

GEOLOGICAL, GEOCHEMICAL REPORT
on the

CAN 1-56 MINERAL CLAIMS

No's YA21333 - 21388

MAP SHEET 105B/4E

Lat. 60°13'N; Long. 131°32'W.

WATSON LAKE M.D. YUKON



by

J.E. CHARTIER

J.C. STEPHEN

Work Dates

June 30 - July 30, 1977

May 1 - 4, 1978

0 1 2 3 4

This report has been
Geological Engineering
recommended to the Board
and as representative of

\$ 4300.00

J A Main
Acting Resident Engineer
Resident Mining Engineer

Considered as representative report under
Section 53 (4) Yukon Quality Assurance Act.

B. R. BAXTER
Supervising Mining Recorder

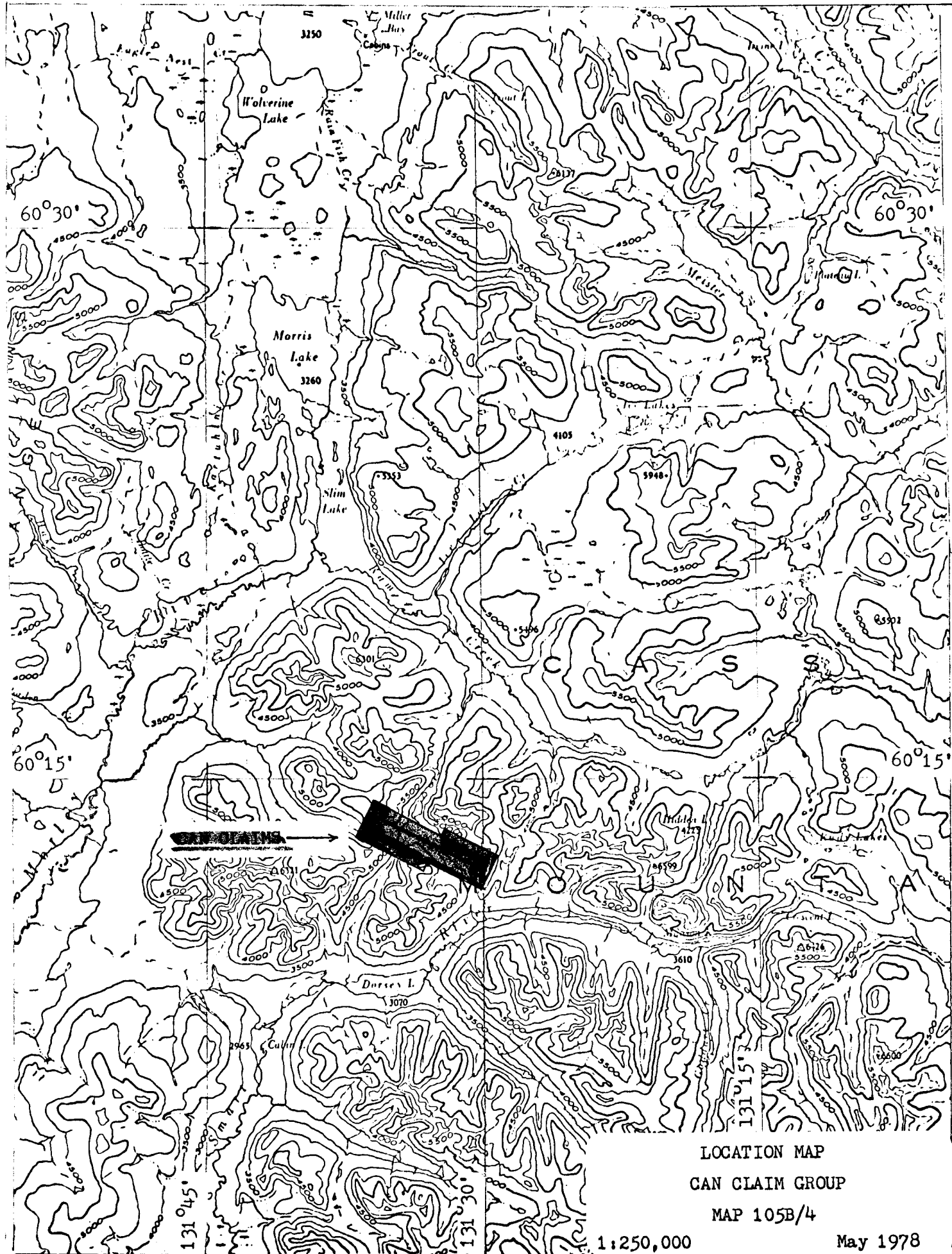
[Signature]
Commissioner of

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LOCATION MAP
CAN CLAIM GROUP
MAP 105B/4

1:250,000

May 1978

GEOLOGICAL, GEOCHEMICAL SURVEY

on the

