GEOCHEMICAL GEOLOGICAL REPORT

on the

JC 79 - 88 MINERAL CLAIMS

YA 33792 - 795; YA 45039 - 044

Map Sheet 105B/4

Latitude 60°11'N Longitude 131°42'W

Watson Lake M.D. Yukon

by

J.C. Stephen

Work Done February 1980

By J.C. Stephen Explorations Ltd.

Funded by D.C. Syndicate

090567

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

$ 2,000.00

J A Morin

Resident Geologist or
Resident Mining Engineer

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

B R BAXTER
Supervising Mining Recorder

for Commissioner of Yukon Territory

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GEOCHEMICAL GEOLOGICAL REPORT

on the

JC 79 - 88 MINERAL CLAIMS

SUMMARY

This report is a partial update of the "Geological, Geochemical, Geophysical Report on the JC 1 - 82 Mineral Claims dated February 1979 previously submitted for assessment work credit.

The JC 83 - 90 Mineral Claims were added to the JC 1 - 82 claim group in July 1979. Line cutting, soil sampling and geological mapping were conducted on JC 79,80 and are grouped with JC 81 - 88 for purposes of this assessment report. Claims JC 89,90 are grouped with other claims for assessment work purposes.

A base line was established in 1978 trending east west along the apparent strike of a tin bearing skarn which occurs on claims JC 1 - 6. During 1979 this base line was extended west from line 28E to line 18E. Picket lines were run north and south for 1500 feet to provide control for soil sampling, geological mapping and a magnetometer survey. Erratic diurnal changes in the magnetic field made the magnetometer survey unreliable and it has not been included with this report.

Relatively low order geochemical anomalies for tin are indicated in this area. No definite outcrop was located but mapping of rubble indicates correlation between weak tin geochemistry and granite rubble. A linear tin anomaly may correlate to the west with skarn rubble and prospecting to the west indicates thick horizons of quartzite offset by a north east trending fault.

Additional mapping, soil and rock geochemistry and magnetometer surveying are required on these claims.

LIST OF CLAIMS, LOCATION AND ACCESS

CLAIMS INCLUDED IN THIS GROUPING

NAME	RECORD NUMBERS	DATE STAKING	DATE RECORDING
JC 79 - 82	YA 33792 - 795	July 4/78	July 17/78
83 - 88	YA 45039 - 044	July 8/79	July 30/79

LOCATION

The JC claim group, Figure I, is located 22 miles (35 km) north west of Swift River (mile 733) on the Alaska highway. The claims included in this grouping are located in the north west portion of the claim group, Figure II.

ACCESS

A diamond drill camp was established with helicopter support in June 1979 and the work described in this report was done from the drill camp. Mobilization was from the Smart River bridge on the Alaska Highway, 18 miles (29 km) to the south of the claim group.

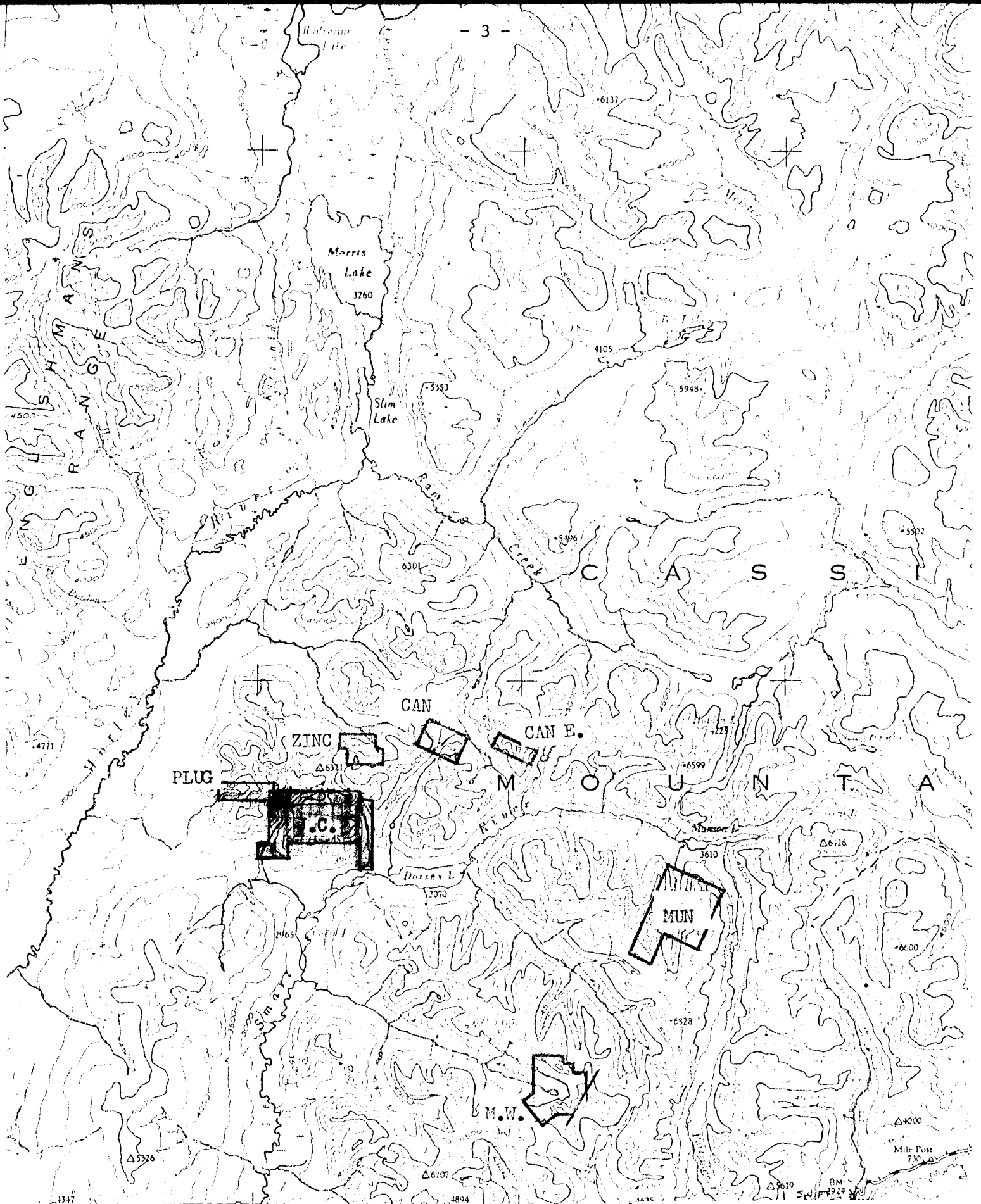


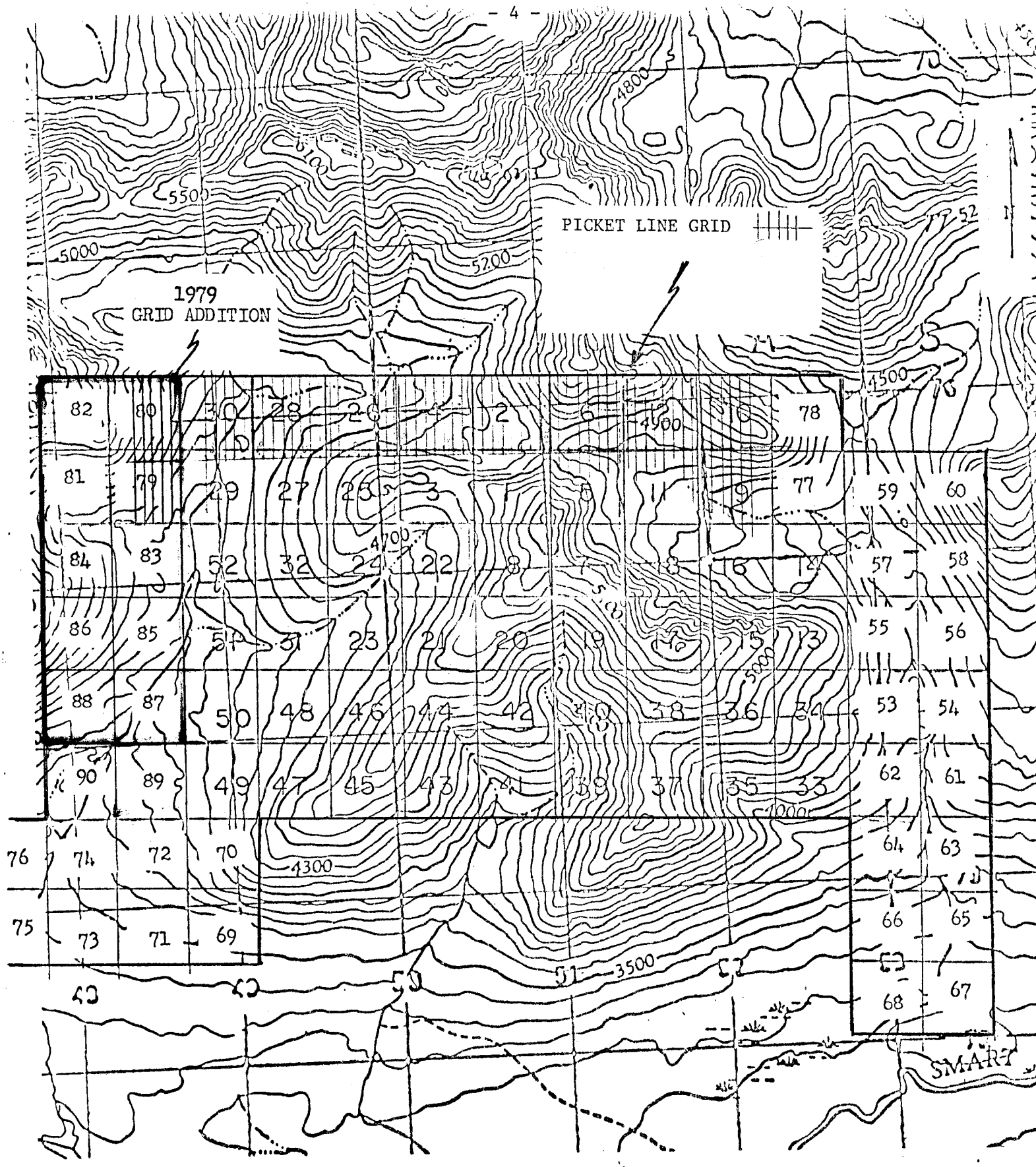
FIGURE I

D.C. SYNDICATE
LOCATION OF CLAIM GROUPS
NTS 105B

1:250,000 Dec. 1979

COMPASS NEEDLE 1951

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.



J.C. CLAIM GROUP
MAP 105B/4
1"-½ mile February 1980

FIGURE II

GEOCHEMISTRY

SOIL SAMPLING MAP I

PROCEDURE

Soil samples were collected at 8 to 12 inch depths at stations 100 feet apart along lines at 200 foot intervals. Soil was placed in Kraft paper envelopes marked with the station number and were shipped to Chemex Labs, North Vancouver.

At Chemex samples were dried and sifted. Pulps were pulverized to 200 mesh before analysis to avoid possible segregation of heavy minerals within the sample.

Determinations for Cu, Sn, Zn and W were reported by Chemex and are shown on Map I.

SOIL DEVELOPMENT

Deep till like soils occur on terraced flood plains along the creek valley in the south east portion of the grid shown on Map I. Ground surface rises to the west and is generally heavily timbered until growth degenerates to scrub on the talus slopes at tree line elevations. Within the area sampled most soil samples are recorded as coming from the B horizon. A minority of the samples were collected from the A and C horizons where development was poor. Except for two samples all those showing anomalous tin values were from the 'B' horizon. Considerable rock rubble occurs in patches throughout the area as shown on Map II Geology.

GEOCHEMICAL RESULTS

TIN

Experience on the JC group shows that the 20 ppm tin contour effectively outlines the known areas of mineralization and indicates areas of interest for further investigation. Contours at significantly higher values, i.e. 50 ppm, tend to produce only spot anomalies. At this preliminary stage of exploration the 20 ppm contour is preferred although dispersion of tin at this low level indicates anomalous areas much larger than can be attributed directly to known mineralization.

The 1979 soil results plotted on Map I show two tin anomalies. The first at 92N to 96N on lines 26E to 20E is narrow with values between 23 and 90 ppm. Geological mapping has not covered this area but prospecting indicates this is the approximate expected trend of the skarn horizon indicated by talus and float to the west.

The second anomaly at 18E, 106N is a single value of 78 ppm Sn with values of 13 and 18 ppm on line 20E. Minor rock rubble is mapped as silicified limestone and no indication of mineralization has been noted.

A third area, surrounded by a 10 ppm Sn contour, is indicated on lines 24E and 26E at 101N to 103N. This is considered of interest as these values very nearly correspond to an area of granitic rubble. This zone bears further investigation.

TUNGSTEN

On the JC and PLUG claim groups tungsten soil anomalies and spotty scheelite mineralization appear to indicate zones peripheral to tin mineralization. Scattered tungsten values occur in the portion of the JC grid being reported on but no definite anomaly is indicated. Values of 11 to 22 ppm W occur with the 10 to 19 ppm Sn values over the granitic rubble area but there is little correlation of the higher tungsten values with tin over the remainder of the area.

ZINC

There are no significant zinc values in the new grid area. Scattered values over 100 ppm Zn correlate in a general way with the zones which are anomalous for tin but these values are not considered significant.

COPPER

Four samples contained values greater than 100 ppm Cu. Two of these occur near anomalous tin values in the south east portion of the grid. No significant anomalies are indicated.

CONCLUSIONS

No significant copper or zinc anomalies are indicated. Scattered tungsten values occur which have a weak correlation with tin but do not, in themselves, constitute anomalous zones.

The tin values constitute anomalous indications of moderate strength. One, and possibly two, of these zones may be indicative of favourable skarn horizons. The third zone enclosed by a 10 ppm Sn contour is of interest mainly because it corresponds with an area of granitic rubble which should be more carefully prospected. This may help explain other tin anomalies in the creek valley to the east where some scattered granitic rubble and possible outcrop has been found.

GEOLOGY

MAP II

PROCEDURE

Property mapping has been partially completed at 1:6000 scale but this north west portion of the claim group has not yet been done.

Along the main tin bearing skarn zone mapping was commenced at 1:1200 and along diamond drill sections has been started at 1:480 with topographic control by stadia survey.

As work progressed it became apparent that the paucity of real outcrop made ordinary mapping inefficient and a program of mapping to note rubble and float was started.

In the new grid area only rock rubble and minor talus are apparent. Distribution of these rock types are shown on Map II Geology. Altimeter elevations were recorded so that topography can be roughly contoured. Mapping has not been completed south of the base line.

ROCK TYPES

UNIT 1 Metasediments

These are the most common rock types encountered and consist of brownish weathering fine grained quartzitic sediments with lesser amounts of argillitic material. In drill logs the rock is described as argillaceous quartzite.

Scattered quartz stringers cut the quartzitic sediments and fine pyrrhotite occurs locally.

UNIT 2 Limestone

Limestone is white to grey, sometimes massive but more generally thin bedded.

Thin interbeds of argillite, silicified limestone and weak garnet actinolite skarn occur within the limestone beds or lenses.

UNIT 3 Silicified Limestone

This rock is white to light green to grey, generally fine grained, dense and hard and exhibits differential weathering. It is often interbedded or closely associated with the limestone horizons and contains lenses or beds of skarn.

UNIT 4 Seagull Batholith-Monzonite

The ordinary Seagull batholith monzonite is a medium to coarse grained rock of uniform appearance and grey to pink color.

It is now evident, however, that relatively minor phases of the batholith may be of great importance. Rubble mapping did not differentiate between phases and further work will have to be done.

The pahases now considered important are:-

(1) a greenish fine grained monzonite which grades into a slightly greenish porphyry with small to 3/8" yellowish to buff plagioclase crystals.

