SURVEY AND SAMPLING REPORT

on the

CAN 29 - 40; 45 - 46 MINERAL CLAIMS

YA 21361 - 372; YA 21377 - 388

MAP SHEET 105B/4

Latitude 60°13'N; Longitude 131°32'W

WATSON LAKE MINING DIVISION

YUKON

by

J.C. STEPHEN

Work Done: July and August 1979 March 1980

By J.C. Stephen Explorations Ltd.

Funded by: D.C. Syndicate

090594

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of $ Representation Work $2400.00

J a Morin

Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

D. R. BAXTER
Supervising Mining Recorder

for Commissioner of Yukon Territory

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LIST OF ILLUSTRATIONS

SURVEY AND SAMPLING REPORT

CAN 29 - 40; 45 - 56

SUMMARY

This report updates information supplied in "Geological, Geochemical Report on the CAN 1 - 56 Mineral Claims" dated May 1978 and "Geological, Geochemical Geophysical Report on the CAN 1 - 56 Mineral Claims" dated March 1979.

Previous work had resulted in discovery of tin bearing skarn zones and 1979 work was intended to sample these zones and carry out detailed mapping to indicate the extent of mineralization.

Work was severely hampered due to a shortage of experienced personnel. Additional work will have to be done in 1980 to extend the area of detailed mapping and define individual tin bearing zones.

The 1979 program succeeded in outlining tin bearing skarns with an average grade of 0.22% tin along a strike length of 1200 feet and with a possible average cumulative thickness of 31 feet. Average grade of the highest assays on each section indicates a selected grade of about 0.44% tin.

LOCATION AND ACCESS

The CAN claims are located 18 miles (30 km) north west of Swift River as shown in Figure I. Elevations on the claim group range from 3800 feet to 5700 feet.

Several small lakes and ponds occur on or close to the claims. Drainage is to the southeast to Smart River. During dry spells in late summer water may be relatively scarce in the area covered by these claims.

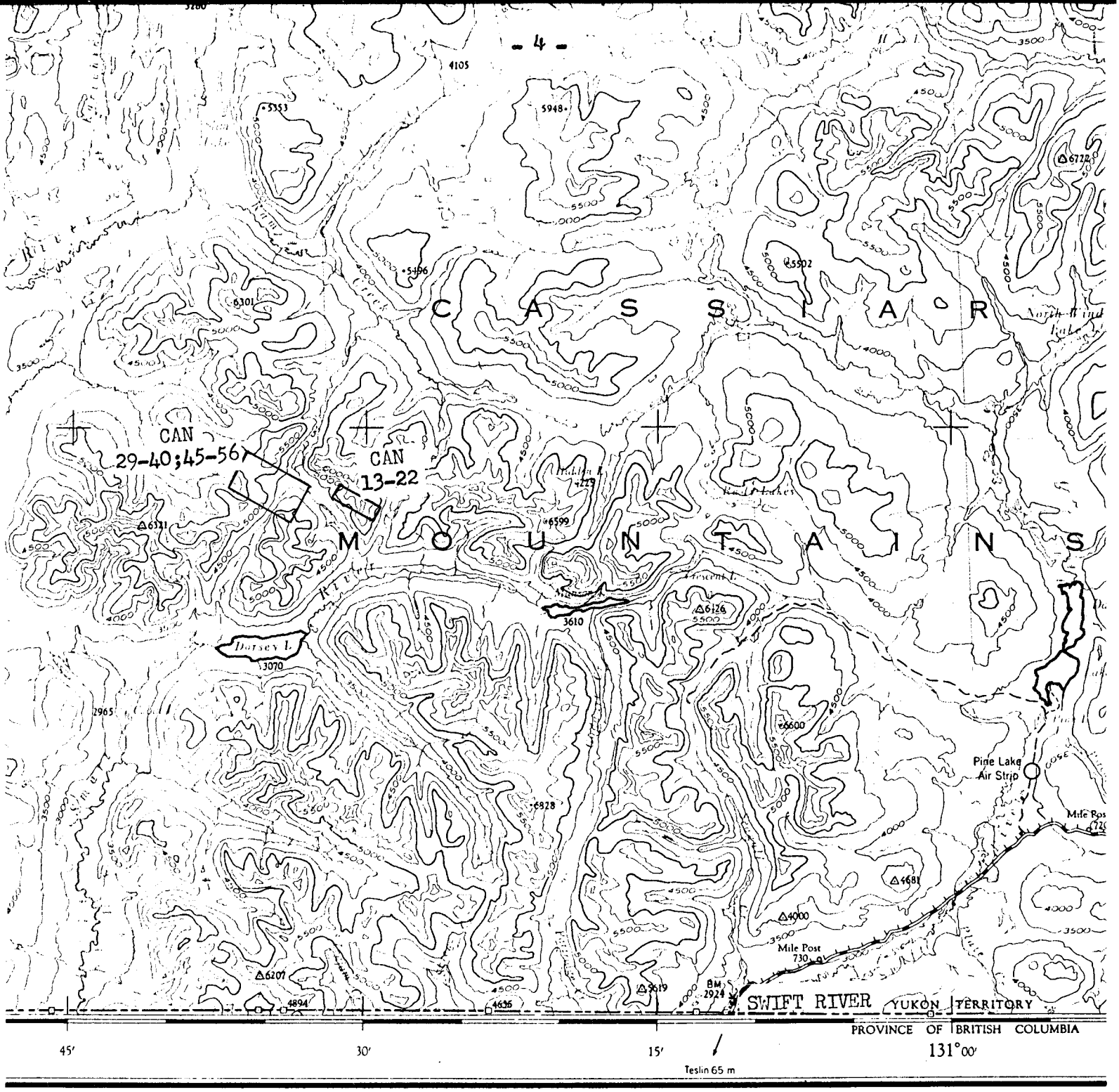
Access has been entirely by helicopter from Swift River or from the Pine Lake airstrip.

REGISTER OF CLAIMS

Name	Record Number	Record Date
CAN 29 - 40	YA 21361 - 21372	July 15, 1977
CAN 45 - 56	YA 21377 - 21388	July 15, 1977

Claim outlines and grouping are illustrated in Figure II. Work was conducted on CAN 35 - 40.

Grouping	No. of Claims	Work Done On	Valuation
CAN 29 - 37 45 - 51	16	CAN 35 - 37	$ 1,600
CAN 38 - 40 52 - 56	8	CAN 38 - 40	$ 800
Total (See Statement of Expenditure)			$ 2,400



Surveys by the Topographical Survey in 1947. Compiled by the Topographical Survey in 1950 from air photographs taken in 1948. Lithographed and printed by the Army Survey Est. R.C.E., Dept. of National Defence, 1952.

Universal Transverse Mercator Projection.

