

REPORT on the
ALI CLAIM
GOLDSTREAM RIVER AREA,
REVELSTOKE MINING DIVISION
for Delhi Pacific Mines Limited
by W.R. Bacon, I.Eng.

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June 30 1976



BACON & CROWHURST LTD.

1720-1055 West Hastings Street
Vancouver 1, B. C.

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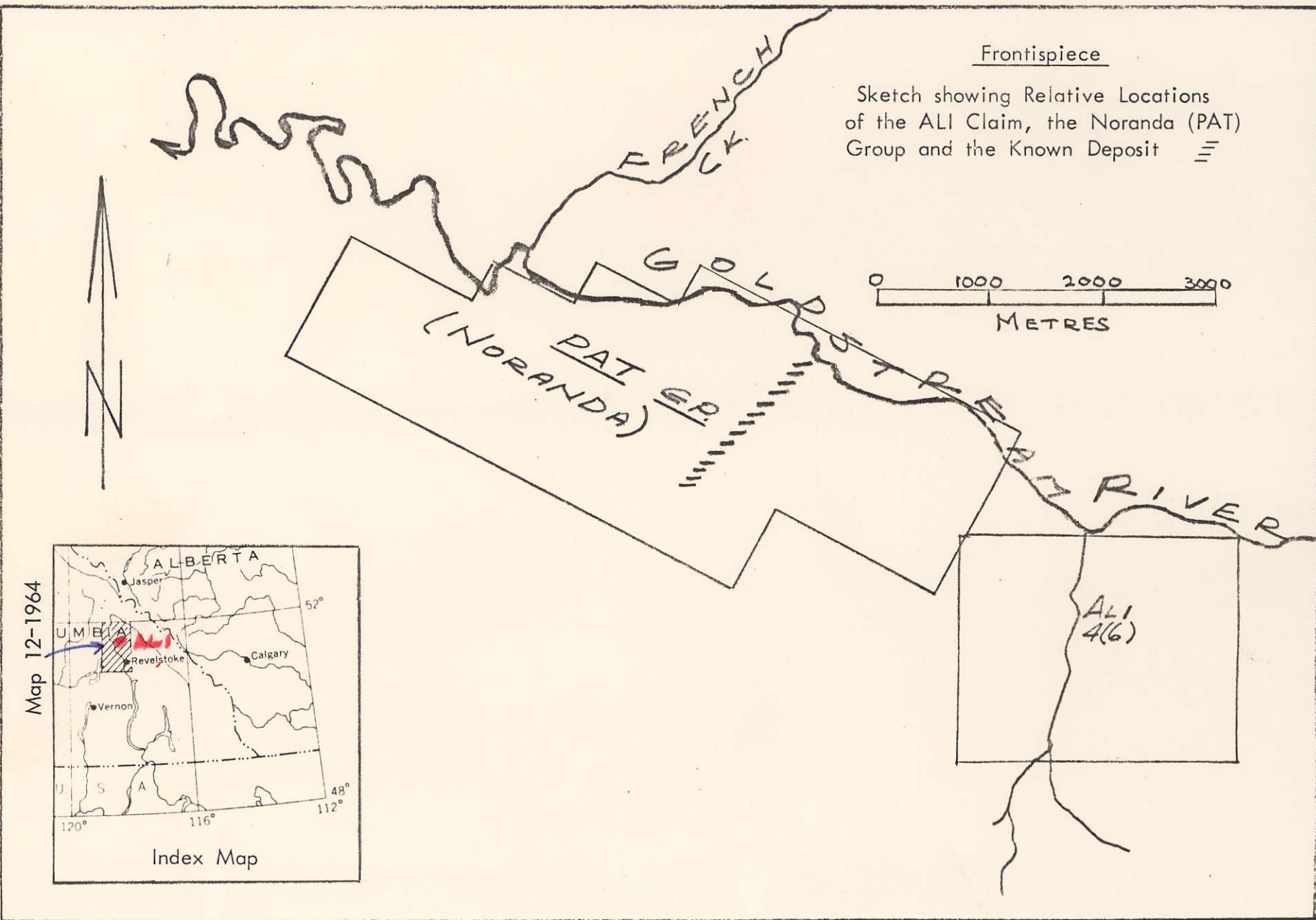


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ILLUSTRATION

FIG. 1.

