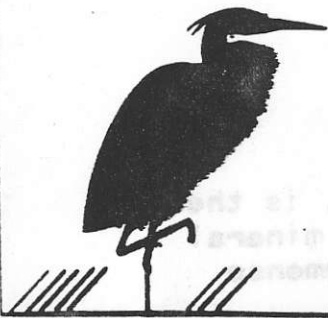


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# MEMBERS' BULLETIN

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WINDY CRAGGY PROJECT

December 13, 1991

## WINDY CRAGGY!

We have prepared a review of the "WINDY CRAGGY PROJECT" that attempts to provide you with detailed and factual information on this project. The reason we selected this particular project is first, the sheer magnitude of the project and second, the complexity of the issues.

During the course of this review many hundreds of pages of documentation were read and in many cases re-read, people were interviewed and facts verified. The report that has resulted is much longer than we would have liked but it seemed impossible to provide a useful level of detail without including rather a lot of material. Our Chairman and Chief Editor, Mayor Gerry Furney insisted on an executive summary, and rightly so.

In any case this is our first attempt at reviewing a major project. A significant problem was dealing with the mining industry "jargon". It is as bad as or worse than the language of the logging industry. It seems at times that a big part of the problem we face in communicating with the public is the language we use. We have tried to keep the language of the report non-technical and have avoided unnecessarily detailed technical explanations.

If you have any comments or suggestions with respect to this report, or anything else for that matter, please let us know. We got some very useful feedback as a result of Gerry's letter in early November.

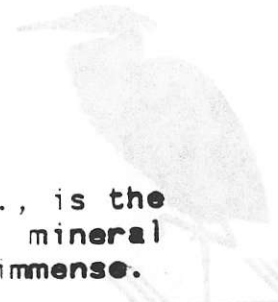
**MERRY CHRISTMAS**

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MEMBERS

# WINDY CRAGGY

## EXECUTIVE SUMMARY



The Windy Craggy project, in the extreme NW corner of B.C., is the subject of international controversy. The issue is mineral development or wilderness. The stakes on both sides are immense.

### WHAT ARE THE KEY POINTS?

- 1 Windy Craggy has the potential to become one of the biggest copper mines in the world.
- 2 If the Tatshenshini - Alsek River drainages, where Windy Craggy is located, are combined with the Kluane National Park in the Yukon and Glacier Bay National Park in Alaska the biggest wilderness area in the world would be created.
- 3 The technical aspects of the mine are complex and include controlling acid rock drainage, transporting the copper concentrate by pipeline to Haines, Alaska, mining road construction and waste water purification. Reasonable technical solutions to these issues have been developed.
- 4 Concerns persist that the technical solutions do not offer 100% guarantees and that the salmon fishery, wildlife and the wilderness values will not be adequately protected.
- 5 The mine proposal will create 500 direct jobs and 300 indirect jobs for an estimated 20 year period. The direct economic activity generated in the form of wages, direct taxes and supplies purchased is estimated at 88.9 million dollars per year for the first 10 years.
- 6 The economics of wilderness recreation are difficult to determine but it is estimated that between river rafting on the Tatshenshini and big game hunting the direct economic activity would not exceed 2 million dollars per year.
- 7 International pressure is mounting and groups in the United States and Europe are demanding the area be preserved in its wilderness state.
- 8 The mineral claims were legally staked in 1958. Geddes sources Limited optioned the claims in 1981 and since then has spent over 45 million dollars on defining the ore body and on engineering and environmental studies.

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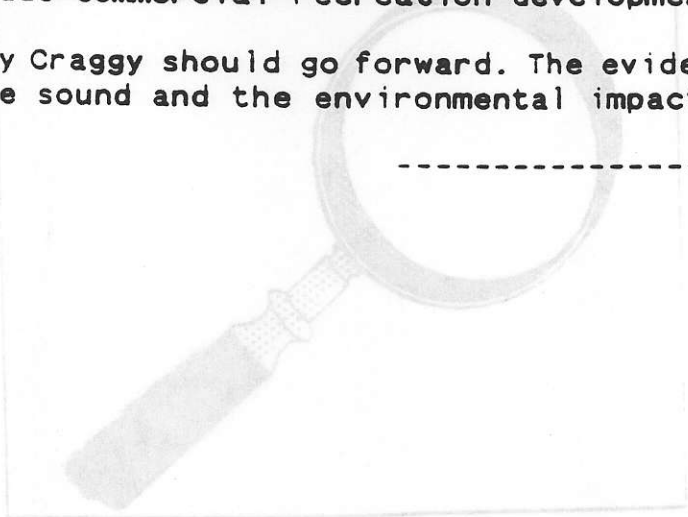
3 British Columbia has a process in place that covers all aspects of mine development and offers a high degree of protection to the public.

