



Avalon Rare Metals Inc.

**RESPONSE TO THE DECEMBER 16, 2011 INFORMATION REQUESTS FROM THE
YELLOWKNIVES DENE FIRST NATION
FOR THE THOR LAKE RARE EARTH ELEMENT PROJECT
DEVELOPER'S ASSESSMENT REPORT**

**Submitted To:
MACKENZIE VALLEY ENVIRONMENTAL IMPACT REVIEW BOARD**

January 2011

Avalon Rare Metals Inc. (Avalon) is pleased to provide the following responses to Yellowknives Dene First Nation's information requests provided via Mackenzie Valley Environmental Impact Review Board's (MVEIRB) letter dated December 16, 2011. Avalon's responses are found after each information request.

IR Number:	YKDFN #1
Source:	Yellowknives Dene First Nation
To:	Avalon Rare Metals Inc.
Subject:	Historical and Cultural background information

Preamble:

Avalon's Developers Assessment Report for the Thor Lake Project contains historical and cultural information that is grossly inaccurate and insulting to the Yellowknives Dene First Nation.

3.3.1.1 "Yellowknife . . . is named after the Yellowknife Dene who moved into the area in the early 1800s."

3.3.2.1 "Dettah is situated in territory traditionally used for hunting by the Taicho [sic] (Dogrib) Dene from prehistoric times. Eventually, the Yellowknife Chipewyan began to hunt in the area."

3.7.1 "Today, [the Yellowknives Dene] no longer have an identifiable dialectal or ethnic identity" and are known only from the historic record."

These are all common misperceptions that spread throughout the non-Dene residents of the north after the 1981 publication of *Handbook of North American Indians, Volume 6 – Subarctic* by the Smithsonian Institution, Washington. Anthropologist Beryl Gillespie's chapter on the "Yellowknife Indians" contains many factual errors and illogical conclusions based primarily on her opening premise that "the disappearance of the Yellowknife in the twentieth century precludes any research other than with historical materials." Her failure to conduct proper, systematic field research among the Yellowknives Dene (she's remembered by Elders as only having conducted a single half-hour interview in Ndilo in the early 1970s) and to draw conclusions from what others had written about this Dene regional group has caused irreparable damage to the Yellowknives public image. Gillespie's poor research and ill-conceived conclusions have been proven by more recent research, and by Traditional Knowledge of Yellowknives Dene Elders, to be wrong.

These statements clearly demonstrates that Avalon believes the Yellowknives Dene to be relative new-comers to the area, that they occupy lands belonging to the Tticho, and that they have no true identity and therefore no traditional rights in this area. Believing and disseminating these misperceptions this can only taint the future relationship between the Yellowknives Dene First Nation and Avalon Rare Metals Inc.

YKDFN Request #1

Avalon Rare Metals Inc. must (1) withdraw these statements and any others in the DAR that are misleading and erroneous concerning who the Yellowknives Dene are; (2) must conduct proper research into Yellowknives Dene history and identity; and (3) must replace these misleading and erroneous statements in their DAR.

Avalon Response #1

The good relationship with the Yellowknives Dene is of utmost importance to Avalon Rare Metals Inc. Avalon was not aware of the flaws in the research that it relied upon during preparation of the DAR and agrees to withdraw these statements from the DAR. Avalon appreciates the input provided by the Yellowknives Dene on this important issue and will work to learn more about the Yellowknives Dene history and identity, so that this error does not occur in the future.

IR Number:	YKDFN #2
Source:	Yellowknives Dene First Nation
To:	Avalon Rare Metals Inc.
Subject:	Concentrate Transport

Preamble:

One of the major concerns of the Yellowknives Dene First Nation is the use of Great Slave Lake as a transportation route for concentrate between the mine site and the Hydrometallurgical Plant at Pine Point and for the transport of equipment, construction materials and supplies, and especially fuel in the opposite direction. DAR Section 4.3.6 needs considerable expansion and discussion concerning why the decision to use barges was made. More precise information is required on the various options considered and on the historic safety record of barging on Great Slave Lake.

