SE (Southeast), S (South), SW (Southwest), W (West), and NW (Northwest)



Temp	serature:		- N	me Started: Vind Speed:	17 Km	1	Time Ended		:	15 a.m.	
Field	Team:	utati	nery Passe	enger Van	<u> </u>		1				e
ime	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction	Distance	K	GPS Zone	Easting	Nor

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
10:32	PeFa	2	AWPR	Fly, hover	vasioble	8	100 m		14w		718662
10:48	Rata	20	11	WOLK, FO	_	W	400-				7199786
10:50	Rata	10	HT	in		~	300_				7201619
11:05	Rata	50	HT	FO, WUK		$\sim$	200 m			0630946	7211894
11:16	Rata	15	HT	Fo, Rest,		~	250~			0636200	7217048
11:18	Rata	25	EMR	FO, Reitstan		E/W	150 m			0636699	7216458
				, ,							
							1		192		9
			4	30	8		5				
				6							
					3					4	
Nin'											
		1									





#### **AGNICO EAGLE**

Date: 2015-09-17	Time Started: 17:00	Time Ended:
Temperature: 5°C	Wind Speed: 23 qust 33	Wind Direction: South east
Visibility (check):   100m	☐ 500m ☐ †1 km Precipitation: None	
Field Team: Tanie Kataluk		

<b>Fime</b>	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
17:11	Caribon	9		grazing		West	15m	EMR			
17:14	Caribou	6		grazing	west	east.	200m	102			
17:18	Caribon	8		arazing /resting		east	150m	100			
17:33	corribou	5		grazing /resting	east	west	30m	99			-
17.42	geore	3/		grazing		east	100m	019			
17-44	u	7		U		east	200m	83			
17:42 17:44 17:46	į.	~40		· resting		east	100m	92			
2015	-09-18										
9:17	-09-18 gease	15		gracing		east	5m	/			
4:21	geese	N100		grazing Tresting	Ų.	east/west	30n	4			- 1
10:09	v	12				west		37			
11:11	caribon	8	l'	grazing		east	1km	79			
11.15	geese	-40		Grazing		east	150m	83			
11:15	Caribon	/		walking		West	1km	89			
11-18	perecrine	/		Steending		West	Q19	Ž5			

east side going south Km 91 11:24 6 Caribon grazing west side 11:30 7 Kn 94 east side/west Km 99 resting east side Km/01 east slde grazing Kn 103



Date: Septe	nber 21,	2015 Time Started:	3:00 p, n	Time Ended: 05:30 p.m.
Temperature:	3°C	Wind Speed:	45 Kn	wind Direction: EHE
Visibility (check):	☐ 100m	□ 500m □ 1 km	Precipitation:	[ Flyrries
Field Team: V()	tatnon	J. Kataluk		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
03:19	5n60	25	XH	Restan		$\sim$	50m		14W	0628077	7203806
03:29	GWFG	13	HT	Rest, fy		2	56m			cı	u
3:36	5060	40	N	Acit		٤	150-			0627373	7201753
3:38	Rata	15	14:11	F. Stand		$\sim$	14,00			0627000	7201083
3.42	Reta	35	Ridge	Fostan		$\sim$	900~			0626067	7199612
3:48	5461	20	Gass That	Qe, J		٤	50m			0626747	7196855
3:51	5 4 60	80		Rest		$\sim$	100-			0626858	7195034
4.30	GWAG	11	11/	Ast, Fly	5	$\sim$	50-			0628448	7172301
4:41	5,460	180	AWPD	Fly	5W	£-W					7165264
4:51	N	25	Brulytade	hat	_	$\sim$	150m				7161497
458	U	36	Rocly Turds	Last		2-W	5000			6637390	7156799
5.01	Arta	ì	AWPA	run across	E	w-2	4			0637966	7156715
5:19	(496	10	. ~	FIN	NE	- 1	100m			0644166	7142225
9:20	5,50	10	γ	v v	4	$\sim$	1000-				h
				1							



#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date: 0ct, 02, 2	Time Started:	09:00 gin.	Time Ended: 03.30 p.m
Temperature:	Wind Speed:	22 Km/4	Wind Direction:
Visibility (check): [ 100	n 🗌 500m 📈 1 km	Precipitation:	in, snow
Field Team: V. Utata	- Manon		,