Should we forego the obvious economic benefits of the mine development and create a huge wilderness park? Have the environmental issues been adequately addressed? Is there room for compromise? How useful is a wilderness that is locked in snow and ice for most of the year? How would Geddes Resources Ltd. be compensated if the decision is made to preserve the area as wilderness.

We once again face the land use dilemma. This area is still open to mineral exploration and the staking of mineral claims. Is it right to permit individual prospectors and corporations to spend their time and money on legal exploration if there is no intention to permit development of the mineral deposits they discover?

The mining and international investment community can have no confidence in British Columbia until they have a clear understanding of the rules governing land use and mineral development! This problem is not unique to the mining industry and in fact includes all of our natural resource based industries including logging, ranching, oil and natural gas and will, in time, include commercial recreation developments such as ski resorts.

Windy Craggy should go forward. The evidence indicates this project to be sound and the environmental impacts to be minimal.



Windy Craggy - A Closeup!

Wilderness and its "special significance" has become a major factor in the Windy Craggy decision-making process. How do you evaluate wilderness? Is it the tangible value of recreational usage that is important or does wilderness have an intangible, intrinsic value to society?

# "WINDY CRAGGY"

## TO MINE OR NOT TO MINE

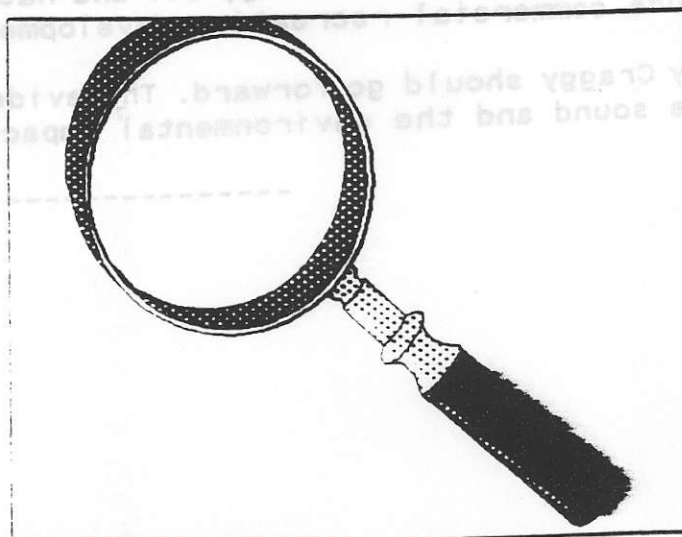
CAN A BALANCE BE FOUND BETWEEN WILDERNESS, ENVIRONMENTAL PROTECTION AND ECONOMIC DEVELOPMENT? THIS HAS BECOME A FUNDAMENTAL ISSUE IN BRITISH COLUMBIA THAT WILL IMPACT US ALL. WE HAVE RECENTLY REVIEWED THE WINDY CRAGGY PROJECT IN THE EXTREME NW CORNER OF THE PROVINCE AND THE RESULTS OF THIS REVIEW POSE SERIOUS QUESTIONS.

### WHAT DOES IT TAKE TO BRING A MINE INTO

#### PRODUCTION THESE DAYS?

Historically mining has been one of the key contributors to the British Columbia economy. Yes, there have been some environmental problems associated with the mining industry. Mechanisms however are now in place to protect the environment and the public interest. Environmental awareness and preservationist pressure have increased over the years to the extent that fundamentally sound projects are now in jeopardy.

We are all aware that our society is dependant on the products derived from our resource industries. What would we do without iron, copper and other mineral products that we depend on? Look around you and visually remove all of the metal, glass, stone, brick, tile, gyproc, concrete etc. and catalogue what is left. Reflect on the machines that mined, manufactured, cut, polished and finished these products. Consider the economic benefits such as jobs, tax revenues, exports and the social benefits.



**Windy Craggy - A Closeup!**

Wilderness and its "special significance" has become a major factor in the Windy Craggy decision-making process. How do you evaluate wilderness? Is it the tangible value of recreational usage that is important or does wilderness have an intangible, intrinsic value to society?

The B.C. Environmental Information Institute advocates a clean, safe and healthy environment within a framework of sustainable development and a strong economy. In light of those aims let's take a look at the mine development process. Is the mining industry on track? What about Windy Craggy?

## "WINDY CRAGGY"

In order to get an idea of what is happening in the mining industry and to gain an appreciation of what is involved in bringing a new mine into production the Institute decided to do a case study. The project selected was THE WINDY CRAGGY PROJECT being planned by Geddes Resources Limited, which is now at Stage 1 in the B.C. Mine Development Review Process.