(2) a pink coarse grained "rapakivi" porphyry with large zoned feldspar phenocrysts.

UNIT 6 Calc-Silicate Skarn

Buff tan colored garnetiferous skarn associated with limestone Unit 3.

STRUCTURE

The rock rubble mapped in 1979 does not provide much information on the structure of the area. The sediments generally dip 25° to 30° to the south and consist of a series of argillaceous quartzites succeeded by a carbonate sequence within which skarn development has taken place. Above the carbonate horizon similar argillaceous quartzites continue for possibly some hundreds of feet.

Locally beds of pure white quartzite occur although none were located during 1979 mapping.

The sedimentary sequence is intruded generally by the Seagull batholith which shows sharp contacts, with no indication of stoping or injection of dykes. Associated with the batholith are several minor phases whose relative ages are not clear on the JC group. These phases, the fine grained greenish monzonite and the coarse rapakivi porphyry are possibly intimately associated with tin mineralization. No outcrops of these rocks have been found.

Location of granitic rubble along the main creek indicates the Seagull batholith reaches higher elevations than previously expected.

North east faults cut the sedimentary sequence and one of these is located just west of the area mapped in 1979. Movement is locally significant.

MINERALIZATION

No mineralization was noted in the area mapped. Some skarn occurs as scattered talus just west of the work so far completed.

Concurrent with submission of this report, diamond drill logs are being submitted as assessment work on the remainder of the JC group.

Respectfully submitted,
J.C. Stephen Explorations Ltd.

J.C. Stephen

JCS/ms

STATEMENT OF EXPENDITURES

EMPLOYEES Line Cutting, Soil Sampling, Mapping

NAME	DATES		RATE	COST
H. Awmack	July 14 - 21	8 days	$ 1300/month	$ 335.00
B. Rode	July 14 - 21	8 days	$ 1300/month	$ 335.00
A. Stanta	July 14 - 21	8 days	$ 1300/month	$ 335.00
M. Seifert	Magnetometer - not filed			
				$1005.00

BOARD AT DRILL CAMP

24 man days @ $ 20.00 $ 480.00

GEOCHEMICAL ANALYSIS

155 samples analysed for
Cu, Zn, W, Sn @ $7.35 $1140.00

Total $ 2625.00

J.C. Stephen Explorations Ltd.

J.C. Stephen

APPENDIX I

STATEMENT OF QUALIFICATIONS

J.C. STEPHEN

Ass. Member British Institute of Engineering Technology 1951
Member Canadian Institute of Mining and Metallurgy

EXPERIENCE

DATES	POSITION	COMPANY
1947 - 49	Engineering staff	Central Patricia Gold Mines Ltd.
1949 - 50	Geology student	Univ. of Alberta
1950 - 51	Geological staff	Eldorado Mining & Refining (1944) Ltd.
1951	Engineering staff	Madsen Red Lake
1952	Geological staff	Hasaga Gold Mines Ltd.
1953 - 55	Engineering and Geological staff	Pickle Crow Gold Mines Ltd.
1955 - 56	Exploration staff	Combined Developments Ltd.
1956 - 59	Associate and field man	Jay-Kay Syndicate R.G. Crosby and Assoc.
1960 - 62	Senior construction Inspector	Haddin, Davis & Brown Ltd.
1962 - 68	Exploration staff	Mastodon Highland Bell Mines Ltd.
1968 - 76	Exploration Sup't NBC, LUC, DC Synd's	Bacon & Crowhurst Ltd.
1977 -	Manager President	D.C. Syndicate J.C. Stephen Explorations Ltd.

STATEMENT OF QUALIFICATIONS

I, Angie Stanta am a candidate for Honours Bachelor of Science, University of Windsor, 1980.

Employment experience included the following:-

May - September 1979 - Geologist with J.C. Stephen Explorations Ltd. North Vancouver, B.C.

June - September 1978 - Assistant to Chief Geophysicist, Husky Oil Operations, Calgary, Alberta.

July 23, 1979

Angie Stanta

Vancouver Petrographics Ltd.

JAMES VINNELL, Manager
JOHN G. PAYNE, Ph. D. Geologist

P.O. BOX 39
8887 NASH STREET
FORT LANGLEY, B.C.
VOX 1JO

PHONE (604) 888-1323

July 28, 1979

Marian Seifert
J.C. Stephen Expl. Ltd
1124 W 15th Street
North Vancouver, B.C.
V7P 1M9

Enclosed are three petrographic descriptions. Rock chips and thin sections are being sent under separate cover.

All three rocks exhibit hornfelsic textures, and can best be classified as skarns. Rock JC 79-280-21 may have originally been a pelitic phyllite, while the other two rocks appear to have been impure carbonates. The mineralogy of all rocks is similar, but the occurrence of diopside veins in rock JC 79-280-21 probably indicates closer proximity to an intrusive body.

Please direct further inquiries regarding this work to Rob Berman, c/o Vancouver Petrographics. Thank you very much for using our services.

Sincerely yours,

Rob Berman
Vancouver Petrographics

Copy, original in D.C. file.

Vancouver Petrographics Ltd.

JAMES VINNELL, Manager
JOHN G. PAYNE, Ph. D. Geologist

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Invoice 1671

Report for: J.C.Stephen, Marian Siefert
J.C.Stephen Exploration,
1124 W 15th Street,
North Vancouver, B.C.,
V7P 1M9

Samples: Drill Core JC-79-1-160; -228.2'
-2-114.2'

The samples are summarized as follows:

Hypabyssal Intrusive Rocks

1) Quartz monzonite, slightly porphyritic, with quartz and perthitic microcline phenocrysts: JC-79-1-228.2

2) Porphyritic quartz diorite, plagioclase phenocrysts: JC-79-1-160

Silicified? Hypabyssal Granodiorite? JC-79-2-114.2 (Greisen)

Samples contain some rare or unusual minerals; these are summarized as follows:

Most altered: JC-79-2-114.2

vein contains tourmaline, topaz, fluorite
altered rock contains topaz, tourmaline, and fluorite, possibly cassiterite?

Slightly Altered: JC-79-1-228.2

rock contains tourmaline and fluorite
veins contain Mineral X and Y

Least Altered: JC-79-1-160

rock contains none of these minerals
veins contain fluorite, Mineral X, Mineral Y

The fluorescent mineral in the vein in sample JC-79-2-114.2 is fluorite.

John Payne

John Payne,
July, 1979.

Sample JC79-1-160' Hornfelsed Porphyritic Quartz Diorite (Hypabyssal)

phenocrysts	
plagioclase	20-25%
groundmass	
plagioclase	25-30 (in part altered to sericite)
quartz	15-20
quartz-plagioclase intergrowth	3- 5
biotite	10-15
amphibole	7-10
opaque	0.5
apatite	minor
zircon	minor

veins
1) quartz-biotite-fluorite-opaque
2) fluorite-plagioclase
3) carbonate-Mineral X-Mineral Y

Plagioclase forms subhedral to euhedral phenocrysts 1-2 mm in size; they are moderately altered to dusty sericite and/or biotite?

The groundmass is very variable in texture and composition. Plagioclase and quartz form an irregular intergrowth of grains 0.05 to 0.2 mm in size. In places in the section, plagioclase is strongly altered to fine grained sericite, elsewhere plagioclase is fresh. Alteration does not seem to be associated with any of the veins. In the groundmass are patches of very fine grained (0.02-0.05 mm) intergrowths of blebby quartz in plagioclase. Quartz also forms a few patches of coarser grains up to 0.2 mm in size.

Amphibole is colorless; it forms ragged partly altered grains, some with prismatic habit and others anhedral and rounded. Extinction is at about 10° to prismatic cleavage. Most amphibole forms irregular clusters intergrown with plagioclase and quartz, generally away from fluorite-bearing veins.

Biotite forms interstitial grains and patches of grains in the groundmass. Most grains are pale brown in color with weak to moderate pleochroism. Grains are mainly very fine to fine and irregular in outline, suggesting an origin by contact metamorphism. Several patches from 0.5 to 4.5 mm in size consist mainly of coarser biotite laths from 0.2 to 0.5 mm in length in random orientation, with interstitial plagioclase, quartz, and semiopaque. Pleochroism of this biotite is moderate from pale straw to medium reddish brown.

Opaque forms anhedral grains and clusters of grains from 0.05 to 0.15 mm in size, commonly associated with biotite.

Apatite forms several grains from 0.1 to 0.15 mm in size, and one 0.3 mm long. Most are anhedral, but a few are subhedral prismatic. Some have light greenish-brown cores and colorless rims.

Zircon forms a few euhedral grains with square cross sections averaging 0.05 mm across.

Veins 1 and 2 are coarse grained (up to 0.5 mm for quartz and 1 mm for fluorite). Both have halos 5 mm wide which are black in hand sample; the color comes from biotite in the groundmass, although this feature is not as obvious in thin section as it is in hand sample. In vein 1, one section contains a few intergrowths of opaque and very fine grained chlorite.

(continued)

JC79-1-160' (continued)

Vein 3 cuts veins of types 1 and 2. It is a composite vein, whose composition varies along the length and across the width in a series of monomineralic zones. In an ideal vein, with all zones present, the following mineralogy exists from center to border of vein.

1) calcite, fine grained, up to 0.15 mm thick
2) Mineral Y, generally 0.05 mm thick. Properties are as follows: medium brownish green color, moderate relief, low birefringence (interference color masked by mineral color), very fine grained flakes subperpendicular to vein walls. The mineral is probably a variety of chlorite.
3) Mineral X, generally 0.05 mm thick. Properties are as follows: colorless to very pale purple?, low relief (R.I. less than quartz), low birefringence, very fine to fine grained. The mineral resembles fluorite but is anisotropic.

Sample JC79-1-228.2' Hypabyssal Quartz Monzonite

phenocrysts		
quartz	2%	
perthitic microcline	2	
groundmass		
plagioclase	35-40%	
quartz	25	(includes graphic intergrowths 7-10%)
microcline	25	
biotite	5- 7	
tourmaline	1	
fluorite	0.5	
zircon	minor	
veinlets		
1) Mineral X		(same unknown minerals as in JC79-1-160'
2) Mineral X, Mineral Y		

Quartz forms a coarse phenocryst 3.5 mm across; it has a rounded outline and contains two grains, one enclosed in the other.

Perthitic microcline forms several grains from 1 to 1.5 mm in size, and with subhedral prismatic outlines. These contain 7-10% exsolved plagioclase in irregular lenses in one orientation perpendicular to the long dimension of the grain. Borders of grains are partly intergrown with the groundmass.

Plagioclase forms subhedral grains 0.15 to 0.4 mm in size; composition by the Michel-Levy method is An_{10}. Grains are slightly altered to fine grained sericite and dusty semiopaque. A few small plagioclase grains contain abundant semiopaque (Ti-oxide?) in their cores.

Quartz forms rounded grains and microcline forms irregular interstitial grains mainly 0.15 to 0.4 mm in size. Graphic intergrowths of quartz in microcline are common. Quartz forms round to lensy blebs 0.1 to 0.25 mm in size enclosed in microcline grains up to 1.5 mm across; these probably represent the crystallization of the final magmatic fluids. Minor quartz blebs are intergrown in plagioclase near quartz-microcline intergrowths.

Biotite forms ragged laths and flakes averaging 0.2 to 0.5 mm across; pleochroism is from light straw to medium brown. About 1/3 of the grains are strongly altered to sericite, Ti-oxide, and quartz; possibly some of these altered grains are after hornblende. Many biotite grains contain inclusions of zircon from 0.01 to 0.15 mm in size. Many zircons are euhedral prisms, and all contain dark halos about twice their size in the surrounding biotite. Zircon also forms euhedral to subhedral grains in the rest of the rock.

Tourmaline forms scattered irregular interstitial grains up to 0.5 mm across. Pleochroism is strong from pale yellow to medium bluish green to medium greenish brown. Fluorite occurs with tourmaline in one vein-like zone 1.5 mm long, and also forms scattered grains up to 0.25 mm across. Fluorite and minor tourmaline form fine grained patches in plagioclase.

Veinlets of Mineral X are wispy and fairly continuous; veinlets are 0.05 mm wide and consist of grains averaging 0.10 mm long.

Veinlets of Mineral X and Y are similar to Vein 3 in JC79-1-160, but without the calcite core.

Sample JC-79-2-114.2' Silicified Greisen after Hypabyssal Granodiorite?

The rock is strongly silicified and otherwise altered with introduction of topaz, tourmaline, fluorite, and cassiterite? The original texture of the rock is partly preserved? in the form of fine grained feldspars, suggesting the hypabyssal origin. The granodiorite composition is suggested on the basis of the present feldspar ratio, which may not be similar to the original ratio.

rock		vein	
quartz	55-60%	K-feldspar	40-45%
tourmaline	7-10	tourmaline	20
sericite	7-10 (+muscovite)	fluorite	10-15
plagioclase	5- 7	topaz	10-15
topaz	5	quartz	7-10
K-feldspar	3- 5	muscovite	5- 7
fluorite	2- 3		
opaque	0.5		
zircon	trace		
cassiterite?	trace		

The rock contains original? plagioclase, K-feldspar, and quartz grains. Plagioclase forms subhedral to anhedral grains 0.1-0.5 mm in size. K-feldspar forms interstitial anhedral grains 0.1-0.3 mm in size. Quartz forms grains ranging in size from 0.2 to 1.5 mm; much of the coarser quartz is probably of secondary origin, although replacement textures are not obvious. Opaque grains from 0.05 to 0.15 mm in size and one zircon prism 0.2 mm long probably are original minerals in the rock.

Alteration of the rock is in part zoned; zonation parallels zonation in the vein. The most intense alteration consist of replacement of the rock by the assemblage topaz-quartz-sericite(muscovite). Topaz forms anhedral grains 0.5 to 1 mm in size; many of these are rimmed and probably partly replaced by sericite. As alteration becomes less intense, topaz grains are more skeletal and interstitial, and are partly replaced by sericite. Tourmaline and fluorite form scattered grains. As topaz disappears, tourmaline becomes coarser grained and fluorite remains present; the amount of muscovite-sericite decreases and feldspars appear. Tourmaline is moderately pleochroic with colors pale brownish green - medium brownish green, and pale bluish green - medium bluish green. Grain size ranges up to 1 mm, and grains vary from subhedral to skeletal and interstitial. Fluorite forms scattered anhedral grains averaging 0.1-0.2 mm across. Sericite in part forms pseudomorphs 0.5 to 1 mm across after biotite? or possibly topaz. Elsewhere it forms radiating clusters of widely ranging grain size, commonly with very fine grained opaque along grain borders. Two grains of very high relief semiopaque occur in one tourmaline grain; based on the surrounding mineralogy, these might be cassiterite.

The vein is coarse grained from 1 to 3 mm. In section, topaz predominates at one end, with interstitial radiating sericite and coarse fluorite. In the center of the vein tourmaline predominates with lesser fluorite and K-feldspar, and minor quartz. Tourmaline is moderately zoned, and some grains have bright blue pleochroism; the blue pleochroism occurs in grains surrounded by fluorite. The other end of the vein, adjacent to the least-altered rock consists mainly of K-feldspar with a little quartz and fluorite.

JC 79-5-253.9

Mineralogical Mode(%):

clinozoisite	45-55
tremolite	35-40
calcite	10-15
quartz	1-2
cordierite	trace
cassiterite(?)	trace
zircon(?)	trace
opaque	1-2

The rock is characterized by a hornfelsic texture, and is dominated mineralogically by clinozoisite and tremolite.

Clinozoisite ranges in length up to 7 mm, but commonly is less than 1 mm. It occurs as intergrowths of fractured, anhedral crystals. Vague layering is evident in parts of the rock comprised of aggregates of clinozoisite, while other parts have clinozoisite intergrown with tremolite.