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
10:13	AcFo	1	Rock, Tundra	walk	NE	2	350m	49	140	0625449	7174619
10:25	Rata	50	Hill	Fo, Stand		$\sim$	460 m			0625181	7183298
01:00	\.	1	14	Walk	W	V	100~			06314841	72/2272
01:12	Pefa	(		Fly	w	1-W				0630282	7206188
01:24	Raven	5	Querry 18	fly dive	_	W	Son				7202074
1:28	Rata	25	HT	to'	_		200m			0626957	7200972
1.31	M	6	i (	10		W	400n			0626056	7199598
1-74	$\mu$	30	· CC	(1) No 1/4	NW	~	300m				7198298
1:58	Rata	15	и	foctand		٤	400m		1	0625940	718 4958
3.22	Rata	25	n	'u		W	300~	_	14W	0643964	7142834
	1		1								\
	•			2						Page 1	of <u>l</u>



Date: October	06,2015 Time Started:	09:00 am.	Time Ended:03:3	6 p.m.
Temperature:	Wind Speed:	Calm	Wind Direction:	<u> </u>
Visibility (check):	00m 🗌 500m 🗹 1 km	Precipitation:		
Field Team: V. utatac	g T. Thompson J	. Katalak		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
9'.01	NoPi	13	Leke	Swin		2	Jon.			356199	736134
10:41	PeFac	1	full	Fly over	L-11	_				0625941	717-3352 7193658 7203862
11.26	Rata	50	HI	Fo		J.	100m			0627167	7193658
11:52	Rata	6	HT	Fo		~	550-		2	6626988	7203862
11.56	PeFa	(1	Quarry 19	Fly	58	8-W	Som		r	0628765	7204248
				(					= 11		
		h	1	To the						P.	
		6	Υ,	4							

Page \_\_/\_ of



Date:Oct.	09,201	Time Started:	09:00	Time Ended: 04; 26 p.m.
Temperature:	-6°C	Wind Speed:	27 Km	Wind Direction:
Visibility (check):	□ 100m	□ 500m □ 1 km	Precipitation:	Chance of flyries
Field Team: V U	tatnag	J. Kataluk		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M		Easting	Northing
9:56	Arno	ı	AWAR	Walk	W-2	2	100m		14w	0628765	7204248 2171787 7139574
2-,44	Rolt	14	и	Fly	2-W	w	50_		14W	628720	2171787
3:47		75	AWAR	FO WEIK	. £	W	50 m		150	035.5161	7139574
					<b>V</b>					Y	
			-		7	-					
							IV.				
					1	l l					
	4		9		N	-					
			M								
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				1							



	Oct./	3,20	015 T	ime Started:		m.	Time Ended		,	, V	
Visib	ility (check):		00m 500n	ı 🗌 1 km Pre	cipitation:	Flyer	ico in	A.V	Λ.		
`ime	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from	Distance from	K M	GPS Zone	Easting	Nort

Characteristics and characteristics and a				Field Team: V. Utahag J. Raigluk									
Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing			
RCETC		Hill	Walk, Cun	<i></i> ✓	N	100~	12	14W	0642109	7148937			
Rata	250	14:11/Quarry	Fo Stand		W	150 m	71		0627538	7192693			
^	150	/	Fo Stand	_	$\sim$	450m		14W	06266799	7189894			
0	60	Rocky Turcia	FO, Stad	_		Zoon		14W	0626687	7180566			
	,	. u	F1, 5.	5	A			4	14	el			
			C	1214									
						l v							
			y,		ř								
		# I											
	Rata Rata Rata Syon	Rata 150 Rata 150 Rata 60 Snow 1	Rata 250 Hill / Quarry Rata 150 Rata 60 Acky Turcha Snow 1	Rata 250 Hill walk con Rata 250 Hill / Quarry Fo Stand Rata 150 Fo Stand Rata 60 Raky Turdra Fo Stand Snow 1 Fly 5.	RCETCA   Hill walk run in RCETCA 150 Hill / Quarry Fo Stand - RCETCA 150 Fo Stand - RCETCA 150 Fo Stand - RCETCA 150 FO Stand - SHOW 1 FLy S. S	Rata 250 Hill walk on in what Road  Rata 250 Hill Austry Fo Stand — where Rata 150 Raky Turcha Fo Had — where Show is the stand of the stand of the stand of the stand of the standard of the	Rata 250 Hill walk (un in 100m Rata 250 Hill Russing Fo Stand — 150m Rata 150 Fo Stand — 450m Rata 60 Raky Turdra FO Stand — 200m Show 1 Hill S. S & —	Rata 150 Hill walk (un in 100 12) Rata 150 Hill Ruary Fostand - 150 71 Rata 150 Raky Turcsa Fostand - 2001 Syon 1 Fly S. S A -	RCEIC   Hill walk run in 100 m 12 14W Rata 250 Hill Ruary Fo Stand - 150 m 71 14W Rata 150 Fo Stand - 450m 14W Rata 60 Raky Turcia FO Had - 2000 14W Syon 1 Hy	RCETCY   Hill Walk (un W 100m 12 14W 0642 109  Rata 250 Hill / Quarry 60 Stand - W 150m 71 14W 062 7538  Rata 150 Fo Stand - W 450m 14W 06266797  Rata 60 Raky Turcsa FO Stand - W 200m 14W 0626687  Syon 1 Hy 0626687			



