

**BARRIER REEF RESOURCES LTD. (N.P.L.)**

1418-355 BARRARD STREET. VANCOUVER 1. B.C. PHONE 681-8381

106c-8

012735

November 30, 1973.

Mr. U. Jansons, Chief Exploration Geologist  
ANVIL MINING CORPORATION  
P. O. Box 1000  
Faro, Yukon

Copy to: Mr. R. L. Haffner

Dear Mr. Jansons:

This is further to your inquiry regarding  
Barrier's Goz Creek zinc prospect in the Yukon  
Territory.

Barrier has recently obtained financing  
by the private placement of treasury shares. The company  
will use the funds provided by this financing to carry  
out, on its own, a programme of geological mapping and  
diamond drilling on the Goz Creek property in 1974.

Yours very truly

BARRIER REEF RESOURCES LTD. (NPL)



A. F. Reeve, President

AFR/z

November 14, 1973

Mr. A. F. Reeve, President  
Barrier Reef Resources Ltd.  
1418-355 Burrard Street  
Vancouver, British Columbia

Dear Mr. Reeve:

In August 1973 we contacted you to express our interest in participation of some form with you to explore your properties in the Goz Creek area of the Yukon. We are still interested in doing so.

You perhaps have also been approached by one or both of Anvil's parent companies - Cyprus and Dynasty - also expressing a similar interest to participate in this property. I wish to explain here that the exploration programs carried out by Anvil, Cyprus and Dynasty are individual efforts in competition with each other. While this may change in the future because of the proposed Anvil-Dynasty merger, each of the proposals should be considerate, separate and independent of each other.

Because there have been no announcements regarding negotiations between Barrier Reef Resources Ltd. and any other company, and you may be trying to select a partner, I wanted to emphasize our interest in that property and also explain our relationship with Cyprus and Dynasty on exploration programs.

Sincerely,

U. Jansons  
Chief Exploration Geologist

UJ/mm

cc. R. L. Haffner

MEMORANDUM

TO: R. L. Haffner FROM: D. S. Jennings  
 SUBJECT: RECENT DEVELOPMENTS ON BARRIER REEF'S DATE: December 6, 1973  
 GOZ CREEK PROPERTY

106 C - e

Reports from usually reliable, but unofficial, sources indicate arrangements for the 1974 exploration program on Barrier Reef's Goz Creek property have been finalized. Conwest Explorations and Brinco are reported to have each purchased 100,000 shares of Barrier Reef stock at \$1.10/share to provide financing for the 1974 exploration program. Through this offering, Barrier Reef has retained control of the property granting 3% interests in Barrier Reef to both Conwest and Brinco (100,000 shares each out of 3,000,000 authorized shares). No further details are available on this arrangement at the present time.



D. S. Jennings  
 Research Geologist

DSJ/mm

cc. U. X. Jansons  
 A. E. Allan

\* Conwest & Central Patricia Gold Mines  
 Purchased 25,000 shares 1972  
 With option on 200,000 " more  
 With above 100,000  
 Controlled 325,000 shares or about  
 13.7% of the 2,380,000 (1973) outstanding  
 Shares.

\* DATA FROM CANADIAN MINES HANDBOOK

BARRIER REEF RESOURCES LTD. (N.P.L.)

1418-355 BURRARD STREET, VANCOUVER 1, B.C. PHONE 681-8381

- Copy retained  
- File - corr

106-C-8

September 27, 1973.

Anvil Mining Corporation Limited  
Post Office Box 1000  
Faro, Y.T.

ATTENTION: Mr. R. L. Haffner  
Vice President & General Manager

Dear Mr. Haffner:

Thank you for your inquiry of September 11, 1973 regarding Barrier's Goz Creek zinc prospect.

The company's plans for this property are undetermined at this time. In the event that the Directors of Barrier should decide to negotiate with your company for possible participation in the exploration and development at Goz Creek, we will get in touch with you.

Yours very truly



BARRIER REEF RESOURCES LTD. (NPL)

A. F. Reeve, President

AFR/z



106-C-8

September 11, 1973

Mr. A. F. Reeve  
President  
Barrier Reef Resources Limited  
1418, 355 Burrard Street  
Vancouver, B. C.

Dear Mr. Reeve:

This letter will confirm the intent of Anvil Mining Corporation Limited to submit a proposal to Barrier Reef Resources Limited on the subject of an exploration program on Barrier Reef's Goz Creek mineral occurrences in the Yukon Territory.

It is planned at this time that the exploration program submitted will also contain the elements of an operational proposal to cover the property should an election be made to bring the unit into production.

It is worth repeating here that Anvil is in an excellent position to undertake a full scope exploration development and production program at your property due to the fact that we have an operating base in the Yukon and have developed the necessary expertise for the full scale exploitation of economic mineral occurrences in remote northern areas.

I will be looking forward to the possibility of continuing our discussion on Friday of this week in Vancouver and exploring in more detail the basic structure of an agreement which would be satisfactory to Barrier Reef and Anvil.