WOLF LAK

YUKON TERRITORY

Scale 1:250,000

1 Inch to 4 Miles Approximately

Miles 5 0 5 10

Kilometres 5 0 5 10 15

REFERENCE

Hard Surface, All Weather	More than 2 Lanes / 2 Lanes or More	2 Lanes / Route No 2 / Less than 2 Lanes	Less than 2 Lanes / Dry Weather
Loose Surface, All Weather			
Wagon, etc	Cart Track	Trail or Portage	
ary, International		Boundary Mon.	□
ary, Provincial		Survey Mon	○
ary, County or District		Bench Mark	BM 1514
an Reserves, Park		Triangulation Sta.	△
		Spot Elevation (in feet)	4590
lectric Power Line		Telephone, Trunk Route	
, Standard Gauge	Multiple Track / Station	Abandoned	Single Track / Stop

LOCATION MAP
CAN CLAIM GROUP
MAP 105B/4
1:250,000 March 1980
FIGURE I

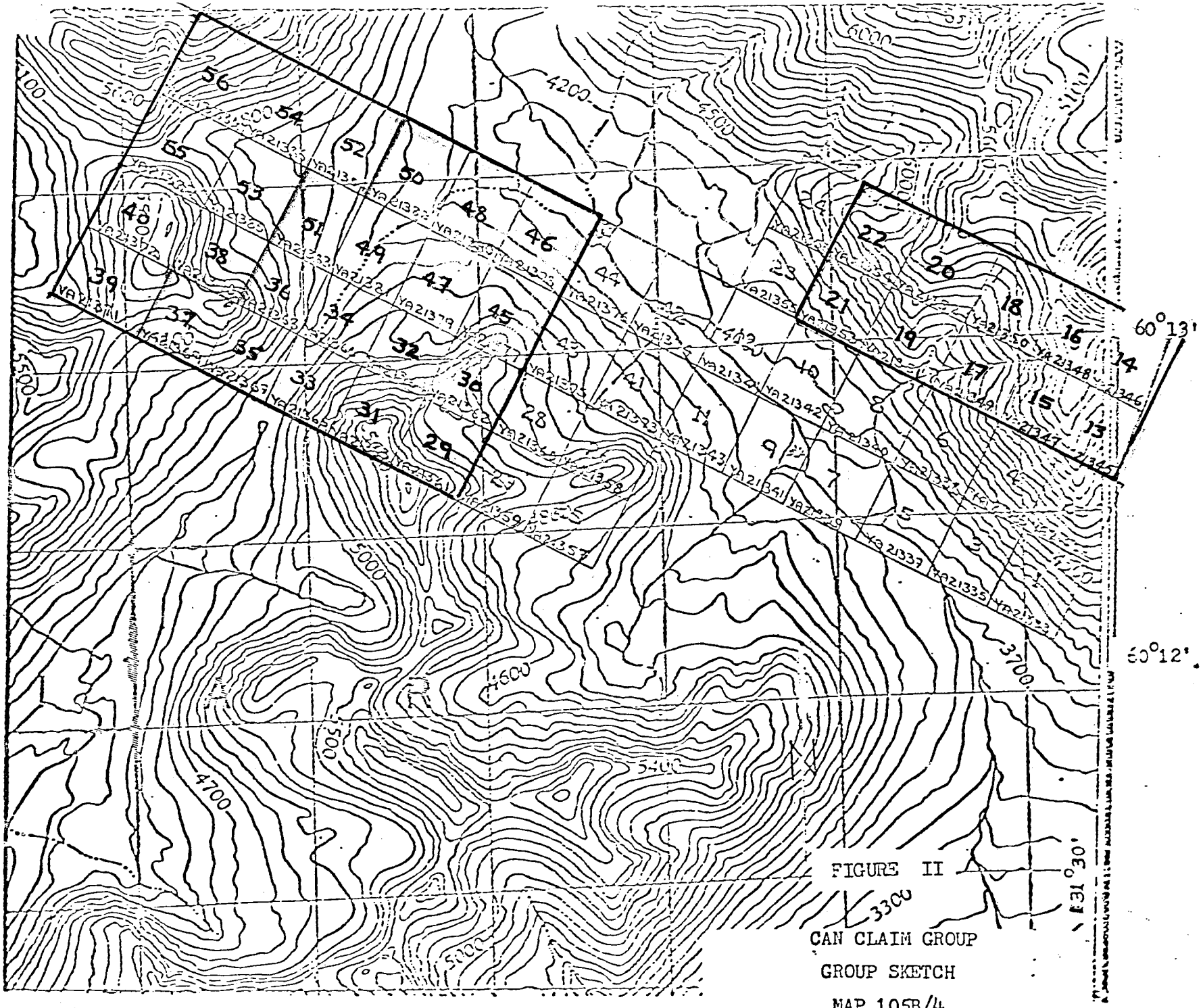


FIGURE II

CAN CLAIM GROUP

GROUP SKETCH

MAP 105B/4

1979 PROCEDURE

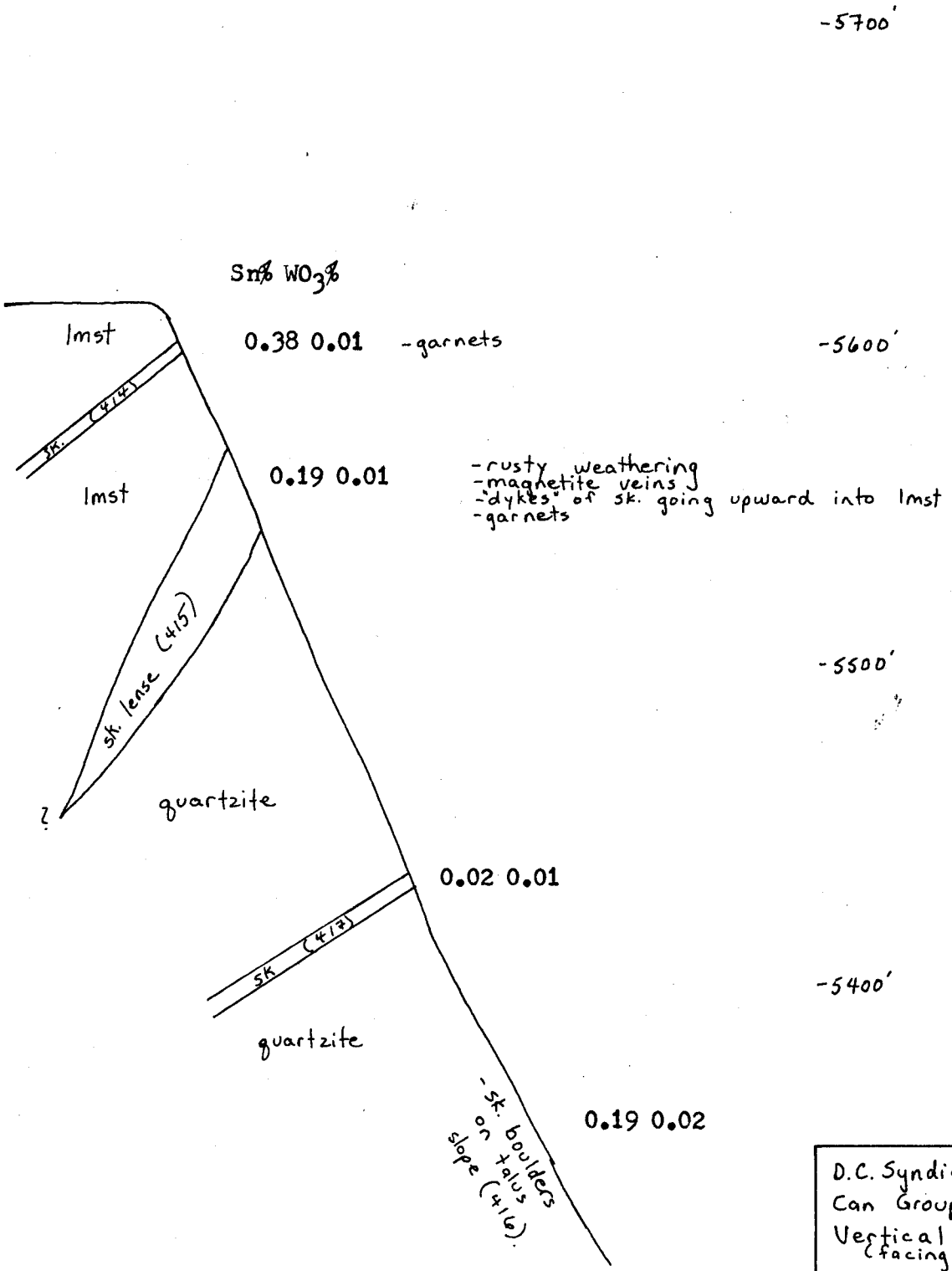
ROCK CHIP SAMPLING

Skarn outcrops located in 1978 were reported in our report on these claims dated March 1979. Rock geochemistry results on eleven specimens (p. 10) indicated significant tin content but no sampling suitable for assay purposes had been done.