CAN 1-56 MINERAL CLAIMS

MAP 105B/4 YUKON

INTRODUCTION

The CAN 1-56 claims were staked to cover a magnetite, scheelite bearing skarn. Exposures of limestone and a previously known occurrence of copper mineralization were included in the claim group.

The scheelite bearing skarn was discovered by detailed prospecting to follow up on a stream silt anomaly, with an anomalous high of 125 ppm tungsten in one sample. Geological mapping and prospecting were carried out by a two man crew throughout most of June.

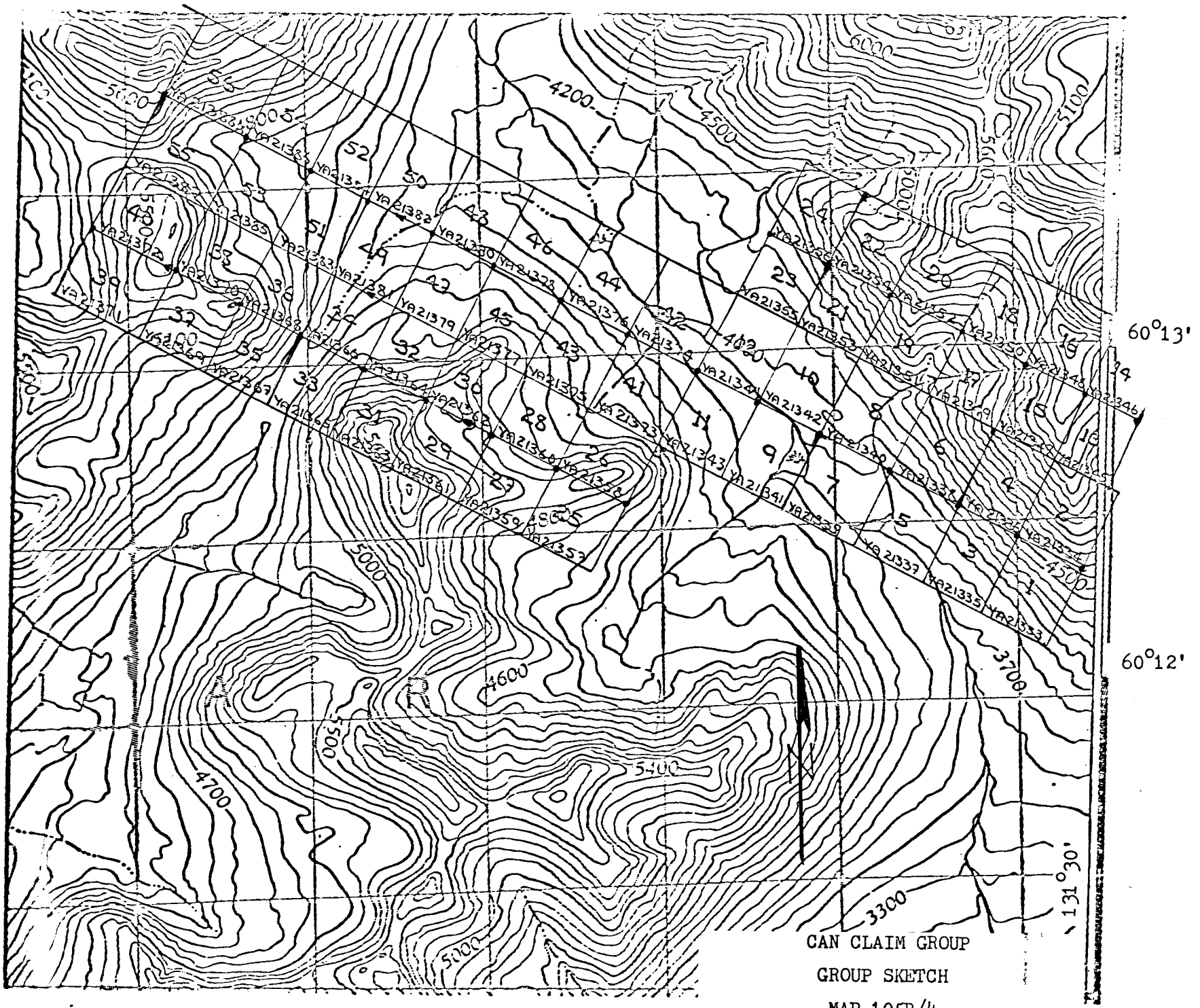
Research on tin was conducted during the winter of 1977 which included analysis of some stream silts for tin content. Anomalous results were obtained near the west end of the claim group and further investigation is warranted.

