GEOLOGICAL GEOCHEMICAL REPORT

on the

ROAD 1-3, 5, 7-12; 14; 16-48 Mineral Claims
YA 54877 - 920

MAP SHEET 105B/3

Latitude 60°09'N Longitude 131°11'W

Watson Lake Mining Division
Yukon

by

J.C. Stephen
March 1981

Work Done: August 23-30; October 15-17; 1980
By J.C. Stephen Explorations Ltd.
Funded by: D.C. Syndicate

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

$ 4,400.00

Resident Geologist or
Resident Mining Engineer

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

Commissioner of Yukon Territory

INDIAN AND NORTHERN AFFAIRS

TRANSMITTAL FORM

VR File No.
SMR File No.
Date Rec'd 10 Apr 81

Indian and Northern Affairs Canada | Affaires indiennes et du Nord Canada

FROM WATSON LAKE

TO Supervising Mining Recorder at Whitehorse, Y.T.

Office Of The Supervising Mining Recorder
APR 15 1981
WHITEHORSE
Yukon Territory

FOR ACTION ARE:

[ ] NEW APPL'N for PLACER LEASE to PROSPECT Name

[ ] RENEWAL APPL'N PLACER LEASE to PROSPECT Name — Your file / Votre référence — Lease No.

[ ] AFFIDAVIT of EXPENDITURE on PLACER LEASE Name — Our file / Notre référence — Lease No.

[ ] ASSIGNMENT of PLACER LEASE No.
From: To:

[ ] GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.
Owner:

[ ] DIAMOND DRILL LOGS
Claims Claim sheet no

[X] QUARTZ ASSESSMENT REPORT
Claims: Road 1-3, 5, 7-13, 14, 16-48. Claim sheet no. 105-B-3
Type of report: Geological + Geochemical Submitted by: J. C. Stephen
Cls. work performed on: Road 1-3, 8, 11, 13, 14, 16-18, 24-26, 29-33
$ Req. for ren. application: + 4, 400 00

Signature

REPLY ACTION Date Ret.

090198

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Signature

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GEOLOGICAL GEOCHEMICAL REPORT

on the

ROAD 1-3; 5; 7-12; 14; 16-48 Mineral Claims

SUMMARY AND CONCLUSIONS

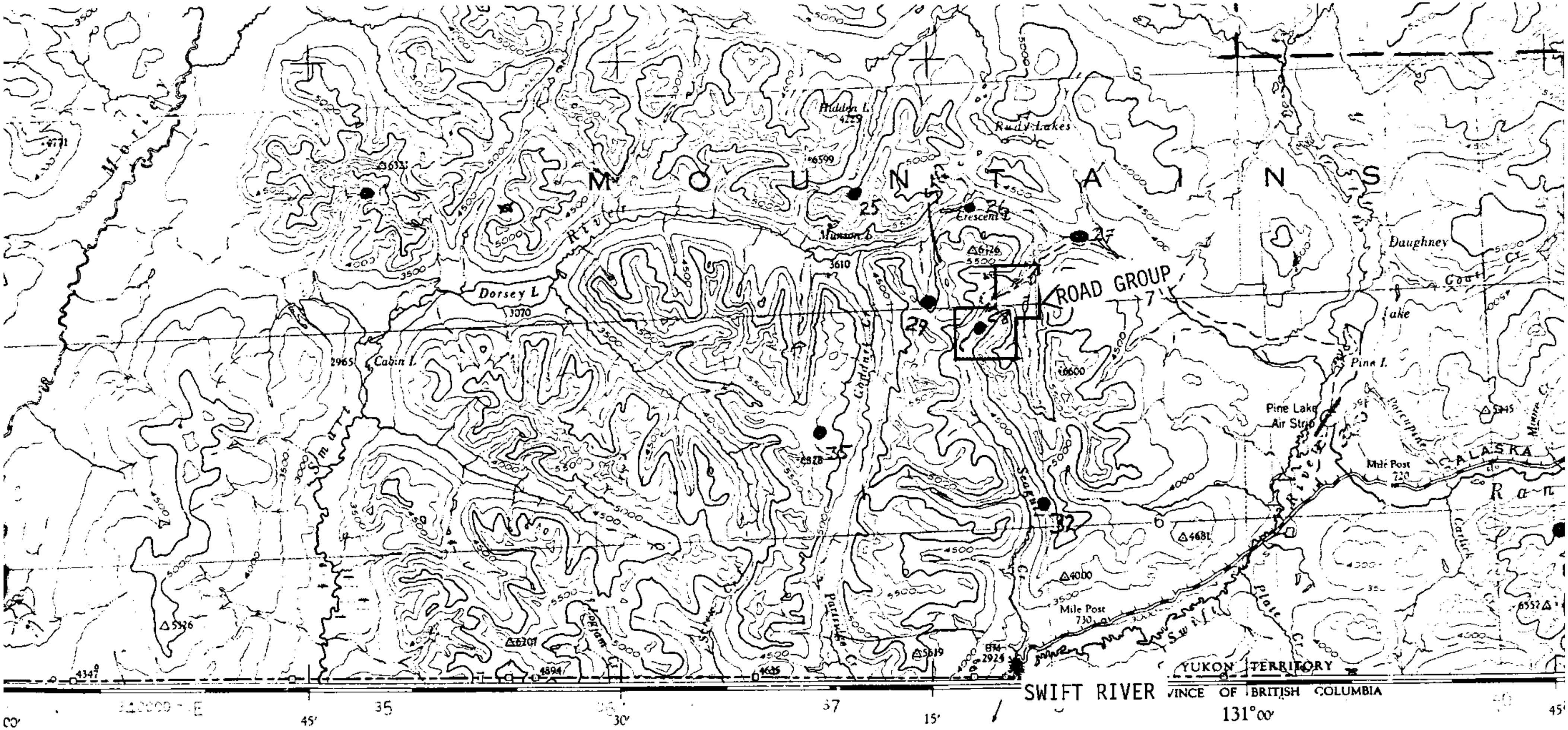
The ROAD claim group was staked east of the STQ group where Cordilleran Engineering located cassiterite mineralization in 1977 and surrounds the MOD 1-4 claims where sulphide deposits are reported to contain stannite.

Prospecting had been conducted by D.C. Syndicate in 1978 and isolated rock geochem highs of 150 ppm Tin and 200 ppm Tungsten were obtained. A portion of the area had been staked, however, as the SCARN claims by A. Racicot. These lapsed in 1979.

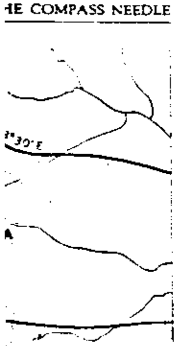
The ROAD group covers a satellite portion of the Seagull batholith together with a portion of the sediments and tuffs lying south of this satellite stock. Preliminary geological mapping was carried out together with silt, talus and minor rock geochemical sampling. No significant zone of mineralization has been located but anomalous values in geochemical samples warrant further investigation.