Yours very truly,

Robert L. Haffner  
Vice President & General Manager

cc: R. E. Thurmond  
Exploration Department ✓  
Vancouver Office

**A. IL MINING CORPORATION LIMITED**

**MEMORANDUM**

106-C-8

TO: R. L. Haffner  
FROM: U. Jansons, A. Allan  
SUBJECT: GOZ CREEK ZINC PROPERTY  
DATE: August 24, 1973  
RECOMMENDATIONS

A significant zinc discovery has been made by Barrier Reef Resources, Limited, 120 miles northeast of Mayo, Y.T. Zinc mineralization in various amounts has been traced for about 7 miles. Within this distance, zones of zinc concentration have been identified by cursory preliminary work. Three types of ore shows were seen in the field. These are:

1. High grade sphalerite cemented breccias. Grades in these zones are estimated to run between 15-30% zinc. Two of these parallel zones are spaced about 1500 feet apart. Other brecciated silicated zones are reported to be present. Grab samples collected by Anvil personnel contained 44% and 52% Zn in sphalerite cemented breccia fragments. Reserve estimates on basis of measured and estimated lengths, widths and thicknesses suggest several million tons of high grade material in sight.
2. Fracture fill and replacement(?) sphalerite - one sample of this material is estimated to contain 4-6% Zn. Reserve estimates on these ores were not possible since insufficient geological mapping has been done to delineate these zones of mineralization.
3. "Disseminated" sphalerite in rock - these showings contained 12.3% Zn on a sample collected by Anvil personnel. The extent of this mineralization is not known because of insufficient geological control, however, fragments of this material were scattered over at least a 2000 x 1000 foot area. The thickness of this bed varies from 60 to 100 feet. The dip extent of the mineralization was not examined, but the rock units appeared to extend 500 feet from the top of the ridge to where it was covered by talus near the bottom of the slopes.

The significant point to note here is the presence of continuous, but lower grade, mineralization between the high grade zones. Economically significant tonnages and grades may be developed between the high grade and low grade zones.

Location, Land Situation, and Mineralized Showings:

The Barrier Reef mineral discovery is shown on the attached map. The 192 Barrier Reef claims and the fringe staking, mainly by A. Harmon for, it is believed, several clients, is also indicated here.

Mineralized showings are only partly mapped. Only cursory investigation has been made of this property to the present time. Other showings may be found. The known showings and their distribution is shown on the "General Plan of Barrier Reef Property, Goz Creek Area" by A. Allan.

Ore Potential:

An estimate of the tonnage and grade potential of the Goz Creek property was made. These estimates are based in part on measured and in part on estimated lengths, widths, and thicknesses of the mineralized zones. These estimates are not thought to be overly optimistic, but the true length continuity of mineralization over these zones is not known. An arbitrary factor of 10 cubic feet per ton was used.

High Grade Zones:

Zone 1 (Measured)

875' long x 50' thick x 500' wide = 21,875,000 ft.<sup>3</sup> or 2.2 million tons  
Potential Estimated Grades - 10-15%

Zone 2 (Estimated Length and Width)

1600' long x 60' thick x 750' wide = 72,000,000 ft.<sup>3</sup> or 7.2 million tons  
Potential Estimated Grades - 10%

Zone 3 (Reported Footages)

800' long x 30' thick x 300' wide = 7,200,000 ft.<sup>3</sup> or .71 million tons  
Potential Estimated Grades - 8-10%

Zone 4 (Reported Footages)

700' long x 30' thick x 400' wide = 8,400,000 ft.<sup>3</sup> or .84 million tons  
Potential Estimated Grades - 8-10%

POTENTIAL ESTIMATED TONNAGE - 10.9 million tons

Disseminated Low Grade Zone:

These estimates are based on estimated ore dimensions and reported thicknesses over which some mineralization was noted. This mineralization may have been discontinuous and spotty. The grades in these zones are estimated to be in the 3-6% range.

2000' long x 1000' wide x 100' thick = 20,000,000 ft.<sup>3</sup> or 20 million tons

The estimated tonnage potential of the property is based on assumed continuous mineralization as found on preliminary cursory examination of the property and only on part of the known showings for which some dimensions were noted. Other potential zones may be found by surface work.

Comments:

No surface work has been done on the Barrier Reef claim group and the continuity and grades of mineralization are poorly known. Sufficient data are at hand to suggest millions of tons of sphalerite bearing rock to be present and this has to be considered an excellent prospect even in this remote location.

The ultimate possible potential could be in the 100 million ton category. There is little overburden and a very low waste/ore ratio in an open pit situation. Nothing is known at the moment regarding control of the mineralization.

Recommendations:

Anvil should make every effort to enter into a working agreement with Barrier Reef on this prospect. Field work in this area should be primarily confined to mapping the distribution of the known zinc mineralization by geological and geochemical methods. Regional mapping and prospecting of the claim block should be then undertaken to determine controls of mineralization and other potential mineralized zones. Following the geochemical and geological work, a drill program should be initiated to test the continuity and grade of mineralization.