The name alone has a strong appeal - "Windy Craggy". It just reeks of snow, ice, rugged mountains, grizzly bears and isolation. The name tells it all. This proposed new mine is located in the extreme NW corner of British Columbia, almost surrounded by Alaska. Hidden in the Alsek Range on Tats Creek, a tributary of the Tatshenshini River, it is about as isolated as it gets. However, enough romance - let's get down to some facts.

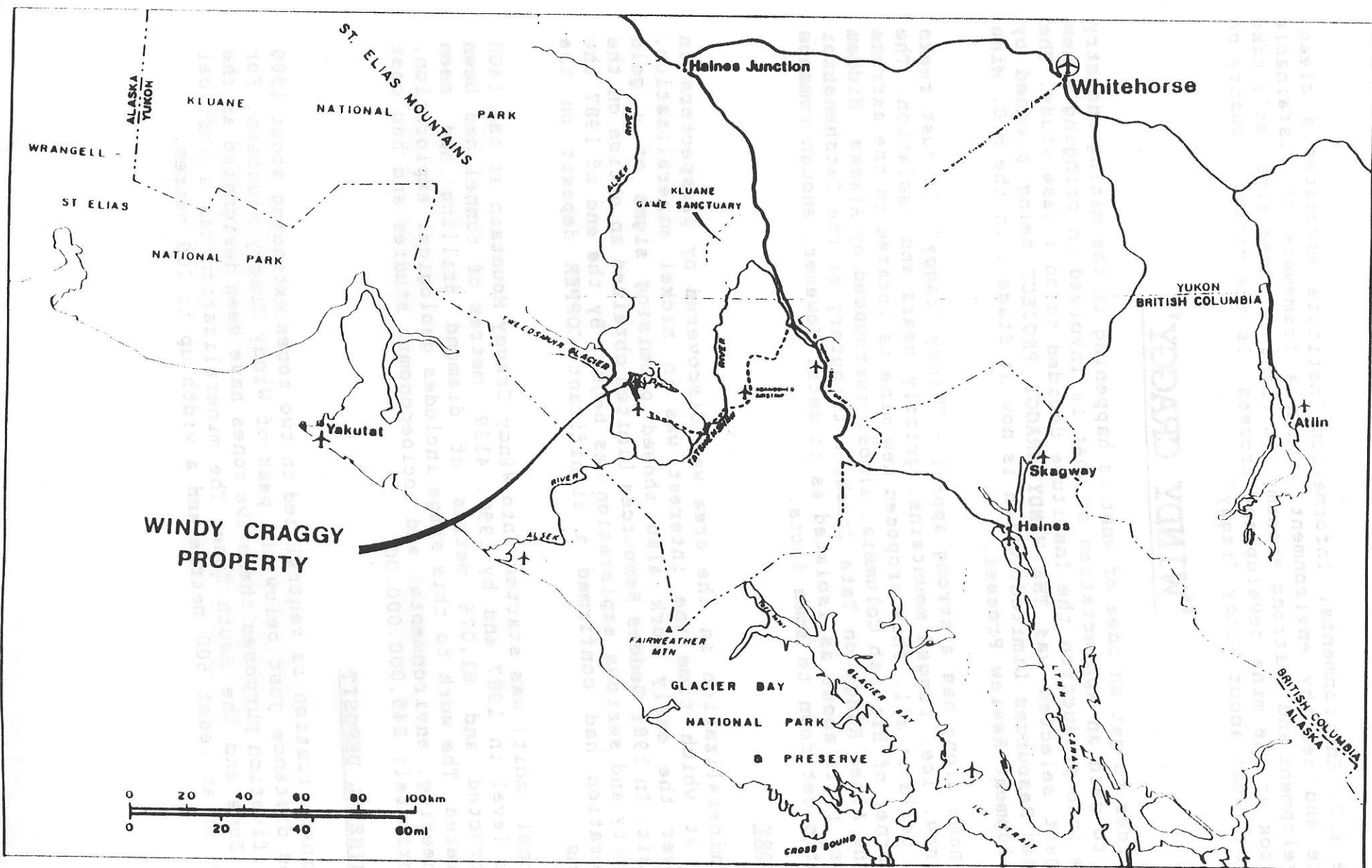
### HISTORY

The mineralization in the area was discovered by prospectors in 1958 at which time the interest was in nickel mineralization. However the early work also showed promising signs of a gold deposit. In 1981 Geddes Resources Limited obtained an option on the property and serious exploration was begun. By the end of 1987 the exploration had confirmed a significant COPPER deposit on the claims.