LOCATION AND ACCESS Figure 1

The ROAD claim group occupies the south west headwaters of the Swift River on the north margin of the Seagull batholith. The claims lie 10 miles north of Swift River on the Alaska Highway. A narrow access road provides access to the claims from the north end of the Pine Lake airstrip. This road is rough but passable during low water periods on the Swift River.



HE COMPASS NEEDLE 1951



needle at any place along a red that red line. At other places given on the neighbouring red the declination is ... the compass needle ...

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.

REFERENCE

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

WOLF LAKE

YUKON TERRITORY

Scale 1:250,000

1 Inch to 4 Miles Approximately

Miles 5 0 5 10 15

Kilometres 5 0 5 10 15 20 25

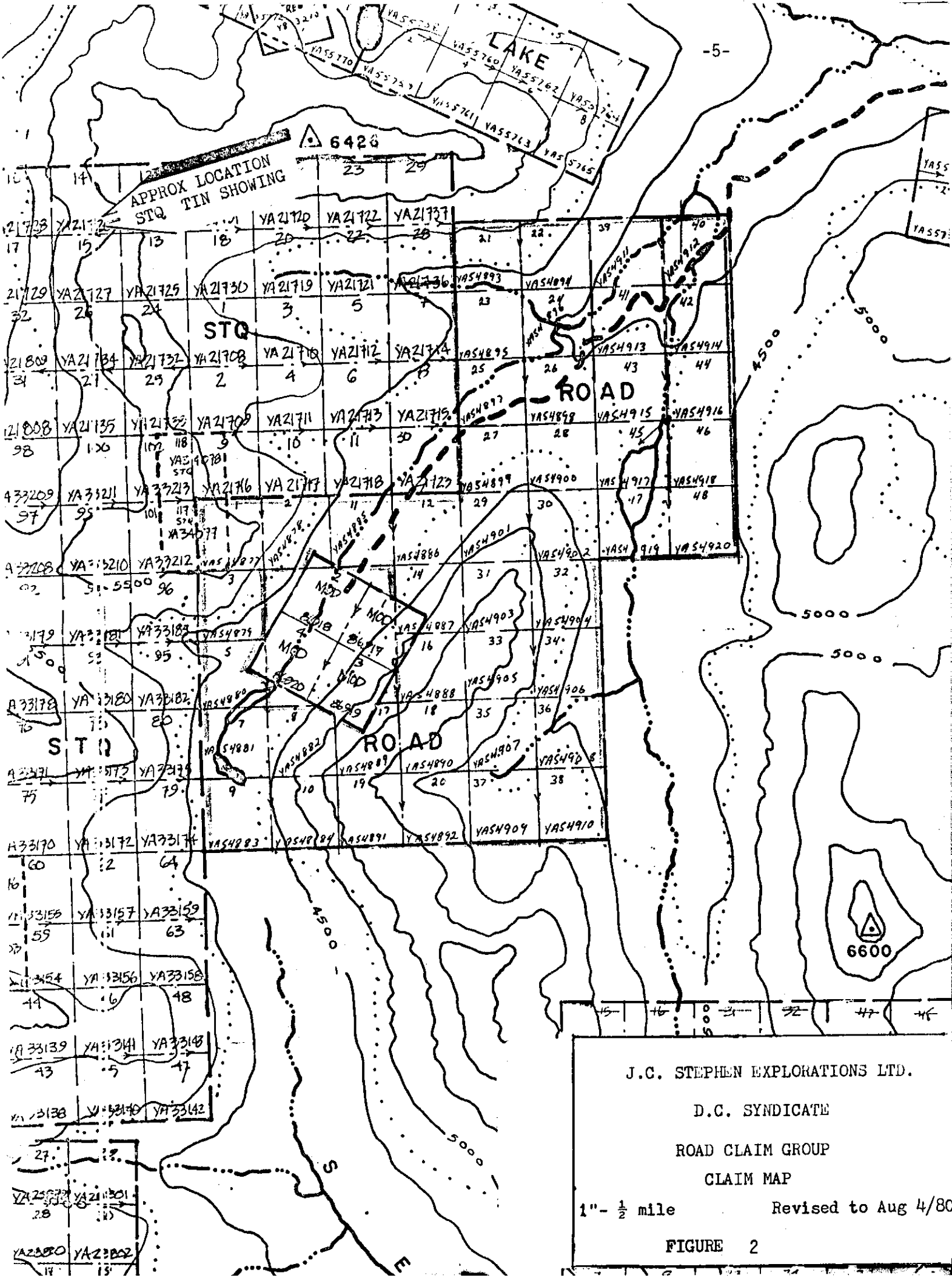
D.C. SYNDICATE
ROAD CLAIM GROUP
LOCATION MAP

FIGURE 1

CLAIMS REGISTER Figure 2

CLAIM	RECORD NUMBER	RECORD DATE
ROAD 1 - 3	YA 54877 - 89	June 20, 1980
ROAD 5	YA 54880	June 20, 1980
ROAD 7 - 12	YA 54881 - 886	June 20, 1980
ROAD 14	YA 54887	June 20, 1980
ROAD 16 - 48	YA 54888 - 920	June 20, 1980

The original staking of the ROAD group was as a consecutive group ROAD 1 - 48. It is understood that applications for ROAD 4, 6, 13 and 15 were refused as they overlapped the MOD claims. The original staking should have avoided the creation of fractional claims. At present there probably are fractions of open ground surrounding MOD as indicated by Figure 2 "Claim Map". No particular effort was made during mapping to delineate these fractions. Metal tags were affixed to most of the ROAD claim posts as they were located during mapping but a few have still to be tagged.



J.C. STEPHEN EXPLORATIONS LTD.

D.C. SYNDICATE

ROAD CLAIM GROUP

CLAIM MAP

1"- ½ mile Revised to Aug 4/80

FIGURE 2

HISTORY

The history of the MOD deposit is described in references included with this report as Appendix II. The Archer-Cathro Mineral Inventory indicates staking by Hudson Bay Mining and Smelting in 1946. Gower (1952) studied mineralogy of the deposit and noted tin values associated with stannite and an unknown borate mineral.

Diamond drilling has been done by Hudson Bay Mining and Smelting in 1947 and additional trenching and drilling was done by Boswell River Mines Ltd. in 1968 - 69.

Except for the access road from Pine Lake airstrip there is little evidence of exploration activity on the ROAD claims except for work on the immediate MOD showing.

GEOLOGY

ROCK UNITS

SEAGULL BATHOLITH

6 Quartz Monzonite

6a Feldspar Porphyry

MISSISSIPPIAN - DEVONIAN?

5 Calc Silicate

4 Tuff

3 Limestone, Dolomite, Skarn

2 Argillite, Shale

1 Quartzite

OLDER?

1a Quartz Biotite Schist

QUARTZ BIOTITE SCHIST

Local outcrops in the vicinity of the MOD mineral showing and in the creek east of the north portion of ROAD group are gneissic in appearance. The rock is generally banded to gneissic, granular and consists largely of varied proportions of quartz and biotite.