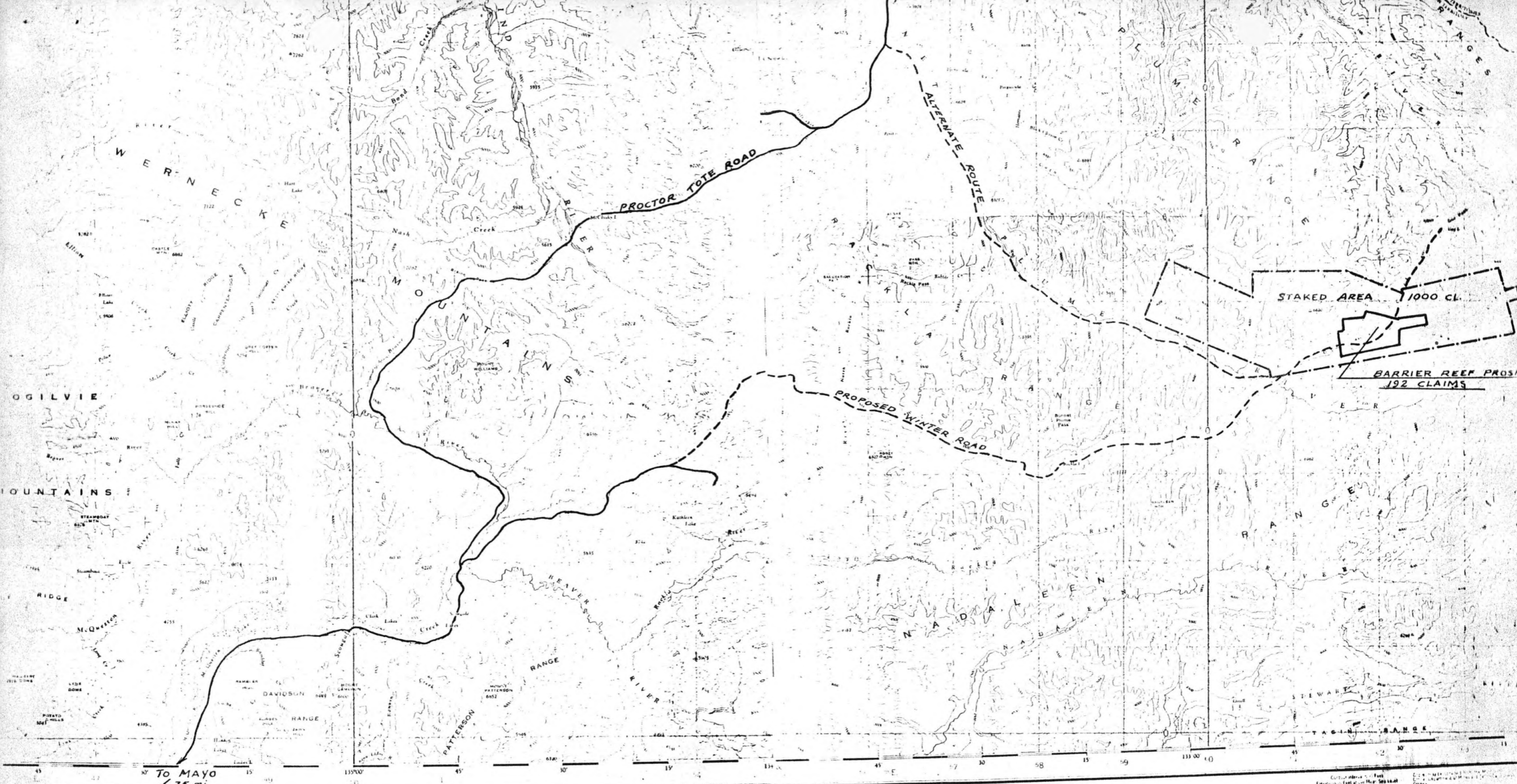
Submitted by:

  
U. Jansons



A. Allan

UJ/AA/mm

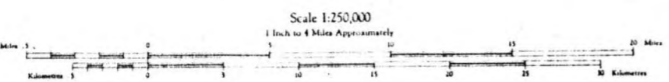


To Mayo  
35 mi

# NASH CREEK YUKON TERRITORY

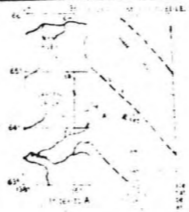
REFERENCE

Proposed winter road	---
Trail	---
Boundary	---
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REFERENCE

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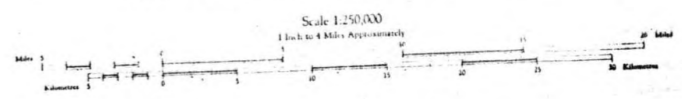
Produced and printed by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF MINES AND TECHNICAL SURVEYS, 1968 from a photostereogram in 1949 and 1954.

REFERENCE

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Universal Transverse Mercator Projection

# NADALEEN RIVER YUKON TERRITORY - NORTHWEST TERRITORIES



REFERENCE

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FOR THE RECORD

Davenport Oil & Mining Ltd. meeting, 5th Floor, 1177 W.Hastings, Vancouver, 27Aug73, 9 a.m., will be asked to approve changing to a limited company from its status as a "specially limited company", broadening its objects to give greater scope for new activities, changing the name to Davenport Industries Ltd. and increasing auth. capital from 3,000,000 to 5,000,000 shs. R.J.Wiley, president, says that while the company is currently well financed (working capital, 30Apr73, \$827,667) almost all the authorized shares have been issued and while there are no plans at present to issue more shares, it is considered wise to have the additional shares available in case a worth while acquisition requiring share consideration is offered. Re the work by Getty Mining Pacific Ltd. on Davenport's property near Kamloops he says Getty has completed over 80 percussion holes for a total of nearly 20,000 ft., carried out 40 line miles of Mag. work and 40 miles of I.P. work, with the full scale drilling and survey program continuing. Management continues its efforts toward entry into the oil and gas industry.

CHATEX INDUSTRIES LTD. (formerly Chataway Exploration Co. Ltd.)