A tunnel (adit) was started into Windy Craggy Mountain at the 1400 metre level in 1987 and by 1990, 4139 metres of tunnel had been constructed and 61,076 metres of diamond drilling had been completed. The work to this stage includes geological exploration, engineering, environmental and socioeconomic studies and has cost approximately \$45,000,000.00.

### THE MINERAL DEPOSIT

The mineralization is centralized in two zones extending about 1500 metres distance just below the peak of Windy Craggy Mountain. For identification purposes these two zones have been designated as the North Zone and the South Zone. The mineralization has a vertical extent of at least 600 metres and a width up to 200 metres.



The ore reserves were estimated at 210 million tonnes grading 1.66% copper, 0.09% cobalt, 0.2 grams of gold per tonne and 3.5 grams of silver per tonne. New information released on November 25, 1991 indicates an increase in these reserves of 110 million tons. With further exploration there is an excellent chance these reserves may be significantly increased.

This is A VERY SIGNIFICANT COPPER DEPOSIT. With a projected production of 140,000 tonnes of copper per year this amounts to 1% of world copper requirements. Currently identified deposits indicate at least a 20 year life for the proposed mine. As a comparison, in 1990, the total B.C. copper production was 346,132 tonnes.

### MINE DEVELOPMENT

The initial mine plan proposes two open pits, one in the North Zone and one in the South Zone. These will be combined with an underground mining operation commencing in the 10th year of operation.

A major goal of the proposed mine plan is to reduce the volume of waste rock and the combined open pit/underground operation is projected to reduce the volume of waste rock by about 50% as compared with a complete open pit operation. The waste to ore ratio is projected at 1.9:1

The plan is to have semi-mobile crushers in the open pits feeding the ore downward through ore passes to the adit (tunnel) where it will be transported by conveyor to the portal and processed through a grinding plant. The resulting slurry will then be transported by pipeline, 13 kilometres, to a flotation plant to be located near Tats Lake. Current testing indicates that the flotation process will produce a concentrate containing 28% copper and some gold and silver values. It is estimated that 88% of the copper will be recovered in this process. The concentrate will then be transported to Haines, Alaska by a slurry pipeline where it will be de-watered and loaded on ships for transport to smelters for final processing.

### ENVIRONMENTAL ISSUES

Located as it is, in a remote, little-known area, the Windy Craggy Project presents some complex issues. Concerns with respect to wilderness, wildlife, river rafting, fisheries, water quality, guiding territories, heritage and native issues have been voiced. The extreme weather conditions of the area, the presence of glaciers and the potential for seismic events add to the complexities.

The mine itself and the potential for acid rock drainage appear as primary concerns. Sulphuric acid generation is extremely complex and has been the subject of considerable study, an issue we will explore later. The road to Haines, Alaska is also of concern.

A parallel concern is the issue of wilderness. If the Kluane National Park, and Glacier Bay National Park & Preserve in Alaska were combined with the Tatshenshini and Alsek River drainages in B.C. one of the biggest wilderness areas in the world would be formed.

The slurry concentrate pipeline to Haines, Alaska and the proposed fuel pipeline have been the subject of some controversy. One concern is the treatment and disposal of the waste water from the slurry pipeline in Haines. The consideration here is that small amounts of copper and other pollutants in the waste water may have a deleterious impact on the salmon fishery. This issue is under review by the United States and Alaska authorities.

The mine operation, camp and maintenance facilities have been questioned with respect to waste and sewage disposal.

### THE STAGE 1 REPORT

In the work that has been done to date all of the foregoing issues and more have been addressed in some detail. Geddes Resources Ltd. has prepared a 5 volume stage 1 report as part of the Mine Development Review Process. This initial report was submitted on January 31, 1990 to the Mine Development Steering Committee and subsequently to the Federal and Provincial reviewing agencies, the United States Government and the State of Alaska. In addition the proposal has gone to public review in the affected communities. As a result of public input and some preliminary comments from the reviewing agencies supplementary studies and reports have been prepared and incorporated in the initial plan. Geddes Resources Ltd. is now attempting to get clear terms of reference for the Stage 2 report.

### SOCIOECONOMIC BENEFITS

Construction of the mine site facilities and the access road will require a labour force of approximately 500 people during construction. Once construction is completed a labour force of about 500 will be required to operate the mine.

In planning the Windy Craggy project the decision was made to transport the mining and supervisory staff in and out on a two week rotation with on-site living quarters being provided. This has the effect of eliminating the need to construct a town site with the infrastructure that would entail and reduces the added environmental impact of a full scale town. This approach also minimizes the problems associated with mine closure and rehabilitation.

