## The Windy Craggy Mine

By Naats'keek Special to the Tundra Times

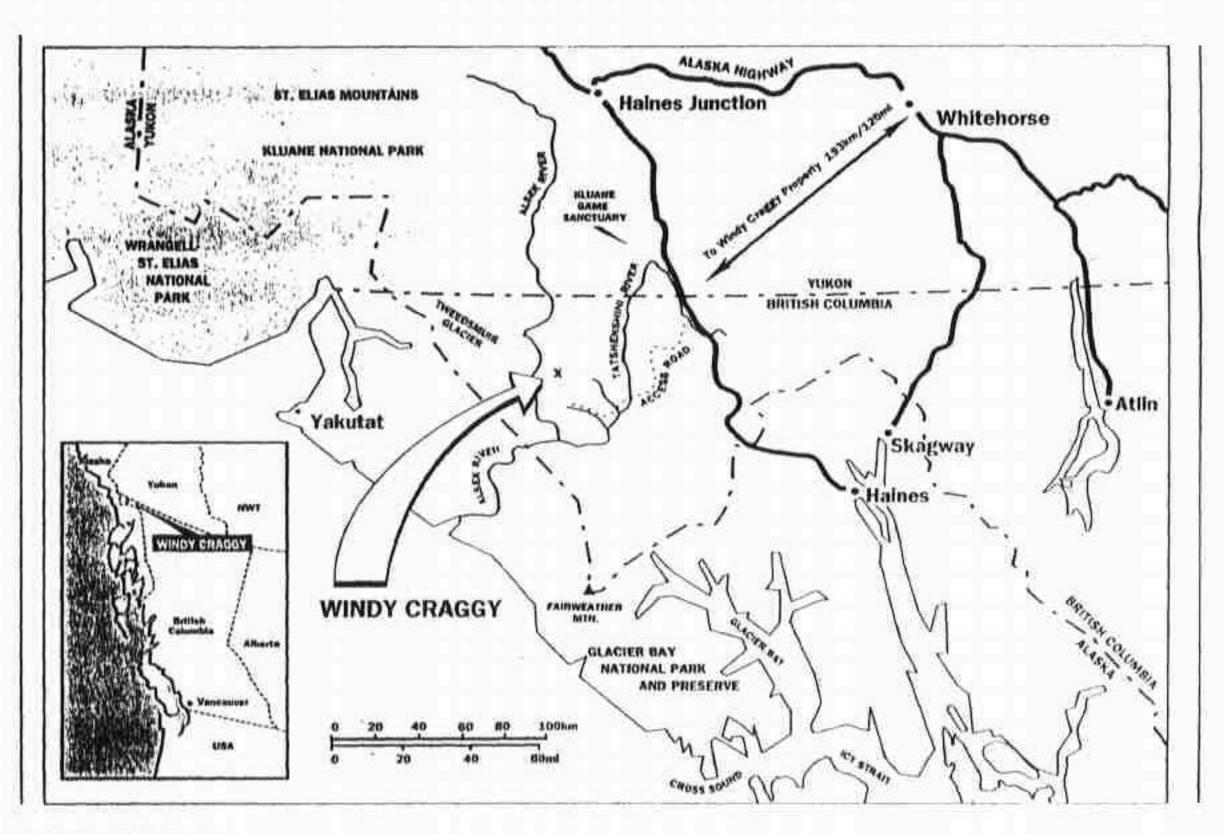
Windy Craggy Mountain is located in northwest British Columbia approximately 45 miles from Glacier Bay National Park and Preserve, 100 miles from Yakutat, and about 50 miles from Dry Bay; yet is only about 4 miles from the Alsek River where the river passes the mountain from the Yukon in the interior and drains through rugged Saint Elias Mountains under glaciers where it exits into the Dry Bay.

Windy Craggy has imbedded in its 6,697 foot mountain, the largest copper deposit in North America. Geddes Research, Ltd., a British Columbia corporation wants to begin extracting the iron ore and provide jobs for 500 British Columbia miners, 25 jobs for Alaskan residents in the community of Haines as well as \$2.5 million into the Haines economy.

However, there is widespread opposition by Alaskans to the development of this project because of the danger the mine might have to the natural resources and environment. This could affect the ecosystem down the Alsek River and influence a negative change as far as Yakutat to the north and Glacier Bay National Park and Preserve to the south.

Despite the fact Windy Craggy could produce about one percent of the world's need for copper every year for a period of about 22 years, and improve the economy of British Columbia, as well as help the provincial government in the way of critically needed taxes, the concern opponents have is if any kind of catastrophe, such as a careless spill or an act of God occurs it will cause an affect into the creek and river systems in the area which could spread into the Alsek River.