YKDFN Request #2

Avalon Rare Metals Inc. must provide additional details on the reasons for its decision concerning the barging option and must include in this an analysis of the historic safety record of barging on Great Slave Lake. While Section 9.1.1 states that barging has taken place on Great Slave Lake since 1934 but does not state the number and nature of barge accidents during that time.

Weather obviously has an effect on Great Slave Lake barging safety and DAR Section 4.7.5.8 states that Avalon requires “approximately 60 days of favourable weather to complete all shipments”. What are the parameters of this “favourable weather” and what meteorological evidence can be provided that supports the belief that there will be 60 days of favourable weather each summer?

Avalon Response #2

During the several years of planning for the Thor Lake Project, many transportation alternatives were considered for shipping the concentrate from the Nechalacho site to the hydrometallurgical plant site for further processing. The criteria that Avalon used to weigh out the options included:

- Safety
- Economic cost;
- Reliability;
- Availability;
- Distance;
- Effects of the environment on the transportation option;
- Effects of the transportation option on other stakeholders; and
- Location of existing transportation linkages.

The various transportation options that were analyzed and the rationale for eliminating these options are discussed in Section 4.3.6 of the DAR.

The use of barges to transport fuel and supplies is common in the Northwest Territories due to the limited road access to communities and project sites. For example, Northern Transportation Company Limited (NTCL) has provided barging services for 75 years across the Western Arctic, including the Northwest Territories and Nunavut. NTCL typically operates between June to October, during the open water season. According to NTCL's route map, barge operations occur on Great Slave Lake between Hay River and Lutsel K'e, along the Mackenzie River, and in the Pacific Ocean, Arctic Ocean, and Beaufort Sea. NTCL has a longstanding history of working and barging in large bodies of water, including Great Slave Lake.

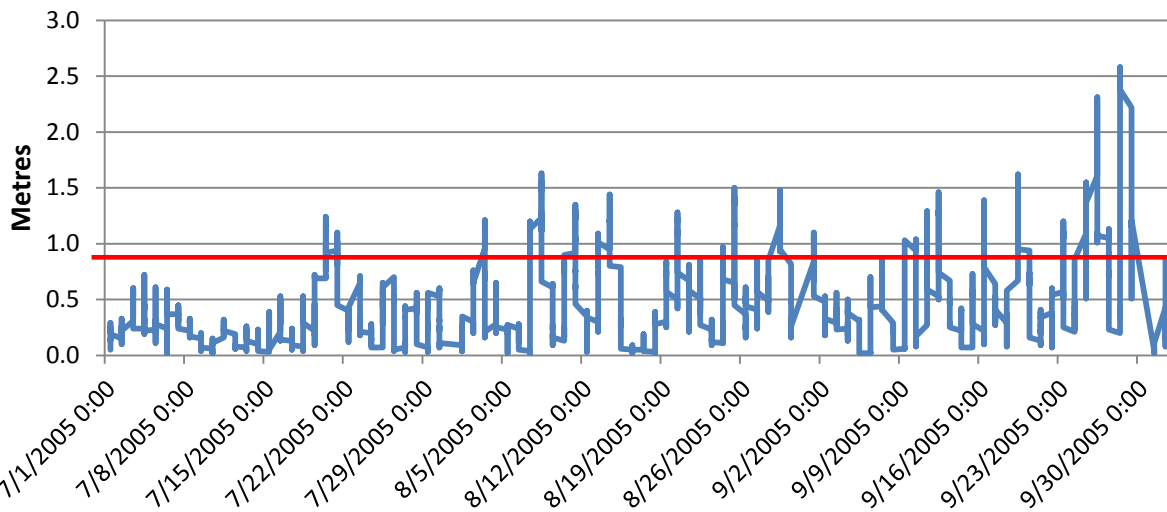
Avalon contacted NTCL and the Canadian Coast Guard to identify if any barges have sunk on Great Slave. The Coast Guard confirmed that a tug boat and barges, owned by Yellowknife Transportation, sunk during a big storm in 1956 while traveling between Hay River and Yellowknife (Mr. Ken Cooper, Senior Response Officer, Canadian Coast Guard, pers. comm. December 21, 2011). No other knowledge or records of barges sinking in Great Slave Lake were located. According to a tugboat captain that worked for NTCL for 42 years, no barges sunk in Great Slave Lake between 1973 to 2011 (Captain David Day, pers. comm. December 20, 2011).