It is estimated that the indirect and induced employment that will be created if this project goes forward is about 312 full time equivalent jobs. In total the project will produce upwards of 800 full time jobs.



## ECONOMIC BENEFITS - THE FIRST 10 YEARS

Because of construction costs and other factors a more realistic picture is provided if the wages and costs are given for the first 10 years rather than for a single year. Consequently the following figures are for the first ten (10) years of operation.

WAGES	255 MILLION DOLLARS
SUPPLIES	435 MILLION DOLLARS
MINING TAX, B.C.	62 MILLION DOLLARS
CORPORATE TAX, B.C.	58 MILLION DOLLARS
CORPORATE TAX, CANADA	79 MILLION DOLLARS
<b>TOTAL</b>	<b>889 MILLION DOLLARS</b>

Averaged over the first 10 years this amounts to \$88.9 million per year. It should be noted that this is the direct economic benefit and does not include the indirect impacts. If factors such as personal income tax, fuel tax, social services tax and economic multipliers are considered the numbers are much higher.

## THE KEY CONCERNS

### ACID ROCK DRAINAGE

While numerous issues have been raised the issue of acid rock drainage appears as a major area of concern. The following methods have been proposed to meet this challenge but first some background.

Simplistically, when sulphur bearing rock is exposed to air and moisture a weak sulphuric acid compound is produced. This is a natural process that goes on all the time and is one of the causes of rocks breaking down and soil formation.

Not all rocks contain sulphur. In the case of the Windy Craggy mineral deposit there is sulphidic rock, calcareous rock and rock that is classified as non-calcareous & non-sulphidic. It is only the sulphidic rock that will contribute to "acid rock drainage". In fact the calcareous rock has a neutralizing effect on the acid.

In the selected mining plan the total amount of waste rock is estimated at 243,800,000 tonnes. Of this total amount approximately 100,000,000 tonnes is sulphidic rock.

The crystal size of the sulphides in the sulphidic rock has a bearing on the rate of acid production. The larger the crystal size the slower the rate of acid formation. In the case of Windy Craggy most of the sulphidic rock has a large crystal structure.

The low average annual temperatures and the fact that much of the waste rock would be frozen for much of the year further reduces the rate of acid production. Other factors such as the size distribution of the waste material has a bearing on the rate of acid production. While it is not possible to predict the rate of acid production with absolute certainty, sound waste management practices will reduce the problem to insignificant levels.

#### WHAT IS THE POTENTIAL ENVIRONMENTAL PROBLEM?

The concern is that relatively weak concentrations of sulphuric acid in a stream or water course can kill the fish, plants and marine organisms. Examples exist where acid rock mine waste has virtually wiped out stream systems. These examples are cases where no preventive measures were taken to control or neutralize the acid rock drainage.

#### HOW CAN ACID ROCK DRAINAGE BE CONTROLLED?

Acid generation normally occurs when the sulphur bearing rock is exposed to both air and water. If the air is excluded, acid generation does not occur. In the case of Windy Craggy, Geddes Resources Ltd. propose to do two things. First is to separate the acid generating rock from the non acid generating rock as the ore and waste rock are being drilled, blasted and loaded out during the mining operation. The non acid generating rock will be disposed of in a normal waste dump. The composition of the material in the waste dumps will be controlled to ensure that the drainage will not harm water quality.

The acid generating rock will be dealt with quite differently. It is proposed to construct an impoundment in the upper Tats Creek valley and to keep the acid rock submerged in water. Experience and initial studies indicate this to be a feasible and relatively safe solution to the acid rock problem.

It must be noted that Windy Craggy is an area of high precipitation and steep topography and the impoundment area may be subject to snow and rock slides. The area has a high seismic rating and significant earthquakes have occurred in the region. However it is possible to engineer the impoundment and the dams to withstand severe earthquakes and other events.

The engineering solutions appear adequate to all but the cataclysmic event which would, in all probability, cause significant damage in the area with or without Windy Craggy. It would seem reasonable that the environmental assessment of the project be based on sound engineering, constant monitoring and tight controls.

It appears that Geddes Resources has addressed the issue of acid rock drainage with the best available technology. The evidence indicates that the environmental effects can be limited to acceptably low levels.

## WILDERNESS

The valleys of the Tatshenshini and Alsek Rivers are wild, remote and beautiful. Someone made the comment that this area is "a voyage back to the ice age". There can be no doubt that during the short summer period the area is spectacular. It is equally true that for most of the year the area is a frozen, inhospitable piece of wild and savage land.

If this area were to be added to the Kluane National Park in the Yukon it would join up the St. Elias National Park and the Glacier Bay National Park in Alaska to form one of the largest wilderness parks in the world. This is a heroic concept. It is an idea that will stimulate the imagination of many people.