Tremolite forms acicular, randomly oriented crystals less than 0.2 mm in length, and is feintly green in color. It occurs in irregular intergrowths with clinozoisite, and as small needles surrounded by porphyroblasts of calcite and cordierite. The cordierite has almost no birefringence, and indistinct interference figures make positive identification difficult.

Calcite and quartz are commonly less than 0.08 mm in size, and form anhedral grains generally in the interstices between clinozoisite and tremolite crystals. Occasional, larger calcite crystals up to 0.18 mm in size, enclose small tremolite needles and lesser amounts of tiny, anhedral clinozoisite.

Tiny, rounded, anhedral grains of cassiterite(?) are less than 0.02 mm in size, and usually surrounded by clinozoisite. These grains are reddish-orange in color and appear to give uniaxial interference figures.

Opaque grains are irregularly-shaped, highly embayed, and less than 0.2 mm in size. They are interstitial to clinozoisite, tremolite, and quartz.

Several tiny crystals, or clusters of three or four crystals have higher relief than clinozoisite, and their doubly terminated prismatic habit suggests that they are zircon.

JC 79-5-262.5

Mineralogical Mode(%):

actinolite	45-50
epidote	25-30
quartz	15-20
calcite	3-4
limonite	1-2
cassiterite(%)	trace
opaque	1-2

The rock is a skarn with a hornfelsic texture; the original rock was probably a compositionally layered siliceous limestone.

Green, pleochroic actinolite forms randomly oriented acicular crystals surrounded by quartz or calcite, or mats of fibrous crystals often intergrown with epidote. Individual crystals rarely exceed 0.4 mm in length, and average 0.05-0.15 mm. Some crystals are slightly bent indicating a small amount of deformation after crystallization.

Yellow to clear colored, feintly pleochroic epidote occurs as anhedral to subhedral, stubby prisms which host many microfractures. Grain size is up to 1.5 mm. These crystals form aggreagates with one another or with actinolite. More rarely, epidote is partly surrounded by quartz or calcite.

Quartz occurs as irregular-shaped crystals up to 2 mm in size. These grains invariably contain small actinolite needles and are in contact with larger aggregates of actinolite and more rarely epidote.

Compositional layering of the original rock is suggested by the separation of this rock into an actinolite-, epidote-rich and quartz-poor section, and a quartz-rich and actinolite-, epidote-poor section. Most calcite occurs as anhedral intergranular grains in the quartz-poor sections.

Anhedral grains of cassiterite(?) are less than 0.07 mm in size, and vary from bright orange-red to brwonish-pink in color. This mineral is uniaxial positive and has higher relief than calcite or epidote. It appears to form as interstitial grains in association with any of the minerals observed in this rock.

Thin veins cutting the rock are filled mostly with orange-brown limonite. This mineral also forms rims and intergrowths around anhedral opaque grains. The interior of several veins are filled with equant, interlocking quartz grains less than 0.03 mm in size; limonite lines the boundaries of these veins.

Opaques form highly irregular patches, often altered to limonite, and contain inclusions, or are intergrown with actinolite and/or epidote.

JC79-5 280.2

JC-79-280-21

Mineralogical Mode(%):

biotite	15-20
potassium feldpar	15-20
diopside	15-20
epidote	5-10
calcite	10-15
actinolite	5-10
scapolite	4-6
quartz	10-15
plagioclase	trace
cassiterite(?)	trace
flourite(?)	trace
opaques	1-2

The rock has an overall schistose texture defined by the alignment of biotite crystals, but its skarn mineralogy suggests that it has been affected by a high temperature thermal event.

The rock has sections of contrasting mineralogy which may reflect original compositional layering. These sections consist of biotite- and potassium feldspar-rich layers, and diopside- , epidote- , and actinolite-rich layers. The latter layer could also be related to proximity to high temperature veins filled with anhedral, interlocking diopside plus minor calcite. These veins are probably related to a nearby intrusive body, and they crosscut the foliation defined in the biotite-rich layers. Other minor veins are filled with calcite.

Biotite forms stubby laths, usually less than 0.03 mm, which are generally aligned in subparallel fashion. These are set in a fine-grained, equigranular matrix of subhedral, partly sutured potassium feldspar, quartz, scapolite, and minor sodic plagioclase. Small, irregular grains of calcite are scattered throughout the matrix.

Diopside and epidote form larger anhedral to subhedral crystals up to 0.3 mm in size. These commonly form intergrowths with one another and with stubby prisms of randomly oriented actinolite up to 0.15 mm in size. Interstices between these minerals are filled with potassium feldspar and calcite, with minor quartz and possibly scapolite. In these areas of the rock, potassium feldspar exhibits a dusty brown appearance due to slight clay alteration.

In several places, layers of extremely fine-grained, dark gray, highly birefringent material occurs. Optical identification is impossible but some of these grains bear a resemblance to larger diopside grains described above.

Orange colored, highly rounded and embayed grains of cassiterite(?) less than 0.02 mm in size are completely surrounded by a large, optically continuous calcite crystal in one part of the rock. Other anhedral grains with the same optical properties are scattered throughout the rock.

Opaque grains are anhedral, highly embayed, commonly surrounded by concentrations of diopside and/or epidote, and often form smears parallel to the general foliation of the rock. One large grain, 2 mm in size, is surrounded by smaller irregular opaque grains which appear to have been mechanically disaggregated from the larger grain.

[illegible] several tiny colorless isotropic grains occur in the biotite-rich layers.

Vancouver Petrographics Ltd.

JAMES VINNELL, Manager
JOHN G. PAYNE, Ph. D. Geologist

P.O. BOX 39
8887 NASH STREET
FORT LANGLEY, B.C.
VOX 1JO

PHONE (604) 888-1323

Report for: Marian Seifert,
J.C.Stephen Expl.,
1124 W 19th St.,
North Vancouver, B.C., V7P 1M9

Invoice 1708

Sample: JC 79-7 113.5' Metasedimentary Gneiss (after Siltstone?)

The rock is compositionally layered, with some variations representing original layering, and others representing alteration and replacement of veins. Layering is well exhibited in the stained block, where the yellow color represents sericite, and the brightest yellow layers are mainly quartz-sericite-opaque veins.

The rock is mainly fine grained (0.02-0.05 mm) with a mosaic texture. An approximate mineral composition of the rock and veins is given below, but local variations are fairly common:

rock

quartz	60% (in some layers also 5-7% megacrysts)
epidote	20
sericite	0-15
opaque	0- 7
apatite	0.5
garnet	one grain
limonite	0- 3
zircon	trace

veins:
1) quartz-sericite-pyrite(opaque)-chlorite
2) chlorite-kaolinite
3) calcite with limonite halo
4) chlorite?

Quartz forms mosaic grains 0.02-0.05 mm in size. Epidote forms trains of tiny elongate grains 0.02-0.03 mm in length, elongated parallel to foliation. Apatite forms scattered grains 0.05 mm in average size. Opaque, in part at least pyrite, forms irregular to cubic grains from 0.02 to 0.1 mm in size. Sericite occurs in some layers as patches of feathery flakes and laths. Garnet forms one elongate grain 0.2 mm in length. In some layers quartz forms 5-7% megacrysts averaging 0.5 mm in size. These may represent original coarser grained detrital quartz grains in a silty groundmass. Megacrysts are rounded and slightly elongated parallel to foliation. Zircon forms two grains 0.03 mm in size.

Most abundant veins are type 1. They parallel foliation. Quartz forms equant grains from 0.05 to 0.2 mm in size. Sericite forms abundant clusters, in part radiating. Pyrite(opaque) forms abundant fine to coarse equant grains. Chlorite and locally kaolinite are minor phases associated with pyrite; in one lens kaolinite is abundant.

Chlorite-kaolinite form one very fine grained veinlet parallel to foliation. Chlorite? forms an irregular fracture-filling aggregate of grains in parallel growth perpendicular to the walls of the veins. These veins are subparallel to late calcite veins which are strongly zoned suggesting multiple emplacement and fracturing. Limonite forms an irregular fracture-filling alteration along the calcite vein and associated braided fracture zone.

John Payne,
August, 1979

Indian and Northern Affairs | Affaires indiennes et du Nord

P. O. Box 269
Watson Lake, Yukon
YOA 1CO

13 March, 1980

Your file *Votre référence*

Our file *Notre référence*

REGIONAL DIRECTOR RESOURCES

Attention: Supervising Mining Recorder

RESTRICTED

Attached for your files are drill logs submitted for assessment on the JC mineral claims by J. C. Stephen Explorations Ltd. A total of 8 holes were drilled to a total depth of 2640 feet.

Drill core is currently being stored at the company office at 1124 West 15th Street, North Vancouver, B. C., where it is being used for research.

Yours truly,

V. W. Johanson
Mining Recorder
Watson Lake Mining District

PLM
Encl.
cc: Regional Geologist

1979 SUMMARY OF J.C. GROUP DIAMOND DRILL COSTS

ITEM	COST	TOTAL	COST/FT.
CORING	$51,261.00		
REAMING, WASHING	1,139.50		
WATER, MOVING, TESTING	5,548.50		
DRILLING CASING	2,000.00	$59,949.00	$22.71
CASING SHOES, CASING LEFT	2,936.35		
MUD, ADDITIVES	1,437.50		
STANDBY TIME	1,600.00		
TRAVEL TIME	864.00		
CORE BOXES	464.50		
FUEL	2,894.98		
DRUMS, LEFT OR DAMAGED	153.00	10.350.33	3.92
MOBILIZATION, DEMOB	5,821.50		
LUMBER, LEFT ON PROPERTY	1,152.24	6,973.74	2.64
GROCERIES	4,329.48	4,329.48	1.64
HELICOPTER	22,037.00	22,037.00	8.35
ASSAYING	2,845.56		
GEOCHEM, SOILS	1,140.36		
PETROGRAPHIC	190.25		
FREIGHT	91.25	4,267.42	1.62
SUPERVISION, SURVEYING, LINE CUTTING, MAPPING, SAMPLING	9,253.28	9,253.28	3.50
TOTALS		$117,160.25	$44.38

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TOTALS		$117,160.25	$44.38

090567

J.C. STEPHEN EXPLORATIONS LTD.

Length	246'
Bearing	0°
Dip	-70°
Lat.	96+84 N
Dep.	86+00 E
Elev.	4724.1
O.B. Thickness	
B.R. Thickness	
Contractor	E. CARON DIAMOND DRILLING
Core	BQ
Stored	
Casing	
Logged by	JCS
Date	JUNE 21 1979
Location	
Started	
Finished	
Hole No.	JC79-1
Project	DC SYNDICATE
Claim	J.C. GRP
Page	1 of 3

Purpose Comment:
1. INVESTIGATE MAGNETIC ANOMALY
2. " SKARN HORIZON AT 102N
3. " Sn ANOMALY AT 103N
4. " LIMESTONE AT 105 N

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected
0'	NORTH		70°
240'			68°

Columns: DRILLING INTERVAL | % CORE RECOVERED | BOX No. | SCALE 1" = 20' | ALTERATION (SILICA, CHLORITE) | FRACTURING | MINERAL | GEOLOGY

NO CORE (0-5')

Scale: 10' 20' 30' 40' 50' 60' 70' 80' 90' 100' 110' 120' 130'

Fracturing: 45° (approx. 22'); 15° (approx. 42'); 20° (approx. 50'); 20° (approx. 55'); 70° (approx. 68'); S S (approx. 113')

Mineral: Py, Cpy, Pyrrh (approx. 45–50'); Py (approx. 64'); As (approx. 72'); M, W (approx. 76'); M, As, M (approx. 80'); As, M (approx. 86'); As (approx. 92'); Py As, Cpy (approx. 106–108'); Py (approx. 113'); Py As, W, Py As (approx. 120–124'); Py (approx. 130')

0-5' CASING.

5'-50' MOTTLED QUARTZITE (ARGILLACEOUS QUARTZITE) BLUE GREY RUSTY ALONG FRACTURES AND SOME BEDDING, MINOR QUARTZ VEINING
7.5-19 BROKEN CORE. RUSTY WEATHERING

0-20 CASING DRILLED DOWN AND LEFT IN HOLE

VERY MINOR SULPHIDES

50-52 FINER GRAINED MORE MASSIVE MOTTLED QUARTZITE
52-53 FINE GRAINED MASSIVE SANDY QUARTZITE
53-54 MOTTLED QUARTZITE
54-57 SAME AS 52-53
57-64 QUARTZITE FINE GRAINED, GREY, HARD, WITH WHITE TO BLUISH WHITE QTZ VEINING AT 70° & 30°. QTZ-CARB VEINING IN BRECCIA 63'-64'

64-72.5 SKARN MED. GRAIN, FINE GRAINED WITH NARROW BANDS QTZITIC MATERIAL, SKARN ZONES CHLORITIC, CHLORITE ON FRACTURES 68-70

72.5-91 SKARN GARNETIFEROUS. DIOPSIDE. DARK GREEN. COARSE GRAINED
73.8-75 QUARTZITE DARK MOTTLED, AND SKARN FINE GRAINED. THIN BANDED.
78-91 MAGNETITE RICH.
ARSENOPYRITE SCATTERED AS SMALL SINGLE CRYSTALS & PATCHES UP TO 3/8"
79.6 LITTLE FINE BLUISH SCHEELITE FLUORESCENCE.

91-95 QUARTZITE LIGHT GREY GREEN. F.G. HARD. CHERTY. FINE DISSEMINATED ARSENOPYRITE

95-113.6 SKARN C.G. GARNETIFEROUS. 99-113.6 HIGH GARNET CONTENT WITH CONSIDERABLE MAGNETITE. IN PART CALC-SILICATE SKARN. LITTLE FINE Py, Asp, Cpy. LITTLE SCHEELITE FLUORESCENCE AT 105 & 109.5

113.6-114 FAULT ZONE BOUNDED BY QTZ-CARB VEINING. ZONE OF CRUSHED SKARN LITTLE PYRITE

114-132 SKARN COARSE GR. GARNETIFEROUS WITH ABUNDANT MAGNETITE LITTLE FINE Py Cpy 119' Py 115.3 ~~Py~~ Asp 121' THIN QTZ VEINS Asp, Cpy
122.4-128 WIDELY SPACED VEINING WITH QTZ Py Cpy Asp, SKARN FINE GR. PINK GARNETS, HIGH MAGNETITE CONTENT. 123-125 MINOR SCHEELITE
131' HIGH Py CONTENT OVER 8"

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-1

Project DC SYNDICATE

Claim _____

Page 2 of 3

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = _____	ALTERATION	FRACTURING	MINERAL	GEOLOGY
132			140			M py cpy	S S S S
137.2						py cpy Asp F	S S S S
143.5			150			cpy As	S S S S
150						Py cpy As	S S S S
154							V V V V
158.3			160				▯ ▯
160							S S S S
164			170				▯
			180				▯
			190				▯
			200				▯
			210				▯
			220				▯
			230		WWW		▯
			240				▯

Purpose
Comment

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

SKARN, FINE GRAIN PALE GREEN CALC SILICATE LITTLE SCATTERED Py Cpy
135-137 THIN BANDED. DARK BANDS CONTAIN MAGNETITE. LIGHT BANDS FLUORITE
SKARN FINE GRAIN GREY GREEN MINOR FRACT WITH Py, Cpy, Asp, Fl.

SKARN PALE GREEN. THIN BANDED CALC SILICATE. CONSIDERABLE FINE HAIRLINE FRACTURING, VERY LITTLE Cpy. 147.5 MICACEOUS VEINING LITTLE Asp

SKARN PALE & DARK GREEN. GARNETIFEROUS. MAGNETITE, SCATTERED Py, Cpy Asp ON FRACTURES. LITTLE 1/4" VEINING AT 70° TO CORE.