Sketch showing Relative Locations of the ALI Claim,
the Noranda (PAT) Group and the Known Deposit

Frontispiece

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INTRODUCTION

The ALI claim consists of 20 units (5 east-west by 4 north-south), i.e. 5 sq. kilometres. It is in the Revelstoke Mining Division, on the south bank of the Goldstream River, a turbulent westward flowing tributary of the Columbia River that enters the Columbia 50 miles north of Revelstoke.

The ALI claim is accessible by 11 miles of good dirt road up the south side of Goldstream River.

The ALI claim, or more exactly its northwestern corner, touches the southeastern side of Noranda Mines Ltd's ^{PAT} group which contains an economically interesting massive sulphide deposit on which the Noranda company is now conducting an extensive underground exploration program.

Surface work on the ALI claim was initiated by the writer in June, 1976. A contract for 32 kilometres of N-S line with 120 metre spacing was awarded Amex Exploration Services Ltd. of Kamloops, B.C. In addition, soil samples were to be taken at 50 metre intervals on the N-S lines and a reconnaissance magnetometer survey undertaken. (The results of this preliminary work will be interpreted and filed as assessment work in July, 1976.) *out*

out The writer examined the ALI claim during June 24-25, 1976. *out*

PHYSICAL FEATURES

The Big Bend country, of which the Goldstream River is an integral part, is a rugged mountainous terrain similar physically to the Coast Range of British Columbia. Steep slopes are covered by an evergreen rain forest featuring large cedar trees and the most noteworthy feature of the thick, matted undergrowth is the omnipresent devil's club.

Slopes on the northern half of the ALI claim are in the 25°-34° range. Southward they are steeper to precipitous.

Although the overburden is generally continuous on the northern half of the ALI claim, it does not appear to be deep. A tumultuous, north flowing creek on the western part of the claim provides excellent exposures of bedrock but its steep banks must be traversed with caution.

Elevations on the ALI claim range from 2500 feet to 5000 feet above sea level.

GEOLOGY

Map 12-1964, published by the Geological Survey of Canada, indicates that the south bank of the Goldstream River is underlain by Unit 5A of the Lardeau Group of Lower Cambrian (and later) age which, southward, is intruded by a granite mass about 8 miles long (E-W) by 3 miles in maximum width (N-S).

Unit 5A is described in the legend simply as "crystalline schist and gneiss" but, actually, a considerable variety of metamorphic, thinly layered rocks is present in the limited areas examined by the writer - quartzites, micaceous quartzites, phyllites, schists, slates (graphitic and non-graphitic), etc.

The prevailing attitude of these sedimentary rocks is probably of the order of N65°W with a flattish (35°_±) northerly dip but examination of the aforementioned creek (on the western part of the All claim) indicates considerable change in attitude (i.e. folding) over a short distance. The following attitudes were observed at intervals in a 500 metre stretch of the lower part of this creek:

Lowermost	Strike = N20°W	Dip = 40°NE
	= N20°E	= 70°E
Highest	= E-W	= 70°S

No granitic outcropping was observed by the writer in his 2 claim unit traverse up the creek - but some rather fine-grained biotite granite was found in talus at the south end of the traverse.

MINERALIZATION

Approximately one and one-half miles west of the northwest corner of the ALL claim, Noranda Mines Ltd. is putting in an adit to explore further a bedded cupriferous sulphide deposit of excellent grade (announced as 4.49% copper, 3.24% zinc, 0.68 oz. silver per ton).

The sulphides in the Noranda deposit are pyrite, pyrrhotite, chalcopyrite and sphalerite. Some malachite and azurite occur at the surface of the ore zone.

Minor pyrite and pyrrhotite have been observed in quartzite on the ALL claim.