The Alsek River empties into Dry Bay which drains into the Pacific Ocean on the Gulf of Alaska. The way the tide currents move on the gulf, the contaminated water could reach as far as Yakutat Bay. This has the potential to wipe out the natural resources of commercial fishing as well as the



General Resources Limited

subsistence way of life of those inhabitants, not only on the Alsek River and Dry Bay, but along the whole crescent of the Gulf of Alaska. This will not only affect the economy of those people who live in the area but those fishermen who come each summer from the Lower 48 to participate in the halibut, crab and salmon troll fishery.

The people who are petitioning for the mine, the Geddes Research, Ltd. feel they have access to the technology which will prevent any large or serious catastrophe. To date they have completed a \$5.5 million preliminary study (Stage I), a requirement the provincial government of British Columbia has asked to be done. Also an independent study will be completed by the U.S. government at the request of Vice President Al Gore. A Stage II study will follow by Geddes Research which will cost the company another \$10.5 million.

There will be a requirement for Geddes Research to provide funds for maintenance of the project after the mountain has been mined out after a 22 year period of mining, if the mine is approved. This maintenance project will go on indefintely.

A Geddes Research narrative, the Windy Craggy Report, Trys they will implement the technology presently used in other Canadian and U.S. mines. Ore will be extracted from the mine and hauled to a processing plant. There the raw material will be ground down to about the size of pepper, then combined with water (60% ore and 40% water), and transferred through a six inch buried pipeline to the Port of Haines, where the ore will be transferred onto ships headed for the industrial countries of Asia. The tailings of the ore (waste material) will be stored in a large dam especially constructed for the purpose of storage from now into eternity.

On the side of the mountain there is evidence of ore being forced to the surface. When the ore is exposed to air or water, the slow process of oxidation begins - - - this is the toxic material which creates sulfuric acid and dangerous to the water and environment. In this situation the oxidated ore is

sceping into a creek, contaminating the water. This is what will happen to the ore that will be extracted from the mountain if a process of storing it safely is not proved.

However, Geddes Research says this creek runs under a glacier and through a rock lime which naturally purifies the contaminated water. The water on the other side of the glacier, they say, is purified by this natural phenomenon. Somehow they want to use this natural way of purifying contaminants which will occur, however Geddes Research

claims they have an answer which will assure a safe storage of the tailings which could prove disastrous. That answer is a special dam.

This dam will be located in a valley near the mine where there is no wildlife or much vegetation. The dam will be about 3/4's of a mile long, Continued on the back page

## • An overview:

## The Windy Craggy Mine

Continued from page 3

1,500 feet broad and 300 feet high. The bottom of the dam will be compacted over bedrock with clay-like material which will keep the dam from leaking harmful liquids down through the bottom. The core of the dam will be compacted clay and surrounded with a rock fill on the outside of the clay core. The clay fill on the inside is supposed to keep the dam from leaking any harmful liquids. Tailings of the copper ore will be stored in the dam and then covered over with 10 feet of water. The water is supposed to keep the sulfuric acid inside from escaping out into the environment from now into perpetuity.

Yet, there is a concern by the people of Yakutat if anything bad could happen it will, especially if this area in which the dam will be built is highly seismic, Geddes Research admits there is a fault in the area, however it is an inactive fault. People of Yakutat contend this area is one of the most active earthquake locations in the world and they feel there is no real guarantee the bed of the dam will hold up if there is a large earthquake. Geddes Research contends their engineers will design the dam to withstand a seismic activity of up to 8.6 on the Richter Scale.

Granted to say, despite the modern day technology, the people of Yakutat are not in favor of this mine because they are not very well satisfied there is anything to safeguard a lifestyle they have enjoyed since time immemorial.

Geddes Research counters with the idea their government has some very strict environmental regulations, and they must first pass their permitting requirements before they be allowed to go any further with the project. They contend if the Canadian government will not allow them to pollute their own rivers and environment, they cannot contaminate ours. This can be very true, but the people from Yakutat aren't convinced there is a sae way in which dangerous acids can be stored.

Arguments on both sides of the border are legitimate. The issue isn't over yet, and the people of Yakutat will be watching very closely as the various studies are made and permits sought, showing us just how far this project will go.

Editor's note: The author is Bert Adams, Sr. of Yakutat.

20

Potentially acid-generating waste rock from pit

Rock fill dam

Potentially acid-generating waste rock from pit

3 m depth (10 feet)

Bedrock

Clay and till

The impoundment storage would prevent acid rock drainage by submerging togste materials under water