Mr. Cooper (pers. comm. December 21, 2011) stated that the tug and barges used by Yellowknife Transport in 1956 were small compared to those used in NTCL's current fleet (i.e., the tug was about a quarter of the size of NTCL's tugboats). He went on to explain that there have been advancements in weather reporting since 1956, which make an accident less likely to occur on Great Slave Lake.

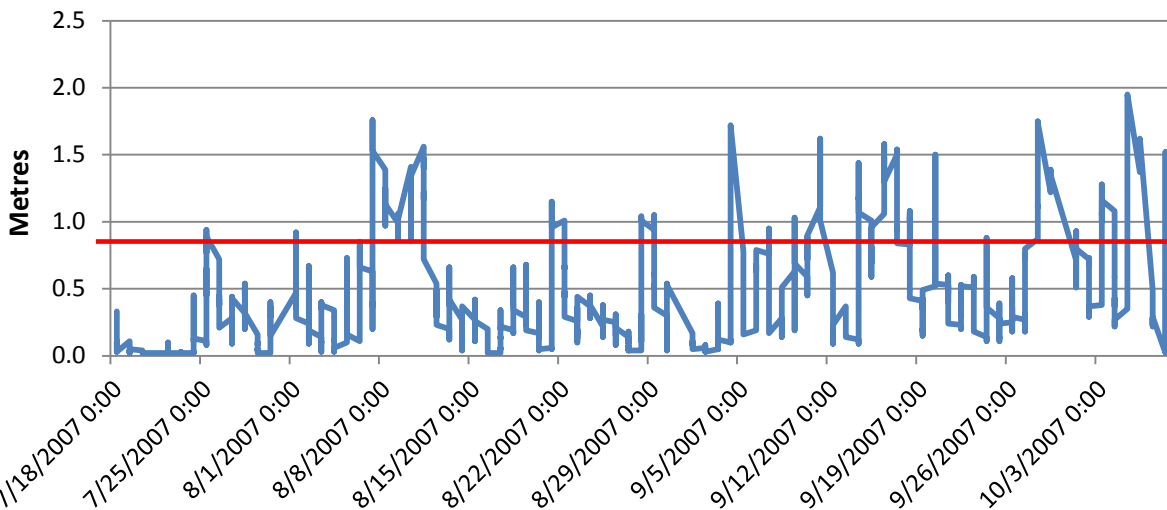
Barges operate under specific safety guidelines. According to the Transportation Assessment prepared by Red Sky Enterprises Inc. (2011), limiting weather conditions for sailing across Great Slave Lake are generally based on wave height (up to 0.91 m or 3 ft) and wind speed (up to 20 knots or 10.3 m/s). According to the assessment, strongest winds are typically from the west through north quadrant and wave heights tend to increase as the season progresses.

Fisheries and Oceans Canada (2010) collects wave and wind data at buoys in Great Slave Lake. The following graphs show the wave heights that have occurred during the open water season between July and October between 2005 and 2010. No data are available for 2006. Data are shown from the dates where waves are consistently measured at heights greater than 0 m (at the buoy). The red line on each graph represents 0.91 m wave height, beyond which it is considered less safe to operate a barge.