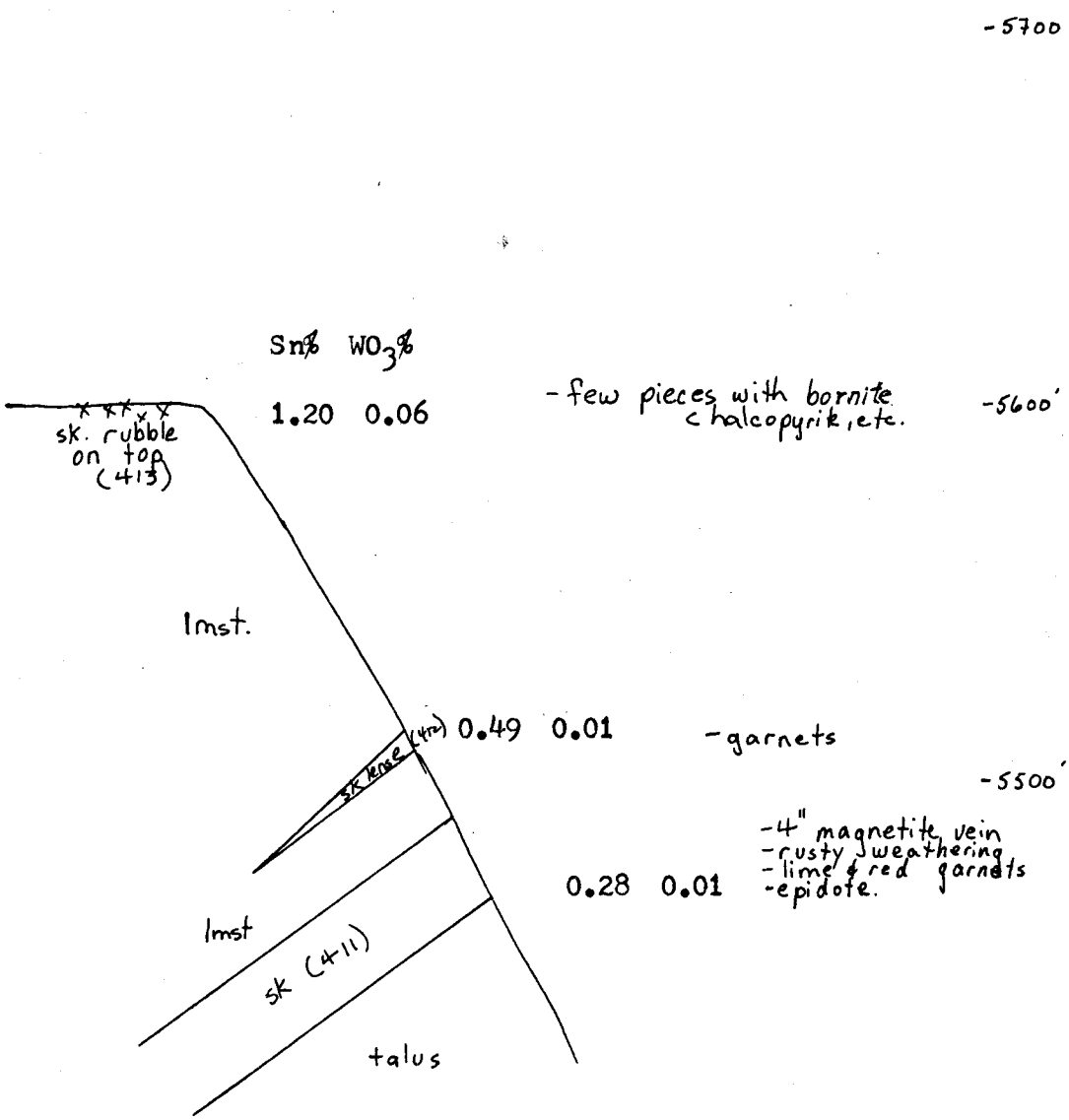
In 1979 the first priority was to sample the skarn horizons on a systematic basis for assay. A tape and compass base line was marked out along the top of the main skarn ridge (photo page 2 March 1979 report) and sample lines were run down over the steep north face of the ridge at 100 foot intervals. Due to the difficulty of working on the steep exposures the crew did not measure each section but relied on altimeter readings to locate the relative positions of skarn horizons.

Each separate skarn horizon was chip sampled across its width along sample lines painted on the rock face. Additional chip samples were taken from skarn rubble on the top of the ridge, which may represent 'near' outcrop, and from talus boulders near the base of the slope.

Assay results are shown in diagrammatic fashion on the following pages. Relative positions of rock units are from altimeter readings.



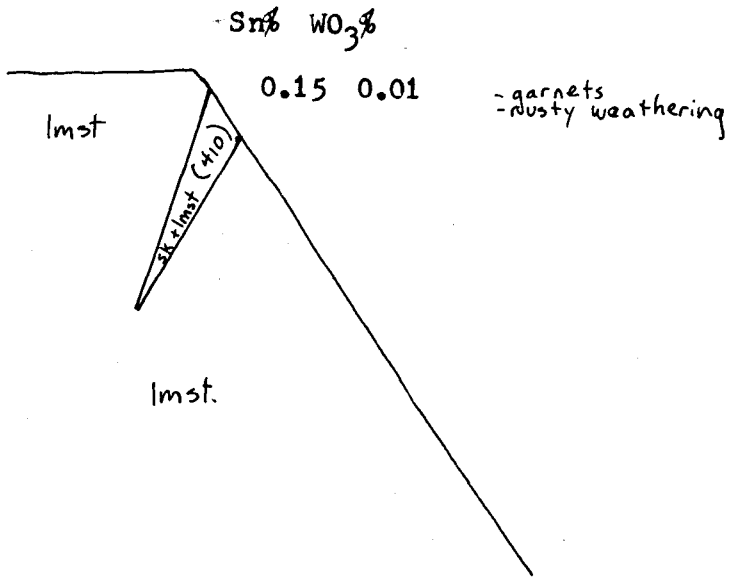
D.C. Syndicate
Can Group
Vertical Section *13
(facing west)
B.L. 1B+00E
Scale 1" = 50'
July 1979



D.C. Syndicate
Can Group
Vertical Section #12
(facing west)
B.L. 19+00E
Scale 1" = 50'
July 1979

-5700'

-5600'



-5500'

-5400'