A magnetometer survey is recommended to define the eastward extension of the magnetite skarn.

LIST OF CLAIMS

This report is filed as assessment work on the following mineral claims.

<u>CLAIM NUMBERS</u>	<u>GRANT NUMBERS</u>	<u>CLAIM HOLDER</u>	<u>CLAIMS HELD FOR</u>
CAN 6 & 8	YA21338 & 21340	D.J. Douglas	D.C. SYNDICATE
9 - 16	YA21341 - 21348	J.E. Chartier	"
17 - 22	YA21349 - 21354	J.R. Candy	"
26, 28, 30, 32	YA21358, 360, 362, 364	D. Hemsworth	"
34 - 40	YA21366 - 21372	S.J. Woywitka	"
41 - 48	YA21373 - 21380	D.B. Reid	"
49 - 56	YA21381 - 21388	V.A. Douglas	"



CAN CLAIM GROUP
 GROUP SKETCH
 MAP 105B/4

1" = 1/2 mile

May 1978

LOCATION AND ACCESS

The claims are located at latitude $60^{\circ}13'N$, and longitude $131^{\circ}32'W$. approximately 18 miles northwest of Swift River, Y.T.

The claim group trends northwest along a large valley which the claims encompass. The valley floor is at 3800' elevation at the south end of the group. The ridges on opposite sides of the valley, as well as at the northwest end of the valley, all reach a maximum elevation of approximately 5700' within the area of the claims.

The claim group is accessible only by helicopter at a distance of 18 miles northwest of Swift River.

PROGRAM

The first showing was found on June 23, 1977 by J. Chartier and J. Candy, while tracing a stream silt anomaly. Staking was done on the following two days, June 24 and 25, 1977.

On June 30 Bruce Reid and J. Chartier mapped in the vicinity of the showing and attempted to determine the extent of the skarn.

July 6, 1977 J. Chartier and J. Candy moved a camp into the claim group. From then until July 30, 1977, with the exception of July 15 and 16, was spent mapping, prospecting and silt sampling from two camps on the claim group.

Compilation of data was completed in Vancouver after the end of the prospecting season. This compilation included determination of tin content in some of the silt samples taken prior to staking.

GEOLOGY

GENERAL

The sedimentary rock units of the CAN claim group are indicated to be of Upper Devonian and Lower Mississippian age (W.H. Poole). The sediments include limestone, cherty argillite and lapilli tuff. The limestone is usually sparry, white, with minor zones of silicification. The tuff grades imperceptibly into the argillite.

The area has been intruded by a Cretaceous or Tertiary (W.H. Poole) quartz monzonite batholith, the Seagull batholith. In several areas within the claim group this intrusive is in contact with the limestone, usually resulting in skarn within the limestone at or near the contact.