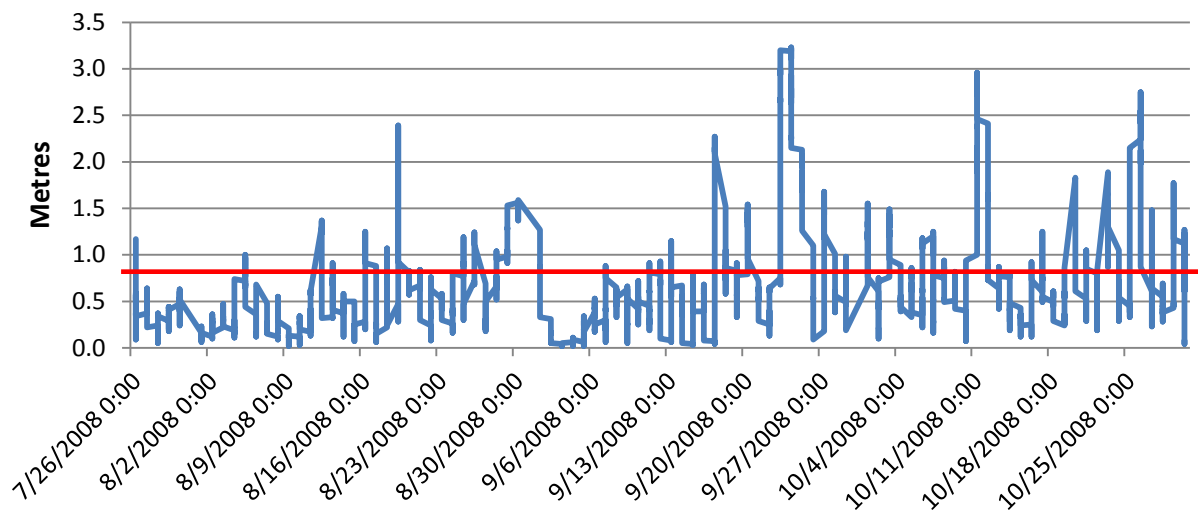
2005 Characteristic Significant Wave Height



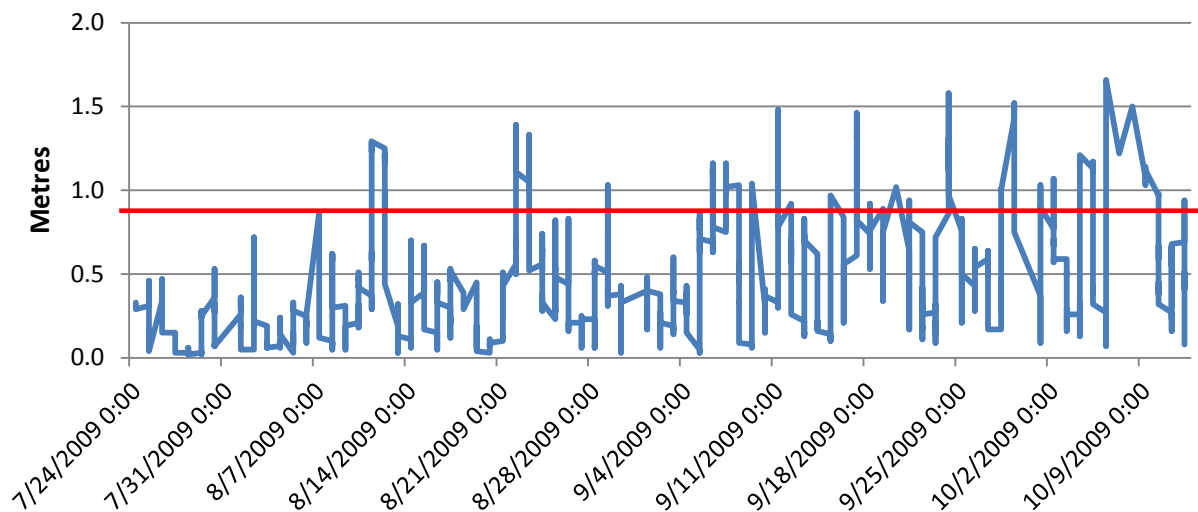
2007 Characteristic Significant Wave Height