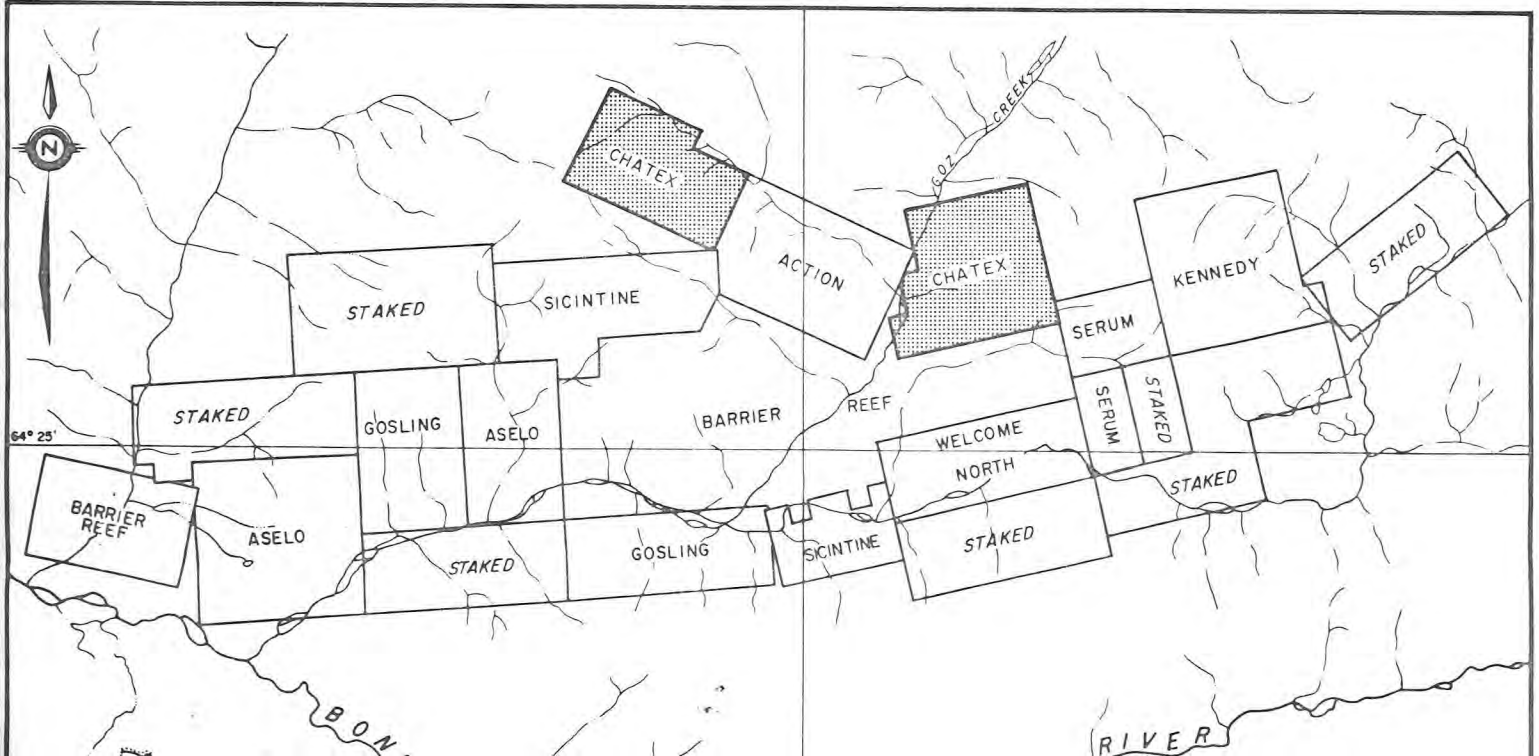
BONNET PLUME AND GODLIN PRIME EXPLORATION AREAS - Chatex Industries Ltd. has signed an agency best efforts agreement with Carlisle Douglas & Co. Ltd. and Canarim Investment Corp. Ltd. to sell 200,000 treasury shares to provide a minimum of \$56,000 upon successful completion of the offer.

Chatex has an option to acquire two blocks of mineral claims in the area of Barrier Reef's recent zinc-lead discovery in the Bonnet Plume River-Goz Creek area of the Yukon. This area is approximately 100 miles west of the Godlin Lake area of current intense exploration activity and north-east of Mayo. Barrier's recent discovery is in dolomite like its Robb Lake discovery and Cominco's Pine Point deposit. Chatex claims are located on the north side of Barrier's claims and are in the same favourable geological setting. (see map below) If the reef is extensively mineralized, this area could produce results reminiscent of the Dynasty/Cyprus Vangorda Creek results of mid 1960's which resulted in the Anvil Mine.

Chatex together with Pine Lake Mines has also acquired a 50% interest in forty mineral claims which adjoin the Bethlehem Copper-Welcome North copper prospect in the Godlin Lake area of the NWT and plans to conduct an exploration program in this area.

Increasing copper prices have added substantially to the value of Chatex's high grade copper zone in the Highland Valley. The feasibility of early mining of this ore is under study and negotiation.

The results of the recent diamond drilling program on the western half of Chatex's Highland Valley claims were disappointing. International Mogul during 1972-73 spent in excess of \$125,000 exploring these claims.



INVEL MINING CORPORATION LIMI

MEMORANDUM

106-C-8

TO: R. E. Thurmond FROM: R. L. Haffner

SUBJECT: Goz Creek Proposal to DATE: November 1, 1973

Barrier Reef

The attached write-up is an A.F.E. covering the preliminary approval procedure necessary prior to working out a firm proposal (if possible) with Barrier Reef.

This is 1974 business and as such is not approved by me because no 1973 budgetary provisions had been made.

I am sending this for your information only, realizing that a new 1974 program will probably be worked out in the new organization. Will you please return to me or indicate what disposition has been made.




---

R. L. Haffner

RLH/jp

Att.