Several of the skarn zones are relatively continuous but consist primarily of barren actinolite, garnet skarn. It is not certain whether the barren skarn is in fact continuous with the mineralized (tin and tungsten) skarn as indicated at the boundary of CAN 15 and 17.

In the vicinity of the skarn on CAN 15, 17 and 19 the contact of the intrusive appears to be steep. The elevation of the intrusive contact on the north side of the valley is from 4400' to 4800' and its apparently straight trend further indicates a steep dip

Remnants of sediments remain at elevations of 4600' to 5500' to the south of the main valley. The roof of the batholith was probably not much above 5800' at any point in the area.

STRATIGRAPHY

UNIT 1 - SCHEELITE BEARING SKARN

Three occurrences of this unit have been mapped on the property at points 'A', 'C' and 'D'. Large quantities of float indicate that it also occurs in the vicinity of point 'B'.

Each occurrence has been found within a limestone unit, either directly on, or very close to the intrusive contact. The zone is usually less than one foot in width, but at point 'A' it reaches about 8 feet in width.

The skarn is usually epidote or actinolite with scheelite, and with varying amounts of magnetite, garnet, fluorite, sphalerite, azurite and malachite.

UNIT 2 - ACTINOLITE, EPIDOTE, GARNET SKARN

This skarn is very similar in appearance and occurrence to Unit 1. It is probably slightly more widespread and may occur slightly further from the contact.

UNIT 3 - LAPILLI TUFF

There is only one occurrence of tuff on the property. It has a very gradational contact with the argillite. It is a dark, massive rock with small subhedral lapilli and a trace of flow banding. It sometimes contains a trace of pyrrhotite.

UNIT 4 - ARGILLITE

This is the most widespread sediment on the property. It is fine grained, usually light to dark brown, often exhibiting iron stain and containing traces of pyrrhotite. There are no traces of skarn or scheelite mineralization directly associated with this unit.

UNIT 5 - LIMESTONE

There are several outcrops of limestone on the claim group ranging from over 50 feet thick down to small lenses in the argillite. The limestone is usually sparry and white, weathering to dark grey. The limestone always contains minor interbeds of silicified limestone and argillite. Often there are minor skarns, usually garnetiferous, at the contact of these argillaceous zones.

UNIT 6 - QUARTZ MONZONITE

The quartz monzonite, which is part of the Cretaceous

Seagull batholith (W.H. Poole) underlies the area. It appears fairly uniform throughout the claim group. It is generally medium to coarse grained and equigranular. Near the contacts it is sometimes somewhat finer grained.

MINERALIZATION

The initial discovery of mineralized magnetite skarn was made at Point 'A'. The zone is perhaps up to 10 feet wide at the eastern end where it disappears under overburden. The zone pinches out completely within 100 feet to the west. Faulting is indicated near this west termination although no disruption of the granite contact was found. It is assumed the limestone at Point 'C' is the westward continuation of this horizon.

Specimens of magnetite skarn from Point 'A' assayed at 20,000 ppm tin. Some of this tin is thought to be contained in the mineral hulsite. A random sample of mixed garnetiferous and magnetite skarn ran 400 ppm zinc, >800 ppm tungsten and 1700 ppm tin. Three sets of chip samples taken in the vicinity of Point 'A' assayed:-

<u>SAMPLE</u>	<u>WIDTH</u>	<u>ASSAY</u>
CAN W #1	2'	140 ppm Zn; 40 ppm W.
CAN W #2	2.5'	2.26% Zn; <0.01%WO ₃
CAN E #1	2'	0.01% Zn; 0.03%WO ₃
#2	2'	0.03% Zn; 0.20%WO ₃
#3	2'	0.02% Zn; 0.16%WO ₃

} - 6'

At Point 'B' scheelite bearing skarn float was located which indicates the position of the skarn as shown on the map. No assays have been made here.

At Point 'C' bornite, chalcopyrite and scheelite were found. This zone is in an area of thicker sediments and relatively extensive skarn development. The amount of mineralization located during mapping was not economically significant.