D.C. Syndicate
Can Group
Vertical Section #11
(facing west)
B.L. 20+00 E
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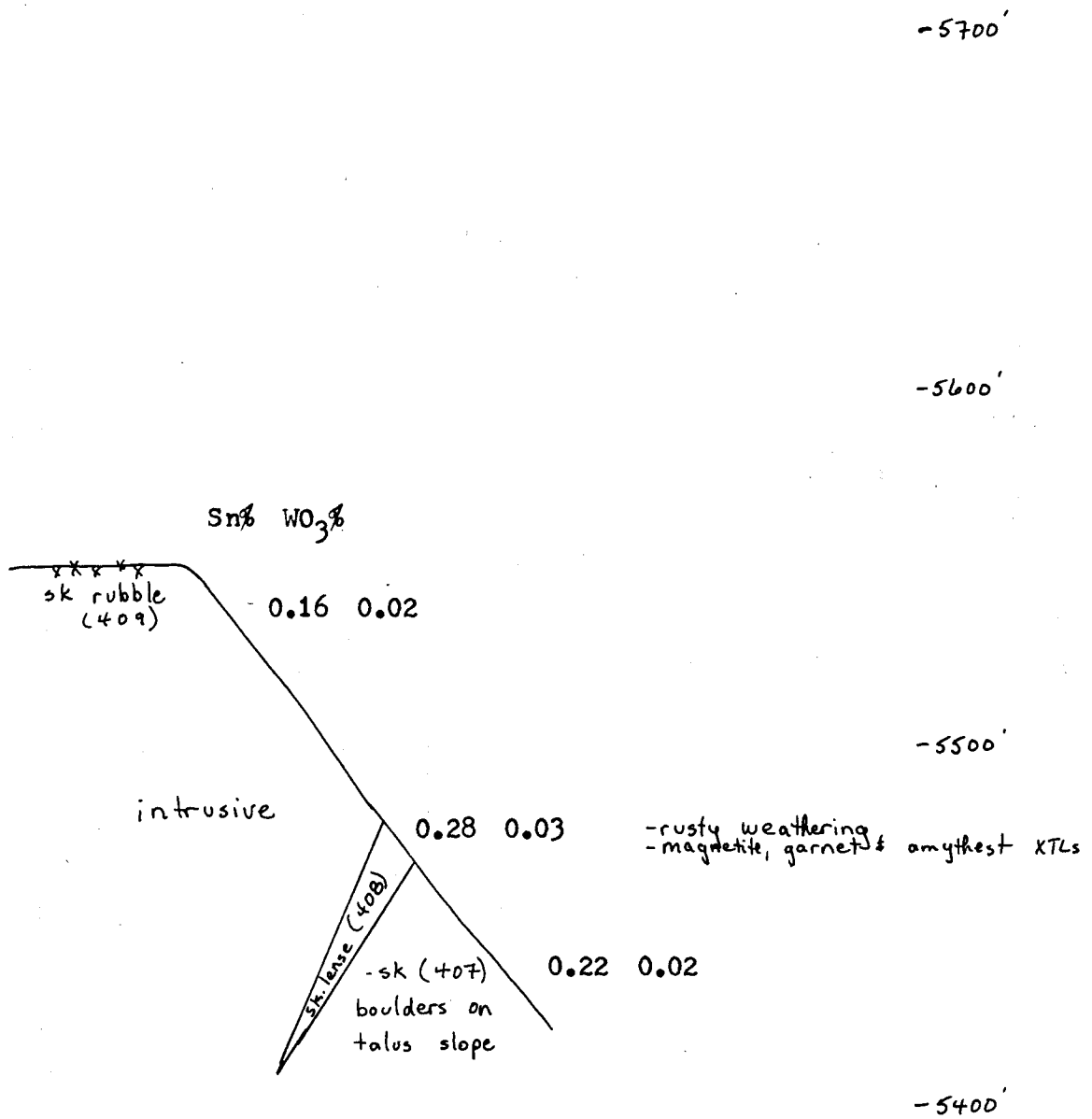
July 1979

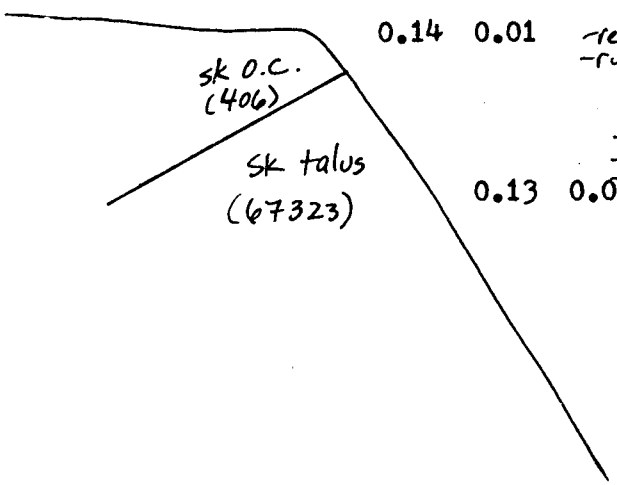


D.C. Syndicate
Can Group
Vertical Section #10
(facing southwest)
B.L. 21+00E
Scale 1" = 50'
July 1979

-5700'

-5600'

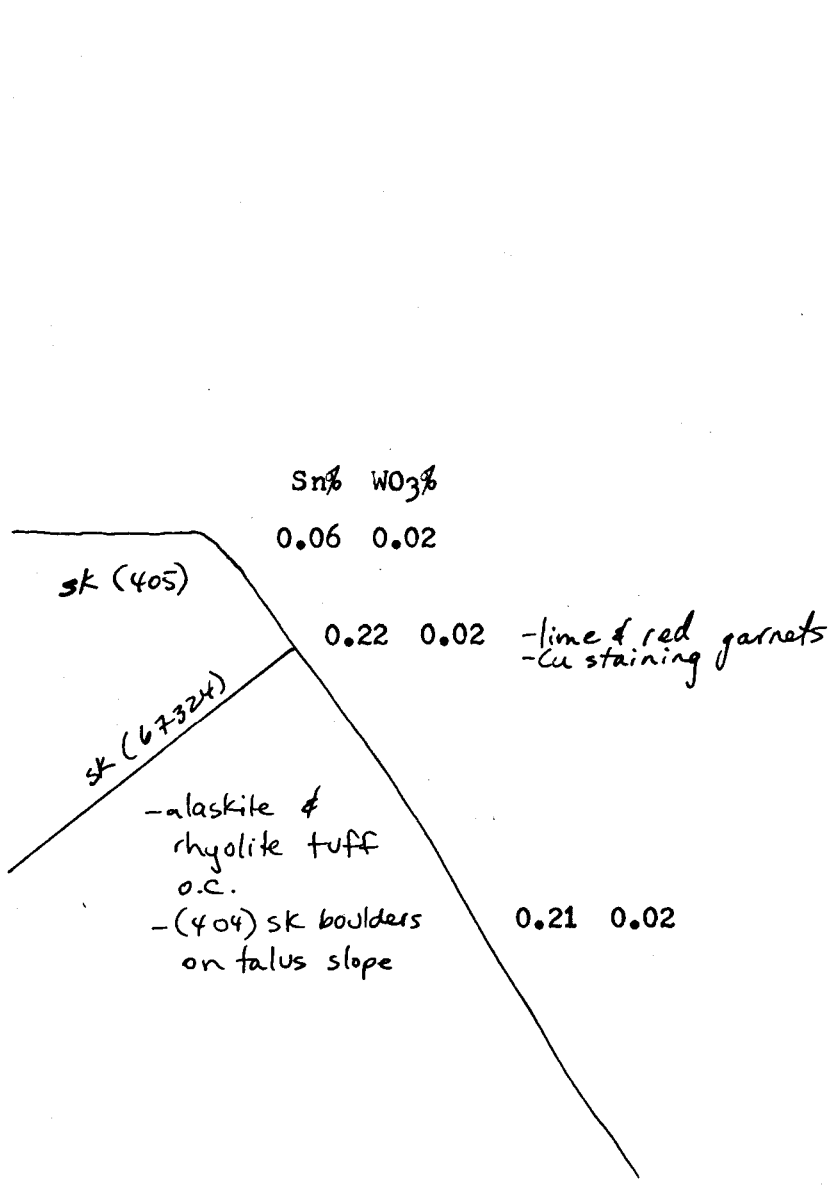
Sn%	WO_3%	
0.14	0.01	-red garnets -rusty weathering
0.13	0.01	-rusty stained -Mn? staining -lime & rusty garnets