ANVIL MINING CORPORATION LIMITED

TITLE:

Request for Exploration Funds for the Preliminary Examination of the Goz Creek Zinc Deposit of Barrier Reef Resources Ltd., 1418-355 Burrard Street, Vancouver, British Columbia

ESTIMATED COST:

\$251,000.00

COMPLETION DATE:

November 1974

APPROVALS:

Date

CMC Chairman or President \_\_\_\_\_

CMC Executive Vice-Pres. \_\_\_\_\_

CMC Senior Vice-Pres. \_\_\_\_\_

Anvil President \_\_\_\_\_

Anvil Vice-Pres. & Gen. Mgr. \_\_\_\_\_

ANVIL MINING CORPORATION LIMITED

AUTHORITY FOR EXPENDITURE

TITLE: Request for Exploration Funds for the  
Preliminary Examination of the Goz Creek  
Zinc Deposit of Barrier Reef Resources  
Ltd., 1418-355 Burrard Street,  
Vancouver, British Columbia

A.F.E. No.: \_\_\_\_\_

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Description	Authorized Expenditure	Actual Expenditure	Difference Over (Under)
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Item:

Cost of Geological and Geochemical Work  
(Estimated) \$126,000.00

Drilling (contingent on program above)  
from evidence of mineralization at the  
surface a minimum of 10 holes to a  
depth of 500 feet can be predicted.  
Estimated cost for 5000 feet at \$25/ft. \$125,000.00

(Minimum Total Expenditures) \$251,000.00

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Checked by: Engineering \_\_\_\_\_ Purchasing \_\_\_\_\_ Accounting \_\_\_\_\_

Prepared by: \_\_\_\_\_ Date \_\_\_\_\_

Submitted by: \_\_\_\_\_ Date \_\_\_\_\_

Approved by Vice-Pres. & Gen. Mgr.: \_\_\_\_\_ Date \_\_\_\_\_

Completed A.F.E. Reviewed by: \_\_\_\_\_

AUTHORITY FOR EXPENDITURE REQUEST

TITLE:

Request for Exploration Funds for the Preliminary Examination of the Goz Creek Zinc Deposit of Barrier Reef Resources Ltd., 1418 - 355 Burrard Street, Vancouver, British Columbia.

ESTIMATED COST:

An exploration program designed principally to obtain geological and geochemical data is proposed. Costs of follow up work which will be contingent upon the initial investigation are included.

Cost of Geological and Geochemical Work (Estimated)	\$126,000.00
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Drilling (contingent on program above) from evidence of mineralization at the surface a minimum of 10 holes to a depth of 500 feet can be predicted. Estimated cost for 5000 feet at \$25.00/foot.	\$125,000.00
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(Minimum) Total Expenditures	\$251,000.00
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PROBLEM:

The Anvil Mining Corporation Limited has an opportunity to enter into an agreement on an outstanding zinc property exploration and development venture. Contact has been made with Barrier Reef Resources limited, owners of the property, and they have requested an exploration proposal for their claims. There are a number of major mining firms reported to be making similar proposals.

SOLUTION:

Following is an exploration plan and a joint venture proposal which will be drawn up and presented to Barrier Reef Resources Limited for their Goz Creek properties.

The proposed exploration program will include detailed geological mapping and sampling.

The geological mapping will outline the stratigraphic sequences and geologic structures to determine the relation of mineralization to these features. Detailed sampling of rock and soil will define areas and grades of mineralization.

Following the preliminary work, diamond drilling is proposed to check the continuity and extent of mineralization.

Geophysical surveys will not be conducted because the sphalerite mineralization in limestones is not found with other sulfides or suitable rocks required for magnetic and electromagnetic methods of exploration. Gravity surveys would be difficult because of terrain.

The joint venture proposal has not yet been finalized, but will include a provision whereby Anvil will have a majority controlling interest in any resulting production unit.

#### JUSTIFICATION:

1. Barrier Reef Resources has discovered an outstanding zinc prospect 120 miles northeast of Mayo, Yukon Territory. Preliminary and cursory field investigation suggests 11 million tons of high grade (10 to 30 %) zinc in limestone, with unknown and still to be determined lower grade (5 to 15 %) zinc between the high grade zones. The preliminary investigation of a small portion of the known mineral areas suggests that 31 million tons of open pit material may be present ( see attached August 24, 1973 memo to R. L. Haffner from U. Jansons and A. Allan). These mineral occurrences are similar in type and grade to those found at Pine Point.

2. The gross value of the ore as estimated from the preliminary field data is:

$$31,000,000 \text{ tons} \times 7\% \text{ Zn} = 2,140,000 \text{ tons Zn}$$

With zinc at 23 cents per pound yielding a value of \$460 per ton giving a gross value of metal in the ground as

$$\$460/\text{ton} \times 2,140,000 \text{ tons} = \$983,000,000$$

3. The high gross value is based on part of the known zinc values on the property. Other zones of mineralization may also be economically significant.

4. The sphalerite in carbonates is low in iron (based on color) suggesting high grade zinc concentrates could be produced.

5. The known mineralization crops out at the surface on a ridge, indicating that little or no pre-production stripping would be required.

6. Barrier Reef Resources is a serious exploration, not promotion oriented, small stock company listed on the Vancouver Stock Exchange. In addition to the Goz Creek property, they are involved in the Robb Lake area where they were part of the group involved in the exploration for and the discovery of zinc mineralization. That property has been joint ventured with Texasgulf Limited and Arrow Inter - Americal Corporation Limited.

7. Barrier Reef Resources' attorney, Jurgen Lau, indicated that this property has to be presented to a company for a right of first refusal. This has not yet been done. If that company declines to explore these claims, the property will be available for joint venture to other companies. Anvil has expressed its interest to Barrier Reef Resources to do so. Mr. Lau also indicated that Barrier Reef Resources has no definite joint venture plan in mind.