It was assumed these outcrops represented more highly altered portions of the quartzitic sequence commonly found on ROAD group but the possibility exists that these are older formations separated from quartzite, tuff sequence by unrecognized thrust faulting.

QUARTZITE

On the ROAD claim group rocks classified as quartzites are generally grey to brown fine grained impure quartzites with various proportions of tuffaceous and argillitic material. Only locally are zones of relatively pure light grey to white quartzite present.

East of the claim group relatively large areas (unmapped) of fairly pure quartzite occur.

ARGILLITE, SHALE

These rocks are of variable composition grading from argillaceous quartzite to thin banded very fine grained black shale. Varieties include interbedded quartzite and argillite, very thin wavy banded shale, minor phyllite, interbedded shale and tuff, and black thin bedded shale horizons up to perhaps 100 feet in thickness.

These rocks weather to a dark rusty appearance and are locally very rusty where minor pyrrhotite, pyrite and very minor chalcopyrite mineralization occurs.

LIMESTONE, DOLOMITE, SKARN

Two horizons of limey rocks occur but these form only a minor percentage of the sedimentary sequence. The thickest bed was noted as being 10 feet in thickness with approximately 30% of the material being dolomitic, 10 to 20% being poorly developed skarn and the remainder limestone and silicified limestone.

The second bed, near the south east corner of MOD group is a thin band of epidote, diopside skarn.

TUFF

Rocks classified as tuffs vary from very dark purple lapilli tuff near the north contact of the sedimentary sequence through finer grained mixtures of apparently tuffaceous material in quartzites and shales. Determinations are entirely by field examination and rather subjective designation.

CALC SILICATE

Horizons of light weathering, very fine grained white to pale green siliceous rock were termed calc-silicates. They are poorly developed on the ridge in the south central portion of the claim group but are more prominent to the west. They are variously interbedded with quartzite and with tuff but are commonly in the vicinity of the limestone skarn development.

SEAGULL BATHOLITH

QUARTZ MONZONITE

As indicated by the accompanying map the south boundary of ROAD group lies about two miles north of the main body of the Seagull batholith where it outcrops on the main ridge. The supposed satellite stock on ROAD group has the appearance of the massive coarse grained main body of the Seagull intrusive and is therefore less like a satellite stock than a "window" through the overlying sediments to an extension of the main batholith.

Stephanian describes the main intrusive outcrop as "coarse grained, with feldspar, quartz and biotite weathered peach and pinkish in colour."

Observations by Stephanian, Phillips and Stephen indicated no apparent later intrusive phases, fine grained phases or development of extensive tourmaline or flourite as has been found in the vicinty of other tin zones.

It is understood that the AMAX drill hole on the STQ showing encountered typical coarse grained Seagull at 800 feet.

FELDSPAR PORPHYRY

Outcrops of feldspar porphyry occur in the creek east of ROAD group. These are leucocratic medium grained rocks which may be related to the Seagull quartz monzonite.

HORNBLENDE PORPHYRY

Small dykes of dark coloured fine to medium grained intrusive occur in the region and one of these dykes was seen on the ridge east of MOD. Prominent black phenocrysts of hornblende occur in this rock. Age of these dykes is uncertain.

MINERALIZATION

The main showing on MOD group was examined briefly. It consists of sulphide mineralization, some as massive sulphides, enclosed in deformed grey to brown granular quartz biotite gneissic rock. Mineralization in hand specimens appears to be mainly pyrrhotite, magnetite,

sphalerite, galena and minor chalcopyrite. Further descriptions are given in Appendix II.

Elsewhere minor pyrrhotite, pyrite and chalcopyrite occur in quartzites and shales and in association with the calc-silicate horizons.

Manganese staining occurs locally and may be associated with slight greisenizations of local fracture zones in the Seagull as well as with skarn in the sedimentary sequence.

STRUCTURE

The sedimentary sequence appears to dip almost vertically near its contact with the Seagull in central ROAD group. Dips generally flatten gradually to 40° south in the south portion of the claim group.

Near the granite contact, and particularly near the MOD showing, the sediments may be contorted.

The Seagull-sedimentary contact is normally sharp with no stoped blocks within the intrusive and little or no evidence of contamination. A few dykes of Seagull intrusive intrude the sediments locally.

The Seagull intrusive is generally massive with widely spaced fairly well developed joint sets. A few north to north east trending fractures show weak rusty greisenization. There is no documented fault movement on these zones.

Initial mapping suggests there are several east striking fault zones with variable dip. Some of these may have some strike slip movement but insufficient work has been done to document these faults.

There is a possibility of a low angle fault separating the quartz biotite schist areas from what would be unconformably overlying quartzitic sediments. If this exists it may be pre-Seagull since that rock does not appear to be sheared or altered. Except for the difference in appearance between the contorted quartz biotite schists and the relatively fresher looking quartzite-tuff sequence no evidence has been found to substantiate this supposed faulting.

GLACIATION, SURFICIAL GEOLOGY

Near the access road north of MOD group large areas of Seagull intrusive are scoured clean and polished by valley glaciation. The surrounding ridges show apparent development of benches and minor hanging valleys, particularly east of the access road. Cirques facing north east in the south portion of the claim group are very sharp and steep.

A large flat sand and silt plain has developed north of the lake on ROAD 45,47. This lake was probably considerably larger at one time and was probably dammed by ice and moraine to the north.

East of the main creek in the north west portion of the claim group are extensive areas of choatic glacial morraine and till deposition. This includes considerable coarse gravel, boulders and rock fragments as irregular esker like ridges winding among numerous large pot hole like depressions.

The present main creek occupies the bottom of a valley which was probably developed by larger post glacial drainage. In the vicinity of ROAD 24 the creek occupies a deep local canyon.

GEOCHEMISTRY

SILT SAMPLING

Silt samples were collected at intervals along the main creek in the north west portion of the claim group. These were collected in kraft paper bags from the finer silt available along the stream. Samples were submitted to Chemex Labs North Vancouver for analysis of copper, zinc, molybdenum, tin and tungsten content. Notes regarding samples were recorded on the following geochemical data sheets.

Results

Results of silt sampling on the main stream near the west side of the property are shown in profile form in Figure 3. Tin and zinc values are particularly high in the small tributary creek at the MOD showing and values are anomalous for both elements in the main stream from that area north to the granite (Seagull satellite) contact. Erratic high tin, moderately high zinc and anomalous tungsten values occur in the main creek within the granite area.