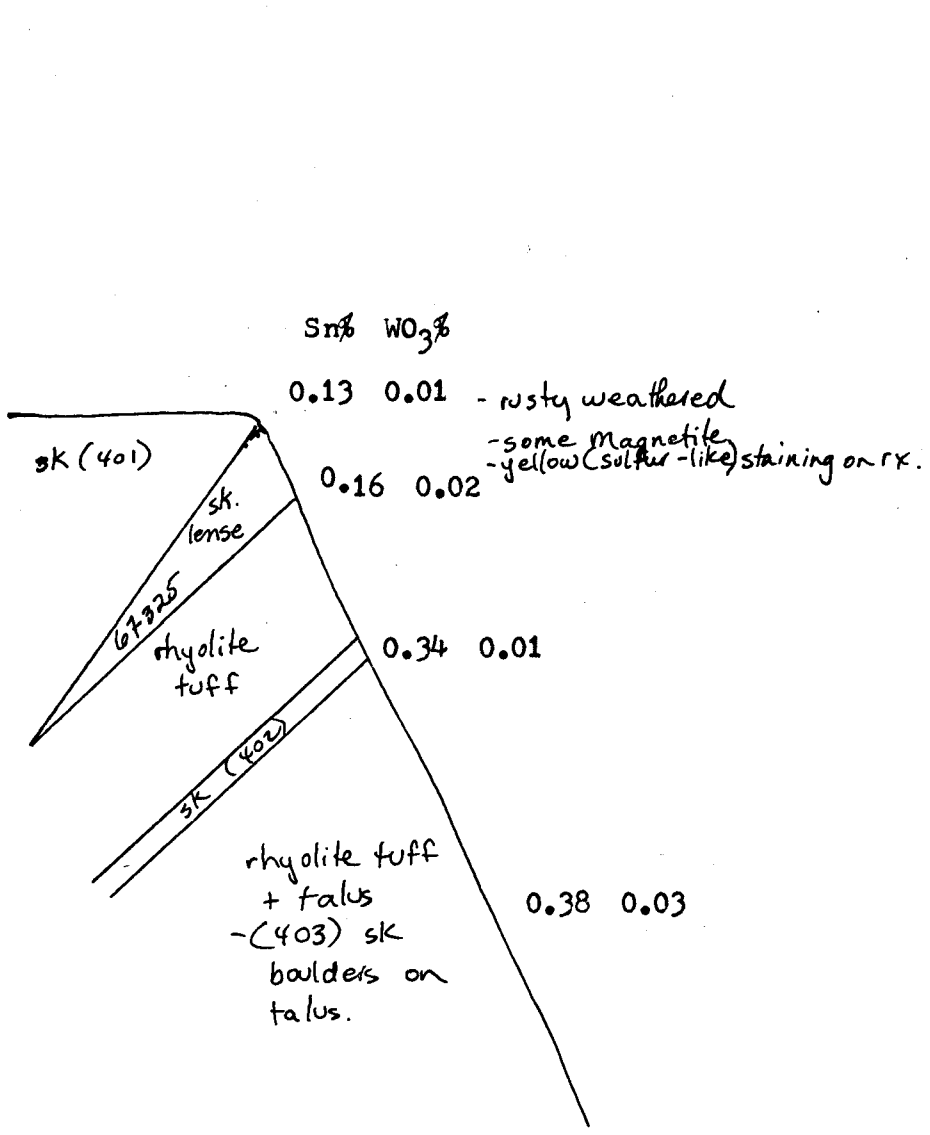
-5500'

-5400'

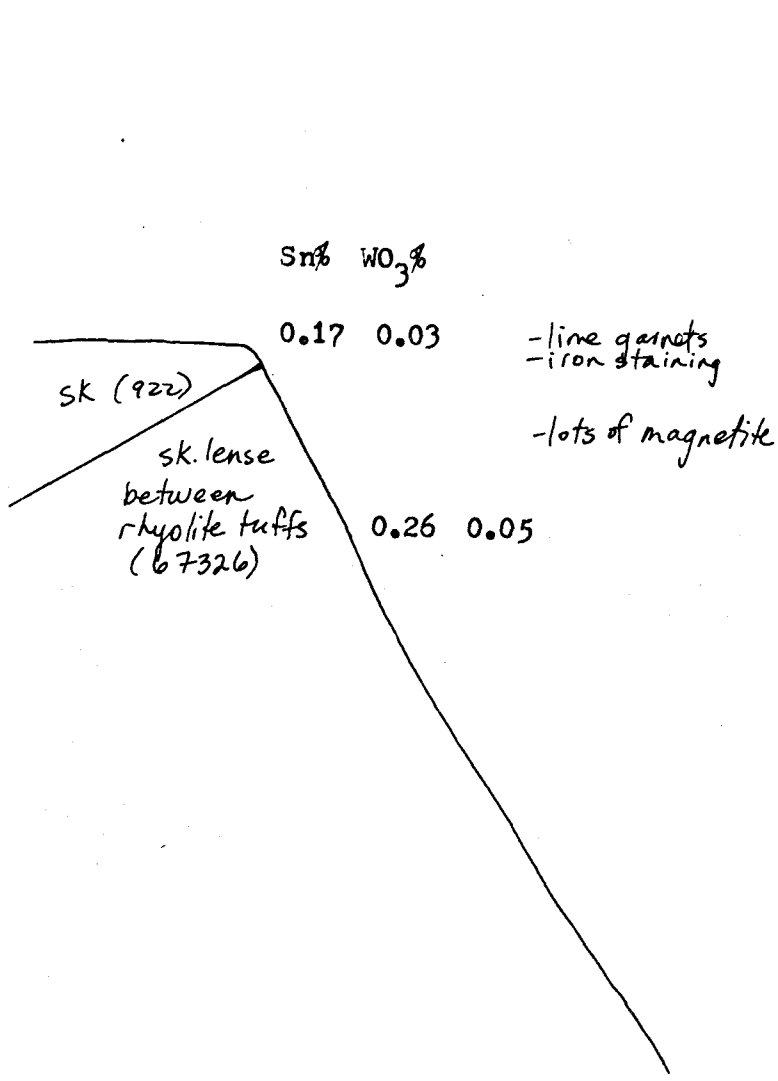
D.C. Syndicate
Can Group
Vertical Section #9
(facing south) Revised
B.L 23+00E
Scale 1"=50'
Aug 1979