COMPLETION DATE:

This portion of the exploration venture will start in June 1974 and will be completed by November 1974.

# MEMORANDUM

TO: R. L. Haffner

FROM: U. Jansons, A. Allan

SUBJECT: GOZ CREEK ZINC PROPERTY

DATE: August 24, 1973

## RECOMMENDATIONS

A significant zinc discovery has been made by Barrier Reef Resources, Limited, 120 miles northeast of Mayo, Y.T. Zinc mineralization in various amounts has been traced for about 7 miles. Within this distance, zones of zinc concentration have been identified by cursory preliminary work. Three types of ore shows were seen in the field. These are:

1. High grade sphalerite cemented breccias. Grades in these zones are estimated to run between 15-30% zinc. Two of these parallel zones are spaced about 1500 feet apart. Other brecciated silicated zones are reported to be present. Grab samples collected by Anvil personnel contained 44% and 52% Zn in sphalerite cemented breccia fragments. Reserve estimates on basis of measured and estimated lengths, widths and thicknesses suggest several million tons of high grade material in sight.
2. Fracture fill and replacement(?) sphalerite - one sample of this material is estimated to contain 4-6% Zn. Reserve estimates on these ores were not possible since insufficient geological mapping has been done to delineate these zones of mineralization.
3. "Disseminated" sphalerite in rock - these showings contained 12.3% Zn on a sample collected by Anvil personnel. The extent of this mineralization is not known because of insufficient geological control, however, fragments of this material were scattered over at least a 2000 x 1000 foot area. The thickness of this bed varies from 60 to 100 feet. The dip extent of the mineralization was not examined, but the rock units appeared to extend 500 feet from the top of the ridge to where it was covered by talus near the bottom of the slopes.

The significant point to note here is the presence of continuous, but lower grade, mineralization between the high grade zones. Economically significant tonnages and grades may be developed between the high grade and low grade zones.

Location, Land Situation, and Mineralized Showings:

The Barrier Reef mineral discovery is shown on the attached map. The 192 Barrier Reef claims and the fringe staking, mainly by A. Harmon for, it is believed, several clients, is also indicated here.

Mineralized showings are only partly mapped. Only cursory investigation has been made of this property to the present time. Other showings may be found. The known showings and their distribution is shown on the "General Plan of Barrier Reef Property, Goz Creek Area" by A. Allan.

Ore Potential:

An estimate of the tonnage and grade potential of the Goz Creek property was made. These estimates are based in part on measured and in part on estimated lengths, widths, and thicknesses of the mineralized zones. These estimates are not thought to be overly optimistic, but the true length continuity of mineralization over these zones is not known. An arbitrary factor of 10 cubic feet per ton was used.

High Grade Zones:

Zone 1 (Measured)

875' long x 50' thick x 500' wide = 21,875,000 ft.<sup>3</sup> or 2.2 million tons  
Potential Estimated Grades - 10-15%

Zone 2 (Estimated Length and Width)

1600' long x 60' thick x 750' wide = 72,000,000 ft.<sup>3</sup> or 7.2 million tons  
Potential Estimated Grades - 10%

Zone 3 (Reported Footages)

800' long x 30' thick x 300' wide = 7,200,000 ft.<sup>3</sup> or .71 million tons  
Potential Estimated Grades - 8-10%

Zone 4 (Reported Footages)

700' long x 30' thick x 400' wide = 8,400,000 ft.<sup>3</sup> or .84 million tons  
Potential Estimated Grades - 8-10%

POTENTIAL ESTIMATED TONNAGE - 10.9 million tons

Disseminated Low Grade Zone:

These estimates are based on estimated ore dimensions and reported thicknesses over which some mineralization was noted. This mineralization may have been discontinuous and spotty. The grades in these zones are estimated to be in the 3-6% range.

2000' long x 1000' wide x 100' thick = 20,000,000 ft.<sup>3</sup> or 20 million tons

The estimated tonnage potential of the property is based on assumed continuous mineralization as found on preliminary cursory examination of the property and only on part of the known showings for which some dimensions were noted. Other potential zones may be found by surface work.

Comments:

No surface work has been done on the Barrier Reef claim group and the continuity and grades of mineralization are poorly known. Sufficient data are at hand to suggest millions of tons of sphalerite bearing rock to be present and this has to be considered an excellent prospect even in this remote location.

The ultimate possible potential could be in the 100 million ton category. There is little overburden and a very low waste/ore ratio in an open pit situation. Nothing is known at the moment regarding control of the mineralization.

Recommendations:

Anvil should make every effort to enter into a working agreement with Barrier Reef on this prospect. Field work in this area should be primarily confined to mapping the distribution of the known zinc mineralization by geological and geochemical methods. Regional mapping and prospecting of the claim block should be then undertaken to determine controls of mineralization and other potential mineralized zones. Following the geochemical and geological work, a drill program should be initiated to test the continuity and grade of mineralization.

Submitted by:

U. Jansons

A. Allan

UJ/AA/mnn

106-C-8

A.F.E. ON BARRIER REEF'S GOZ CREEK, YUKON TERRITORY, ZINC PROSPECT

PROPOSAL:

Barrier Reef Resources Limited, 1418-355 Burrard Street, Vancouver, B.C. has made a significant zinc discovery near Goz and Duo Creeks, Mayo Mining District, Yukon Territory. Because of the economic potential that may be developed here, Anvil Mining Corporation Limited should make every effort to enter into a favourable joint venture exploration agreement with Barrier Reef Resources Ltd. Brief visits to and cursory examination of the property revealed the presence of wide spread zinc mineralization with estimated potential economic tonnages of zinc in carbonate rocks and in breccia zones cross-cutting the bedded carbonate deposits. A high grade lower tonnage situation may be present if a large open pit situation cannot be developed.