Date: Octob	er 16, 2015	Time Started:	09:00 9·m.	Time Ended: 04:00 p.m.
Temperature:	-10,6	Wind Speed:	25 km/4	Wind Direction: WNW
Visibility (check):	□ 100m □ 5	00m 🗹 1 km	Precipitation: _ < hance	of flurries
Field Team: V	Utatrag J.	Kataluk		<u> </u>

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
10:02	RaTa	20	Rocky tands	Fo, Walk	14	$\sim$	200m		14W	0630596	7165121 7172852 7145429 7140646
02:46		29	Rocky tands AWAR		_	_				0627095	7172852
02:40	Rata Rata	20	ridge	Fo		$\sim$	200~			0643459	7145429
07:54	Rata	2	HT	Fo		W.	175m			0644769	7140646
		7		ē	1						
		*									
1		le -					C.				
·											
		1		541							
				. *		,		-	,	Pa	of_\



		,	7.	ime Started: OS	3:00 a.	7.		i:	03:31	D p.nr	
	lity (check): Team:		- 1		ecipitation:						-
ime	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Nort
20 200	6 >	Name of the last	0				_		111.1	15/10/1	2.20

	A SA PORTON	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	Zone	Easting	Northing
Rota	2	Rock, Tunda	6,stul		$\sim$	150-		14W	a26566	7179869
									.5.	
21		Ţ.	ř						, i	, i
		1			2	- 4				
- 1				L.						
	Moria	Maila C	Morla C Rock, Tunda	Maila C Nock, runda 10,5 mm	Routa Z Rock, Turing to, stud	Morta C Rock, Turka 10,500	Morta C Nock, Tanda 10,5100	Mora C Nock, Turk 10,5th	Morta C Rock, Turke 10,5000	Maila C Rock Tunda 10,5th 00 750 1790 CL2066



Date: October 27, 2015 Time Started: 08.00 9 7 Time Ended: 15:15  Temperature: 906 Wind Speed: 13 kmh Wind Direction: NE											
Temp	erature:	- 9	10'C	Wind Speed:	13 k	anh	_Wind Direc	tion	:/	1E	
Visibi	ility (check):	$\Box$ 10	00m 🗸 500m	1 km Prec	ipitation:	Fog					
Field	Team: 1/.	atna	R. Schw.	and.		1 1	1				
Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M		Easting	Northing
10:43	favor	2_	Quarin 15	Percle Fly		w	5000		14W	0626923	7190772
13:46	Rata	1	H.T.	Stan WIK	W	W	300 m		14W	0626389	7190772 7187282 7136132
15:02	RoPt	5	AWAR	Percle Fly Stan Wik Wolk stand		_	om		15W	0356198	7136132
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Date: Oct	ber 27, 201	Time Started: _	08:80	Time Ended:	5:30
Temperature:	-190c	Wind Speed:	13	Wind Direction:	55W
Visibility (chec	k):	] 500m,	Precipitation:		
Field Team:	V. Utabra	I. Thomson	I THE		<u> </u>

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	Zone	Easting	Northing
13:57	DVMO	て	Ridge	5tm)		W	600m		14W	0625980	7185031
	15										
			P		1			1			
*											
					E	1					
				-							



Date: Octobe	2 30 20	Time Started:	08:00 a	Time Ended: 03	:30 p.M.	
Temperature:	-21°C	Wind Speed:	12 Km	Wind Direction:	MMW	
Visibility (check):	☐ 100m [	□ 500m	Precipitation:			
Field Team: Vut	atnas R	1. Schwandt				