The several peaks in the tin profile suggest there may be more than one source of tin entering this drainage. The first is the small tributary stream draining the MOD showing. This does not, however, cause a significant peak in the main stream. It may however be represented by the 52 ppm value forming the first peak. A second peak occurs just downstream of the Seagull contact. This suggests a separate source near the contact. Two high sharp peaks occur within the Seagull satellite at, and above, the tributary draining the STQ property. Possible mineralized sources should be sought in those areas.

u.s = up stream

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SH__T – STREAM SILTS

B.C. GOLD SYNDICAT

NTS 105 B4

CREEK source of Swift River

AIR PHOTO NO. A 11370 - 386

SAMPLER S. Wallner

PROJECT Road

samples taken every 300 → 400m

left and right banks, refer to banks looking downstream

DATE Aug. 1990

SAMPLE NO.	VOLUME Width	VOLUME Depth	VELOCITY	Ph	TYPE OF SAMPLE	COLOUR	TEXTURE	% ORGANIC MATERIAL	PETROLOGY OF BEDROCK AND/OR FLOAT	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS Au Cu	As Zn	Sn	W	Mo
Y-50	25'	1'	med		Small bags silt	brown	c.g. sand av. 1/16"			Samples are coarse grained sand → small pebbles 0+00m N	94	650	16	7	4
Y-51	10'	1'	fast		silt	dark				going downstream [illegible] camp 3+01m	26	400	8	7	2
Y-52	[illegible]	3'	[illegible]			drk	pebbles to grit			South Bank [illegible]	32	595	175	30	3
Y-53			[illegible]			brown			granite boulders in channel	[illegible] channel [illegible]	18	200	50	7	1
Y-54	100'	1'	med. flow			brown	c.g. sand		granite	large bend in stream; [illegible] in stream 8+90m	40	720	21	50	3
Y-55	7'	1'	v. fast			brn	c.g. sand	15%		on left bank of main stream; tributary, very fast, rocky stream 10+60m	38	250	20	25	2
Y-56	20'	1'	fast			brn	c.g. sand & pebbles			right side stream, across from large granite 13+16m from camp	32	390	165	20	2
										going upstream					
Y-57	6'	5"	[illegible]			brn	c.g. sand gravel		granite	small [illegible] creek u.s.; left bank, tributary 2+40m S.	24	300	5	1	1
Y-58	10	6"	slow			lt.	sand gravel			[illegible] 4+0[illegible]m	48	395	27	3	4
Y-59	20'	1	moderate			dk	c.g. sand → pebbles			[illegible] 6+50m	32	730	52	6	5
Y-60	20'	10"	moderate				c.g. sand → pebbles		[illegible] boulders in stream	[illegible] gravel bar 9+60m	40	820	58	13	3
Y-61	15'	2'	moderate			dk	c.g. sand			right bank, small sand bar 12+20m	46	720	29	6	3
Y-62	10'	2'	moderate			dk	c.g. sand			right bank 15+20m	44	750	52	4	4
Y-63	15'	6"	moderate			[illegible]	c.g. sand pebbles			right bank	54	795	90	4	4
Y-64	1'	4"	medium				c.g. sand			[illegible] stream ([illegible]) [illegible]; tributary on right bank 19+67m	96	1400	310	9	6
Y-65	4"	[illegible]	medium				sand silt		tin can in stream	right bank; top of [illegible] stream 20+30m	66	190	24	12	3
Y-66	6'	2'	[illegible]				sand			[illegible] 21+00m	68	1000	32	4	4
Y-67	10'	3"	[illegible]				sand [illegible]			[illegible] 22+[illegible]m	68	220	21	3	6

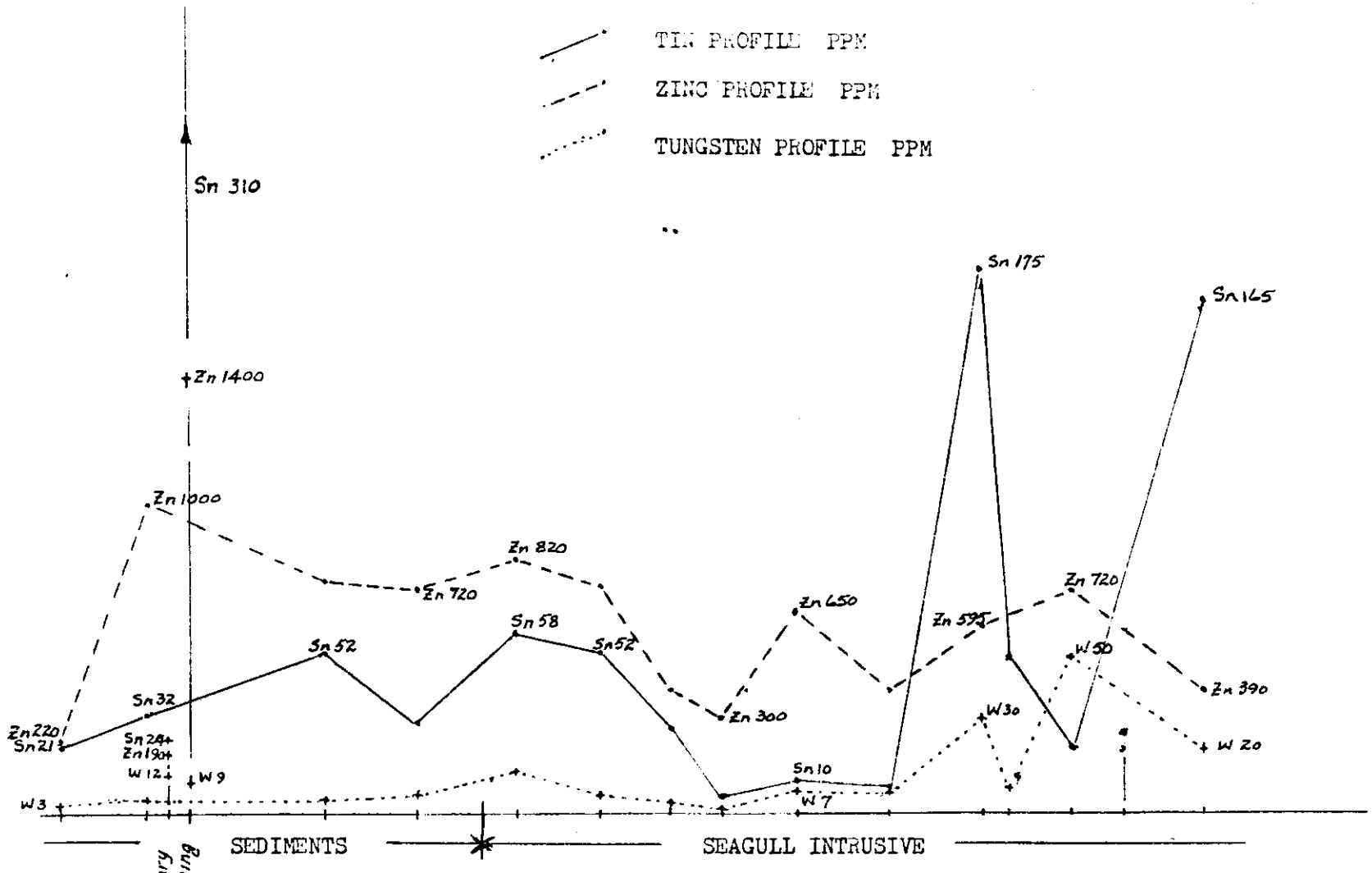


FIGURE. 3

ROAD CLAIM GROUP

SILT SAMPLE PROFILES FROM MAIN WEST CREEK

1 : 20,000

Talus Samples

Samples consisting of soil and finest available talus material were collected from the east face of the ridge on ROAD 1 and 3; the west side of the ridge through ROAD 8, east side of MOD 1 and 3, ROAD 14 and 29: and the east side of that ridge on ROAD 32 and 33. Geochemical data sheets for these samples follow.