Barrier Reef Resources Limited is a relatively small active exploration stock company, listed on the Vancouver Stock Exchange. It is entertaining joint venture proposals from several major companies. Because of the economic potential of this prospect, Anvil should also approach Barrier Reef.

The cost of the proposed first year exploration program as outlined in the attached copy is \$ \_\_\_\_\_.

SOLUTION:

A joint venture program whereby Anvil can earn a controlling interest in the Goz Creek property at the time it is brought into production should be presented to Barrier Reef Resources Ltd. The presented program should be one of percentage of earned equity based on a dollar expenditure on the property. The

controlling interest in the property may be gained by increments during the exploration and any subsequent development, pre-production, and production expenditures.

An exploration program of geological mapping, detailed rock and soil sampling, possible trenching and diamond drilling will be presented to Barrier Reef.

JUSTIFICATION:

An opportunity exists for participation in a potential open pit zinc mining operation. Patchy zinc mineralization, occurring as primary sphalerite and secondary zinc oxide minerals, has been traced along the Barrier Reef claims over a five square mile area. The small portion of the area that was investigated in the field showed three modes of sphalerite occurrence. These are:

1. High grade zones - These are breccia zones in which sphalerite cements the individual fragments. Assays up to 35% Zn have been obtained from grab samples. The estimated potential tonnage in two zones 2500 feet apart may reach 10-11 million tons.
2. Disseminated sphalerite - One fragment of this material assayed 12% Zn. An estimated potential tonnage for this material may be 20 million tons.
3. Vug filling sphalerite - this rock contained an estimated 4-6% Zn. No potential tonnage estimates were possible.

The presence of disseminated sphalerite between high grade breccia zones suggests an open pit mining situation may be developed.

The cursory preliminary investigation of part of the Goz Creek property suggests a potential 30 million tons of zinc mineralization in limestone. A gross value of this material in the ground is \$1,200,000,000 at a 22 cent zinc price.

These figures represent the area that was visited and with the known widespread mineralization additional minable zones may be found during the follow-up exploration. To date the geology of the mineralized zone and the distribution of mineralization is very sketchy, but zinc mineralization can be found over large areas. Zinc mineralization has reportedly been found in 30 zones extending for approximately seven miles along the long axis of their claim block. Only one small area of the ground was visited and several potential economic size areas of mineralization may be present. The size and extent of these deposits is not known because of the limited amount of field work that has been done here to date.

Participation in the successful development of a large open pit minable zinc deposit may improve the likelihood of Anvil constructing a zinc smelter complex in the Yukon.

The physical setting of mineralization and its occurrence on top of a ridge suggests minimal stripping would be required during any open pit mining operation.

Barrier Reef Resources is an exploration oriented stock company listed on the Vancouver Stock Exchange. Barrier Reef Resources was formed in April, 1972 by the amalgamation of Windermere Exploration Limited and Peregrine Exploration Limited. Barrier Reef is involved in several exploration situations, the most important in the Robb Lake Joint Venture (20% Barrier Reef, 40% Ecstall Mining (Texasgulf) and Arrow Inter-America (W.R. Grace and Co.) on which a lead-zinc discovery has been made. Drilling at Robb Lake has been in progress all through 1973.

Barrier Reef Resources has been capitalized with 3,000,000 shares of which 2,180,000 have been issued. In 1972 Canadian Superior Oil Ltd. (50%), Conwest Exploration Co. Ltd. (40%) and Central Patricia Gold Mines Ltd. (10%) purchased 50,000 shares with an option on 200,000 shares to Dec. 31, 1972, and 200,000 shares to June 1973. It is now known at the present time if these share options were exercised. If all options were concluded, Canadian Superior has a minimum of about 8.6% of the shares, Conwest has a minimum of about 6.9%, and Central Patricia Gold Mines has about 1.7%.

**ARCHER, CATHRO**  
AND ASSOCIATES LTD.  
CONSULTING GEOLOGICAL ENGINEERS

*Pelly Summit File*  
*106 e-10*  
*012736*

WHITEHORSE, Y.T. 667-4415

685, TWO BENTALL CENTRE, VANCOUVER, B.C. 688-2568

POST OFFICE BOX 4127  
WHITEHORSE, Y.T.

June 27, 1974

Anvil Mining Corporation Ltd.  
Box 1000  
Faro, Y.T.

Attention: Glen Simpson

Dear Glen,

This letter will confirm our telephone conversation today in which we have agreed that we will conduct preliminary prospecting and geochemical and rock sampling of 240 AL claims on behalf of Anvil. The property is situated in NTS claim sheet 106C/10, about ten miles north of Goz Lake. The work will be performed by a two-man crew, of whom at least one will have previous experience prospecting for lead-zinc in carbonate rocks in the Mackenzie-Ogilvie Mountains. We expect to perform the work between July 6 and 20. The program will cost between \$7,000 and \$10,000 and we will file the results for assessment credit.

Yours truly,

ARCHER, CATHRO & ASSOCIATES LTD.

  
R.J. Cathro

RJC:st

June 27, 1974

File


Pelly River Syndicate  
Owners of the AL Mineral Claims

This will serve as a preliminary agreement between Pelly River Syndicate, hereafter called the vendors and Anvil Mining Corporation Limited, hereafter called Anvil, until a more formal agreement can be drawn up.