Time	Species	Qty	Habitat Type	Behaviour	Direction	Direction	Distance	K	GPS		
Time	Species	50	nabitat Type	2011471041	of Travel	from	from	M	Zone	Easting	Northing
		1 1				Road	Road (m)				
08:38	Roven		HT	Fly	SW	$\vee$	150-		140	0641548	7149592
09:27	Ropt	18	Bridge	Valk, Fly		W				0625551	7173777
9.39	Rover	)	AWAL	Feed un Corcuss	W	W	-			6626029	7149592 7173777 7179321
10:10	Roven	)	ALT I	FLA	Unviole	$\sim$	400 m			062 6214	719 9829
10:32	OMO	15	H:11/3/2	Stall		$\sim$	150~			0631998	7212436
									,	- ' -	
										1	
Σ	¥		7	2	r.	ε	f			Y	u - 1
<b>N</b>			- 1 43 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		\$		1.5	- 1		1	
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7.					-,		3				,



Date: Novemb	yr 03 20	Time Started:	08:00 a.m.	Time Ended: 03'.30 p.n.	
Temperature:	-12°C	Wind Speed:	30 km/h	Wind Direction: NNW	
Visibility (check):	☐ 100m	☑ 500m ☑ 1 km	Precipitation:	ht snow drifting snow	
Field Team: V.U	etataon	R. Schwandt			

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
10:05	Roft	6	AWAR	Fly	2	3-20	50-		1400	6632125	7163432 7177616 7192518
10:37		1	AW AR	Fly	NW	E-W			14W	0625008	7177616
10:37	Muskox	١	Botton hill	Rest, Welle	14	W	15,00		140	0627385	7192518
		×					4				
				1			Y				
							,				
										1	
	1						1		11		



Date:	Novem	ber	10,2015 Ti	me Started: 08	50 a.n	^ -	Time Ended	: <u>C</u>	3:30	D p . ~	
Temp	erature:	-1	600	Wind Speed:	10 m	4	_Wind Direc	tion	:		
Visibi	lity (check):		00m	km Prec	ipitation:						
Field	Team: V. 🔾	etato	nag lassen	ger Van.	Man	on Turme					
Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
9:42	Raven	)	AWAR	FIN	rations	$\sim$			1/W	0640993	7)50437
59:44	Raver		AWAL	PLL	~	ų	n		14W	0640342	7/5/09/
945	Rolf	3	AWAR	FU	7	$\sim$	100				750437
0:58		2	Rocky Tynes	5 tal		9	300 mg		14W	062654	7200215
		)	Queste	Fy hover	unichl	$\sim$			14W	0628654	7204212
1:5	hadn	)	Bridge	File	V.	U			141	0638086	7155833
			30			F-1					
			1	1		ur.	-				, i
			-	4							
	F.										
		+									

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Date	No Jem	ber	18,2015 T	ime Started: Wind Speed:	3:00	e.M.	_Time Ende	d:	04:00	pin.	
Temp	perature:	-/	6°C	Wind Speed:	38 Km/	4	_Wind Dire	ction	:/\	ω'	
Visib	ility (check):	□ 1	00m 500m	n 1 km Prec	ipitation:						
Time	Species	_	Habitat Type		Direction of Travel	Direction from Road	Distance from Road (m)	K		Easting	Northing
9:30	Rata	2	45	Stand vall		in		2	_	Sighted (	ry 1st Vi
3:30	RoPt	5	AWAR	stad vall	Juciobla	8-W			@	Km 10	y 15+ Ve
				``							
			VE 1 25	200							
	<u>u</u>		31.1								
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Date: November 20	7 2015 Time Started:	08:00 2.m.	Time Ended: 03,15 pin	
Temperature:	Wind Speed:	39 kmh	Wind Direction:	
Visibility (check):	00m 🗌 500m 🗎 1 km	Precipitation:		
Field Team: V. wtat	mag, K. Schwar	1		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M		Easting	Northing
08:18	Roven	2	AWAR	FIG	J-1166	AWAL		4	15W	0355156	7139148
10:18	Wolverine	\	AWAIR	Welk Sit	E	2	Bu		14W	6626345	7200021
02:45	Raven	- (	AWAA	Perch Hy	NW	W	50 m		14W	0640860	7139148 7200021 7150553
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#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Date: November 24, 2019	Time Started: 08	1:00 a.m.	Time Ended: <u>0 4 2 00</u>	p.m.
Temperature:	Wind Speed:	9 Ku/h	Wind Direction:	٤ '
Visibility (check): 100m	] 500m   1 km Pre	cipitation:		
min With	6.1.			