TUFF? DARK GREEN, MOTTLED LAPILLI? TUFF. SMALL GREY-WHITE PHENOCRYSTS IRREGULAR PATCHY FRAGMENTS. FRACT & QTZ-CARB VEINING 154-156

[redacted] BUFF ALTERATION ON INCIPIENT FRACT. VEINING TOURM. FL. MICA. QTZ FELD PORPH QFP

SKARN DARK F.G. GREEN, WHITE 'GHOSTS' OF PHENOCRYSTS 161.1-161.5 TOURM FRACTS

164-246 [redacted]? QUARTZ BIOTITE FELDSPAR PORPHYRY
GREY GREEN GRANULAR. WITH SCATTERED SMALL DARK FRAGMENTS
YELLOW GREEN TO OLIVE FELDSPAR? PHENOCRYSTS UP TO 3/8"
SCATTERED SMOKY ROUNDED QTZ EYES

164-187 ROCK COLORED TO BUFF BY FELDSPATHIZATION? ALONG MANY INCIPIENT FRACTURES.
TWO SETS OF SHARP FRACTURES AT 70°-80° AND 30° TO CORE.
FILLED WITH BLACK MATERIAL - MAINLY TOURMALINE.
FROM 187' QUARTZ VEINING - CARBONATE AND LITTLE Py ALONG CORE AND AT 30° IRREGULAR VEIN 211.5 - 212.7
192 - 194 FRACT ALONG CORE

218.5 VEINING AT 30° WITH RELATED FRACT. CHLORITE

230 - 238 MUDDY FRACT OR FAULT ALONG CORE

241 - 242 C.G. IRREGULAR QTZ MONZONITE DYKE. CONTACTS INDISTINCT
246 END OF HOLE

From	To	Width	Recovery ft./lbs.	Recovery %	Sample	Assays Sn	W	Cu	Ag				
5.0	15.0	10.0		50	84501A	1	1			ppm			
15.0	25.0	10.0		85	502	1	1			ppm			
25.0	35.0	10.0		70	503	1	1			ppm			
35.0	45.0	10.0		90	504	1	1			ppm			
45.0	55.0	10.0		95	505	1	1			ppm			
55.0	64.0	9.0		100	506	1	4			ppm			
64.0	72.5	8.5		100	84507A	70	1			ppm			
72.5	75.0	2.5		100	280Q	0.07	0.05			%			
75.0	80.0	5.0		100	281Q	0.20	0.02			%			
80.0	85.0	5.0		100	282Q	0.16	0.04						
85.0	91.0	6.0		100	283Q	0.13	0.04		0.04 oz				
91.0	95.0	4.0		100	284Q	0.01	0.05						
95.0	100.0	5.0		100	286Q	0.27	0.02						
100.0	105.0	5.0		100	287Q	0.19	0.02						
105.0	110.0	5.0		100	288Q	0.36	0.03						
110.0	114.0	4.0		100	289Q	0.14	0.01						
114.0	119.0	5.0		100	290Q	0.88	0.04						
119.0	122.4	3.4			291Q	1.92	0.04	0.23					
122.4	128.0	5.6			292Q	1.42	0.04	0.20	0.12 oz				
128.0	132.0	4.0			293Q	0.48	0.02						
132.0	137.0	5.0			294Q	0.35	0.01						
137.0	143.5	6.5			295Q	0.58	<0.01						
143.5	150.0	6.5			296Q	0.24	<0.01						
150.0	158.3	8.3			297Q	0.30	<0.01			%			
158.3	160.0	1.7			84508A	9	7			ppm			
160.0	163.9	3.9			509	175	5						
163.9	172.0	8.1			510	22	3						
172.0	178.0	6.0			511	20	1						
178.0	182.0	4.0			512	3	5						
182.0	187.0	5.0			84513A	1	5						

1.15% / 18.0'

0.61% / 53.3'

0.44% / 85.8'

Length _____ Contractor _____

Bearing 0° Core BQ Stored _____

Dip -70° Casing _____

Lat. 98+94N Logged by _____ Date _____

Dep. 86+00E Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-1

Project DC SYNDICATE

Claim _____

Page 3 of 3

From	To	Width	Recovery ft./lbs.	Recovery %	Sample	Assays Sn	W	Cu					
6.0	12.0	6.0		80	84514A	10	1			ppm			
12.0	15.3	3.3		100	298Q	0.11	<0.01			%			
15.3	24.0	8.7		100	299Q	0.12	0.01			%			
24.0	26.3	2.3		100	300Q	0.02	<0.01						
26.3	30.8	4.5		100	0378	0.07	<0.01						
30.8	41.5	10.7		100	0379	0.01	0.01						
41.5	44.3	2.8		100	0380	0.19	0.02	0.61					
44.3	49.0	4.7		95+	0381	0.77	0.01	0.06					
49.0	55.0	6.0		90+	0382	0.19	0.02	0.05					
55.0	59.2	4.2		95+	0383	0.10	0.03	0.05					
59.2	60.5	1.3		95+	0384	2.08	0.06	1.24					
60.5	66.5	6.0		100	0385	0.26	0.02	0.05					
66.5	74.0	7.5		100	0386	0.41	0.03	0.18					
74.0	79.0	5.0		100	0387	0.42	0.03	0.12					
79.0	83.2	4.2		100	0388	3.44	0.04	0.29					
83.2	88.0	4.8		85	0389	0.58	0.02						
88.0	93.5	5.5		90+	0390	0.08	0.02						
93.5	103.0	9.5		100	84515A	545	8			ppm			
103.0	113.0	10.0		100	516	75	3			"			
113.0	123.0	10.0		100	517	100	3			"			
123.0	133.0	10.0		100	518	145	2			"			
253.0	256.0	3.0		95	84519A	1	2			ppm			
256.0	258.5	2.5		95	520	1	2			"			
258.5	267.0	8.5		100	521	1	12			"			
267.0	276.0	9.0		100	522	1	13			"			
394.5	401.0	6.5		100	84523A	1	2			ppm			
440.5	447.5	7.0		100	84524A	12	2			ppm			

0.69% / 46.5'

1.38 / 14.0'

Length 451'
Bearing N
Dip -90°
Lat.
Dep.
Elev.
O.B. Thickness Started Finished
B.R. Thickness Started Finished

Contractor
Core Stored
Casing
Logged by Date
Location

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-2
Project DC SYNDICATE
Claim
Page of

Purpose ① To test Magnetic Anomaly
Comment ② To Test Tin Values under Good Grade Trenches
③ To Probe For Seagull Batholith

SURVEY: Footage	Bearing	ANGLE Reading	Corrected
0	—	VERT	

Length 451'
Bearing —
Dip 90°
Lat. 9942N
Dep. 8,187E
Elev. 4,697

Contractor E. Caron Diamond Drilling
Core BQ Stored
Casing Logged by J.C.S. Date
Location

Started
Finished
Started
Finished

O.B. Thickness
B.R. Thickness

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-2
Project D.C. Syndicate
Claim

Page 1 of 5

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 20'	ALTERATION	FRACTURING	MINERAL	GEOLOGY
0 6 12 15.3 24 26.3 30.8 41.5 44.3 83.2 84.3 93.5			10 20 30 40 50 60 70 80 90 100 110 120 130		/ / /	W cpy Py Asp cpy Py Asp M cpy Py T cpy W M Ma Tc Tc?	

CASING No CORE

QUARTZITE, DARK ARGILLACEOUS "MOTTLED", BEDDING SOMEWHAT IRREGULAR AT 60°-80°. MINOR SKARN IN LAST FOOT.

SKARN. MASSIVE F.G. GREEN. HIGHLY GARNETIFEROUS IN FIRST .3' GRADUALLY DECREASING. SCATTERED COARSE SCHEELITE 13.5 - 14'

SKARN COARSE. HIGHLY GARNETIFEROUS

LAST -5' No GARNET. FINE GRAIN

SKARN CALC SILICATE WHITE TO PALE PINK ALTERNATE WITH DARK BANDS "ZEBRA ROCK"

SKARN HIGHLY GARNETIFEROUS AS 15.3-24 BUT FINER GRAIN. LAST FOOT FINE GRAIN, GREEN, No GARNET.

SKARN CALC SILICATE, PREDOMINANTLY WHITE TO PALE PINK AND GREEN SILICATE WITH MINOR DARK BANDS. "ZEBRA ROCK"

SKARN DARK GREEN, MASSIVE, WELL MIN. WITH Cpy, Py Asp. SOME BETTER MIN ON VEIN AT 20° TO CORE - QTZ FILLED VEINING

SKARN ALTERNATING GARNET RICH CALC SILICATE AND DARK GREEN F.G. SULPHIDE MINERALIZED DIOPSIDE SKARN. VARIETIES ARE IN IRREGULAR BANDS OF .8 TO 1.5'

44.3 - 49 APPROX 50/50 CALC SILIC AND DARK GREEN. DARK SECTIONS 3-5% Cpy, Py Asp

49 - 55 MAINLY CALC SILICATE GARNET SKARN. DARK BANDS 1"-4". LITTLE SULPHIDE.

55 - 59.2 60% CALC SILICATE. DARK SECTIONS 1-2% SULPHIDES. 1½" TOURMALINE QUARTZ Py VEIN AT 56.7. AT 57.8' 3" FAIRLY MASSIVE MAGNETITE.

59.2 - 60.5 DARK, 5-10% Cpy, Py. CONSIDERABLE MAGNETITE. 1" TOURMALINE QTZ VEIN AT 60°.

60.5 - 66.5 CALC SILICATE & MINOR DARK GREEN SK. 60.5 AND 62.2 <1" QTZ TOURMALINE VEINS AT 60°

66.5 - 83.2 MAINLY DARK GREEN 70.6 - 71.6 COARSE, HIGHLY GARNETIFEROUS 73 - 74 COARSE, HIGHLY GARNETIF. BLOTCHES OF Cpy IN DARK SK BETWEEN GARNETS 78' 0.5' APPARENTLY LOST CORE. 74-77 LITTLE FINE SCHEELITE

79-80 GARNETIFEROUS, VEINED; DARK SK F.G WITH MAGNETITE. 80-82 COARSE, HIGHLY GARNETIFEROUS 82.8 STREAKS OF MALAYAITE. 80-83 MINOR QTZ CARB FR ALONG CORE. 79-83 ABUNDANT ARSENOPYRITE

83.2 - 84.3 SKARN MIXED WITH SILICEOUS CHERT 1½" Qtz VEIN WITH TOURMALINE, GARNET AND CASSITERITE.

84.3 - 93.5 CHERT LIGHT GREY TO DARK GREEN, MOTTLED, MANY HAIRLINE FRACT. SET SHARP FRACT AT 70° WITH QTZ, TOURMALINE. 1½" VEIN AT 87.5 WITH REDDISH GARNET, TOURMALINE & CASSITERITE?

93.5 - QUARTZ BIOTITE FELDSPAR PORPHYRY.

PRIMARILY GREENISH GREY IN COLOR, GRANULAR, FINE GRAIN. SMALL SCATTERED BIOTITE BOOKS, OLIVE GREEN FELDSPAR PHENOCRYSTS, AND DARK QUARTZ EYES.

BUFF FELDSPATHIZATION? ON MANY INCIDENT FRACTURES AS WELL AS ON WELL DEFINED SETS OF FRACTURES AT 55°-70° AND 20°-35°. THESE SETS OF FRACTURES OCCURRED BY BLACK TOURMALINE (SCHORL)

MUDDY FRACTURE ALONG CORE 116-123, 130-133

SURVEY: Footage	Bearing	ANGLE: Reading	Corrected

Purpose
Comment

SCHORL FILLED FRACTURES AND BUFF ALTERATION VERY WEAK AFTER 125'
CORE BADLY BROKEN 141 - 173 WITH FRACTURING ALONG CORE.
148 - 150 MAINLY SOFT FAULT GOUGE, FAULT FRACTURES OFFSET SCHORL FILLED FRACTURES
152 - 170 FAULT BRECCIATION
173 - 186 CORE LESS FRACTURED AND RELATIVELY UNBROKEN. OCCASIONAL SCHORL FRACTURES WITH SOME BLEACHING

185' - 6" SCHORL ZONE
186 - 196 FRACTURING ALONG CORE

201 - 207 FAULT GOUGE AND BRECCIATION

218 - 222 FRACTURING ALONG CORE WITH SCHORL AND CARBONATE

227 - 234 FAULT GOUGE AND BRECCIATION

237 - 243 BROKEN CORE - FRACTURING ALONG CORE

248 - 250 BROKEN CORE. GOUGE ON VERTICAL FRACTURES. SCHORL AND QUARTZ ON OLDER FRACTURES AT 0° TO 30° TO CORE
252 - 253 BROKEN CORE FAULT MATERIAL
253 - 256 RUST ON FRACTURES. PALE YELLOW GREEN TO RUSTY RED BROWN
256 - 257.5 FRESH GREY QTZ BIO FELD POR SHARP TRANSITION AT 30° TO CORE

GEOLOGY | MINERAL | FRACTURING | SCALE 1" = | BOX No. | % CORE RECOVERED | DRILLING INTERVAL | ALTERATION

Length _____ Contractor _____
Bearing _____ Core _____ Stored _____
Dip _____ Casing _____
Lat. _____ Logged by _____ Date _____
Dep. _____ Location _____
Elev. _____
O.B. Thickness _____ Started _____ Finished _____
B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-2
Project D.C. SYNDICATE
Claim _____

J.C. STEPHEN EXPLORATIONS LTD.

Length _____ Contractor _____
Bearing _____ Core _____ Stored _____
Dip _____ Casing _____
Lat. _____ Logged by _____ Date _____
Dep. _____ Location _____
Elev. _____
O.B. Thickness _____ Started _____ Finished _____
B.R. Thickness _____ Started _____ Finished _____

Hole No. JC 79-2
Project RS SYNDICATE
Claim _____
Page 3 of _____

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

Purpose
Comment

DRILLING INTERVAL | % CORE RECOVERED | BOX No. | SCALE 1" = _____ | ALTERATION | FRACTURING | MINERAL | GEOLOGY

257.5 - 365' RUSTY QTZ BIO FELD PORPH (QBFP)
SCHORL FILLED FRACTURES ALONG CORE 263-271, 274-276
BROKEN CORE 260-262, 263.5-264.5; 274.5-276
277-280: 282-290 BROKEN CORE WITH FRACTURES RUNNING DOWN CORE, FRACTURES CONTAIN CARBONATE & MINOR SCHORL. ROCK BLEACHED.

293 - 302 5' CORE LOST

302 - 304 FRESH GREY QBFP
304 - 306.5 COLORED REDDISH BROWN
306.5 - 312 FRESH GREY QBFP

312.5 - 319 YELLOW GREY FAULT GOUGE

319 - 321.5 REDDISH QBFP: ALTERED AND CRUSHED
321.5 - 324 GREY QBFP - SHARP CURVED LINE AT CHANGE IN COLOR
PEGMAT. 324 - 325 REDDISH. 325-326 GREY. FRESH MASSIVE
326 - CHANGE TO REDDISH 326.5 = 3" DALE FELDSPAR (K) AND QUARTZ PEGMATITE.
331 - 338 CORE MUCH BROKEN & BLEACHED 334.5 - 338 CRUSHED, GOUGE FRACTURES WITH SCHORL ALONG CORE, BARREN FRACTS AT 45° & 30°.
ROCK HAS BEEN GETTING GRADUALLY COARSER GRAINED; PHENOCRYSTS LARGER AND MORE PROMINENT. - STILL RELATIVELY FINE GRAINED.

357.5 - 358.5; 359.5 - 363 CORE BROKEN. 359.5 - 360 GOUGE FRACTURES ALONG CORE WITH QTZ, OTHERS WITH SCHORL.