- 1) Anvil herewith makes a down payment of \$6,000 to the vendors which will allow Anvil or its designated agent sole right to explore the 240 AL claims which to the best of the vendors knowledge were staked and filed in accordance with the existing regulations and are situated in the northeast quarter of Sheet 106-C-10 centered at latitude  $64^{\circ} 40'$  North and longitude  $132^{\circ} 32'$  West for a period of 31 days commencing 1st. July, 1974.
- 2) Anvil will undertake to carry out preliminary exploration on the said AL claims to an expenditure not less than \$8,000 during the period 1st. July to 31 July, 1974, and to file as much of this work as may be accepted by the Mining Recorder for assessment purposes.
- 3) On or before 1st. August, 1974 Anvil or its agent will inform the vendors of its intention to take up an option to acquire 90% ownership of the claim group on the following terms:
  - (a) A further payment of \$10,000 to be made not later than 15th. August, 1974  
  
An additional payment of \$15,000 on or before 1st. March, 1975  
  
An additional payment of \$20,000 on or before 1st. March, 1976  
  
An additional payment of \$100,000 on or before 1st. March, 1977
  - (b) In addition, Anvil will complete work commitments of \$400,000 to 31 December, 1977 and retain those AL claims deemed to be of sufficient interest and value to warrant further work throughout the period of the option agreement by completion and filing of the annual assessment work.
  - (c) Anvil may either purchase the remaining 10% interest in the AL claims at any time for a total sum of \$1,000,000, or said interest is fully carried for the vendors by the company.

- 4) By signing of this document the vendors agree that by abiding to the conditions outlined, Anvil have sole right of first refusal on the interests held by them in the AL claims and that at any time after payment of a total of \$16,000 to the vendors by Anvil the ownership of the subject claims will be transferred to Anvil on request.
- 5) If Anvil do not take up the option on 1st. August, 1974, or having taken up the option terminate it at a later date, all data collected will be written up and filed for assessment and copies of such data provided to the vendors or their designated agents.
- 6) The vendors agree that any of the claims not covered by assessment work in 1974 (item 2 above) may be excluded from the terms of the agreement after 31st. July, 1974, but that any claims so excluded or new claims staked by either party within a radius of one mile of the existing claim boundary during the term of the agreement will become subject to that agreement if requested by Anvil.
- 7) Anvil may terminate the agreement at any time after 31st. July, 1974, provided that assessment committments for the year have been fulfilled by written notice to the vendors, or will be deemed to have terminated the agreement by failure to meet any of the designated payments within thirty days of the dates indicated. All claims will be transferred to the vendors at the time of termination.

Signed at Faro by:

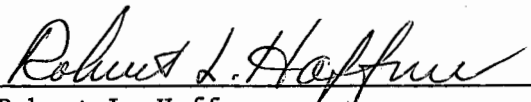
  
C. Reginald Wolfe

6/28/74  
Date

  
Peter J. Goodman

6/28/74  
Date

For Pelly River Syndicate, and

  
Robert L. Haffner

6-28-74  
Date

  
Robert L. Cook

6/28/74  
Date

For Anvil Mining Corporation Limited

June 27, 1974

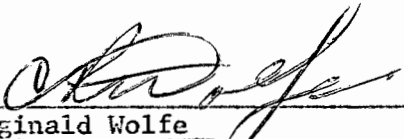
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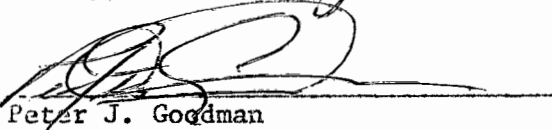
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Signed at Faro by:

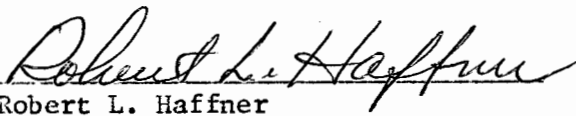
  
C. Reginald Wolfe

6/28/74  
Date

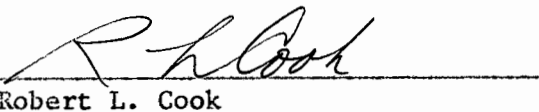
  
Peter J. Goodman

6/28/74  
Date

For Pelly River Syndicate, and

  
Robert L. Haffner

6-28-74  
Date

  
Robert L. Cook

6/24/74  
Date

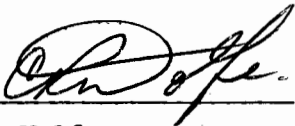
For Anvil Mining Corporation Limited

PELLEY RIVER SYNDICATE

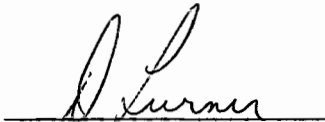
The Officers of Pelly River Syndicate hereby grant Power of Attorney to R. Wolfe and P. Goodman to act for and on behalf of Pelly River Syndicate in all matters of business pertaining to the Syndicate.

Signed this 26th. day of June, 1974 in the City of Faro, Yukon Territory

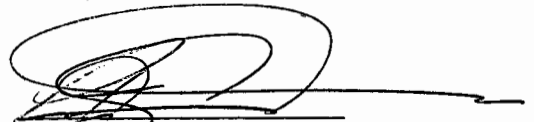
On behalf of Pelly River Syndicate:



R. Wolfe  
President



D. Turner  
Vice-President



P. Goodman  
Treasurer