The international wilderness aspects of this area need to be considered. It has been stated that a river trip down the Tatshenshini into the Alsek River through the Alaska Panhandle into Dry Bay and the Gulf of Alaska is the longest wilderness river trip in the world. It seems clear that the wilderness values in Glacier Bay National Park in Alaska must be considered when the impacts of the Windy Craggy project are considered.

Both the Tatshenshini and the Alsek Rivers are currently used extensively by commercial river rafters and the upland areas by guide/outfitters. The season for river rafting optimistically runs from June 1 to September 30 with the peak times being from June 15 to September 10. Rafting appears to be highly regulated in Alaska and the maximum number of people permitted to raft the Alsek, including both private and commercial trips, is 1960 people per season. This is based on approximately 1 party per day. It is estimated that up to 450 people currently raft the Tatshenshini each year. River traffic from the Tatshenshini joining the Alsek would have to be severely limited if the wilderness experience is to be maintained. It is noted that the commercial river rafters are one of the strongest proponents of wilderness status for the area. In 1991 the area was still open for hunting and a season was provided for the hunting of Grizzly Bear, Moose, Mountain Goat and Sheep in addition to Ducks, Geese and Grouse. While the season for the different species vary the area was open to big game hunting from April 1, 1991 to November 15, 1991. It may be expected that the guide/outfitters would be active in the area during this period.

It is interesting to reflect on the tight control currently being exercised by the United States and Alaska park officials on the number of visitors permitted. With road access to the area British Columbia could exercise greater management control over this provincial recreational resource.

It is speculated that usage of the area will increase over time and tight regulation will be necessary if the present wilderness experience is to be maintained.

## ECONOMICS AND BACK COUNTRY RECREATION

At the present time wilderness river rafting and guide/outfitters using the general area account for a limited amount of seasonal employment and generate some economic activity. This probably amounts to about 2 million dollars per year in Canada not including the multiplier effect. The road to Windy Craggy and the bridge over the Tatshenshini River will have a negative impact on the "purist" wilderness experience for some people. It is not possible to judge how significant this impact will be either emotionally to the rafters or financially to the local commercial rafting industry. There is, however, no clear evidence that this would reduce either rafting or back country recreational activity and in fact there is some evidence to indicate the improved access would increase back country recreation in the area making it affordable and accessible to more than just the "favoured few".

### SALMON FISHERY

The salmon fishery in the Alsek - Tatshenshini River system and in Lynn Canal at Haines Alaska has been identified as a concern.

The possibility of acid rock drainage contamination of the Alsek - Tatshenshini as a result of mining activity is a consideration. In the unlikely event this should occur the damage to the salmon fishery and the resident trout population could be severe.

The methods proposed for disposing of waste materials, for controlling drainage at the mine site and for treating water before discharge appear to be effective. In addition the water courses in question have a large dilution and buffering capacity that should be recognized.

Inasmuch as the slurry pipeline and diesel fuel pipeline between the mine and Haines, Alaska could rupture there is a concern that copper concentrate and diesel fuel could be introduced into the river system. The pipe line system however will be designed to include leak detection systems, corrosion and wear monitoring provisions and other safeguards. The pipeline option is generally recognized as being safer than a large scale truck transport operation.

At Haines the plan is to remove the water content from the copper concentrate slurry, purify the waste water and release the water into Lynn Canal. The concern exists that the water released into the Lynn Canal may contain impurities dangerous to fish.

The treatment system that is proposed for the Haines terminal will effectively remove metals and other contaminants in order to meet the criteria required by the discharge permit. In terms of the more toxic metals the required criterion is more stringent than for drinking water. The treated water will be released through a diffuser at depth, thus ensuring fish stocks are not affected.

## WILDLIFE

A concern has been expressed that wildlife in the area, primarily grizzly bears, dahl sheep and moose may be adversely effected by the mine operation and in particular by the access road to the mine.

The selection of the pipeline system for transport of concentrate and fuel oil has reduced projected truck traffic to 3 or 4 trips per day during the mining operation. The reduced traffic and associated maintenance should result in minimal effect on wildlife migration and habitation in the area.

## THE REVIEW PROCESS

How is the development of new mines controlled and regulated in British Columbia? This is a poorly understood issue that has been of concern to many people.

New developments are controlled through a process that has been in effect since 1976 called the Mine Development Review Process. Recently this process has been given the force of law by the Mine Development Assessment Act.