365 - 451 COARSELY PORPHYRITIC QFB PORPHYRY, FELDSPAR TO 1";
SMOKEY QTZ EYES TO 3/8"
FROM ABOUT 350' RUSTY CORRODED RIMS AROUND MANY GREENISH GREY FELDSPARS. NEGATIVE TEST FOR CASSITERITE. BIOTITE BOOKS MARE NUMEROUS BUT REMAIN SMALL
ORANGE FLUORESCENT CRYSTALS COMMON AT 378 - 387; 394 - 401
409 - 413; 414 - 416

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-2
Project D.C. SYNDICATE
Claim
Page 4 of

Length — Contractor
Bearing — Core — Stored
Dip — Casing
Lat. — Logged by — Date
Dep. — Location
Elev.
O.B. Thickness — Started — Finished
B.R. Thickness — Started — Finished

SURVEY: Footage	Bearing	ANGLE Reading	ANGLE Corrected

DRILLING INTERVAL | % CORE RECOVERED | BOX No. | SCALE 1" = | ALTERATION | FRACTURING | MINERAL | GEOLOGY | Purpose Comment

Scale: 390, 400, 410, 420, 430, 440, 450

CORE BROKEN 416-417, 419-420
420' BARREN FRACTURES AT 30°

430.5 - 433.5 GOUGE BROKEN CORE 50% RECOVERY
WHITE ~~GYPSUM?~~ DOLOMITE ON FRACTURES
434 QUARTZ, SCHORL FILLED FRACTS AT 20°. ROCK SOMEWHAT DISCOLORED, ALTERED
434 - 448 SCATTERED IRREGULAR FRACTURES WITH DOLOMITE. FRACTURES AT 30° AND 45° WITH MINOR QTZ. SOME WITH MINOR SCHORL. ROCK CUT BY MYRIAD SMALL FRACTURES, COLOR ALTERED TO YELLOWISH BROWN. FELDSPAR PHENOCRYSTS FRACTURED AND INDISTINCT.
448-451 RELATIVELY FRESH COARSE QFBP.
451 END OF HOLE

	From	To	Width	Recovery ft./lbs.	Recovery %	Sample	Assays Sn	W		Cu	Zn	Ag	Au	U
OCHEM	40.0	48.6	8.6		100	84525A	1	1	ppm					
	48.6	52.6	4.0		100	84526A	15	1	"					
DDAY	52.6	60.2	7.6		100	0391	0.04	0.04	%					
"	60.2	65.5	5.3		100	0392	0.02	<0.01	"					
	65.5	69.0	3.5		100	0393	<0.01	<0.01						
	69.0	70.0	1.0		100	0394	0.07	<0.01			2.09			
	70.0	71.8	1.8		95	0395	0.10	<0.01						
	71.8	78.5	6.7		100	0396	0.09	0.01						
	78.5	81.6	3.1		100	0397	0.11	0.01						
	81.6	83.7	2.1		100	0398	0.01	<0.01						
	83.7	86.4	2.7		100	0399	0.10	<0.01						
	86.4	90.0	3.6		100	0400	0.01	<0.01						
	90.0	97.0	7.0		100	0404	<0.01	<0.01						
	97.0	105.0	8.0		100	0405	0.01	0.01						
	105.0	112.0	7.0		95	0406	0.02	<0.01						
	112.0	117.6	5.6		95	0407	0.02	<0.01						
OCHEM	117.6	121.0	3.4		100	84527A	1	8	ppm					

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip -70° Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-3

Project _____

Claim _____

Page ____ of ____

Purpose: TO TEST NORTH EDGE OF MAGNETIC ANOMALY AND DOWN DIP PROJECTION OF SKAR OUTCROPS ON LINE 72+00E

Comment:

SURVEY: Footage	Bearing	ANGLE Reading	Corrected
0'	NORTH		-70

0-4 NO CORE CASING TO 10'.

4-6 LIMESTONE. LIGHT GREY, FINE GRAINED SILICEOUS LOOKING. BROKEN

6-27 LIMESTONE. WHITE THIN BEDDED, VERY MINOR THIN BEDS ARGILLACEOUS MATERIAL. SOME BEDS HARD SILICEOUS.

27-40 LIMESTONE. MASSIVE RECRYSTALLIZED.

40-48.5 LIMESTONE. SIMILAR TO 6-27'

48.5-52.6 SKARN, WHITE - RED GARNETIFEROUS

52.6-60.2 SKARN, MASSIVE PALE GREEN FINE GRAINED

52.6-55 DARKER IN COLOR WITH SMALL WHITE PHENOCRYSTS. VOLCANIC APPARENTLY REPLACED BY SKARN, FEW SMALL CARBONATE FILLED FRACTURES ALONG CORE. STREAKS OF RED GARNET.

60.2-65.5 LIMESTONE. WHITE COARSE RECRYSTALLIZED.

65.5-69 SKARN THIN BEDDED PALE GREEN GARNETIFEROUS CALC SILICATE WITH IRREGULAR BEDS ARGILLITE.

69-70 SKARN PALE TO MEDIUM GREEN, FINE GRAIN WITH STREAKS REDDISH SPHALERITE. AT 69' CONTACT IRREGULAR, SHARP.

70-72 SKARN DARK GREEN FINE GRAINED DIOPSIDE MAGNETITE. LITTLE ARSENOPYRITE, PYRITE. CONTACTS SHARP

72-78.5 SKARN. GREY GREEN FINE GRAINED WITH BANDS REDDISH GARNET. 72.0-72.8; 75.8-76.8; 77.4-78.5 HIGHLY GARNETIFEROUS CONTACT AT 78.5 FOLLOWS FRACTURE ALONG CORE. LITTLE FINE SCHEELITE

78.5-81.6 SKARN DARK GREEN FINE GRAINED ZONES OF EPIDOTE. VERY LITTLE FINE ARSENOPYRITE. LOWER CONTACT IRREGULAR REPLACEMENT

81.6-83.7 LIMESTONE. WHITE THIN BANDED, SILICIFIED. MINOR ARGILLITE

83.7-86.4 SKARN DARK GREEN DIOPSIDE, MAGNETITE. LITTLE FINE CPY. ASP MINOR QUARTZ CARBONATE FILLED FRACTURES ALONG CORE.

86.4-90.0 LIMESTONE - THIN BEDDED, SILICIFIED, MINOR ARGILLITE BEDS CUT BY FINE FRACTURES AT 10°-30°. SOME FRACTURES THINLY COATED WITH BRIGHT GREEN FLUORESCENT MATERIAL. NO SIGNIFICANT GARNET CONTENT

90.0-97.0 LIMESTONE, WHITE, PARTIALLY SILICIFIED, GARNETIFEROUS.

97.0-112.0 CHERTY QUARTZITE PURPLISH, MOTTLED, SILICIFIED WITH ARGILLITE BANDS. 99.2 SMALL PATCH PYRRHOTITE. 105-106 CALC SILICATE SKARN LITTLE PYRR & PY ON FRACTURES

112.0-117.6 CHERT - GREENISH GREY. WELL FRACTURED AT 30° AND 70° WITH SCHORL

117.6-161 QUARTZ FELDSPAR BIOTITE PORPHYRY FINE GRAINED MASSIVE FRESH, GREY GREEN COLOR, OLIVE GREEN FELDSPAR PHENO

MINERAL: Zn, As, Py; W, As; Mag, Cpy, Asp

FRACTURING

ALTERATION

SCALE 1" = ____

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length 161'
Bearing NORTH
Dip -70°
Lat. 10,118 N
Dep. 7,229 E
Elev. 4,660
O.B. Thickness ____ Started ____ Finished ____
B.R. Thickness ____ Started ____ Finished ____

Contractor ____
Core BQ Stored ____
Casing BW
Logged by GK Date ____
Location ____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-3
Project D.C. SYNDICATE
Claim ____

Page 1 of ____

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

Purpose
Comment

SCHORL FILLED FRACTURES
122.5, 125, 130, 133, 147, 153, 159 AT 30°
AT 10°
145'
QUARTZ CARBONATE FILLED FRACT ALONG CORE 151-152
AT 30°
128

161' END OF HOLE.

GEOLOGY

MINERAL

FRACTURING

ALTERATION

SCALE
1" = _____

140 150 160

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length _____ Contractor _____
Bearing _____ Core _____ Stored _____
Dip _____ Casing _____
Lat. _____ Logged by _____ Date _____
Dep. _____ Location _____
Elev. _____
O.B. Thickness _____ Started _____ Finished _____
B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-3
Project _____
Claim _____
Page 2 of _____

From	To	Width	Recovery ft./lbs.	Recovery %	Sample	Assays Sn	W	Cu	Ag	Au			
6.0	9.0	3.0			84528A	1	1				ppm		
10.4	12.8	2.4		70%	84529A	1	1						
58.2	60.0	1.8		100	0408	0.04	<0.01				%		
60.0	63.1	3.1		100	0409	0.01	0.01						
81.0	86.3	5.3		100	0410	0.10	0.02						
86.3	87.2	0.9		100	0411	0.10	0.01						
87.2	91.0	3.8		100	0412	0.11	0.02						
91.0	96.0	5.0		100	0413	0.06	0.02						
96.0	98.0	2.0		100	0414	0.18	0.01						
98.0	105.0	7.0		80	0415	0.14	0.01						
105.0	107.0	2.0		100	0416	0.11	0.01						
107.0	108.0	1.0		100	0417	0.12	0.01						
108.0	110.0	2.0		100	0418	0.12	0.01						
110.0	111.0	1.0		100	0419	0.08	<0.01						
111.0	115.0	4.0		75	0420	0.13	<0.01						
115.0	117.0	2.0		100	0421	0.14	<0.01	0.40	0.36				
117.0	121.0	4.0		100	0422	0.19	0.03	0.77	0.84	<0.003			
121.0	127.8	6.8		95	0423	0.10	<0.01						
127.8	134.0	6.2		95	0424	<0.01	<0.01			<0.003			
134.0	135.5	1.5		100	0425	<0.01	<0.01						
135.5	137.8	2.3		100	0426	<0.01	<0.01			<0.003			
137.8	142.0	5.8		95	0427	0.01	<0.01						
142.0	145.5	3.5		100	84530A	1	100				ppm		
145.5	147.8	2.3		100	84531	1	8						
147.8	152.0	4.2		100	84532	3	1						
152.0	158.0	6.0		95	84533	5	10						
158.0	162.5	4.5		100	84534	10	10						
162.5	172.0	9.5		100	84560A								
172.0	176.0	4.0		95	84535	2	11						
176.0	177.0	1.0		100	84561A								
177.0	183.5	6.5		90	84536	1	3						
183.5	186.0	2.5		100	84537	1	9						

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-4

Project D.C. SYNDICATE

Claim _____

Page ____ of ____

From	To	Width	Recovery		Sample	Assays							
			ft./lbs.	%		Sn	W						
186.0	190.4	4.4		95	84562A								
190.4	194.0	3.6		100	84538A	3	11						
194.0	201.0	7.0		100	84539A	2	12						
201.0	203.0	2.0		100	84563A								
203.0	204.0	1.0		100	84540	1	8						
204.0	208.0	4.0		100	84541	2	2						
208.0	210.0	2.0		100	84542	1	8						
210.0	216.0	6.0		100	84543	1	5						
216.0	225.5	9.5		100	84544	1	2						
225.5	230.0	4.5		100	84545	33	10						
230.0	231.0	1.0		100	84546	7	25						
231.0	233.6	2.6		100	84564A								
233.6	239.2	5.6		100	84547	10	13						
239.2	248.5	9.3		100	84548	1	10						
248.5	253.0	4.5		100	84565A								
253.0	260.0	7.0		95	84566A								
260.0	265.0	5.0		100	84549	1	12						
265.0	270.0	5.0		100	84550	1	14						
270.0	275.0	5.0		100	84551	1	18						
275.0	278.0	3.0		100	84567A								
278.0	282.0	4.0		100	84552	1	14						

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC79-4

Project _____

Claim _____

Page ____ of ____

Purpose / Comment: TO TEST MAGNETIC ANOMALY

SURVEY: Footage	Bearing	ANGLE: Reading	Corrected
0	SOUTH		-62°
320'			-70°

SCALE 1" = 20'

ALTERATION | FRACTURING | MINERAL | GEOLOGY | BOX No. | % CORE RECOVERED | DRILLING INTERVAL

0-6 NO CORE CASING 0-12'

6-9.5 CHERTY TUFF? FAIRLY WELL BANDED AT 23° TO CORE. PURPLISH COLOR. SMALL SILICEOUS EYES (1/4") ELONGATED. ELLIPTICAL FRAGS UP TO 3/4". SHOWS DULL BRASSY REFLECTION IN SOME BANDS UNDER SHORT WAVE ULTRA VIOLET LAMP.

9.5-12.8 LIMESTONE FAIRLY THIN BEDDED. SMALL GARNETS IN LAST FOOT

12.8-14.5 LIMESTONE MASSIVE GREY.

14.5-20.5 LIMESTONE THIN BEDDED; GREY TO WHITE.

20.5-25 CHERT - LIGHT MAUVE TO GREENISH WHITE. THIN BEDDED AT 35° TO CORE

25-50.3 SILICIFIED LIMESTONE. THIN BEDDED, GREY TO WHITE. "MOTTLED FABRIC"
49.5 QUARTZ-CARBONATE FILLED FRACTURE AT 30° CUTS BEDDING

50.3-58.2 FELDSPAR PORPHYRY DYKE. DARK GREEN, MASSIVE, FINE GRAINED. SMALL WHITISH FELDSPAR PHENOCRYSTS. MAY BE A FLOW. UPPER FOOT FINE GRAINED MIXED WITH LIMESTONE. BOTTOM OF FIRST FLOW AT 54.5 IN FRACTURED ALTERED ZONE. SECOND FLOW? HAS F-G TUFF TOP, DARK, DISTINCTLY PORPHYRITIC, F-G AT LOWER CONTACT

58.2-60.0 SKARN. PALE CREAM TO OLIVE GREEN, GARNETIFEROUS. 2" QTZ AND LIGHT GREEN CALC SILICATE AT UPPER CONTACT. LOWER CONTACT INCLUDES 1/4" ARGILLITE

60.0-69.0 MASS LIMESTONE. MASSIVE WHITE TO LIGHT GREY. COARSELY CRYSTALLINE. MINOR FRACTURING. RUSTY WITH FINE PYRITE

69.0-81.0 LIMESTONE, THIN BANDING NOT PROMINENT. LAST 3' MASSIVE. 3" SKARNY ARGILLITE. LIMESTONE ~~SILICIFIED~~ SILICIFIED FROM 77' TO 78'

81.0-127.8 SKARN.
81-86.3 MAGNETITE, DIOPSIDE, CHLORITE. INCIPIENT AND QTZ-CARB FILLED FRACTURES ON INTERSECTING SETS. SCHEELITE AT 86'
86.3-87.2 CALC SILICATE. LIGHT GREENISH GREY. NARROW FRACTS ON INTERSECTING SETS
87.2-91.0 MEDIUM GREEN, EPIDOTE BEARING. MAGNETITE IN LAST FOOT. MINOR QTZ CARB FILLED FRACTURES AT 30°
91.0-96.0 LIGHT GREEN AND PINK, GARNETIFEROUS, CALC SILICATE.
92.0-93.0 DARK GREEN TO BLACK TUFF. IRREGULAR REPLACEMENT BY SKARN (PHOTO)
95.5-96.3 PALE CALC SILICATE. FRACTURED & BROKEN. FINE BANDING AROUND PARTLY REPLACED DARK FRAGMENTS.
96- PRIMARILY DARK GREEN DIOPSIDE, MAGNETITE SK. BROKEN & FRACTURED
98-100.5 FRACT WITH QTZ-CARB ON 2° SEAM AT 20°. CHLORITIC, PY ON LATE FRACT.
102-103 BARREN FRACT ALONG CORE.
105-110 GARNETIFEROUS CALC SILICATE. VERY FRACT WITH CHLORITE 107-108 10% Pyrr Py Cpy
108.5-110 PITTED, GRANULAR, SMALL GARNETS Pyrr Py Cpy; 110-111 DARK GREEN HEAVY PY Py Cpy
111-111.8 CALC SILICATE - PALE GREEN + PINK; 111.8-115 75% RECOVERY DARK GREEN, CHLORITIC HEAVILY MIN WITH Pyrr, Py Cpy. LATE OPEN FRACTS AT 20° MIN WITH Py
115-117 THIN BEDDED GREEN & PINK GARNETIFEROUS CHLORITIC FRACTURES AT 0° & 30°
MINOR SCHEELITE. 117-121 WELL MIN WITH Cpy Pyrr Py IN FIRST FOOT. HIGHLY GARNETIFEROUS, SOME MAGNETITE, NUMEROUS HAIRLINE FRACT. 121-127.8 LIGHT TO DARK GREEN ~~WITH~~ NUMEROUS HAIRLINE FRACT