There is a fairly continuous skarn in the vicinity of point "D", though it only ranges from 4" to 1' in width. It is quite intense at the eastern end, containing magnetite, bornite, malachite, garnet and epidoté. There is also considerable skarn float, in this area, which contains fluorite and traces of scheelite. Following this skarn to the west it continuously becomes less intense until it disappears.

At the north east corner of claim # 32 at the edge of a pond there are two small limestone outcrops, both weakly skarned at their eastern end. The skarn contain trace amounts of azurite and malachite, and small disseminated pyrrhotite blebs.

On a cliff face, at the northern corner of claim # 35 there is a very distinct dark blue azurite stain with traces of malachite though no other mineralization was found in the immediate area. Approximately 150' above it on the top of the ridge there is a 2' thick bed of green garnet (probably grossularite) skarn.

About 500 feet west of claim # 56 on the ridge top, on the

contact of a 20' thick limestone bed with the argillite there is a strongly skarned zone containing abundant green fluorite, magnetite, tremolite and traces of sphalerite. The ruggedness of the terrain made prospecting very tedious in this area, but the skarn seemed to weaken quickly to the west.

GEOCHEMISTRY

The area of the claims was well covered by stream geochemical prospecting during the 1976 field season. The follow up of those geochemical results lead to finding the first showing.

During the 1977 seasons work three chip samples were taken across two sections of the showing at Point 'A', and were run for zinc and tungsten as listed under "Mineralization" above.

Twenty-six of the 1976 silt samples were analysed for tin during April 1978. The following two histograms show distribution of tungsten and tin values obtained from samples taken on the claim group or from drainage closely associated with the claim group.

The tungsten histogram, Figure III, indicates the majority of samples contain 15 ppm tungsten or less. These might be considered background values if only this diagram were considered. The magnetite - scheelite showing was located due to persistent follow up of the single high value of 125 ppm tungsten. If that sample had not been taken it is evident the showings would be missed unless values in the order of 10 ppm were considered significant.

The tin values shown on Figure IV indicate a background value of 3 to 20 ppm tin. Values above 20 ppm probably deserve investigation and the value of 200 ppm may be considered highly anomalous for the area.

Minor copper and zinc mineralization is indicated by anomalous values in some streams. No showings of economic significance were located.

