



## **2021 Terrestrial Effects Monitoring and Mitigation Program Annual Report (Appendix 26):**

Section 1.2.1: Why are Term & Conditions #43 (Terrestrial Wildlife and Wildlife Habitat – General) and #44 (Terrestrial Wildlife and Wildlife Habitat – Caribou Monitoring) not included in Table 1 (Concordance Table with NIRB Project Certificate 006 Terms and Conditions) as both relate to Terrestrial Wildlife and Wildlife Habitat, refer to the Terrestrial Environment Management and Monitoring Plan and have an annual reporting requirement?

Section 12.1: In both Table 2 and 24, Caribou Behaviour Monitoring is shown as the method to be used for the Monitoring Indicator for “Sensory Disturbance” and Proposed Threshold of “<10% caribou deflections from AWAR”. However, this is not stated as an objective of the Caribou Behaviour Monitoring program nor is it specifically addressed in the results presented in this Section of the report. As a result, it is not clear how the Caribou Behaviour Monitoring program is intended to be used to for this Proposed Threshold.

Section 12.2: In the results it is stated that the cameras were successful at capturing many caribou crossing the AWAR; it would have more meaningful to express this in actual numbers.

Section 12.3: The concluding statement in this section of the report titled Collared Caribou Inventory states “Past analysis of collar data interactions with the Mine infrastructure and AWAR in indicate no strong local scale deflection effects although more regional effects have not been assessed (Appendix E in Golder 2021)”. The Golder 2021 reference is the “2020 Terrestrial Effects Monitoring and Mitigation Program Annual Report” and Appendix E is the January “2020 Collared Caribou Meliadine AWAR Interactions” Technical Memorandum. There is no mention of the review and concerns expressed by the GN, KivIA and GKD regarding this Technical Memorandum, including those related to how deflections were defined.

Section 12.4: The GKD supports the objective, methods, and implementation of the Caribou Advisory Monitoring Program as it appears to be an effective and successful monitoring program with progressive mitigation measures, including work stoppages and road closures, being triggered during caribou migration.

Section 12.5: The GKD supports the proposed development and use of “Monitoring Indicators” and “Thresholds” as a means of measuring the accuracy of impact predictions so long as these can be measured quantitatively. Presumably the newly established Terrestrial Advisory Group will have a role to play in developing and refining these Monitoring Indicators and Thresholds going forward.

In conclusion, at this point in time, the GKD supports the continuation of all the caribou monitoring initiatives reported on in the TEMMP Annual Report as, in combination, they appear to complement one another and provide important information related to caribou and their interaction with the project. The GKD look forward to discussing these initiatives

further at future Terrestrial Advisory Group meetings and its role related to the Terrestrial Environment Management and Monitoring Plan.

**Caribou Behaviour Study, 2021 (Appendix 27 / Appendix E in the TEMMP Annual Report):**

As previously noted, it is not a stated objective nor is it clear how the Caribou Behaviour Study will be used to quantify caribou crossings/deflections (a preliminary Monitoring Indicator/Threshold for measuring the accuracy of impact predictions) when crossings were observed on only 18 of 102 behaviour surveys conducted over two years (2020 & 2021).

Section 6.3.1: Given that both group size and distance to the AWAR appear to influence caribou behaviour it would have been beneficial to present this in the exploratory analysis concerning “Upstream or Downstream Observations” e.g., a table or figure numbers of groups by group size on one axis and distance on the other axis for both the west (upstream) and east (downstream) sides of the road. The only hypothesis presented in report analyses this from the aspect of number of groups only.

Section 7: There is lack of any discussion/conclusions/recommendations based on the key findings presented in the Summary related to the objectives of the Study or in the context of Term and Condition 57 of the Project Certificate.

In conclusion, the GKD see the merits of the Caribou Behaviour Study, are supportive of its continuation and look forward to discussing it further at future Terrestrial Advisory Group meetings.

**Caribou Trail Camera Study (Appendix 28 / Appendix F in the TEMMP Annual Report):**

Executive Summary: The statement that “All recorded caribou crossings occurred between 5 minutes and 8.75 hours of a vehicle crossing...” is not entirely accurate in that only four “vehicle cameras” (versus 27) and 43 caribou detections (versus 128) were used for this part of the analysis.

Section 5.1 & 6.1: According to Section 6.1, the field portion of the Trail Camera Study ended on July 12 and not the end of July as stated in Section 5.1.

Section 6.2: It would have been useful to include the total number of caribou actually recorded by the camera somewhere in this Section (based on Figure 6.2.1 there appears to have been around 6000 but that is just a guesstimate). Also, it appears that a number of the results presented are based on the number of caribou detections versus actual caribou numbers (Figures 6.2 & 6.3 for example); would the same conclusions been reached had actual caribou numbers been used (that 27% of all caribou crossings occurred at KM 22 for example)? And is there a reason why the number of caribou detections were used in favour of actual caribou numbers?

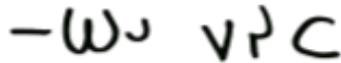
Section 6.2: It is unclear as to what is intended by the statements that “cameras are a far more effective way of capturing road crossings than collar data” and “the 91 and 128 caribou detection events captured on the AWAR cameras in 2020 and 2021 (respectively) represent a more than 540% increase from the average collar rate” when the scope and objectives of the caribou collaring program are very different than those of the caribou trail camera study e.g. the caribou collaring program was not intended to test for the association between caribou detections and road characteristics. It is the GKD’s position that the Caribou collaring program and the caribou trail camera study actually complement each other, with both providing valuable information on the interaction between caribou and the AWAR.

Section 6.3: In the text it is stated that road structure features were compared to the “number of caribou detected in 2021”, suggesting actual caribou numbers. However, the reader is subsequently referred to Figure 6.3-2 where the term “caribou detections” is used. As a result it is unclear to whether actual caribou numbers or the number of caribou detections was used in in this analysis.

Section 6.5: The GKD agree with the “insights” suggested to improve data collection in the future (leaving cameras out longer, replacing cameras with programming errors and the setting of cameras in the southern section of the road).

In conclusion, the GKD see the merits of the Caribou Trail Camera Study, are supportive of its continuation and look forward to discussing it further at future Terrestrial Advisory Group meetings.

Masi cho,



Geoff Bussidor  
Chief Negotiator  
Sayisi Dene First Nation



Benji Denechezhe  
Chief Negotiator  
Northlands Denesuline First Nation