127.8-134 CHERT GREY TO GREENISH GREY WITH FEW ARGILLITIC BEDS. QUARTZ AND

BOX No.	% CORE RECOVERED	DRILLING INTERVAL
	80%	
	75%	

Length 327'
Bearing SOUTH
Dip -62°
Lat. 10,113N
Dep. 7,235E
Elev. 4,661
O.B. Thickness
B.R. Thickness

Contractor
Core BQ Stored
Casing BW
Logged by [illegible] Date
Location

Started Finished
Started Finished

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC79-4
Project
Claim

Length ____ Contractor ____

Bearing ____ Core ____ Stored ____

Dip ____ Casing ____

Lat. ____ Logged by ____ Date ____

Dep. ____ Location ____

Elev. ____

O.B. Thickness ____ Started ____ Finished ____

B.R. Thickness ____ Started ____ Finished ____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-4

Project ____

Claim ____

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 20'	ALTERATION	FRACTURING	MINERAL	GEOLOGY
	75%		140 150 160 170 180 190 200 210 220 230 240 250 260			As Py; As Cpy Py; Py; Cpy Py; As Py	

Purpose
Comment

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

AMETHYST FILLED NARROW FRACTS AT 45° APPROX PARALLEL TO BEDDING. CUT BY NARROW QTZ-CARB FILLED FRACT ALONG CORE. NUMEROUS HAIRLINE FRACT.

SKARN - CALC SILICATE GREEN & WHITE, MANY HAIRLINE FRACTS. 134-135.5

135.5 - 137.8 ARGILLITE, CHERTY GREY TO PURPLISH HORNFELSED BEDDING AT 45° MINOR FRACT LITTLE AMETHYST

137.8 - 139 SKARN DARK GREEN CHLORITIC. CARBONATE VEINING ALONG CORE

139 - 140.5 SKARN CALC SILICATE LIGHT GREY TO GREENISH, WITH NARROW ARGILLITE BED

140.5 - 142 SKARN DARK GREEN CHLORITIC BROKEN & SHEARED. CARBONATE SEAM AT 20°

142 - 145.5 SKARN CALC SILICATE LIGHT GREEN TO PINK HAIRLINE FRACTS

145.5 - 147.8 ARGILLITE PURPLE CHERTY MINOR QTZ AT 10° AND 20°

147.8 - 152 SKARN - CALC SILICATE PALE TO GREENISH. QTZ FRACT ALONG CORE

152 - 158 ARGILLITE - CHERTY BROWN TO PURPLISH. BEDDING AT 50°-60° FEW QTZ FRACTS.

158 - 327 QUARTZ FELDSPAR BIOTITE PORPHYRY FINE GRAINED. GREENISH

159-161 4" QUARTZ, SOME PEGMATITIC FELDSPAR WITH 2" AND PATCHES OF SCHORL. ROCK SOMEWHAT BLEACHED & ALTERED.

SOME BLEACHING ALONG INCIPIENT FRACTURES. LITTLE PEGMATITIC FELDSPAR AND QUARTZ AT 162'.

167-167.5 BROKEN CORE AND FAULT GOUGE CORE FRACTURED TO 170'

172 - 178 FINE GRAINED

178 - 185 SLIGHTLY COARSER GRAINED, FRACTS SLIGHTLY BLEACHED

182 - 184.5 MINOR Py 185-186.5 FINE GRAINED

186.5 FRACTURED & BLEACHED

SCHORL BEARING FRACTS: 172-176 AT 15° TO CORE WITH BLEACHING
177.5 AT 90° 183.5-186 AT 20°

190.4 - 194 FRACTS AT 30° WITH QUARTZ AND LITTLE SCHORL

194 - 201 BLEACHED BUFF - LITTLE SILICIFICATION & FRACTURING

198 - 200 SILICIFICATION AND SCHORL ALONG CORE

200 - 201 CRUSHED - FAULT ZONE

201 - RELATIVELY FINE GRAINED, SLIGHTLY FRACT, MINOR QTZ ON FRACTS

203 QUARTZ AND SCHORL BEARING FRACTS WITH ARSENOPYRITE, PYRITE

204-207 MINOR FRACT AT 20°

208-210. TWO FRACTS WITH SCHORL AT 40°, ONE CARRIES ASP CPY Py

210 - 216 FAIRLY FINE GRAINED, SLIGHTLY ALTERED. SEVERAL TIGHT SCHORL BEARING FRACTS SOME Py

216 - 220 FRESH, MED FINE GR. CORE BROKEN

220 - 225.5 FRESH. MASSIVE. MED F.G. ONE SCHORL FRACT AT 30°

225.5 - 230 SLIGHTLY ALT. WEAK FRACT WITH SCHORL

230 - 231 STRONG FRACTURE AT 30°-40° WITH QTZ, SCHORL CPy, Py

231 - 233.6 FRESH FINE-MED GR. WEAK INCIPIENT FRACTURING.

233.6 - 239.2 DARK GREY GREEN GRANULAR, SOME SILICIFICATION MYRIAD FINE FRACT 3% Py SOME ARSENOPYRITE.

239.2 - 248.5 OLIVE GREEN, GRANULAR WITH WIDELY SPACED SCHORL FRACTS AT 30°

248.5 - SIMILAR, FINE-MED GR. FELDSPARS BECOMING MUCH LARGER, QTZ EYES MORE ABUNDANT & LARGER 252-253 NARROW SCHORL FRACT AT 20° RELATIVELY FRESH TO 260

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC79-4

Project _____

Claim _____

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" =	ALTERATION	FRACTURING	MINERAL	GEOLOGY	Purpose Comment	SURVEY: Footage	SURVEY: Bearing	ANGLE: Reading	ANGLE: Corrected
			270		/			260-265 BLEACHING WITH SCHORL AND QUARTZ FILLED FRACTURES AT 30°				
					//			265-270 QTZ FILLED FRACT + BLEACHING AT 265.5, 266.5-268 QTZ VEINING, SILICIFICATION, MINOR SCHORL. 268-269 BLEACHED, STRONG SCHORL FILLED FRACTURES AT 30°				
					///			270-275 2" SCHORL AND QTZ FILLED FRACT AT 271' AT 45°. 272.5-274 STRONG FRACTS WITH QTZ AND SCHORL AT 20°				
								275-287 GENERALLY QUITE FINE GRAINED				
			280		/			278.6-280.1 STRONG SCHORL + QTZ FILLED FRACT AT 20°. ADDITIONAL FRACTURES UP TO 3/4" TO 282'				
								287-290 DARKER AND COARSER GRAINED. MASSIVE FRESH PORPHYRITIC				
			290		/			290-327 LIGHTER COLOR, FINER GRAINED. APPEARS BLEACHED. VERY HARD. NARROW SCHORL FRACTS AT 10° AT 292-293'				
								ROCK PORPHYRITIC, FAIRLY LIGHT COLORED TO 301 THEN DARKER TO 312' LIGHTER TO END OF HOLE. RELATIVELY COARSELY PORPHYRITIC				
			300		/	As		FRESH AND MASSIVE.				
								303.5-304.5 FRACT AT 20° WITH SCHORL, LITTLE ARSENOPYRITE.				
			310		.			325 FRACTURE AT 15° WITH SCHORL QTZ, LITTLE ARSENOPYRITE.				
			320		/							
								327' END OF HOLE				

From	To	Width	Recovery ft./lbs.	Recovery %	Sample	Assays Sn	Assays W						
42.0	50.0	8.0		95	84555A	1	1		ppm				
78.5	86.0	7.5		100	84553	1	2						
140.0	150.0	10.0		100	84554	1	8						
246.7	248.5	1.8		90	0428	0.06	<0.01		%				
248.5	252.1	3.6		100	0429	0.03	<0.01						
252.1	254.5	2.4		100	0430	0.02	<0.01						
254.5	256.0	1.5		100	0431	0.04	<0.01						
256.0	260.7	4.7		100	0432	0.09	<0.01						
260.7	265.0	4.3		100	0433	0.04	<0.01						
265.0	275.0	10.0		100	84556A	2	3		ppm				
275.0	285.0	10.0		100	84557	1	2						
285.0	295.0	10.0		100	84558	23	1		ppm				
295.0	302.0	7.0		100	84559	11	1		ppm				
302.0	310.0	8.0		100	84581	1	14		ppm				
310.0	319.4	9.4		100	84582	1	1		ppm				
319.4	323.2	3.8		100	0434	<0.01	0.01		%				
323.2	331.0	7.8		95	0435	0.08	0.01						
331.0	337.0	6.0		95	0436	<0.01	0.01						
337.0	342.0	5.0		100	0437	0.07	0.01						
342.0	346.0	4.0		100	0438	<0.01	0.01						
346.0	351.0	5.0		100	0439	<0.01	0.01						
351.0	358.6 356.0	7.6 5.0		90	0440	<0.01	0.01						
358.6 356.0	361.0	2.4 5.0		100	84583								
361.0	366.0	5.0		100	84584	5	1		ppm				
366.0	371.0	5.0		100	84585	3	1						
371.0	379.0	8.0		95	84586	1	2						
434.0	436.5	2.5		70	84587A	1	6		ppm				
484.0	484.8	0.8		75	84588A	1	4		ppm				

Length _____ Contractor _____

Bearing N/S Core _____ Stored _____

Dip -70° Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. K79-5

Project _____

Claim _____

Page ____ of ____

J.C. STEPHEN EXPLORATIONS LTD.

Length 502'
Bearing NORTH
Dip -70°
Lat. 98+42N
Dep. 99+13E
Elev. 5,003
O.B. Thickness
B.R. Thickness

Contractor
Core BQ
Casing BW
Logged by JCS
Location J.C. CLAIM GROUP

Stored
Date
Started
Finished
Started
Finished

Hole No. JC 79-5
Project
Claim

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

Purpose
Comment

DRILLING INTERVAL | % CORE RECOVERED | BOX No. | SCALE 1" = 20' | ALTERATION | FRACTURING | MINERAL | GEOLOGY

0-12 QUARTZITE. THIN BANDED BLUISH-GREY WITH DARK BROWN ARGILLITIC BEDS: GENERALLY QUITE NARROW. BROKEN CORE, RUSTY ON FRACTURES.

12-19+ CHERTY QUARTZITE. LIGHT GREY TO BLUISH-GREY. F.G. MANY FINE FRACTURES. LITTLE PYRR AND PY. (PYRR PY)

19+-23 TUFFACEOUS QUARTZITE. LIGHT GREY. MOTTLED FABRIC.

23-42 QUARTZITE. LIGHT GREY TO DARK BLUE GREY. F.G. MASSIVE, HIGHLY SILICEOUS CHERTY QUARTZITE. BROKEN AND RUSTY AT 28.
31-42 PALE GREEN WHISPS AND FRAGMENTS(?). TUFFACEOUS(?) MATERIAL WHERE THESE FRAGMENTS MOST COMMON
39-42 ROCK LOOKS SILICIFIED.

42-45 QUARTZITE. DARK GREY TO BLACK. ARGILLACEOUS. SOME PY. LITTLE FRACTURE WITH QTZ VEINING. (PY)

45-48 CHERTY QUARTZITE. LIGHT GREY TO GREENISH-GREY. HIGHLY SILICEOUS. LITTLE FINE PY. (PY)

48-63.5 QUARTZITE. DARK GREY TO BLACK. MASSIVE, WITH 3% FINE DISSEMINATED PY. MAY BE TUFFACEOUS.
56-57 THIN BANDED GREY SILICEOUS QUARTZITE.

63.5-64.5 TUFF. BLEACHED PALE GREENISH-GREY.

64.5-66 QUARTZITE. DARK GREY TO BLACK. SAME AS 48'-63.5'. PALE GREENISH-GREY BLEACHING ALONG FRACTURES.

66-74 GENERALLY OLIVE-GREEN ALTERED AND FRACTURED SILICEOUS ROCK. F.G.
69-70 FAULT GOUGE
71-72.5 BLUISH-GREY. LOOKS LIKE LIMESTONE BUT HARD. F.G. SILICEOUS.

74-92 CHERTY QUARTZITE. COLOR VARIABLE FROM LIGHT GREY TO NEAR BLACK. F.G. OLIVE GREEN BAND OF TUFF(?) ABOUT 76'. SOME FRACTURING. FINE PY AT 81, 83.5 OVER 1" AND ½" BANDS. (PY PY)

92-110.5 QUARTZITE WITH INTERMIXED TUFF. GENERALLY OLIVE GREEN. F.G. QTZITIC BANDS BLUISH-GREY, F.G., CHERTY. TUFFACEOUS(?) SECTIONS VARIABLE IN TEXTURE AND COLOR. IRREGULARLY BANDED, FRACTURED.
105-106 DARK GREY BROWN HORNFELSED ARGILLITE(?) APPEARS BLEACHED AND ALTERED TO F.G. OLIVE-GREEN MATERIAL.
110.5 IRREGULAR CONTACT MAY BE ALTERATION FRONT.

110.5-118.5 TUFF. GREY AND GREENISH-BROWN. FAIRLY MASSIVE. LAPILLI-LIKE SPOTS AT 115.

118.5-123 TUFF.(?) GREY-GREEN TO OLIVE GREEN. ALTERED AND FRACTURED. WITH CARBONATE SEAMS.
120-121 FAULT GOUGE.

123-247 QUARTZITE. GREENISH-GREY TO NEARLY BLACK. TUFFACEOUS. SOMEWHAT MOTTLED. BEDDING RELATIVELY POORLY DEVELOPED. DISSEMINATED PY AND (PY PYRR)

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-5

Project _____

Claim _____

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 20'	ALTERATION	FRACTURING	MINERAL	GEOLOGY
			140				
			150				
			160				
			170				
			180				
			190				
			200				
			210				
			220				
			230				
			240				
			250				
			260			PYRR PY	

Purpose Comment	SURVEY Footage	SURVEY Bearing	ANGLE Reading	ANGLE Corrected

PYRR ON FRACTURES.

QUARTZ VEINS AT 156, 196, 212, 225. WHITE AND GLASSY.

BROKEN CORE AT 220-223, 224-225, 226, 229-230, 244-245, 246.

241 - 248.5 SKARN. GREENISH-GREY EPIDOTE SKARN IN THIN BANDS AT 70°-90° TO THE CORE AXIS.

248.5-249.5 SILICIFIED LIMESTONE (?). . . GREY, BRECCIATED.

249.5-265 SKARN. PALE TO DARK GREEN TUFFACEOUS OR VOLCANIC LOOKING HORIZON. GENERALLY MASSIVE, E.G. ZONES OF BRECCIATION, QTZ-CARBONATE VEINING, SILICIFICATION. POSSIBLE FLOW MARGIN(?)