HISTOGRAM OF TUNGSTEN VALUES (PPM) FOR SIXTY TWO SILT SAMPLES
FROM THE VICINITY OF THE CAN CLAIMS

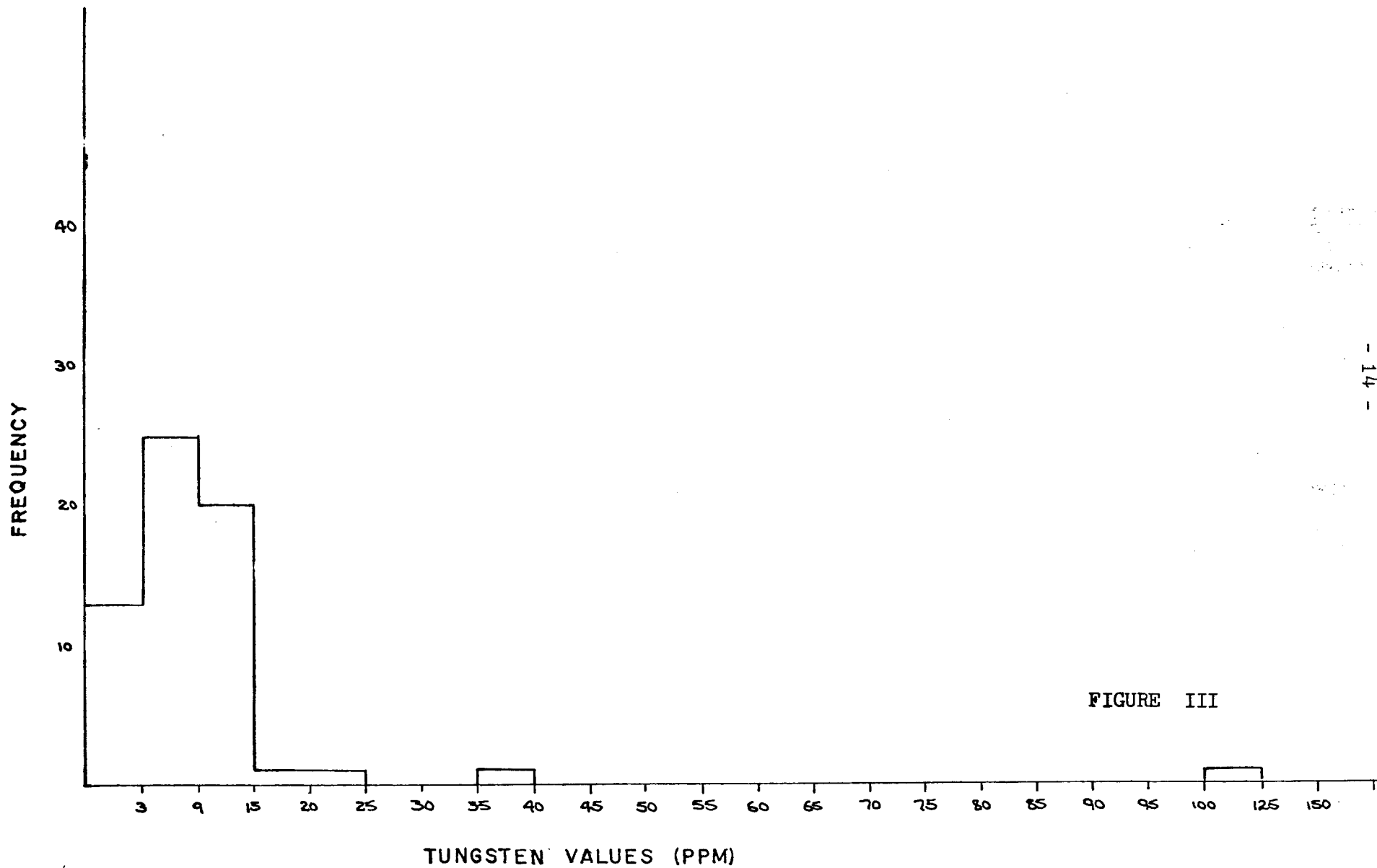


FIGURE III

HISTOGRAM OF TIN VALUES (PPM) FOR TWENTY EIGHT SILT SAMPLES
FROM THE VICINITY OF THE CAN CLAIMS

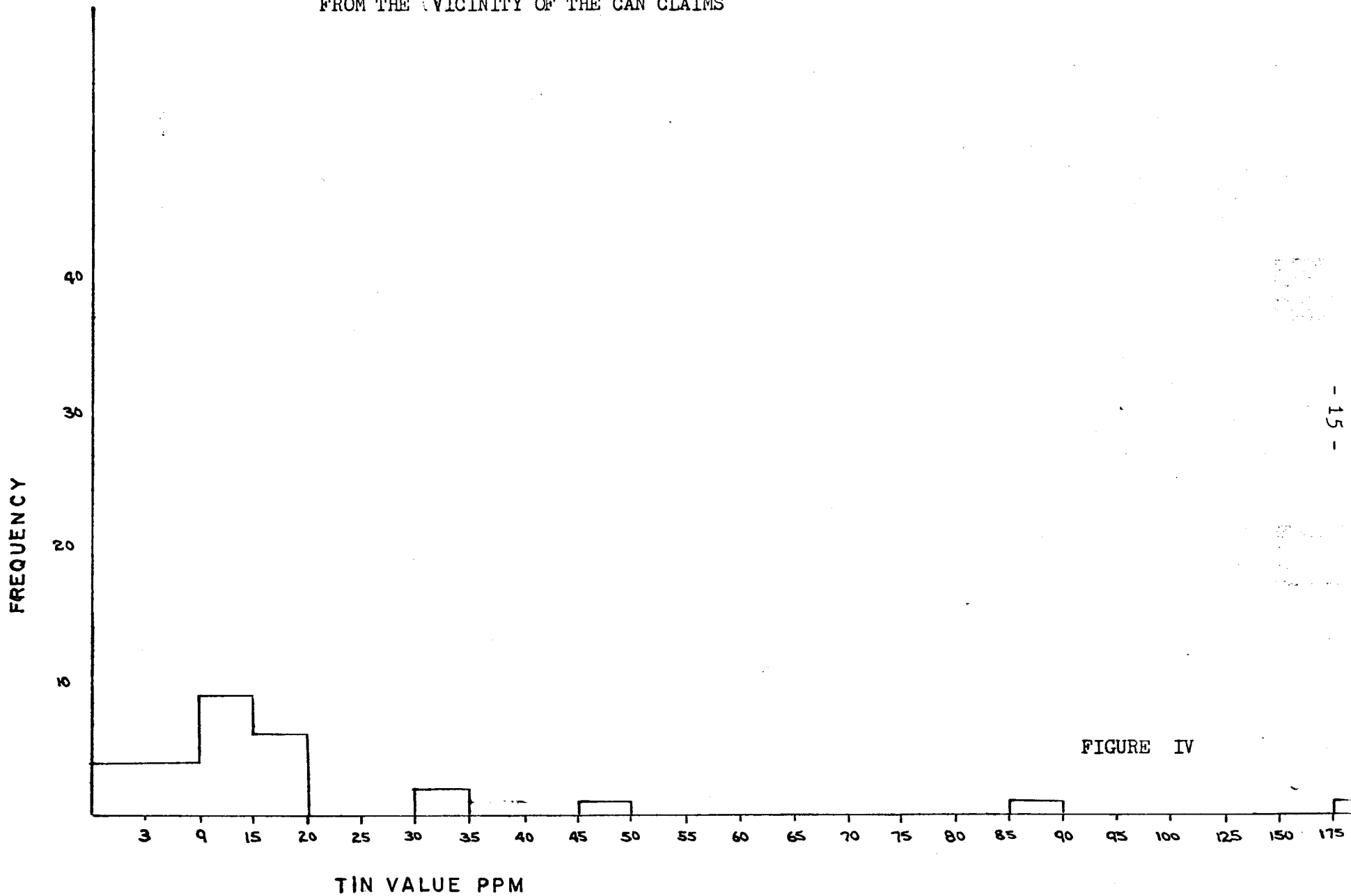


FIGURE IV

PROPOSED 1978 PROGRAM

Two steps should be taken to further evaluate the potential of this property.

(A) There has been little indication of extensive skarn development but the area between Point 'A' and Point 'B' may have some potential.

The skarn at Point "A", and much of the skarn float between 'A' and 'B' has a high magnetite content. This suggests that a magnetometer survey conducted between the two showings would be of value to indicate the extent of the skarn.