Results

The small scale of the available base map makes plotting of talus results difficult.

Talus sampling gave anomalous results for zinc and one kick for each of tin and tungsten along the east face of the ridge in the west part of the claim group (ROAD 1 - 3) see page 17 data sheet. Sampling on the west side of the ridge in the south central part of the property gave values up to 55 and 84 ppm tin; 30 and 40 ppm W; 1200 and 1400 ppm Zinc and 17 and 33 ppm Mo. See pages 18 and 19 data sheets. On the northeast slopes of the same ridge talus samples ran up to 55 ppm Sn, 400 ppm W; 15 ppm Mo and 570 ppm Zn. See page 20 data sheet.

A base map is being prepared from enlarged air photos and these anomalous values are to be investigated during the 1981 season.

~~B.C. GOLD~~ SYNDICA

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – SOIL SAMPLING

NTS 105 B/C

LINE Ridge W of stream   ROAD 1-3

AIR PHOTO NO. A11376 - 386

SAMPLER H PHILLIPS

PROJECT ROAD CLAIMS

DATE Aug 26/80

SAMPLE NO.	LOCATION	Depth	Horiz	DESCRIPTION: Colour	DESCRIPTION: Part Size	DESCRIPTION: % ORG.	DESCRIPTION: Ph	SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS: Cu	ASSAYS: Mo	ASSAYS: Zn	ASSAYS: W	ASSAYS: Sn
RT 120	see AP	12"	A	blk.	org.	25 %	—	Steep E	grassy	rubble-talus of calc sil and tuff qtzite	38	3	4000	1	10
-121	See Sketch	8"	A	dk br.	rocky	10	—	"	grassy + rocky	calc sil. tuff qtzite, rootlets.	108	2	2400	1	2
-122	Road	10"	A	br.	sandy	<10	—	"	grassy	minor amt rootlets, abdt. small rock chips.	64	1	3450	2	22
-123	"	6"	A	blk.	org.	>10%	—	"	grassy	big qtz tuff rubble. Some rootlets, rk chips	42	1	1400	1	9
-124	"	10"	A	blk.	org.	~75%	—	"	grassy	large angular tuff qtzite bldrs.	38	1	530	5	7
-125	"	6-8"	A	br.	sandy	<10%	—	"	grassy	talus slope. Good sandy talus, abdt rk chips	142	5	570	2	10
-126	"	5"	A	br.	sandy	<10%	—	"	talus	abundant small rock chips	106	6	300	55	4
-127	"	8"	A	br.	sandy	10%	—	"	grassy	abdt small rk chips. Some rootlets	88	7	270	1	9
-128	"	6"	A	br.	gravelly	0%	—	"	talus.	tuff qtzite rubble around. Rust covered rock chips abdt.	875	14	1750	1	6
-129	"	4"	A	br. rusty	sandy gravelly	0%	—	"	o.c.	- o/c is tuff qtzite. - 300's of 128 and 120' E of there. (See AP).	176	3	480	6	7

-17-

B C GOLD SYNDICA

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – SOIL SAMPLING

Talus & Soil Sampling

NTS 105 B4

SAMPLER S. Wellner

PROJECT ROAD (D.C. Synd.)

LINE Ridge on east side of small

DATE Aug. 1980

Sampling approx every 250 ft By pacing

AIR PHOTO NO. lakes at the source of the South

SAMPLE NO.	LOCATION	Depth	Horiz	DESCRIPTION Colour	Part Size	% ORG.	Ph	SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS Au	Ag	Sb	Pb W
ET-100	0+00ft			dk	r.f → sand					elev. 7520 ft (not constant) almost directly west of Scuttle	62	230	4	1 14
ET-101	2+50ft.			lt	r.f → sandy soil			steep to west		bottom of rusty talus elev. 4530ft (end of pond, talus at top of gully	64	198	6	1 2
ET-102	4+50 ft			small dk	r.f. soil				shrubs	bottom of v. small gulley	62	300	6	1 2
ET-103	6+25 ft			small dk	r.f soil					bottom of lt. grey talus elev. 4575 ft	62	126	13	2 6
ET-104	10+00			small dk	r.f soil				shrubs	small rock gulley, below small talus	60	300	6	1 5
ET-105	12+50			small → brn	r.f sandy soil			end of ravine		down hill from talus, small talus, some rust elev. 4510'	66	142	5	1 17
ET-106	15+75				small r.f.			North West	shrubs		60	146	10	1 9
ET-107	17+50			small grey brn	r.f. sandy soil					(can see claim line) small talus & grass	60	210	5	1 14
ET-108	19+50				r.f sandy soil			N.W.	grass on sides	in rock gulley	64	372	2	1 15
ET-109	22+50			dk soil & rock frags		10%			grass & moss	jasper; sample taken under moss, between rocks	30	220	25	1 3
ET-110	24+75			small grey brn	r.f sandy soil				grass on sides	v. small talus on rock slide, by erratic boulder	62	605	6	2 13
ET-111	27+50			grey dk	r.f. soil			steep N.W.	grass	rock frags on grassy slope	60	375	5	2 16
ET-112	28+00			small rusty brn	r.f. sandy soil					rusty talus slide, near bottom	130	360	3	2 7
ET-113	30+50			lt. & sandy	r.f brn soil				berries & moss	small bit of talus on slopes	76	250	7	3 40
ET-114	32+50			small	buff r.f sandy brn soil			step N.W.	grass	high above elev large talus gulley, NE side, chillshack	162	370	11	3 25
ET-115	34+75			buff, slightly rusty	r.f & brown sandy soil				grass	frames in grassy slope, N.W. edge of hummocky like area	184	350	55	3 25
ET-116	37+50			buff r.f	brown soil	15%				fine talus among grass elev. 4700'	68	170	7	3 6

-18-

J.C. STEPHEN EXPLORATIONS LTD.

B.C. GOLD SYNDICA.

2.