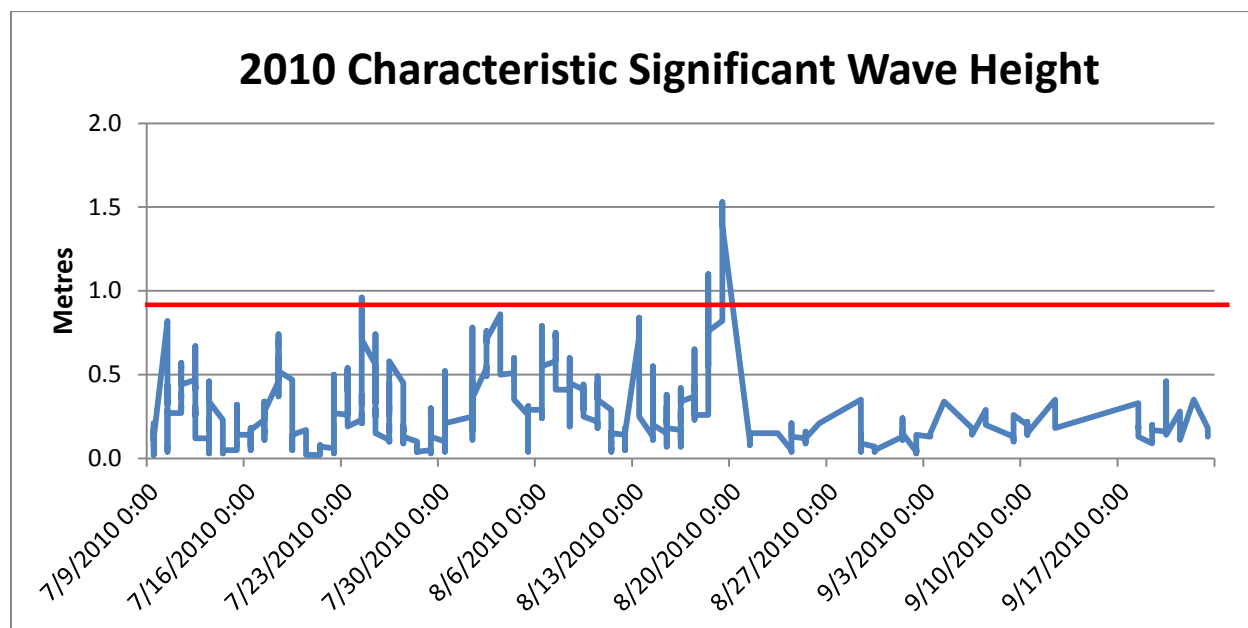


2008 Characteristic Significant Wave Height



2009 Characteristic Significant Wave Height

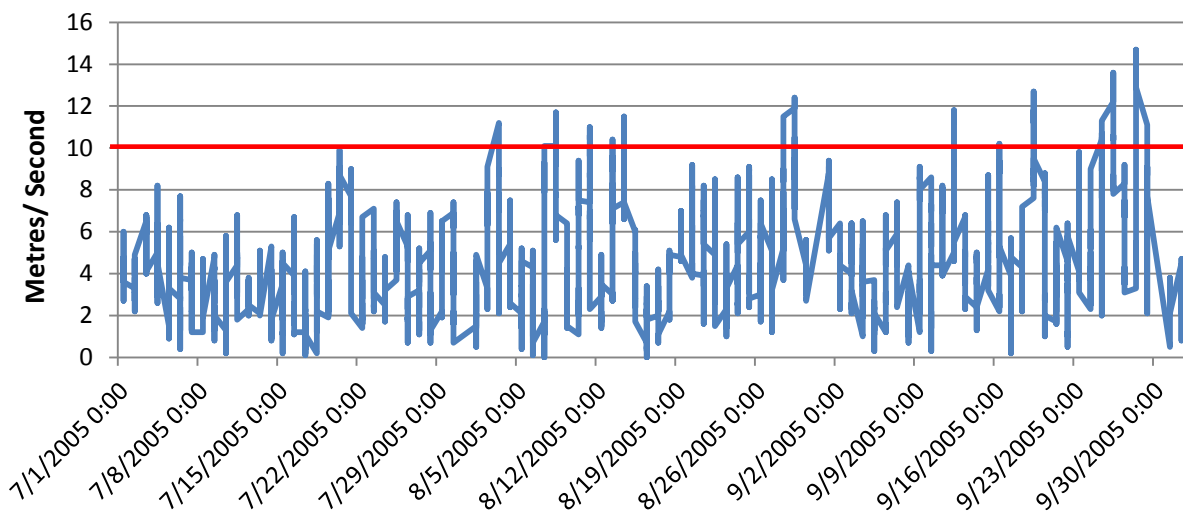




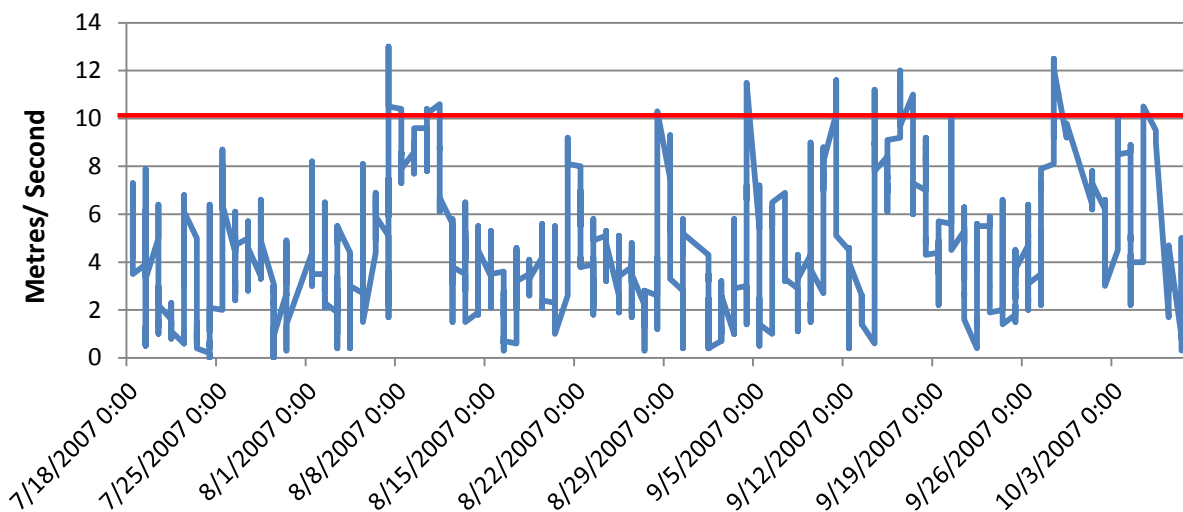
The graphs show that waves are at a height safe enough to operate a barge (i.e., less than 0.91 m) for at least 60 days during the open water season, between the years 2005 to 2010. The graphs also indicate that the open water season changes each year, but typically starting in July and ending October. The data shown for 2010 appear to be inaccurate from late August until September; data for October 2010 are not available.

The following graphs show the horizontal wind speeds that have occurred during the open water season between July and October between 2005 and 2010. No data are available for 2006. Data are shown from the dates where waves are consistently measured at heights greater than 0 m (at the buoy). The red line on each graph represents 10.3 m/s wind speed, beyond which it is considered less safe to operate a barge.