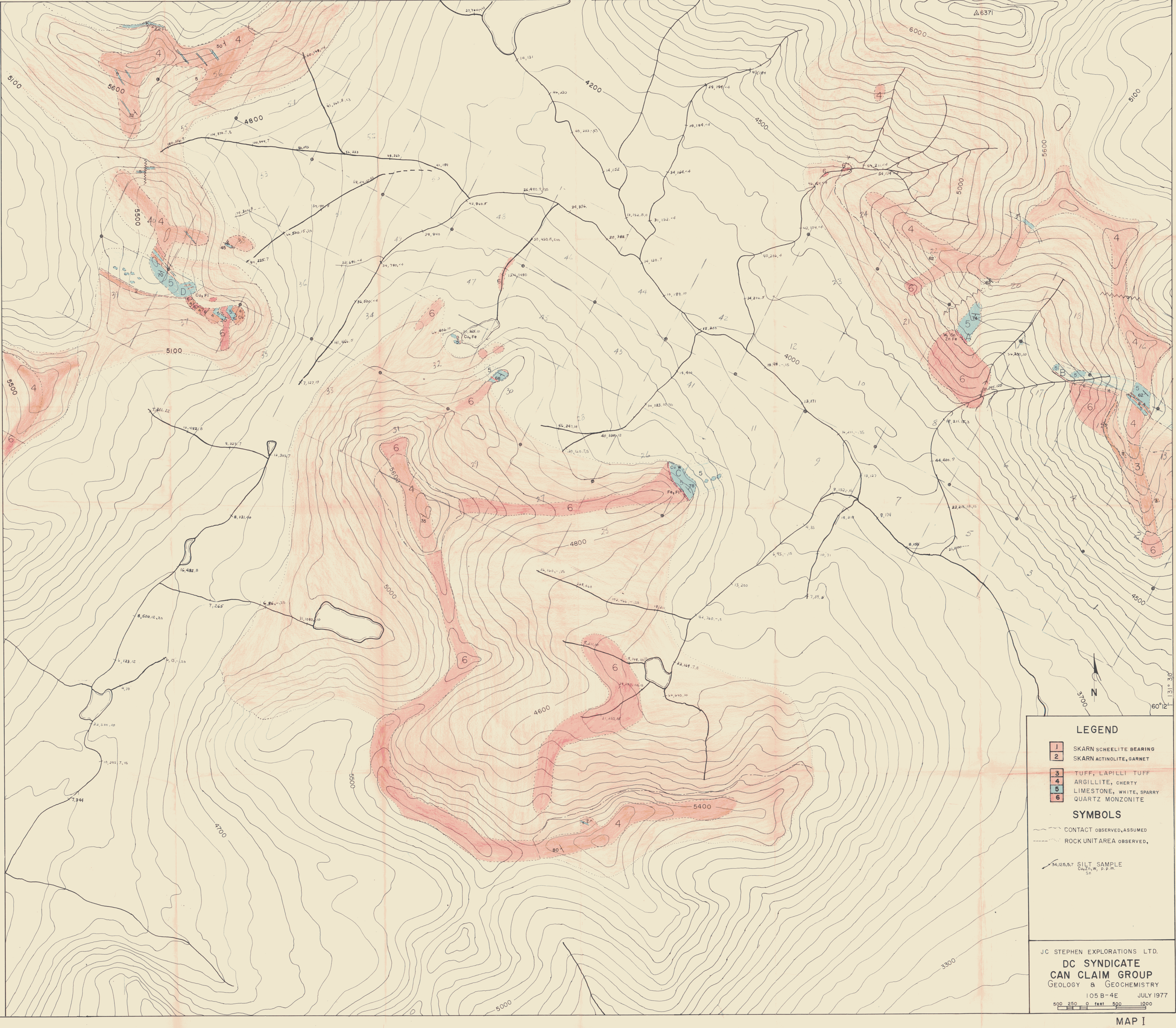
(B) No prospecting has been done on the property since the presence of tin was determined in rock samples and in stream sediments. The southern and western portions of the property, with tin values of 35 to 200 ppm, require additional investigation. Attention was focused on the sediments for skarn development but more attention should be paid to possible stockworks or greisen zones in the intrusive body proper.

A program of magnetometer surveying on claims CAN 15 - 20 and more detailed mapping of drainage areas anomalous for tin is recommended.

Respectfully submitted,



J.E. Chartier, Geologist



LEGEND

	SKARN SCHEELITE BEARING
	SKARN ACTINOLITE, GARNET
	TUFF, LAPILLI TUFF
	ARGILLITE, CHERT
	LIMESTONE, WHITE, SPARRY
	QUARTZ MONZONITE

SYMBOLS

	CONTACT OBSERVED, ASSUMED
	ROCK UNIT AREA OBSERVED,
	SILT SAMPLE

34, 125, 5, 7
Cu, Zn, W, P, P. M.
31

JC STEPHEN EXPLORATIONS LTD.
DC SYNDICATE
CAN CLAIM GROUP
 GEOLOGY & GEOCHEMISTRY
 105 B-4E JULY 1977
 500 250 0 feet 500 1000

MAP I