GEOCHEMICAL DATA SHEET – SOIL SAMPLING

Talus & soil sampling

SAMPLER S. Wollner

DATE Aug. 1980

PROJECT ROAD

NTS 105 B4

LINE Ridge on East side of river Swift/same as 1

AIR PHOTO NO. A11370 - 386

SAMPLE NO.	LOCATION	Depth	Horiz	DESCRIPTION Colour	Part Size	% ORG.	Ph	SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS Cu	Mo	Zn	W	Sn
ET-117	40+00 ft			buff & grey r.f. brn sandy soil		15%			grass	on grassy slope above most bushes	75	3	140	10	5
ET-118	42+00			buff rusty small r.f. sandy soil					grass shrubs moss	higher, patch rusty, small talus	44	7	140	5	11
ET-119	46+00			small r.f. & brn sandy soil		10%				talus below lowest ot.	52	3	470	[illegible]	20
ET-146	48+50			buff r.f. sandy brn soil					shrubs	small talus slide below claim posts, on claim line	120 / 70	5	250	7	5
ET-147	50+25			buff r.f. & brn sandy brn soil						below small ot. on slope	80 / 100	3	310	6	12
ET-148	53+25			mostly brn soil some buff r.f.						side of long talus gully	72 / 64	2	400	14	15
ET-149	55+25			buff r.f. & sandy soil						on blocky talus, well above trees & below ot.	116 / 42	3	155	13	10
ET-150	57+75	from snow hole	A?	dk moist	sandy?	15%		WNW	grass juniper willow	trees & bushes come high up slope S.S.	200 / 35	2	1200	13	21
E-151	60+25	8"	A?	brown	rich soil	25%				under moss between rocks S.S = soil sample	28 / 292	1	150	9	11
ET-152	62+75			few rk frags & sandy brn soil						med. blocky talus large blocky talus	34 / 108	1	220	15	4
ET-153	65+25			large & small r.f. & brn sandy soil					grass & moss	small talus	170 / 22	1	450	5	6
ET-154	68+00			small buff r.f. & brn sandy soil					grass & moss	small talus on slope	186	2	445	2	4
ET-155	70+25			small r.f. & brn sandy soil						W. side of large blocky talus	108	2	480	3	7
ET-156	72+75			small buff r.f. & brown soil					moss & grass	lower, below large blocky talus	86	1	900	2	15
ET-157	74+75			small buff r.f. rusty sandy soil					few bushes		90	1	490	[illegible]	7
ET-158	77+75			small buff r.f. sandy brown soil						above skating rink, medium talus	160	4	1200	3	5
ET-159	80+25			small r.f. dk brn soil		10%			moss & berries	slightly rusty rock	108	3	965	7	11
E-160	82+75			brown sandy soil exposed		15%				in highest trees, grey talus black moss	86	4	430	7	5
E-161	85+75		A	black earth and small r.f.					shrubs & juniper	med. talus	42	5	270	30	4
ET-162	88+25			small rusty r.f. brown sandy soil						rusty patch of talus	48	33	275	13	15
ET-163	91+25			buff r.f. sandy soil					moss	scree/talus	24	17	110	12	9

-19-

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET – SOIL SAMPLING

NTS 105 B (W ½)

LINE ROAD 32, 33

SAMPLER JAMES PHILLIPS

PROJECT ROAD CLAIM GROUP

AIR PHOTO NO. A 11412 - 146

DATE 17th - 27/80

Y = gossanite

SAMPLE NO.	LOCATION	Depth	Horiz	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS			
				Colour	Part Size	% ORG.	Ph				Cu ppm	Zn ppm	Sn	Au ppb
ET-130	ROAD	10"	A	br.	sandy	<10%	—	slop E	grassy	- SGuil bldrs, minor rootlets, few small rk chips	20	100	9	2 12
-131	"	6"	A	br.	sandy	> 10%	—	"	"	- 313' Sol ET-130, Sm gull	44	300	55	2 30
-132	"	2"	A	lt. brown	gravelly	<10%	—	"	off o/c	- o/c of granite - Up ~ 70' from 131 and 100 SSE'	26	190	8	3 20
-133	"	8"	A	blk	org. sandy	710%	—	"	forest	- Y Gldrs, talus nearby	18	90	22	5 12
-134	"	+4"	A	brown	sandy	<10%	—	"	grassy	- talus nearby, minor rootlets	38	360	20	15,400
-135	"	6'	A	br.	org.	15%	—	"		- soil covering Y bldrs, abt rootlets. Some jasper	18	125	14	8 28
-136	"	8"	A	br.	sandy	<10%	—	"	grassy	- talus near, calc sil around, some rootlets	54	570	39	4 80
-137	"	5"	A	br.	sandy	<10%	—	"	grassy	- talus near, few small rk chips. Some jasper	32	250	13	3 80
-138	"	6"	A	br.	sandy	<10%	—	"	little bushes	- tuff. qtzite bldrs. Minor rootlets	62	340	51	3 35
-139	"	8"	A	br.	sandy	<5%	—	"	talus	- " , abt small rk chips (Talus near)	58	220	5	2 25
140	"	8"	A	br.	sandy	<10%	—	"	little bushes	- talus near. Angular tuff. qtzite frags.	60	260	5	1 8
											4	4	4	
Note	All for ridge on E side river, going south along the E side of the ridge.													

-20-

Rock Chip Sampling

Rock samples were taken at a few locations. Two chip samples from the MOD trenches ran: - results in ppm

		Cu	Mo	Zn	W	Sn
Lower trench	?	620	1	>4000	1	70
Upper trench	0 - 16'	445	1	>4000	12	680
A specimen of dark brown gneissic quartzite with fine sulphide ran		-	-	265	-	6
Quartzite with pyrite, pyrrhotite, calcopyrite		200	-	510	-	5
3' skarn from ridge top		-	-	-	-	2
5' skarn from ridge top		-	-	42	-	3
Calc-silicate west of stream		-	-	-	-	5
East side of central ridge Mn stain		-	-	-	-	46

It is evident that no significant tin mineralization has been located except at the MOD showings. The manganese stained sample from the east side of the main ridge running 46 ppm Sn deserves investigation, but the small skarns on the ridge top are not mineralized. These horizons are generally favourable however and should be traced down both sides of the ridge.

J.C. STEPHEN EXPLORATIONS LTD.

GEOCHEMICAL DATA SHEET — ROCK GEOCHEM SAMPLING

D.C.
~~B.C. GOLD~~ SYNDICATE

NTS 105 B (~~east~~?) who knows?

LINE the boss knows!

SAMPLER TJP

PROJECT ROAD CLAIM GROUP

DATE Aug 26/80, 27.

AIR PHOTO No. A11412 - 148 - 150.

	SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP / DATE	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS Cu	Mo	Zn	W Sn
(1)	R-5. 67666B	ROAD.	calc sil.	some rust	small blk. xtals	Aug 26/80	- some garnet.						5
(2)	R-6 67667B	"	tuff. gtzite?	Mn stain, rust.	"	27/80	A.P. A11412-150 from ridge W of stream						46
(3)	67668B	"	massive Po and galena.		Po, Gal., Cp, Bo.	Aug 25/80	- from trench at showing 16'			445	1	>4000	12 60
(4)	67669B	"	"	"	rusty Mn stain	"	"			620	1	>4000	1,70
(5)	67633B	"	gtzite	rusty, heavy	Po, Py	Aug. 25/80	- from ridge E of Drive camp	JCS		200	-	510	5
(6.)	67634B	"	Skarn?	rusty		"	"	JCS					2
(7)	67635B	"	gneissic calc sil	dendritic xtals of blk. mins.	rust.	"	"	JCS				42	3
(8)	67670B	MW GROUP	epidote skarn?	manganese + rust staining	rusty, Mn stain.	AUG 29 80	at east end of grid near 6E 8N					>4000	
(9)	67671B	ROAD.	gneissic gtzite	garnets?	disseminated sulphides Po, Py	Aug 25/80	- from old campsite road. Drive camp					265	6
(10)													
(11)													
(12)													
(13)													
(14)													
(15)													
(16)													
(17)													
(18)													
(19)													
(20)													

CONCLUSIONS

The ROAD claims were staked to cover an apparent satellite stock related to the Seagull batholith near which rock geochem samples taken in 1978 gave anomalous results.