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
68:24	Roven	て	Bridge	Fla	NW	variable	_		140	0643773	7143363
08:50	Roden	1		Ply'	variable	5	D		1	0638049	7156064
08:56	Rata	500	Lake	Fo Walk	NW					0636670	7157541
09:05	Rata	75	HT.	Fo Ude	Nw	1 2 0	300.660	_		0635877	71606 43
69:10	Bata	150	, u	walk -	NW	٤	U.			235163	7160973
9:15	Rota	191	· U	Walk	NIW	-	350 -	9			7162230
9:32	Rata	75	Hill side	w.(K	NW	<i>\(\tau\)</i>	360~			0631290	716 4372
10:21	Rata	5	и	~		26/2	250n			0630003	7168110
10.24	ν.(	14	A	и	u	٤				0630029	7118667
10:25	4	150	7	n fo	ч	$\sim$	1 Km			U	ч
10:31	Л	125	Hillside	fo, walk	ч	٤	300~			0629066	
10:34	И	150	7	n	_	$\sim$	300m				7171361
10:39	Ч	60	variable	Fowolk	NW	~	400~			0628430	
10:42	n	30	Hillside	~ ~	, U	N	n			0627862	
10-52	V	20	HT	ч	И	٤	1 km	49	1		7174609
11:15	Muskod	3	4	welk	NHW	$\sim$	1 Km		17M	430134	7166883

Page \_\_\_\_ of \_\_\_\_\_\_



Date: Movember	24, 2015	Time Started:	08.00 a	Time Ended: 04:00 p.m
Temperature:	-34°C	Wind Speed:	9 Km/4	Wind Direction: 552
Visibility (check):	□ 100m □	500m 1 km	Precipitation: _	
Biold Manne V	-the RC	10000		

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
11:23	Muckox	100	HT	Fo Stand	_	2	2 Km		14W	0630028	7168692
11:24	Arwo	1	AT.	Watch MO		$\sim$	2.5 km			и	ч
11.41	RaTa	125	1411/Tbo	Well fo	HW	$\cup$	L			0625258	7175715
11. 4L	ч	500	AT	ι (	U	$\sim$	1 k~			0625197	7175963
11.46	ч	50		Walk	2	2 EW	b-100-			d24931	7177091
11.55	ArFo	1	AWAR	Wolk across	٤	W- E				0625048	7177871
11:56	Rata	500	140	Walk.	-	\w	1 km			~11	4
12:00	Rato	1500	HT	Wolkst.	Nw	3	1 km		and the same of th	0625491	7178676
12:16	Rata	54	Hill	Fo, Stan		.5	600-			0626348	7188160
12:22	Rata	25	Lake	Walk	NW	2	4000			0626971	7/90290
12:34	AcFo	1	4T	eta) walk	5	i	30-		1	0625721	7198448
02:16	Rata	100	41	Fo, Walk	NW	٤	600~			0626277	7185656
02:48	Rata	27	Hillside	Walk	NW	٤ -	150m		1	0627334	7172819
03:32	Laven	8	Bridge 1	Perch	N				14 W	0643801	7143372
			0								

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Date: November 27, 2015	Time Started:	8:00 a.m.	Time Ended: 03:15 p.m	
Temperature:32°C	Wind Speed:	15 Km/h	Wind Direction:	
Visibility (check):   100m	500m 1 km P	Precipitation:		
Field Team: V. Utony, R	, Schwardt			

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
08:)6	Roven		AWAR	Fly	variable	Ely over	0		14W	0644114	7142381
08:49	Kava	1	V	el	5		9		1	0640331	7151557
9:19	Muskay	36	4-	Stend		$\sim$	1.5 km			0636074	7168862
9:49	Rata	250	HT	FOSTAJUK	S	٤	980~			0626065	7185200
9:52	Rata	60	AWAR HT	FONOK	5	٤	0-70~	62		0626269	7185995
10:04	Rata	56	HT. AWAR	WAIL	WE	wk	0-75m			0626200	7187067
10:12	Rata	16	Lake	Walk	5	٤	1.5km			0126935	7-190750
10.15	RaTa	50	1-1-	Walk.	5	٤	5000			062811	7192120
10:17	data	35	ч	u	N	2	3000			0627360	7192606
10:19	Rata	20	Hillsida		5		1.5km			0627259	7193338
10:22	Rata	100	44	welk	5	9	2 Km			0627194	7193592
1023	Rata	250	11	well.	NU	5/W				0626869	7194620
10:28	Keta	225	Loke	w-lh	12	1	56-2Km			0676797	7195613
10:33	Rata	150	NT	Fo, Wall	_	2	1 km			0626428	7197263
10034	Rata	2	147	Well	NW	$\sim$	200_		1	0625663	7198862
10:40	Rata	26	1/4	~ 4/16	N	5	900~		14W	9627147	7201267