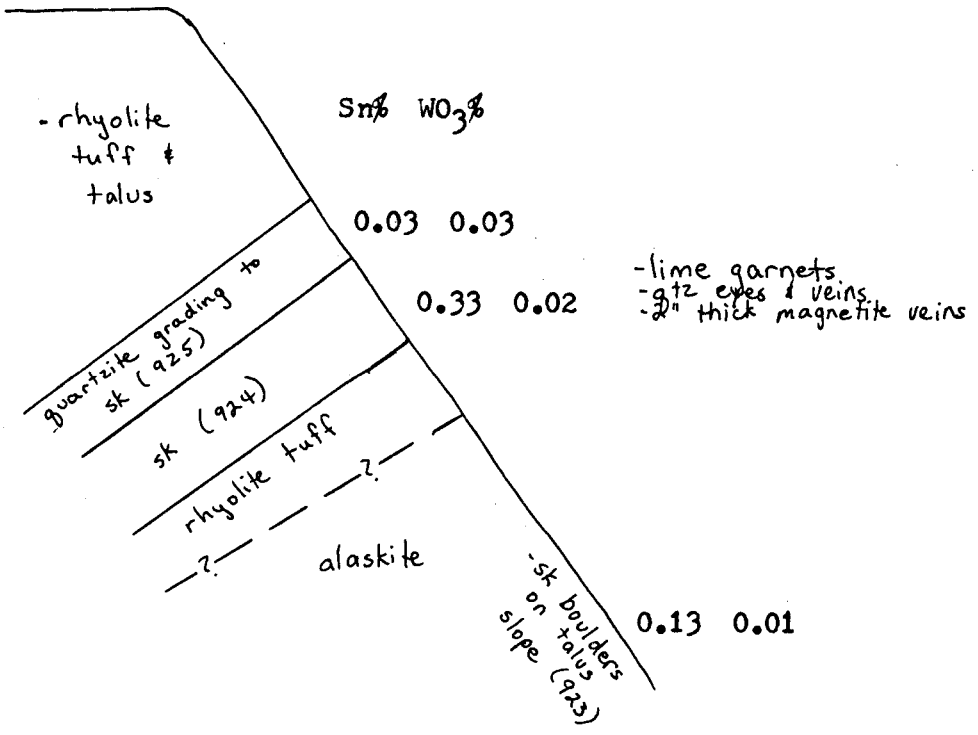
D.L. Syndicate
Can Group
Vertical Section #8
(facing south) Revised
B.L. 24+00E
Scale 1" = 50'
Aug 1979



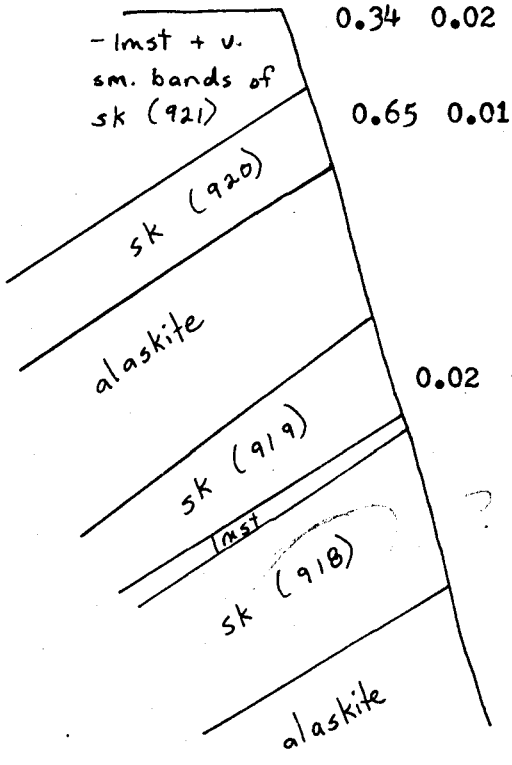
D.C. Syndicate
Can Group
Vertical Section # 7
(facing south) Revised
B.L. 25+00 E
Scale 1" = 60'
Aug 1979



D.C. Syndicate
Can Group
Vertical section #6
(facing south) Revised
B.L. 26+00 E
Scale 1" = 50'
Aug , 1979



D.C. Syndicate
Can Group
Vertical Section #5
(facing south)
B.L. 26+50 E
Scale 1" = 50'
July 1979



-5700'

	Sn%	WO_3%	
	0.34	0.02	-lime garnets
	0.65	0.01	-Magnetite + lime garnets -4" thick vein of magnetite -red (hematite?) staining -rusty weathering

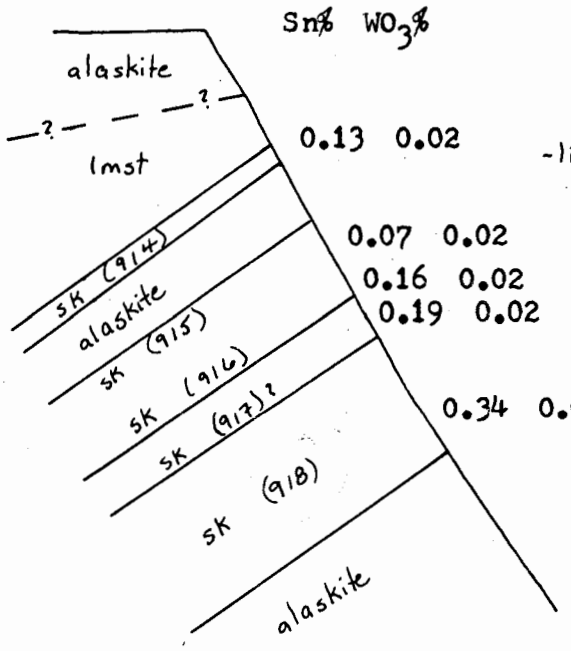
-5600'

	0.02	0.02	-lime garnets -Mn? staining
			-lime garnets

-5500'

-5400'

D.C. Syndicate
Can Group
Vertical Section #4
(facing south)
B.L. 28+00 E
Scale 1" = 50'
July . 1979



-5700'

-5600'

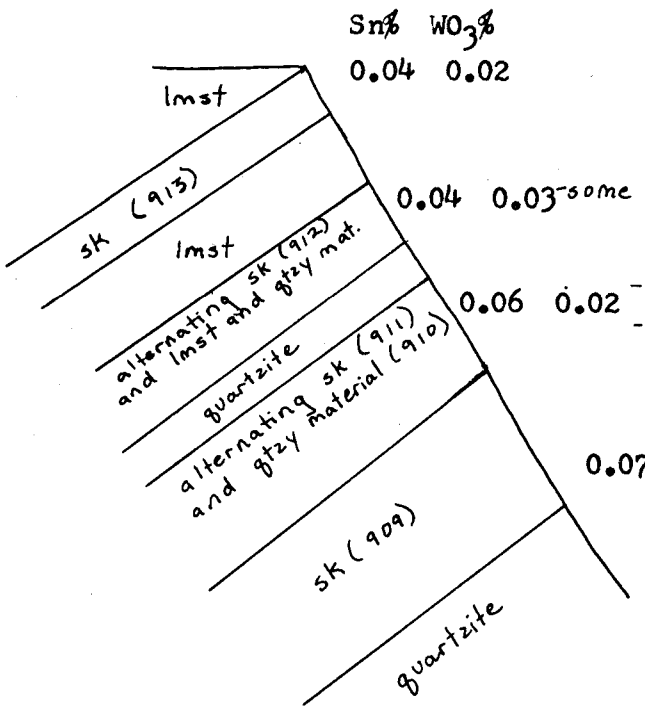
-5500'

-5400'