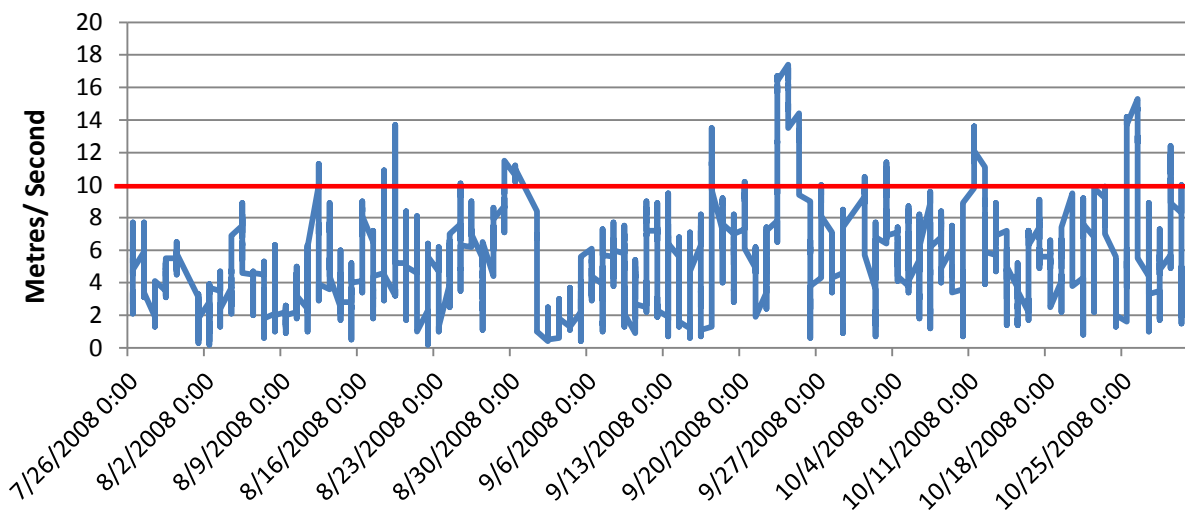
2005 Horizontal Wind Speed



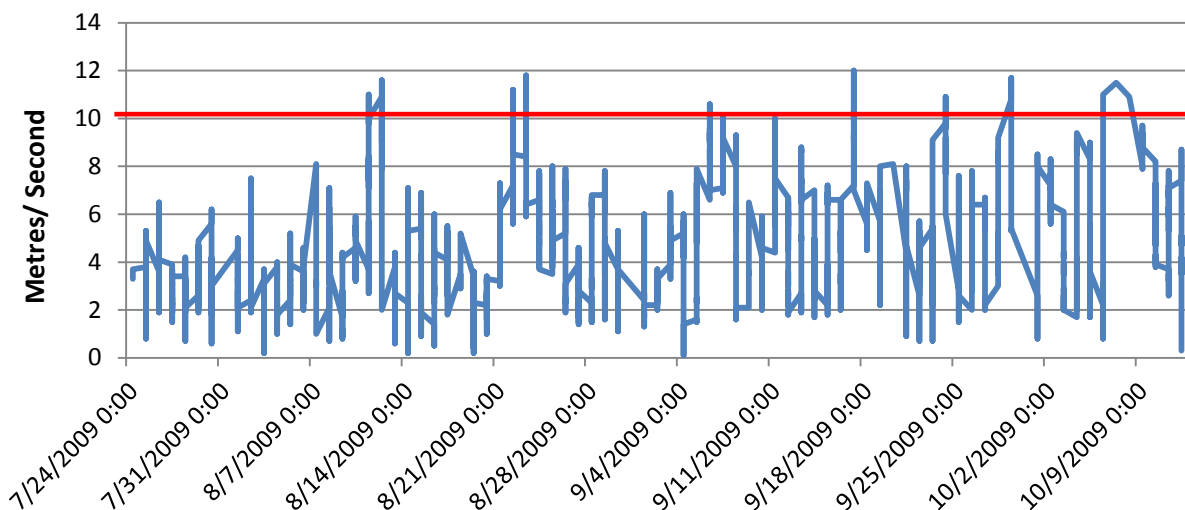
2007 Horizontal Wind Speed

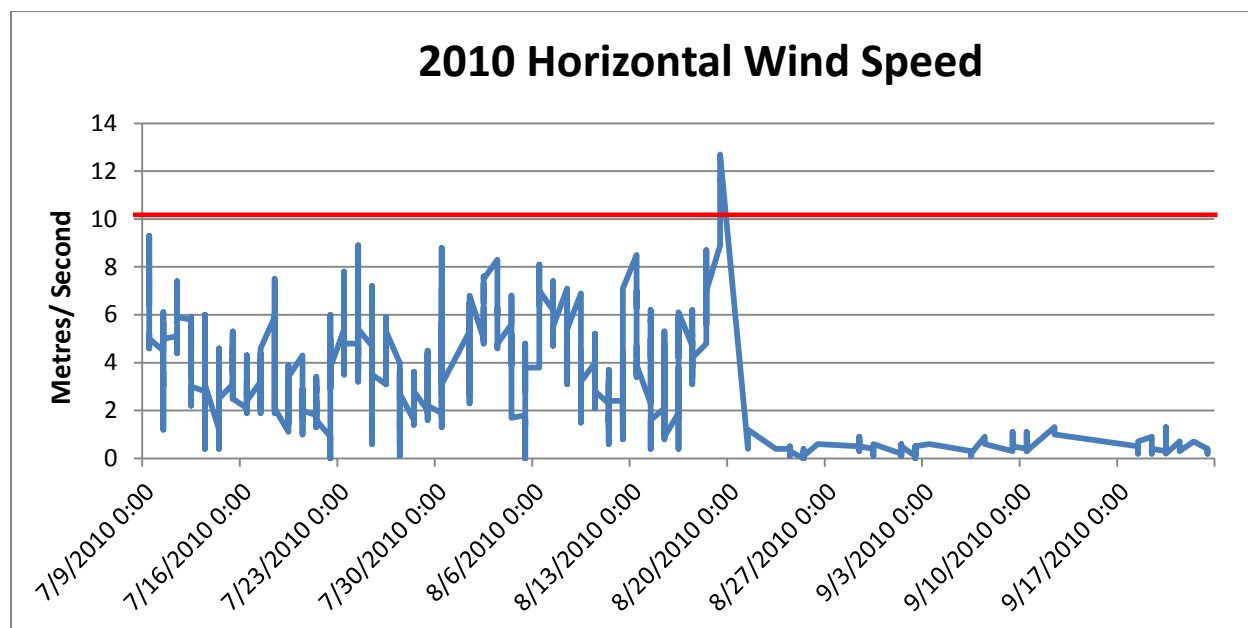


2008 Horizontal Wind Speed



2009 Horizontal Wind Speed





The graphs show that winds typically occur at a speed which safe enough to operate a barge (i.e., less than 10.3 m/s) for at least 60 days during the open water season, between the years 2005 to 2010. The data shown for 2010 appear to be inaccurate from late August until September; data for October 2010 are not available.

References

Fisheries and Oceans Canada. December 2010. Archive Plot Results: C45150: Gt. Slave Lk N. Retrieved December 20, 2011 from <http://www.meds-sdmm.dfo-mpo.gc.ca/isdm-gdsi/waves-vagues/plot-trace/result-eng.asp?medsid=C45150&s1=2004-07&s2=2011-07&hash=&sdate=2005-10&Update=Update#>

Red Sky Enterprises Inc. September 2011. Avalon Rare Metals Inc. Transportation Assessment. Prepared on behalf of Avalon Rare Metals Inc.

IR Number:	YKDFN #3
Source:	Yellowknives Dene First Nation
To:	Avalon Rare Metals Inc.
Subject:	Dene Hunting Rights

Preamble:

Yellowknives Dene have traditionally hunted caribou and moose throughout their traditional lands. DAR Sections 6.9.1.1 (Barren-ground Caribou) and 6.9.1.2 (Moose) state that there will be a no hunting policy for “all project employees and contractors while working on or off-site for Avalon”. This is an ambiguous statement that needs clarification especially as it pertains to traditional hunting rights of YKDFN employees of Avalon or its contractors who are working “off-site”.

YKDFN Request #3

Avalon Rare Metals Inc. must provide additional details and clarification on what is meant by the statement “No hunting policy for all Project employees and contractors while working on or off-site for Avalon” and provide assurance that Section 35 rights will not be expunged by company policy.

Avalon Response #3

The no hunting policy that applies to Project employees is related to employees that are working on or off-site for Avalon during their shift. For example, if an employee or contractor is traveling to or from the Project site during the work shift, Avalon does not condone hunting during this time. The intention of the policy is:

- To protect the local and regional wildlife populations from increased hunting pressure related to construction and operations personnel;
- To protect wildlife resources for local harvesters;
- To support Avalon’s policy of no firearms on site;
- To support Avalon’s safety policy for employees working on and off-site.

The policy does not apply to employees once their rotational shift is over.