REPORT ON THE

RECONNAISSANCE GEOLOGICAL AND GEOCHEMICAL SURVEYS

OF THE

GK MINERAL CLAIMS

N.T.S. 105F-14, 105F-15
WHITEHORSE DISTRICT, YUKON TERRITORY

Latitude 61°55'N  Longitude 133°00'W

Work Period August 10 - December 15, 1977

Vancouver, B.C.  June 6, 1978

Graham H. Scott
This report has been examined by the Regional Evaluation Unit and is recommended to the Commissioner to be considered for representation work in the amount of $2,000.00.

[Signature]

Resident General or
[Position]

Considered for representation work under Section 55 (4) of the Crown Mining Act.

[Signature]

[Title]

[Name]

[Position]

[Signature]
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SUMMARY AND CONCLUSIONS

Following the staking of 32 claims to cover bedded massive barite in Devono-Mississippian black shales, preliminary geological mapping and sampling were carried out in order to determine the thickness and extent of the barite horizons.

Two barite horizons separated by a thin band of cherty shale were delineated, their total combined thickness ranging between 50 and 100 feet. The barite beds have been traced for 5 miles along strike.

Initial sampling failed to indicate commercial grades of barite.

Although preliminary sampling of the barite has indicated that it is of no apparent commercial value, the presence of large quantities of barite is significant from the point of view of its related lead-zinc potential. Other Devono-Mississippian lead-zinc deposits in the Selwyn Basin, more notably the Driftpile Creek and TOM-JASON, are barite-hosted or have barite within their immediate environment. In this respect the GK barite occurrences require further exploration for their lead-zinc potential.

INTRODUCTION

The GK 1-32 claims were staked July 30, 1977 to cover a thick bedded barite occurrence within Devono-Mississippian stratigraphy, which equivalent hosts the TOM zinc-lead massive sulphide deposit at Macmillan Pass and the Driftpile Creek occurrences at Gataga Lakes in northern British Columbia. Claim acquisition was largely based upon the presence of major accessible tonnages of potentially economic barite apparent in the deposit.
The claim block received only cursory exploratory attention, consisting of preliminary mapping and sampling of the barite during the 1977 season.

MINERAL CLAIMS

The GK Group is comprised of the following mineral claims:

<table>
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<th>N.T.S.</th>
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<th>GRANT NUMBER</th>
<th>RECORDING DATE</th>
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<td>105F-15</td>
<td>GK 1-8</td>
<td>YA19362-YA19369</td>
<td>August 4, 1977</td>
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<tr>
<td>105F-14</td>
<td>GK 9-32</td>
<td>YA19370-YA19393</td>
<td>August 4, 1977</td>
</tr>
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</table>

LOCATION AND ACCESS

The GK Group comprises 32 contiguous claims in a block 16 claims long by 2 claims wide which extends northwest-southeast along strike in the St. Cyr Range of the Southern Yukon Territory (Fig. 1). The property is reached by helicopter from Ross River 20 miles to the east, or Faro 20 miles to the north-northwest.

PREVIOUS WORK

The area now covered by the GK claims has not, to the knowledge of the author, been the subject of any concerted exploration activity in the past. Known work has however been carried out in nearby related areas as described below.

A property on the northeast side of Mt. Cook three miles to the east of the GK claims has had exploration in connection with lead-zinc bearing veins within Cambrian metasediments. Grab samples from these veins averaged 12.8 oz./ton silver, 22.8% lead and 12.5% zinc. The area was
held as the FOX claims by Atlas Exploration Ltd. in 1966 and more recently as the WIMP claims by Utah Mines Ltd.

The mineralization is pertinent to a discussion of the GK claims as vein systems on the WIMP claims could equate to "stringer-zone" mineralization known to underlie stratiform lead-zinc barite deposits on the TOM property.

The GREW claims contiguous to the east of the GK are held by Amax Exploration Ltd. These claims were staked on the basis of lead-zinc geochemical anomalies discovered in the course of regional exploration by that company. The exploration objective of their program is believed to be lead-zinc mineralization in a tuffaceous horizon within Mississippian volcanics similar to "MM" deposit currently under investigation by Cyprus Anvil Mining Corp. in the nearby Seagull Lake area.

REGIONAL GEOLOGY

The St. Cyr Range is underlain by a southwest-dipping Cambrian to Triassic homoclinal sequence of shales, shaly carbonates, carbonates and minor volcanics. These rocks are truncated by the Tintina Fault on the northeast, and are internally faulted by numerous northwest-trending strikeslip and dipslip faults, some of which may also be thrust faults.

Fig. 2 is a stratigraphic column of the main rock units exposed in the St. Cyr Range.

GEOLOGY

Preliminary geological mapping was carried out on the GK claims utilizing 1 mile scale topographic maps for control. Results of this mapping combined with data obtained from the G.S.C. publications (1977) are shown in Fig. 3 and Fig. 4. Lithologies are not described in detail due to the
Brown weathering, massive, grey, sandy limestone

Rusty brown weathering, highly fractured, grey to black chert and cherty argillite, minor porphyry trachyte dykes

Chert, shale, barite

Canol FM equivalent

Pale green volcanics

Buff shales and phyllite

Crinoidal limestone
preliminary nature of the data.

The barite horizons are within Devono-Mississippian black shale and chert (Fig. 5) believed to be time equivalent to the Canol Formation host to the TOM zinc-lead sulphide deposit mentioned previously, which is also associated with bedded barite. On the GK claims mapping revealed that the combined thickness of two barite horizons makes up 50 to 100 feet of a 200-foot thick section of black siliceous shale which dips steeply to the south. The barite can be traced in outcrop above the 5000-foot elevation for approximately 5 miles, however the thickest sections appear in a zone 2 miles long in the southeastern portion of the claim group. Fig. 6 represents a cross-section taken from this southeastern zone.

BARITE SAMPLING

The barite horizons on the GK claim group have not to date been systematically sampled to determine the specifications of barite occurring on the property.

Two large specimens from beds of the most apparently pure barite were however selected and assayed. Results of these assays are summarized below.

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>IRON As Fe</th>
<th>BARIUM as BaSO₄</th>
<th>SILICA as SiO₂</th>
<th>CALCIUM as Ca</th>
<th>SPECIFIC GRAVITY</th>
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<td>1</td>
<td>.15</td>
<td>76.32</td>
<td>22.42</td>
<td>.38</td>
<td>3.86</td>
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<td>2</td>
<td>.20</td>
<td>75.84</td>
<td>22.96</td>
<td>.41</td>
<td>3.82</td>
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These results would indicate the barite deposits on the GK claims do not meet minimum A.P.I. specifications as a drilling mud additive.
MT. COOK BARITE SHOWING
(View Southeast)

NOTE: For location, see Fig. 3

WELCOME NORTH MINES LTD.
GETTY MINING PACIFIC LTD.
WOODSIDE PROJECT
G.K. CLAIMS

GEOLOGIC CROSS-SECTION B-B'
Further more representative check samples throughout the barite horizons should be taken to determine if specific sections may meet commercial standards.