D.C. Syndicate
Can Group
Vertical Section #3
(facing south)
B.L. 29+00E
Scale 1" = 50'
July 1979

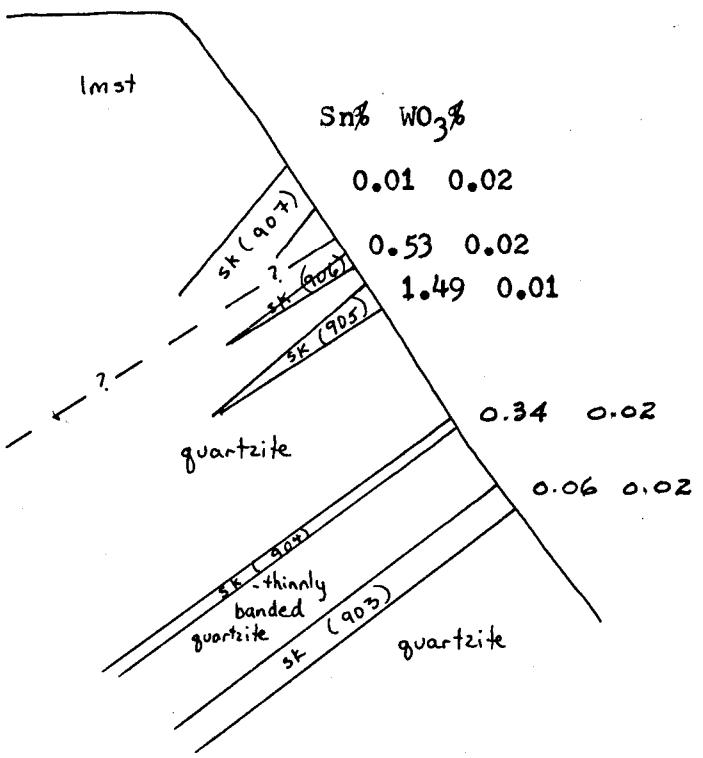
-5700'

-5600'



-5400'

D.C. Syndicate
Can Group
Vertical Section #2
(facing south)
B.L. 30 +00 E
scale 1" = 50'
July 1979



D.C. Syndicate
Can Group
Vertical Section #1
(facing west)
B.L. 30+00 E
Scale 1" = 50'
July 1979

RESULTS

Assay values on skarn are listed in Tables I and II.

Average grade of the chip samples taken across skarn horizons, weighted by width of the horizons is 0.22% tin. This is in good agreement with chip sampling of skarn talus which gives 0.21% tin. (Table II).

Arithmetic average of the highest assays on each section is 0.44% tin which suggests that zones of higher grade may be present.

TABLE I

SKARN HORIZON ASSAY RESULTS

Section	Skarn Elevation	Beds Thickness (T)	Cumulative Thickness	Tin Grade %	Cum. Tx %	Av. / Cum. Grade/Width
18+00 E	5600	5'		0.38		
	5550	20'		0.19		
	5430	5'	30'	0.02	5.80	0.19/30'
19+00 E	5600	Rubble 3'?		1.20		
	5510	5'		0.49		
	5475	20'	28'	0.28	11.65	0.416/28'
20+00 E	5515	10'	10'	0.15		0.15/10'
21+00 E	5550	Rubble 3'?		0.16		
	5475	10'	13'	0.28	3.28	0.252/13'
23+00 E	5535	15'	15'	0.14		0.14/15'
24+00 E	5540	15'	15'	0.22		0.22/15'
25+00 E	5585	20'		0.16		
	5540	5'	25'	0.34	4.90	0.196/25'
26+00 E	5615	10'	10'	0.17		0.17/10'
26+50 E	5540	25'	25'	0.33		0.33/25'
28+00 E	5630	20'		0.65		
	5565	25'	45'	0.02	13.50	0.30/45'
	5535	40'	85'			
29+00 E	5590	5'		0.13		
	5560	23'		0.11		
	5545	12'		0.19		
	5520	35'	75'	0.34	17.36	0.23/75'
30+00 E	5575	12'		0.04		
	5515	30'		0.06		
	5485	40'	82'	0.07	5.08	0.06/82'
BL 30 E	5540	10'		0.01		
	5520	5'		0.53		
	5505	5'		1.49		
	5475	5'		0.34		
	5455	7'	32'	0.06	12.32	0.385/32'

TABLE II

TALUS SKARN ASSAY RESULTS

Section		Assay Sn %
18+00 E		0.19
21+00 E		0.22
23+00 E		0.13
24+00 E		0.21
25+00 E		0.38
26+50 E		0.13
	Arithmetic Average	0.21% Sn.

TALUS SAMPLING

Procedure Phase 1

Sixty-three talus samples were taken with 34 of them on a random pattern around the main tin bearing ridge (Map I) and the remainder at 100 foot intervals at the base of the ridge on the north side of the cirque (Map II).

Samples were of the finest material available at the site and, in the case of those on the south slope of the main tin ridge, (samples 21-25; 28) were more nearly soil samples.

Along the north ridge talus samples were taken near the upper talus edge at the base of the outcrop areas. The lines were chained and samples taken at 100 foot intervals.

Talus fines were collected in kraft paper bags and shipped to Chemex Labs, North Vancouver. Samples were seived to 80 mesh and then pulverized to 200 mesh before determination of tin, tungsten content.

RESULTS

Values for tin and tungsten along the north ridge are too low to suggest anomalous conditions.

Samples in the southeast portion of CAN 40 are low and do not indicate anomalous conditions. On claims CAN 37 and 38 relatively good tin values and moderately anomalous tungsten values occur on the north and east slopes of the ridge while only low values were obtained on the south slope.

On CAN 37 near the west boundary samples 23 and 25 indicate tin values of 63 and 23 ppm suggesting extension of tin bearing zones to the west on the south slope of the ridge.

TALUS AND SOIL SAMPLING Phase 2

When work was resumed in August two sample lines were run by tape and compass on the south slopes on CAN 39. These were intended to test for westerly extension of values in samples 23 and 25. One anomalous value of 100 ppm Sn and ten others over 10 ppm Sn indicate the possibility of mineralization. However only minor skarn rubble was noted and no mineralization in other rock types has been confirmed. Further investigation is needed. See Map I.

STADIA SURVEY AND GEOLOGY

Detailed geological mapping to correlate skarn horizons was started in August. Stadia surveying for topographic control was done along a portion of the taped base line started in July. Results are shown on Map I. This work was terminated before completion as crew members had to return to university.

Procedure

Points along the ridge crest were designated stadia survey stations "A" "B" etc. These are painted and marked by flagging. Survey points were shot in by transit and marked by flagging. Contours are sketched in from calculated elevations which were arbitrarily set at the starting point to correspond as closely as possible to contours on the 1:50,000 maps.

Areas of outcrop and rubble were located and identified as to rock type.

RESULTS

The limited surveying done has made a start on detailing the tin bearing zones which were indicated, by July 1979 assay results, to have possible ore grades together with some significant length and width.

Detailed geological mapping has not progressed enough to make any definite interpretation but two significant factors are suggested:-

(1) coarsely porphyritic phases of the intrusive were found in the rubble on the south slope of the ridge which are similar to that below known tin zones at other locations.

(2) sill like forms of the intrusive are indicated locally and the sedimentary sequence may therefor continue further down dip than is indicated on surface.

1980 PROGRAM

The stadia survey and detailed geological mapping are to be continued. Measured samples are to be cut across tin bearing skarns with correlation of sample sections to provide accurate average grade and width estimates for each bed.