The Mine Development Assessment Process that is in place in British Columbia is comprehensive to say the least. The stages are as follows;

- 1 Prospectus - describes the project.
- 2 Stage 1 Report - details the development of the project. In the case of "Windy Craggy" this is 5 volumes of details on how the mine will be developed and the measures to be taken to protect the environment.  
Public hearings - as necessary
- 3 Stage 2 Report - As required. In the case of "Windy Craggy" terms of reference will be provided that will require expanded detail on mine development and environmental protection measures.
- 4 Disposition Decision - The development proposal is either accepted and a mine development certificate is issued, the proposal is rejected, or the project is referred to an assessment panel for more detailed review.

IF NOT REJECTED

5 Mine Development Certificate issued once all the questions have been answered.

6 Permits, Licences and Approvals are issued. This includes the reclamation requirements.

At the Stage 1 Report stage, where Windy Craggy is now, the project is reviewed by all relevant federal and provincial agencies and in this case by the state of Alaska and the United States federal agencies. In addition the report is made public and is subject to public review. The list of government agencies, organizations and environmental interest groups that have reviewed Windy Craggy to date include;

**PROVINCIAL**

Ministry of Environment  
Ministry of Energy, Mines and Petroleum Resources  
Ministry of Parks  
Ministry of Tourism  
Ministry of Native Affairs

**FEDERAL**

Environment Canada  
Department of Fisheries and Oceans  
Ministry of Transport  
Energy, Mines and Resources Canada

**ALASKA**

Department of Fish and Game  
Department of Environmental Conservation

**UNITED STATES**

Environmental Protection Agency  
Department of Commerce  
Department of the Interior

**ENVIRONMENTAL INTEREST GROUPS**

Tatshenshini Wild  
National Parks and Conservation Association  
Sierra Club - Alaska  
National Wildlife Federation  
The Wilderness Society  
Probe International  
Lynn Canal Conservation Inc.

Haines Alaska Native Brotherhood  
American Rivers  
National Audubon Society  
Wilderness Journeys  
The Sierra Club of Western Canada  
World Wildlife Fund  
The Sockeye Society

All of these organizations and more have submitted detailed comments and critiques of the project.

The government agencies, for the most part, have identified specific concerns that they want addressed in more detail in the stage 2 report. The environmental interest groups, while expressing many of the concerns of the government agencies, have indicated a preference for wilderness designation, i.e. no mine development.

## SOME POINTS

- 1 The original claims were staked in 1958. If development had proceeded at that time there would have been few if any constraints on development.
- 2 Since acquiring the claims in 1981 Geddes Resources Limited has spent over 45 million dollars to locate and confirm the size of the ore body, conduct engineering studies, conduct environmental studies and in preparing detailed reports and conducting public reviews.
- 3 The ore deposit has the potential to become one of the largest copper mines in the world providing approximately 1% of world copper requirements for the next 20 years.
- 4 When the mine goes ahead it will create on the order of 500 direct jobs and 300 indirect jobs for the next 20 years and provide 889 million dollars in wages, supplies and services and direct taxation over the next 10 years.
- 5 The issue of acid rock drainage is probably the major technical problem to be resolved. It appears at present that the problem can be resolved with reasonable certainty.

It must be noted that acid rock drainage is occurring naturally on this site and there is little evidence that the mine, as planned, will aggravate the current situation.

- 6 The challenge associated with the transportation of copper concentrate by pipeline to Haines, Alaska and the diesel pipeline to the mine appear to lend themselves to technical solutions.

- 7 Flying the mine staff in and out on a two week schedule will eliminate the need for a town site. This is a responsible approach and will significantly reduce the environmental and social impacts and problems of relocation on mine closure.
- 8 Any negative impacts on fish and wildlife can be minimized and this issue will be addressed in more detail in the stage 2 report.
- 9 If the project goes ahead it will have an impact on the environment. If the environmental protection measures are excessively stringent the economics of the project are such that it may not be feasible to proceed. A key question is whether or not a consensus can be reached on the environmental protection measures required.
- 10 Should any mining development be permitted in the area? Would the best decision be to preserve the entire area as wilderness for future generations?
- 11 If no mining development is allowed should any commercial activity be permitted in the area if it is to be preserved as wilderness? Paradoxically, large numbers of river rafters and guide/outfitters detract from the wilderness experience to a serious extent.
- 12 Can a way be found to develop the mine without significant detrimental effect on the wilderness experience?
- 13 How important are the economic benefits of the mine proposal to B.C., the Yukon and to Alaska?
- 14 Can wilderness recreation ever generate sufficient economic activity, considering the short season and the limits on numbers, to offset the potential economic benefits of the mine proposal? Can both coexist in this vast area?
- 15 If the area is declared a wilderness area who will repay Geddes Resources Ltd. the 45 million dollars plus that they have already spent and how much more should be paid for the lost economic opportunity? They have, after all, been working legally and in good faith on registered mineral claims.
- 16 Where does all of this leave British Columbia in the eyes of the international business community. The credibility of B.C. is at stake.