Preliminary investigation shows the intrusive to be coarse grained Seagull Quartz monzonite more typical of the massive main phase of the Seagull batholith than of a high intrusive stock or cupola.

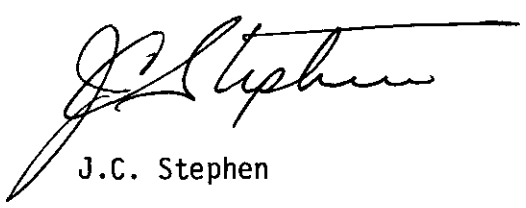
Silt, talus and rock samples returned anomalous values for zinc, tin, tungsten and molybdenum for which no source mineralization is immediately evident. More detailed mapping and careful prospecting should be done: -

(a) to investigate closely the intrusive-sedimentary contact,
(b) to investigate the location of anomalous talus and rock samples
(c) to investigate possibly four separate areas of introduction of tin into the main drainage system.

From experience in the area tin mineralization may be expected in one or more of the following hosts: -

(1) sulphide zones similar to the MOD
(2) skarn horizons
(3) greisen zones - most probably east-west trending

Respectfully submitted
J.C. Stephen Explorations Ltd.



J.C. Stephen

JCS/ms

A P P E N D I X I

TABLE OF EXPENDITURES

TABLE OF EXPENDITURES

SALARIES AND BENEFITS

J.C. Stephen	August 24,25,26	$150.00 per day	$ 450.00
N. Stephanian	August 23 - 30	60.00 per day	480.00
P. Phillips	August 23 - 30	60.00 per day	480.00
S. Wollner	August 23 - 30	50.00 per day	400.00

HELICOPTER

To move fron MW to ROAD		
August 23, 1980	1/2 of $1,612.00	806.00

FOOD AND CAMP SUPPLIES

27 man days @ $15.00	405.00

TRUCK RENTAL

August 23 - 30 @ $850.00 per month	225.00

GEOCHEMISTRY

Invoice 39096	53 samples for Cu, Mo, Zn, W, Sn	
Invoice 38984	9 samples for Cu, Mo, Zn, W, Sn	919.00
Invoice 38983	24 samples for Cu, Mo, Zn, W, Sn	

DRAFTING AND REPORT PREPARATION

S. Wollner	October 15, 16, 17	165.00
J.C. Stephen	March 23, 1981	150.00
		$ 4,480.00

A P P E N D I X II

HISTORY AND MINERALOGY

REVISED 1976

Property Name: Common BOM - 54 - Other No. 1 Showing

Location: Lat. 60°09' Long. 131°12' NTS 105B/3

* Metals: Major Lead, Zinc, Silver Minor Molybdenum, Tin

Type of Mineral Deposit: Skarn

History and Previous Work:

Staked as Bom cl (56221) in Aug/46 by Hudson Bay M & S with fringe staking (JML cl 56323) by Western Ranges Prospecting Syndicate (Conwest EL, Frobisher ECL, and Nova Co EL) and by W. Cook (Guc cl - 57009). Hudson Bay drilled 18 holes (6540 ft) in 1947. Restaked as CS cl (63690) in Oct/52, as Smith cl (73165) in Aug/57 by A. Worbets and P. Choauette, and as Mod cl (86917) in March/63 by E. Erickson and partners. The Mod cl were optioned in July/68 to Trans Yukon EL and this option was later assigned between Sept/68 and mid-69 to Boswell River ML, which conducted bulldozer trenching and possibly some drilling in connection with a program on the adjoining Munson occurrence - 105B(29).

Description:

* Galena and sphalerite occur with massive pyrrhotite and lesser amounts
* of magnetite, arsenopyrite, molybdenite, stannite, and tourmaline in garnet skarn which has developed in limy bands in hornfels of unit 8 (Dev-Miss). Drilling followed the zone for a length of 2000 ft from three hand trenches but cut only minor values in lead and zinc. Sampling of the trenches gave assays of 5.5 oz/ton Ag, 3.3% Pb, 3.7% Zn, and trace Au from typical mineralization in the lower trench (No. 1 zone) and 6.3 oz/ton Ag, 5.0% Pb, 5.0% Zn, and
** trace Au across 20 ft in the upper trench (No. 2 zone). The tin content of selected specimens of mineralization ranges from 0.1 to 0.3%.

References:

P66-31, pp 76-79
"Geology of the Cassiar Mountains" by W.H. Poole, unpub. PhD Thesis, Princeton University, 1956. p.241
* GSC Econ. Geol. Report #28, p.80

The Contact Metamorphic Deposit (Gower 1952)

A magnetite-pyrrhotite deposit outcrops on the east bank of the south fork of Swift River, one mile north of two small lakes that mark its source (Camp 12). The mineralized rocks are limestones and dolomites that trend N 80°W and dip 40° southwest. A vein, exposed for 20 feet, is about three feet wide, strikes N 20° E, and dips gently southeast. The vein matter consists almost entirely of metallic minerals. Rough banding parallel to the walls consists of - from the footwall to the hanging wall - galena with minor sphalerite, pyrrhotite, and chalcopyrite, 3"; sphalerite with minor galena, 9" magnetite and pyrrhotite, 24"/ Several diamond drill stations are marked on the hanging wall side of the vein, and about two thousand feet of core lies stacked at the outcrop. The work is believed to have been done in 1946 and 1947 by the Hudson Bay Mining and Smelting Company.

Specimens from rock intersections, about five feet thick, of mineralized rock, were collected (Table 1) along with a few specimens of country rock. The principal metallic mineral is magnetite. It occurs disseminated and massive, often intergrown with pyrrhotite and various gangue minerals, chief of which are dark green serpentine, dark green diopside, calcite, dolomite, and minor chlorite and clinohumite.

The following minerals, in order of abundance, were observed in polished sections of this material: magnetite, pyrrhotite, sphalerite, chalcopyrite, arsenopyrite, galena, pyrite, marcasite, stannite, ludwigite, ruby silver (probably pyrargyrite), tetrahedrite (?), native silver (?), and the unknown borate.

Magnetite occurs in the majorite of the sections, associated most commonly with pyrrhotite, and with smaller amounts of chalcopyrite, sphalerite, and arsenopyrite. Exsolution blebs of chalcopyrite, pyrrhotite, rarely stannite, and tetrahedrite (?), occur in the sphalerite. Galena and

pyrite are rare in the drill cores. Some of the galena contains blebs of ruby silver and native silver (?). Some secondary marcasite has formed in the outcrop material at the expense of pyrrhotite and arsenopyrite. Laths of ludwigite in association with magnetite occur in Specimens 3, 6 and 11. The laths, about 0.1 by 0.5 mm., are strongly pleochroic from silver-grey to bluish slate-grey, and very strongly anisotropic, giving four extinctions per revolution, from fiery red-orange to bluish-green. Some of the laths are slightly curved.