Rock and rubble trenching will be conducted where poor exposure exists on the top of the ridge.

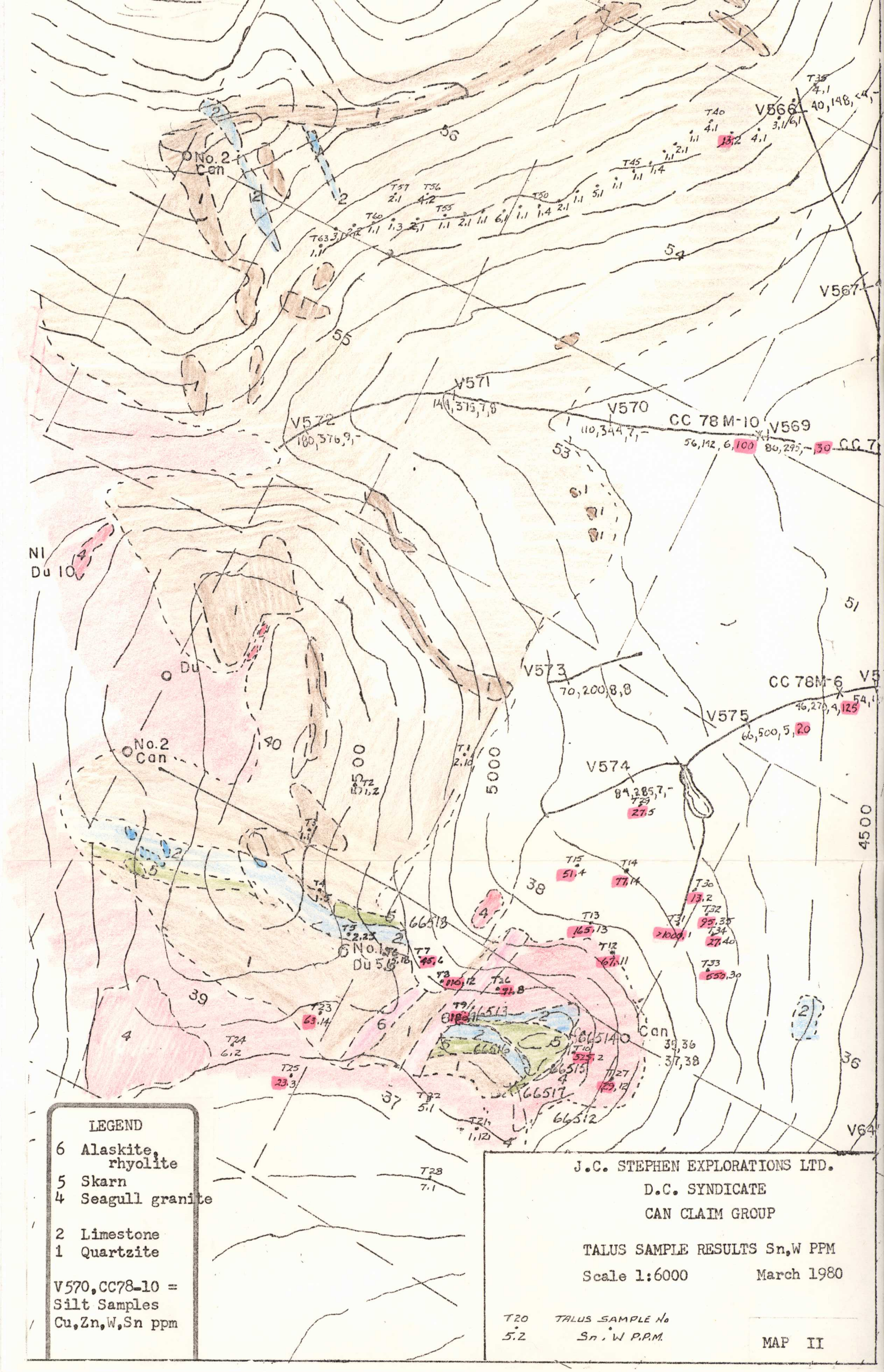
A magnetometer survey is to be done in search of iron rich zones which appear to contain the better tin values.

If mapping and magnetometer work indicate significant down dip extension consideration will be given to drilling.

Respectively submitted
J.C. Stephen Explorations Ltd.

J.C. Stephen

JCS/ms



LEGEND
6 Alaskite, rhyolite
5 Skarn
4 Seagull granite
2 Limestone
1 Quartzite
V570, CC78-10 = Silt Samples Cu, Zn, W, Sn ppm
J.C. STEPHEN EXPLORATIONS LTD.
D.C. SYNDICATE
CAN CLAIM GROUP
TALUS SAMPLE RESULTS Sn, W PPM
Scale 1:6000
March 1980
T20 TALUS SAMPLE No
5.2 Sn, W P.P.M.
MAP II
V566
V567
V571
V570
V572
CC 78 M-10
V569
V573
CC 78M-6
V575
V574
No. 2 Can
No. 1 Du 5.6
Du
Can
5000
4500

CAN 40

CAN 38

CAN 39

CAN 37

N

79DCCAN 201

OYA21371-372

OYA21369-372

79DCCAN 226

T1 2,10
T2 1,2
T3 1,1
T4 1,5
T5 2,25
T6 5,18
T7 45,6
T8 110,12
T9 180,11
T10 525,2
T11 29,1
T12 67,11
T13 165,13
T14 77,14
T15 51,4
T16 4,4
T17 1,1
T18 1,1
T19 22,8
T21 1,12
T22 5,1
T23 63,14
T24 6,2
T25 23,3
T26 71,8
T27 29,12
T28 7,1
T29 27,5
T30 13,2
T31 1000,1
T32 95,35
T33 550,30
T34 27,40

CHIP SAMPLE SECTIONS
SEE VERTICAL SECTION DIAGRAMS
HIGHEST OUTCROP CHIP SAMPLE ASSAYS INDICATED HERE

0·38% / 18·00E
1·20% / 19·00E
0·15% / 20·00E
0·28% / 21·00E
0·14% / 23·00E
0·06% / 24·00E
0·34% / 25·00E
0·26% / 26·00E
0·33% / 27·50E
0·65% / 28·00E
0·34% / 29·00E
1·49% / 30·00E
0·13% Cu 0·14% Sn
Cpy 0·22% Sn
OYA28903-906

5350
5300
5250
5500
5450
5400

SOME COARSELY PORPHYRITIC

LEGEND

UPPER CRETACEOUS OR LOWER TERTIARY

6 ALASKITE
5 SKARN

SEAGULL BATHOLITH

4 MONZONITE

UPPER DEVONIAN - LOWER MISSISSIPPIAN

3 TUFF, LAPILLI TUFF, RHYOLITE
2 LIMESTONE
1 METASEDIMENTS - QUARTZITE

T17 6,3 SOIL OR TALUS SAMPLE Sn W PPM LOCATION UNCERTAIN

9x4 SOIL OR TALUS SAMPLE Sn W PPM LOCATION TAPE AND COMPASS

A A2 STADIA INSTRUMENT STATION, LOCATION POINT

OYA28903 CLAIM POST

To accompany
Survey and Sampling Report
March 1980

J.C. STEPHEN EXPLORATIONS LTD.
D.C. SYNDICATE
CAN CLAIM GROUP
MAP SHEET 105 B/4
GEOLOGY AND GEOCHEMISTRY
SCALE 1"-100' AUGUST 1979

MAP I