## FOOD FOR THOUGHT

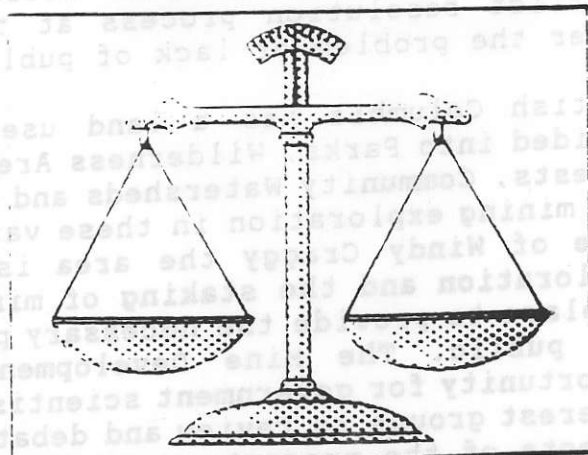
Reflecting on this particular project it seems as if there are at least four specific areas that must be addressed;

- 1 The value that society puts on parks and wilderness needs to be examined;

Should this entire area be preserved as a wilderness area or;

Has enough of this particular landscape and ecosystem type already been set aside in adjacent areas?

- 2 The technical aspects of environmental protection need to be resolved. What degree of environmental degradation, beyond responsible reclamation, can we accept? Some will say - none. Reality dictates that some level of impact must be expected. What is acceptable?



**Where Is The Balance?**

- 3 Public attitudes towards industrial development, the environment and the economy require clarification. Is it necessary or desirable to put the concept of a pristine environment ahead of reasonable living standards?
- 4 The entire issue of land use and investor confidence must be addressed. When an area is open for mineral exploration and staking there must be reasonable assurance that mine development will be accommodated.

Wilderness, to some members of the public, seems to have an intrinsic value just by being there. People who will never see it support the idea that some areas be preserved in their natural state. There is also the thought that some areas should be preserved for future generations. There seems to be the thought that parks and wilderness can be created and that there will be no social costs. Is this one of those areas or will the costs be too high? Some firm decisions need to be reached.

Man is a natural part of the environment. Man's activities have an impact on the environment. With the current population levels and with the increasing demands being placed on our limited resources it is not realistic to expect that the natural environment will not be altered. The real question is - "what are acceptable levels of environmental impact". If you think about it animals, such as the beaver, have significant environmental impact when they build dams and flood forests and farm lands.

Public, and particularly the urban public, attitudes towards industrial development tend to be negative yet most people want all of the benefits of an industrial society. The fundamental problem is generally a lack of knowledge. Both government and industry must improve the public's knowledge in these areas and make full use of the sophisticated conflict resolution techniques that are available to help arrive at balanced decisions. The key is to start the conflict resolution process at the beginning of a project, not after the problem of lack of public support has developed.

British Columbia has a land use policy. The province has been divided into Parks, Wilderness Areas, Recreation Areas, Provincial Forests, Community Watersheds and other designations and the rules for mining exploration in these various areas have been set. In the case of Windy Craggy the area is still legally open to mineral exploration and the staking of mineral claims. The mechanisms are in place to provide the necessary protection to the environment and the public. The Mine Development Review Process provides the opportunity for government scientists, the public and environmental interest groups to review and debate the benefits and environmental effects of the project.

In addition to all of the foregoing the project is now being subjected to international pressure. International organizations and citizens of other countries are telling British Columbians to forego the economic benefits of development in order to preserve wilderness for the enjoyment of the privileged few.

Two quotes from the Brundtland Commission Report, "OUR COMMON FUTURE" may be enlightening.

"Economic growth and development obviously involve changes in the physical ecosystem. Every ecosystem everywhere cannot be preserved intact..... As for non-renewable resources, like fossil fuels and minerals, their use reduces the stock available for future generations. But this does not mean that such resources should not be used."

"The network of protected areas that the world will need in the future must include much larger areas brought under some degree of protection."

In our reading of the full text three points are made;

- 1 Man's efforts to sustain himself will have an impact on the environment.
- 2 Man requires an adequate supply of natural resources to survive.
- 3 While environmental protection is essential total protection of extensive areas is not essential to man's survival nor, for that matter, the survival of natural systems.

In the light of the evidence it is past the time to move forward with the Windy Craggy project and to bring the process to a logical conclusion.

B.C. Environmental Information Institute  
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