260.1-265 IRREGULARLY BANDED. DARK BROWNISH GREY TO DARK DIOPSIDE

J.C. STEPHEN EXPLORATIONS LTD.

Length ____ Contractor ____
Bearing ____ Core ____ Stored ____
Dip ____ Casing ____
Lat. ____ Logged by ____ Date ____
Dep. ____ Location ____
Elev. ____
O.B. Thickness ____ Started ____ Finished ____
B.R. Thickness ____ Started ____ Finished ____

Hole No. JC 79-5
Project ____
Claim ____

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 20'	ALTERATION	FRACTURING	MINERAL	GEOLOGY	Purpose Comment

SURVEY:

Footage	Bearing	ANGLE Reading	ANGLE Corrected

CPY PY PYRR ASPY

GREEN. F.G. STREAKS AND PATCHES OF PYRR, PY, MINOR CPY.

265-302 CALC-SILICATE SKARN. GREY, WHITE, GREENISH AND MAUVE. F.G. SILICIFIED. BEDDING OF ZONE SOMEWHAT IRREGULAR AT RIGHT ANGLES TO CORE AXIS. DARK ARGILLITIC REMNANTS APPEAR REPLACED BY LIGHT COLORED SILICATE ZONES. MINOR FRACTURING WITH LITTLE PY AND PYRR, RARE ARSENOPYRITE.

298-300 DARK GREEN F.G. VOLCANIC.

302 DRILL MOVED TO JC 79-6 THEN BACK LATER TO DEEPEN.

302-319.5 CALC-SILICATE SKARN. PALE GREY TO PALE GREENISH. HARD, SILICIFIED. NO APPARENT SULPHIDES.
301-312 ONE FOOT CORE RECOVERED.

PY

319.5-323.2 QUARTZITE. GREY, F.G., CHERTY. LITTLE PY ON FINE FRACTURES. DULL YELLOW FLUORESCENCE OVER 2" AT 321.5. MAY BE MALAYAITE.

ASPY

323.2-331 SKARN. FIRST 3" WHITE TO PALE GREEN CALC-SILICATE. NEXT FOOT PALE GREEN AND PINK GARNETIFEROUS
325.5-326 WHITE QUARTZ.
329-330 WHITE QUARTZ.
REMAINDER OF ZONE MAINLY F.G DARK GREEN CHLORITIC WITH SOME FAIRLY COARSE ARSENOPYRITE.

PYRR PY MA

331-379 ARGILLITIC QUARTZITE. BLUISH-GREY. F.G. BEDDING (SLIGHTLY MOTTLED) AT ABOUT 80° TO CORE AXIS. SET OF TIGHT FRACTURES AT 40° TO CORE AXIS. LITTLE PYRR IN SMALL IRREGULAR ZONES AND FRACTURES IN FIRST FOOT. BECOMES SPARSE PY ON FRACTURES IN REMAINDER OF ZONE.
337-342 FAIRLY ABUNDANT MALAYAITE ON BEDDING MAINLY. THIN SEAMS.
355 SMALL AMOUNT YELLOW FLUORESCENCE. MAY BE MALAYAITE.
CORE RECOVERY 95% OR BETTER. LITTLE FRACTURING.

379-428 BIOTITIC "ANDESITE" DIKE. VARIABLE IN GRAIN SIZE, CUT BY FRACTURES WITH QTZ-CARBONATE VEINING OR BY GREENISH SKARN BLEACHING. PALE GREEN "SERPENTINE" ON FRACTURES. (SOAPY FEELING)
CORE BROKEN AND VERY BLOCKY FROM 409 TO 415. SOMEWHAT BROKEN TO 425.

SURVEY			ANGLE	
Footage	Bearing	Reading	Corrected	

Purpose
Comment

428-430.5 FAULT ZONE. OLIVE GREEN SKARN ALTERED AND BRECCIATED. CARBONATE STRINGERS.

430.5-502 ARGILLITIC QUARTZITE. GREY TO DARK GREY, SOMETIMES GREENISH. MINOR FRACTURING WITH LITTLE PY. CORE BADLY BROKEN AND BLOCKY. SOME LOSS.
434-436.5 DULL BRONZY UV REFLECTION.
461 DULL BRONZY UV REFLECTION.
484-484.5 WEAK YELLOW FLORESCENCE. MAY BE MALAYAITE.

502 END OF HOLE

GEOLOGY

MINERAL PY

FRACTURING

ALTERATION

SCALE 1" = 20'

400 410 420 430 440 450 460 470 480 490 500

BOX No.

% CORE RECOVERED

DRILLING INTERVAL

Length
Bearing
Dip
Lat.
Dep.
Elev.
O.B. Thickness Started Finished
B.R. Thickness Started Finished

Contractor
Core Stored
Casing
Logged by Date
Location

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-5
Project
Claim

From	To	Width	Recovery ft./lbs.	Recovery %	Sample	Assays Sn	Assays W						
65.0	75.0	10.0		100	84568 A	1	1		ppm				
75.0	85.0	10.0		100	84569	2	1						
106.0	112.5	6.5		100	84570	1	1		ppm				
341.6	350.0	8.4		100	84571	2	1		ppm				
355.5	361.6	6.1		100	84572	30	3		ppm				
370.5	382.0	11.5		100	84573	2	12		ppm				
396.0	405.0	9.0		90	84574	2	2		ppm				
405.0	414.2	9.2		90	84575	1	2						
420.0	427.0	7.0		100	84576	78	2		ppm				
427.0	434.0	7.0		100	84577	15	7						
434.0	441.0	7.0		100	84578	2	6						
441.0	448.0	7.0		100	84579	2	6						
448.0	455.0	7.0		100	84580	6	5						

Length _____ Contractor _____

Bearing NORTH Core _____ Stored _____

Dip -70° Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-6

Project DC SYNDICATE

Claim JC GRP

Page ____ of ____

J.C. STEPHEN EXPLORATIONS LTD.

Length 513'
Bearing NORTH
Dip -70°
Lat. 95+40N
Dep. 111+50E
Elev. 4,824
O.B. Thickness
B.R. Thickness

Contractor
Core BQ
Casing BW
Logged by JCS
Location
Started
Finished
Started
Finished

Stored
Date

Hole No. JC 79-6
Project
Claim

Page 1 of 4

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 20'	ALTERATION	FRACTURING	MINERAL	GEOLOGY
			10 20 30 40 50 60 70 80 90 100 110 120 130			PY PYRR PYRR PYRR PY	S S S S S S S S S

Purpose Comment	SURVEY: Footage	SURVEY: Bearing	ANGLE: Reading	ANGLE: Corrected

0-6	NO CORE.
6-51	QUARTZITE. CHERTY F.G. THIN BEDDED. BROKEN CORE, FRACTURES AT 30° WITH RUSTY SURFACES. LITTLE PY ON SOME FRACTURES.
51-65.5	QUARTZITE. SILICEOUS F.G. WITH LITTLE FINE HEMATITE ON BEDDING. LITTLE FRACTURES WITH PYRR. 59-65.5 DARK IN COLOR.
65.5-85	QUARTZITE. LIGHT IN COLOR, F.G., "MOTTLED" BEDDING, VERY SILICEOUS. MINOR FRACTURING WITH SILICA ALTERATION. MINOR PYRR.
85-90	ARGILLITE. DARK GREY.
90-94	QUARTZITE. DARK, SILICEOUS WITH 60% WHITE QUARTZ VEINING, PATCHES CHLORITE (?) IN PYRR.
94-97	FAULT BRECCIA. WITH CARBONATE VEINING. RUSTY. PROBABLY ARGILLITIC QUARTZITE.
97-97.8	ARGILLITIC QUARTZITE. THIN BEDDED. BEDDING AT 60°. FRACTURED.
97.8-102	CALC-SILICATE SKARN. PALE GREEN. SOME MOVEMENT ON FRACTURES. HIGHLY FRACTURED, RUSTY, CAVITIES IN FRACTURES.
102-106	ARGILLITE. DARK, HIGHLY FRACTURED.
106-108	TUFF (?). PALE GREEN, F.G., MASSIVE. HIGHLY FRACTURED, QTZ-CARB ON FRACTURES, SOME CAVITIES.
108-116	CALC-SILICATE SKARN AND ARGILLITE. THIN BEDDED. SKARN PALE GREEN. QTZ-CARB ON FRACTURES. PY ALONG INCIDIENT FRACTURES — RATHER DENDRITIC LOOKING.
116-121.5	FAULT ZONE. GREENISH ALTERED CRUSHED ROCK.

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-6

Project _____

Claim _____

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 20'	ALTERATION	FRACTURING	MINERAL	GEOLOGY
			140				
			150				
			160				
			170				
			180				
			190			PY	
			200			W	
			210				
			220				
			230				
			240				
			250				
			260				

Purpose
Comment

SURVEY: Footage	SURVEY: Bearing	ANGLE Reading	ANGLE Corrected

121.5 - 132 FAULT BRECCIA. IN GREEN AND BROWN ARGILLITIC TO QUARTZITIC ROCK. FRAGMENTS ANGULAR, ROTATED, MIXED WITH CRUSHED CALC-SILICATE ROCK.

132 - 142 QUARTZITIC ARGILLITE. GREY TO DARK. QTZ-CARB ON FRACTURES.

142 - 160 FAULT BRECCIA. DARK ARGILLITE AND CALC-SILICATE, THIN BEDDED WITH ANGULAR FRAGMENTS, MANY OPEN CAVITIES, AND FRACTURES WITH GYPSUM (?) CRYSTALS AND QTZ-CARB VEINING.

160 - 185 ARGILLITIC QUARTZITE. DARK, F.G., WITH MINOR CALC-SILICATE OR TUFFACEOUS (?) ZONES. F.G., MASSIVE BANDS.
166-176 FRACTURES WITH QTZ-CARB AT 20° TO CORE.

185 - 191 TUFF (?). GREENISH-GREY, MASSIVE. LITTLE ARGILLITIC BANDING.

191 - 260 ARGILLITIC QUARTZITE. FAIRLY MASSIVE + DARK AT START. GRADUALLY DEVELOPS SOME FRACTURING AND BANDING OF PALE GREENISH CALC-SILICATE MATERIAL. MINOR PY ON FRACTURES.
194 BRONZE REFLECTION UNDER UV LIGHT.
207 FOUR TINY SCHEELITE SPECKS ON FRACTURE.
220- MINOR FRACTURES WITH LITTLE CALC-SILICATE REPLACEMENT. SOME SECTIONS THIN BEDDED.
248-250 VERY FINE GOLDEN FLUORITE FLUORESCENCE.

260 - 290.5 ARGILLITIC QUARTZITE. SIMILAR THIN-BEDDED ARGILLITIC

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-6

Project _____

Claim _____

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 20'	ALTERATION	FRACTURING	MINERAL	GEOLOGY	Purpose Comment
			270					AND CALC-SILICATE ZONES. MORE ARGILLITIC AND BEDDING MORE PROMINENT AT ABOUT 70° TO CORE. 285 4" WHITE QUARTZ VEIN.
			280					
			290			PY		290.5-296 CHERTY QUARTZITE. F.G. (OR MASSIVE SILICA REPLACEMENT?) 292, 293, 294 WHITE QUARTZ VEINING. PYRITE ON FINE FRACTURES. SOME LATE VUGGY FRACTURES.
			300					296-296.7 ANDESITE DIKE. CONTACTS AT 40° TO CORE.
								296.7-297.8 CHERT. OR SILICA REPLACEMENT.
								297.8-298.4 ANDESITE DIKE.
			310					298.4-300 CHERT. OR SILICA REPLACEMENT.
								300-307 ANDESITE DIKE.
								307-315 CHERT. GRAY TO DARK GRAY, F.G., (OR SILICA REPLACEMENT.) 310-311 BROKEN CORE, 50% RECOVERY. BLACK F.G. MATERIAL, BASALTIC, VERY RUSTY ON FRACTURES.
			320					315-322 CHERTY QUARTZITE. LIGHT TO DARK GREY, F.G., INTERBEDDED (MOTTLED, IRREGULAR BEDDING) WITH DARK ARGILLACEOUS MATERIAL. 316.5-317.5 BLACK F.G. BASALTIC DIKE. IRREGULAR CONTACT.
			330					322-326 QUARTZITE. DARK GREY, FG, FAIRLY MASSIVE, QUITE SILICEOUS. 323.5 4" WHITE QTZ VEIN.
								326-327.5 FAULT BRECCIA. IN SAME DARK CHERTY QUARTZITE AS 322-326. RUSTY.
			340					327.5-341.6 QUARTZITE AND ARGILLITE. THIN-BEDDED; LIGHT QUARTZITIC AND DARK ARGILLITIC SEDIMENTS. 332-334 PALE GREEN ALTERED AND FRACTURED ZONE WITH CARBONATE VEINING AT 20° TO CORE. FAULT?
			350					341.6-344.5 QUARTZITE. LIGHT GREY TO GREENISH GREY, FG, APPARENTLY SLIGHTLY SKARNIFIED. QTZ-CARB ON IRREGULAR FRACTURES PLUS FRACTURES ALONG CORE AND AT 30° TO CORE. BRONZE REFLECTION UNDER UV LIGHT.
							S S S S S S	344.5-345.5 ARGILLITE. DARK, FG, VERY LITTLE FRACTURING OR ALTERATION.
								345.5-350 MAINLY PALE GREEN, FG, SLIGHTLY SKARNED SEDIMENTS. WEAK FRACTURING. BANDS OF DARK ARGILLITIC SEDIMENTS.
			360					350-355.5 ARGILLITE. DARK THIN-BANDED WITH NARROW SKARNED ZONE.
							S S S S S S	355.5-361.6 SKARNED ZONE. PALE TO DARK GREEN WEAKLY FRACTURED FG, WITH 30% REMNANTS: DARK THIN-BANDED ARGILLITE. BRONZE REFLECTION UNDER UV LIGHT.
			370					361.6-370.5 ANDESITE DIKE. DARK GREENISH-GREY, FG TO MG. QTZ-CARBONATE FILLED FRACTURES ALONG CORE, LITTLE. PY ON FINE FRACTURES. ROCK GENERALLY MASSIVE WITH "KNOTS" OR FLASHES OF BIOTITE.
			380					370.5-382 SKARNED SEDIMENTS. PALE GREEN FG, WITH 20% DARK THIN-BEDDED ARGILLITIC REMNANT. WEAK FRACTURING. 371 FEW SPECKS SCHEELITE FLUORESCENCE.
			390					382-392 ARGILLITE. DARK, THIN BEDDED WITH MINOR PALE GREEN SKARNED BANDS.

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____ Hole No. _____

Elev. _____ Project _____

O.B. Thickness _____ Started _____ Finished _____ Claim _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

DRILLING INTERVAL | % CORE RECOVERED | BOX No. | SCALE 1" = 20' | ALTERATION | FRACTURING | MINERAL | GEOLOGY

Purpose
Comment

SURVEY		ANGLE	
Footage	Bearing	Reading	Corrected

MINERAL: PY

392-396 ARGILLITE. QTZ-CARB FILLED FRACTURE ZONE IN DARK ARGILLITE. BLEACHED. MAIN FRACTURES AT 25°-30°.

396-414.2 CHERTY QUARTZITE. LIGHT GREY. SOME FRACTURING WITH RUST ON SURFACES.

414.2-420 ANDESITE BIOTITE DIKE. DARK GREENISH BLACK F-MG DIORITIC (?) ROCK. TIGHT FRACTURES WITH PY.
417-420 FRAGMENTS DARK GREY CHERTY QUARTZITE. 30% RECOVERY.

420-513 ARGILLITIC QUARTZITE. LIGHT GREY SILICEOUS MATERIAL AT START BECOMES DARKER IN COLOR AND MORE ARGILLITIC. BEDDING APPROXIMATELY AT 80°.
426-441 FRACTURED AND RUSTY.
441-443, 447-448, 451, 453-457 PROBABLE MALAYAITE FLUORESCENCE ALONG NARROW ZONES.
472-485 VERY WEAK DULL YELLOW FLUORESCENCE. MAY BE VERY SMALL AMOUNT MALAYAITE.