Page  $\sqrt{\text{of }2}$ 



Date: November 27, 2015	Time Started:	8:00 a.m.	Time Ended: 03:15 p.m	
Temperature:32°C	Wind Speed:	15 Km/h	Wind Direction:	
Visibility (check):   100m	500m 1 km P	Precipitation:		
Field Team: V. Utony, R	, Schwardt			

Time	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
08:)6	Roven		AWAR	Fly	variable	Ely over	0		14W	0644114	7142381
08:49	Kava	1	V	el	5		9		1	0640331	7151557
9:19	Muskay	36	4-	Stend		$\sim$	1.5 km			0636074	7168862
9:49	Rata	250	HT	FOSTAJUK	S	٤	980~			0626065	7185200
9:52	Rata	60	AWAR HT	FONOK	5	٤	0-70~	62		0626269	7185995
10:04	Rata	56	HT. AWAR	WAIL	WE	wk	0-75m			0626200	7187067
10:12	Rata	16	Lake	Walk	5	٤	1.5km			0126935	7-190750
10.15	RaTa	50	1-1-	Walk.	5	٤	5000			062811	7192120
10:17	data	35	ч	u	N	2	3000			0627360	7192606
10:19	Rata	20	Hillsida		5		1.5km			0627259	7193338
10:22	Rata	100	44	welk	5	9	2 Km			0627194	7193592
1023	Rata	250	11	well.	NU	5/W				0626869	7194620
10:28	Keta	225	Loke	w-lh	12	1	56-2Km			0676797	7195613
10:33	Rata	150	NT	Fo, Wall	_	2	1 km			0626428	7197263
10034	Rata	2	147	Well	NW	$\sim$	200_		1	0625663	7198862
10:40	Rata	26	1/4	~ 4/16	N	5	900~		14W	9627147	7201267

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			01,2015 T	ime Started: $\frac{OS}{C}$	22 Lil	<u> </u>	_Time Ended			op.m.	8
	erature:		, ,	Wind Speed:	33 Km/1		_Wind Direc	tion	:/	W	
	ility (check): Team: <u>√,∪</u> ↓			1 km Pred	cipitation:						
Fime	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northing
8:27	Raven	8	Bridge 1	Perch, Fly	varieble	2			14W	0643811	7153382
9:06	Raven Musk OX	8	Hill +1-	stand (est		W	700m			0630057	7167158
	ArFo	1	HT	walk, an	NW	W	2000			0625430	7178603
9:38	Roven	ţ	4:11	Fly	Verti-ble	~	400-			0625250	7183420
9:44	ArWo	1	147	Walk	MNE	W	700 m			0626345	7187637
10:30	^	300	15land	Fo, Stand		2	900 m			0632868	7213537
10:79		250	4	i. a		٤	u			685515	7216959
	ArFo	1	160	Run	٤	٤	350~		14W	0643864	7143102
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#### Meadowbank Access Road Wildlife Survey Field Sheet

This form is for collaborative systematic monitoring of the access; it is important all fields in the table below are completed

Visibi	lity (check):	□ 1	04,2015 Ti 8°C V 00m 500m	1 km Pre				ction			
l'ime	Species	Qty	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K M	GPS Zone	Easting	Northing
02:19	ArWo	1 =	Duarry	walk	55	u/	100 m	69	14W	C625706	7142346
03:40	Raven	3	Quarry	Perch		٤	100m			-	
		- III								III III	Sen Lan
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V1S1D1	lity (check):		// 20/5 Ti	1 km Pred	cipitation:	,	_Wind Direc	ction	:		
Field	Team: V.	44	J. Kc	taluk					10		
me	Species	Qty	Habitat Type	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	K	GPS Zone	Easting	Northin
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									7. 7		
1	1		1 17 10a 1, 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				16.2			and the state of t	Land In
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	Species	Qty	,128	Behaviour	Direction of Travel	Direction from Road	Distance from Road (m)	M	Cone	Easting	Northing
. 59	ArFo	1	1-1	Welk	varioble	$\sim$	50 -		14W	062 450	717-7111
:43	Royen	1	Hydre 2	Pead		_			14W	062400	2151117
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