The unknown borate in polished section appears homogeneous but is extremely fine grained. It takes a poor polish, compared to ludwigite, but appears to have similar anisotropic colours, and to occur in tiny rectangular grains.

The difference in mineralogy and texture of the vein-like outcrop and the mineralized zones, intersected by the drill cores, suggests that either the deposit changes rapidly in character or the drill holes missed the downward extension of the vein. However, for the purposes of this paper the significant features are the deficiency of silica and the presence of boron, fluorine and tin which have led to the formation of tin-bearing borates, and of clinohumite. The deposit lies within the tin belt outlined by Warren and Thompson (1944) and the main geologic features are similar to those of certain regions containing important tin deposits, which will be described in Chapter 4.

A P P E N D I X III

STATEMENTS OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

NUSHY STEPHANIAN

I, Nushy Stephanian, of Mississauga, Ontario do certify that:

(1) I am a graduate geologist of the University of Toronto with a Bachelor of Science degree in geology obtained in 1979

(2) I am a candidate for Master of Science degree in Mineral Exploration from Queen's University expected in 1981

(3) I have the following mineral industry experience

Essex Minerals	May - Sept. 1978	Junior Assistant
Gulf Minerals Canada Ltd.	May - Sept. 1979	Senior Assistant
J.C. Stephen Explorations Ltd.	June - Sept. 1980	Geologist

N. Stephanian

STATEMENT OF QUALIFICATIONS

I, Pamela Phillips, am a candidate for Honours Bachelor of Science, Geological Sciences, Queen's University, Kingston, 1981.

Employment experience includes the following:-

May to September 1979 - Junior Assistant with the Department of Indian Affairs, Yellowknife Greenstone Belt.

October 1977 to February 1978 - Draftsperson with Riocanex, Fredericton, New Brunswick.

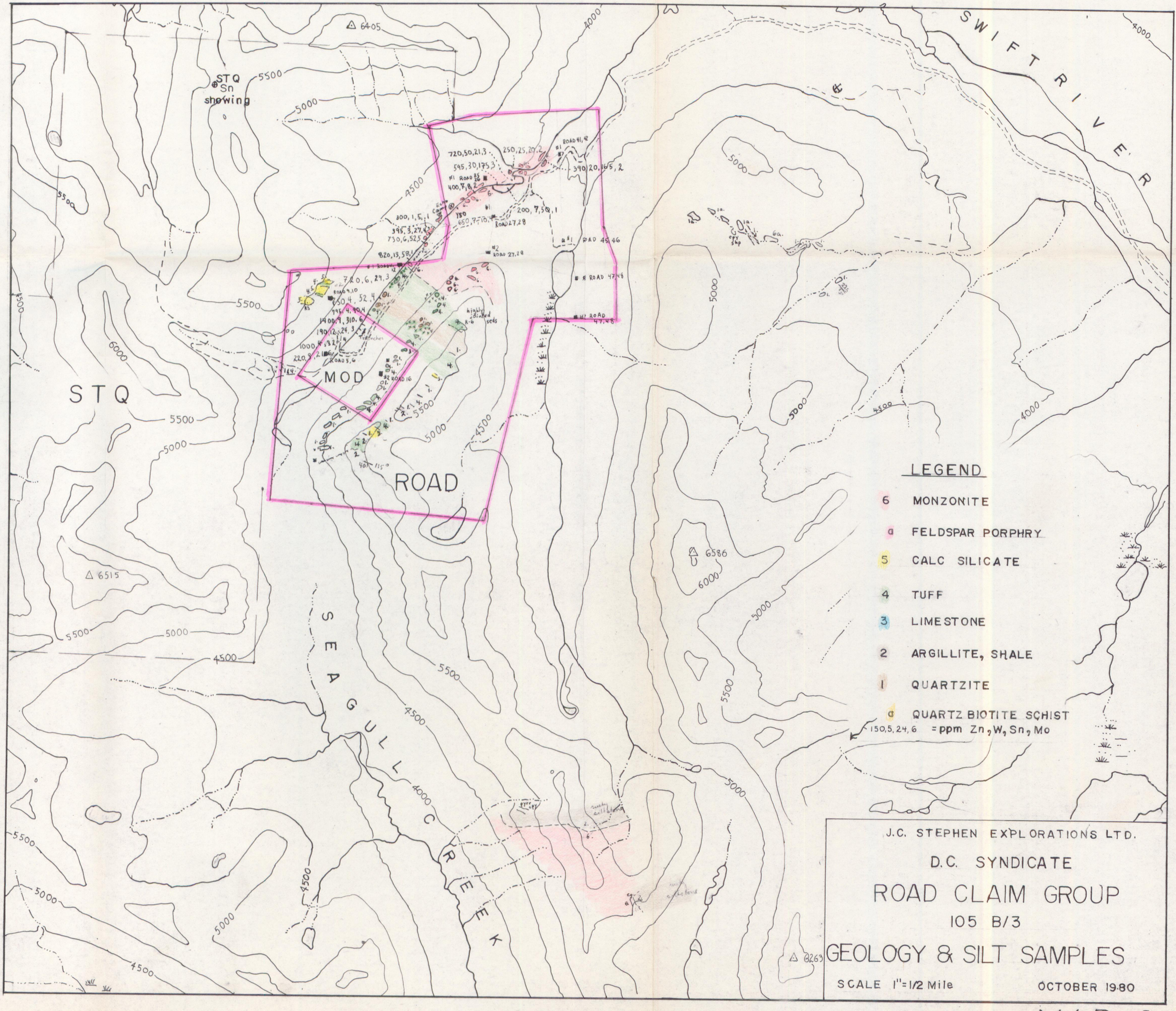
May to September 1978 - Junior Assistant with Denison Mines Ltd., northern Saskatchewan.

May to September 1979 - Geologist with RioTinto Canadian Exploration, Newfoundland.

May 1979 - Geologist with J.C. Stephen Explorations Ltd. British Columbia and Yukon.

July 8, 1980

Pamela Phillips


SWIFT RIVER
STQ Sn showing
STQ
MOD
ROAD
SEAGULL CREEK
highly drilled seds
trenches
6405
6515
6586
6263
LEGEND
6 MONZONITE
a FELDSPAR PORPHRY
5 CALC SILICATE
4 TUFF
3 LIMESTONE
2 ARGILLITE, SHALE
1 QUARTZITE
a QUARTZ BIOTITE SCHIST
150,5,24,6 = ppm Zn, W, Sn, Mo
J.C. STEPHEN EXPLORATIONS LTD.
D.C. SYNDICATE
ROAD CLAIM GROUP
105 B/3
GEOLOGY & SILT SAMPLES
SCALE 1" = 1/2 Mile
OCTOBER 1980

MAP I