CONCLUSIONS

1. A deposit such as Noranda has successfully explored, 1.5 miles west of the All claim, is hardly likely to be a unique occurrence.
2. Other similar deposits are going to be difficult to find but not impossible. Choice of exploration method or methods will be critical.
3. The gross value per ton of the bedded cupriferos sulphide deposits can be relatively high, making a search for others in the vicinity of just such a discovery particularly attractive.

RECOMMENDATIONS

In the opinion of the writer, the most suitable method of exploring the ALL claim for a bedded sulphide deposit is an electrical geophysical method. Both electromagnetic and induced polarization systems should be considered seriously, with the writer giving initial preference to the former.

There are graphitic bands in the metasedimentary sequence which will emerge as conductive anomalies, whatever electrical method is used. In other words, whether an EM anomaly is caused by graphite, or barren sulphides, or cupriferous sulphides will be a problem - as it is (only much more so) with every electromagnetic survey done in the Canadian PreCambrian.

Provision must be made for subsequent drilling of anomalies. Geological and prospecting work should run concurrently with the geophysical and drilling programs.

COST ESTIMATE

1. Electromagnetic survey, 32 km (Crone JEM, employing "shootback" technique)	\$5,440
2. Geological and prospecting work	6,000
3. 3000 ft. AQ diamond drilling program at \$19/ft. (includes mobilization, demobilization, D-6 tractor rental, etc.)	<u>57,000</u>
	\$68,440
Contingencies, say 10%	<u>6,844</u>
	<u>\$75,284</u>

Respectfully submitted,

BACON & CROWHURST LTD.



W.R. Bacon, Ph.D, P.Eng.



CERTIFICATE

I, William R. Bacon, with business address at 1720 - 1055 West Hastings Street, Vancouver, British Columbia, DO HEREBY CERTIFY THAT

1. I am a consulting geological engineer.
2. I am a graduate of the University of British Columbia with B.A.Sc. (1939) and M.A.Sc. (1942) degrees in Geological Engineering.
3. I am a graduate of the University of Toronto with a Ph.D (1952) degree in Economic Geology.
4. I have practised my profession for thirty-five years, mainly in North America, South America and Australia. During the past twenty-five years, the majority of my time has been spent in western North America; it includes seven years (1949-56) as a geologist with the B.C. Department of Mines.
5. For Delhi Pacific Mines Limited, I have personally examined the ALL claim in the Goldstream River area (Revelstoke Mining Division) of British Columbia.
6. I have no interest, direct or indirect, in the ALL claim or the securities of the above company, nor do I expect to acquire any such interest.



W.R. Bacon, Ph.D, P.Eng.

Vancouver, Canada,
June 30, 1976

ADDENDUM

As noted under the 'Introduction' to the foregoing report, soil sampling and a reconnaissance magnetometer survey were being undertaken on the property at the time of the writer's examination. This work was filed for assessment work with the Department of Mines and Petroleum Resources in Victoria, B.C., and, as such, remains 'classified' for a year. Under the circumstances, the writer can only describe the results in general terms.

The copper content of the samples taken ranges from 2 to 140 ppm but 99% of the samples contain less than 55 ppm copper. Based on results from the adjoining PAT group, copper contents of 75 ppm or more are considered to be anomalous. Thus, only one sample on the ALI grid can be considered anomalous. In the writer's opinion, the geochemical survey may be of some value but it was done primarily for the purpose of submitting acceptable work for assessment purposes. A magnetometer survey was run concurrently with the linecutting. The magnetic relief over the grid area is low, as might be expected from a wholly metasedimentary background. The magnetic relief in the NE corner of the grid is 200 gammas and elsewhere it is less than 100 gammas.

The aforementioned surveys have some merit and many prospects in the Cordillera automatically receive magnetic and geochemical surveys in the reconnaissance exploration stage. Their relevance may not be immediately apparent as in the case of the Noranda copper deposit and the magnetometer survey conducted by Noranda on their PAT group. Such surveys, however, do add something to the overall knowledge of the bedrock environment.

QMT

In conclusion, an electrical geophysical method has been recommended by the writer and it may very well indicate a valid drilling target.

W.R. Bacon

August 4, 1976