513 END OF HOLE.

	From	To	Width	Recovery ft./lbs.	Recovery %	Sample	Assays Sn	Assays W						
3DAY	4.0	6.0	2.0		70	0491	0.06	0.01	%					
"	6.0	12.0	6.0		70	0492	0.06	<0.01						
	12.0	14.3	2.3		90	0493	0.05	<0.01						
	14.3	16.6	2.3		90	0494	<0.01	0.01						
	16.6	23.0	6.4		100	0495	0.05	<0.01						
XCHEM	23.0	28.0	5.0		100	84589A	4	1		ppm				
"	28.0	38.0	10.0		100	84590	2	1						
	38.0	49.0	11.0		100	84591	2	1						
	49.0	55.0	6.0		100	84592	3	1						
	55.0	61.0	6.0		100	84593	1	1						
	61.0	65.0	4.0		100	84594	1	1						
	65.0	67.5	2.5		95	84595	1	3						
3DAY	67.5	77.0	9.5			0496	<0.01	<0.01	%					
DCHEM	77.0	87.0	10.0		100	84596	1	2	ppm					
"	87.0	92.0	5.0		100	84597	1	1						
	92.0	96.8	4.8		90	84598	1	1						
	96.8	105.0	8.2		100	84599	960	1						
	105.0	109.5	4.5		90	84600	6	1						
	109.5	115.0	5.5		95	84601	3	1						
	115.0	125.0	10.0		90	84602	1	1						
	125.0	135.0	10.0		60	84603	1	1						
	135.0	145.0	10.0		90	84604	1	1						
	145.0	155.0	10.0		95	84605	4	1						
	155.0	165.0	10.0		100	84606	1	1						
	165.0	175.0	10.0		90	84607	1	1						
	175.0	182.0	7.0		100	84608	5	65						
	182.0	188.0	6.0		80	84609	8	10						
	188.0	196.0	8.0		95	84610	2	1						

Length 200'
Bearing N 40° E
Dip -70°
Lat.
Dep.
Elev.
O.B. Thickness Started Finished
B.R. Thickness Started Finished

Contractor
Core Stored
Casing
Logged by Date
Location

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-7
Project
Claim
Page of

Length 200 Contractor

Bearing N 40° E Core BQ Stored

Dip -70° Casing BW

Lat. 105+50 N Logged by JCS Date

Dep. 133+48 E Location

Elev. 5,091

O.B. Thickness Started Finished

B.R. Thickness Started Finished

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-7

Project

Claim

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 20'	ALTERATION	FRACTURING	MINERAL	GEOLOGY
			10 20 30 40 50 60 70 80 90 100 110 120 130			PY PY PY PYRR PY PY	S S S S S S S S

Purpose
Comment

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

0-4	NO CORE.
4-6	SKARN. MEDIUM TO DARK GREEN. IN PART LIGHTER COLOR AND GARNETIFEROUS. 60% RECOVERY.
6-7	SKARN. PALE GREY GREEN. 60% RECOVERY.
7-14.3	SKARN. MAINLY MEDIUM TO DARK GREEN, GARNETIFEROUS. WHITE ALTERED SILICIFIED ZONE 12.0 - 12.5. SOME FRACTURING, CORE BROKEN.
14.3-16.6	QUARTZ-CARBONATE. WHITE-ALTERED, REFRACTURED, FRACTURES LINED WITH WHITE DRUSY QTZ-CARBONATE. 70% RECOVERY.
16.6-23	SKARN. PALE TO MEDIUM GREEN. QUITE GARNETIFEROUS. BEDDING AT 75°-80° TO CORE. 85% RECOVERY.
23-25	LIMESTONE. WHITE, RECRYSTALLIZED, WITH 10-25% REDDISH GARNETS.
25-61	LIMESTONE. CHERTY, SILICIFIED. 15-40% GARNET IN FIRST 5'. 49-51 THIN-BEDDED ARGILLITE. 535-54.5 50% ARGILLITE. FROM 49, NUMEROUS IRREGULAR FINE FRACTURES. PYRITE ON FRACTURES, MAINLY IN ARGILLITIC AREAS.
61-65	CHERTY QUARTZITE. GREY, FG. NUMEROUS FINE FRACTURES WITH LITTLE FINE PY. LITTLE MICA ON FRACTURES. 61.5-62 FRACTURE WITH QTZ MONZ. AND TOURMALINE. 64.5 DRUSY QTZ FILLED FRACTURE AND FG QTZ MONZ.
65-67.5	QUARTZ MONZONITE DIKELET. IRREGULAR, FG, RUSTY FRACTURED. BLACK FG TOURMALINE (?) ON FRACTURES.
67.5-92	CHERTY QUARTZITE. GREY, THIN BANDED. PY AND PYRR ON FRACTURES AND SMALL IRREGULAR ZONES. ROCK GENERALLY MASSIVE LOOKING. 71-74 DULL YELLOW FLUORESCENCE MAY BE MALAYAITE. 89-92 50% RECOVERY.
92-96.8	SILICEOUS LIMESTONE OR CALC-SILICATE SKARN. PALE GREENISH, THIN BEDDED.
96.8-105	ZONE OF BRECCIATION AND ALTERATION. SOME QTZ-CARB, TALC AND FLUORITE (?). BLACK IRREGULAR TOURMALINE (?) ZONES.
105-109.5	ARGILLITE. DARK PURPLISH, THIN BEDDED. LITTLE PY. CORE BROKEN. 70% RECOVERY.
109.5-115	ARGILLITIC QUARTZITE. DARK, FG, GREEN TO PURPLISH, SKARNIFIED. 113-114 DULL YELLOW FLUORESCENCE.
115-142	QUARTZITE. DARK GREEN GREY THIN BEDDED FG. CHLORITE ON FRACTURES WITH SOME TALC (?). PY ON FINE FRACTURES. CORE BROKEN. LITTLE GARNET AT 139. AFTER 150 LESS FRACTURING - PY MAINLY ALONG ARGILLITIC BEDDING.

Length _____ Contractor _____

Bearing _____ Core _____ Stored _____

Dip _____ Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev. _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-7

Project _____

Claim _____

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 20'	ALTERATION	FRACTURING	MINERAL	GEOLOGY
			140			PY	
			150				
			160				
			170			W	
			180				
			190				
			200				

Purpose
Comment

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

142 - 175 INTERBEDDED QUARTZITE AND ARGILLITE. THIN BANDED LIGHT GREY (LAMINATED) QUARTZITE WITH THIN ARGILLITE BEDS. BEDDING AT 70° TO CORE. THIS ROCK LIGHTER IN COLOR AND BETTER BEDDED. THAN FROM 115 TO 142. PYRITE IN ARGILLITIC BEDS. FRACTURES WITH CHLORITE, CARBONATE AND TALC AND SOME PYRITE. CORE BROKEN AND BLOCKY BUT RECOVERY PROBABLY 90 %.

175 - 182 ARGILLITE. SKARNIFIED, WHITE AND PALE GREEN IN CALC-SILICATE AREAS, GREEN AND PURPLE BROWN ARGILLITE IN THIN BANDS. 176.5 - 178 MINOR SCHEELITE IN ARGILLITE BANDED ZONE. FEW OR NO SPECKS IN REMAINDER.

182 - 188 CONTACT ZONE. CRUSHED, SOFT. TOURMALINE. (?) BLACK SOFT CRUSHED MATERIAL AND QUARTZ BLUISH GREY AND CRUSHED GREEN INTRUSIVE. SOME ORANGE FLUORITE FLUORESCENCE AT 182.

188 - 200 QUARTZ MONZONITE. GREEN FG WITH INDISTINCT YELLOW GREEN FELDSPAR PHENOCRYSTS. NO APPARENT ALTERATION OR MINERALIZATION CORE SOMEWHAT BROKEN.

200 END OF HOLE.

From	To	Width	Recovery ft./lbs.	Recovery %	Sample	Assays Sn	Assays WO_3						
3.0	6.7	3.7		100	0497	0.01	0.01	%					
6.7	11.0	4.3		100	0498	0.04	0.01						
11.0	16.0	5.0		100	0499	0.01	0.02						
16.0	26.0	10.0		95	84611A	1	1	ppm					
26.0	36.0	10.0		100	84612A	1	1						
36.0	48.0	12.0		100	84613	1	1						
48.0	51.2	3.2		100	84614	1	1						
51.2	61.0	9.8		100	84615	1	1						
61.0	71.0	10.0		100	84616	1	1						
71.0	81.0	10.0		100	84617	1	1						
81.0	84.5	3.5		100	84618	1	1						
84.5	89.0	4.5		100	84619	1	1						
89.0	99.0	10.0		100	84620	1	1						
117.5	121.3	3.8		100	84621	1	1	ppm					
121.3	124.0	2.7		100	84622	4	1						
124.0	126.0	2.0		100	84623	1	1						
126.0	130.5	4.5		100	84624	1	1						
130.5	136.0	5.5		100	84625	1	1						
184.0	186.0	2.0		100	84626	1	3						
202.0	206.0	4.0		100	84627	1	1						
206.0	212.5	6.5		100	84628	1	1						

Length _____ Contractor _____

Bearing NORTH Core _____ Stored _____

Dip -60° Casing _____

Lat. _____ Logged by _____ Date _____

Dep. _____ Location _____

Elev _____

O.B. Thickness _____ Started _____ Finished _____

B.R. Thickness _____ Started _____ Finished _____

J.C. STEPHEN EXPLORATIONS LTD.

Hole No. JC 79-8

Project DC SYNDICATE

Claim JC GRP

Page ____ of ____

J.C. STEPHEN EXPLORATIONS LTD.

Length 240' Contractor
Bearing NORTH Core BQ Stored
Dip -60° Casing
Lat. 10,337N Logged by Date
Dep. 7315 E Location
Elev. 4610
O.B. Thickness Started Finished
B.R. Thickness Started Finished

Hole No. JC 79-8
Project
Claim
Page 1 of

Purpose To TEST NORTH EDGE OF SKARN
Comment WEAK MAGNETIC ANOMALY AND LOCATE INTRUSIVE

SURVEY: Footage	Bearing	ANGLE Reading	Corrected
0'	0°	-60°	

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 20'	ALTERATION	FRACTURING	MINERAL	GEOLOGY
			10 20 30 40 50 60 70 80 90 100 110 120 130			W PYRR PY PYRR	S S S S S S

0-3 NO CORE.

3-6.7 SKARN. LIGHT OLIVE GREEN, FG. MANY FINE FRACTURES. NO EVIDENT MINERALIZATION.

6.7-11 SKARN. MEDIUM TO DARK GREEN, FG.
7.3 SPECK OF SCHEELITE.
10.5 ½" FRACTURE WITH AXINITE AT 25°.

11-16 CHERTY QUARTZITE AND SKARN. THIN BEDDED CHERTY QUARTZITE AND PALE GREEN SKARN (10%). ZONE RATHER MIXED.
12 2" QUARTZ VEIN.
16 TWO FRACTURES AT 20° WITH GREENISH MICA AND QUARTZ.

16-48 CHERTY QUARTZITE. GREY TO DARK GREY, THIN-BEDDED, BEDDING AT 80° AVERAGE.
21.5-23 RUSTY, FRACTURED.
27-28 SKARNY - PALE GREEN, FG.
29 BROKEN RUSTY CORE.
30 6" IRREGULAR WHITE QUARTZ.

48-51.2 ARGILLITE. BROWN MICACEOUS WITH NARROW ZONES FG PALE GREEN CALC-SILICATE.

51.2-84.5 ARGILLACEOUS QUARTZITE. GREY TO DARK GREY. THIN BEDS. LITTLE FINE DISSEMINATED PYRRHOTITE MAKES ROCK SLIGHTLY MAGNETIC. SEVERAL 1"-6" FG. CHERTY CALC-SILICATE ZONES WITH GRADATIONAL CONTACTS. PYRITE ON SOME BEDDING PLANES AND ON FINE FRACTURES.

84.5-89 CHERT (?). GREY TO SLIGHTLY GREENISH GREY, FG. THIN BEDS. SLIGHTLY FRACTURED. RUSTY ZONES DEVELOPED FROM FRACTURES INVADING ROCK.
84.5-87 YELLOW FLUORESCENCE ON THIN BANDS POSSIBLY MALAYAITE.

89-117.5 ARGILLITIC QUARTZITE. DARK IN COLOR. THIN BEDDED WITH BEDDING SOMEWHAT IRREGULAR - SUGGESTIVE OF TUFF.
116 MOTTLED SMALL IRREGULAR FG GREY BODIES MAY BE LAPILLI?

117.5-121.5 CALC-SILICATE (?). PALE GREY TO VERY LIGHT GREENISH GREY. FIRST CONTACT AT 60°. VERY FG WITH LIGHT PINK BANDS. VERY SLIGHT FRACTURING WITH CHLORITE.

121.5-124 BLACK CRUSHED LOOKING MELANGE. HORNBLENDE(?) AND CARBONATE WITH SEAMS OF GREENISH TALC. SOME PYRRHOTITE.

SURVEY: Footage	Bearing	ANGLE Reading	Corrected

Purpose
Comment

DRILLING INTERVAL	% CORE RECOVERED	BOX No.	SCALE 1" = 20'	ALTERATION	FRACTURING	MINERAL	GEOLOGY
			140			PYRR	
			150			PYRR	
			160				
			170				
			180				
			190				
			200			Py	
			210			Py	
			220		//		
			230		/		
			240				
			250				
			260				

124-126 CALC-SILICATE. FG. SAME AS 117-121.5.

126-145 MIXED FRACTURED ROCKS - POSSIBLY VOLCANIC IN PART.

126-130.5 QUARTZITE - CUT BY TALC SEAMS AT FLAT ANGLE (5°). SOME BRECCIATION.

130.5-131.5 MAINLY FINE CALC-SILICATE.

131.5-132.5 FINE ARGILLITIC QUARTZITE.

132.5-136 FG CALC-SILICATE.

136-138 THIN BANDED BROWN AND GREY ARGILLITE OR TUFF.(?)

138-138.9 LIGHT GREENISH GREY TUFF(?) BAND 2" AND FINE LAPILLI TUFF.

138.9-143 LIGHT GREENISH GREY TUFF(?) AT ENDS OF SECTION - MAINLY FG CALC-SILICATE.

143-145 BLACK CARBONATE MELANGE SIMILAR TO 121.5-124. SOME PYRRHOTITE.

145-216 ~~TUFF~~ (?). THIN BEDDED DARK COLORED FG ARGILLACEOUS ROCK. LIGHTER BEDS DARK GREENISH. BEDDING SOMEWHAT IRREGULAR. FINE DISSEMINATED PYRRHOTITE MAKES ROCK SLIGHTLY MAGNETIC.

179 1" PIECE OF HEAVY REDDISH SKARN - LOOKS OUT OF PLACE. BRASS ON CORE INDICATES RUBBING.

Oct 9/79
SPEC FROM 207.5' REPORTED BY COMINCO AS:
TOPAZ BEARING METAQUARTZITE
QUARTZ 80% TOPAZ 10% MUSCOVITE 4%
CHLORITE 3% TOURMALINE 1% OPAQUE 2%

201-216 FRACTURES HEALED BY QUARTZ VEINING QUITE PROMINENT SOME FINE PYRITE MIN COATING FRACTURES PARTICULARLY 202-205. WITH PALE YELLOW FLUORESCENCE.

216-240 MEDIUM GRAINED PORPHYRITIC OLIVE GREEN INTRUSIVE.

219, 223 TOURMALINE FILLED FRACTURES AT 30°

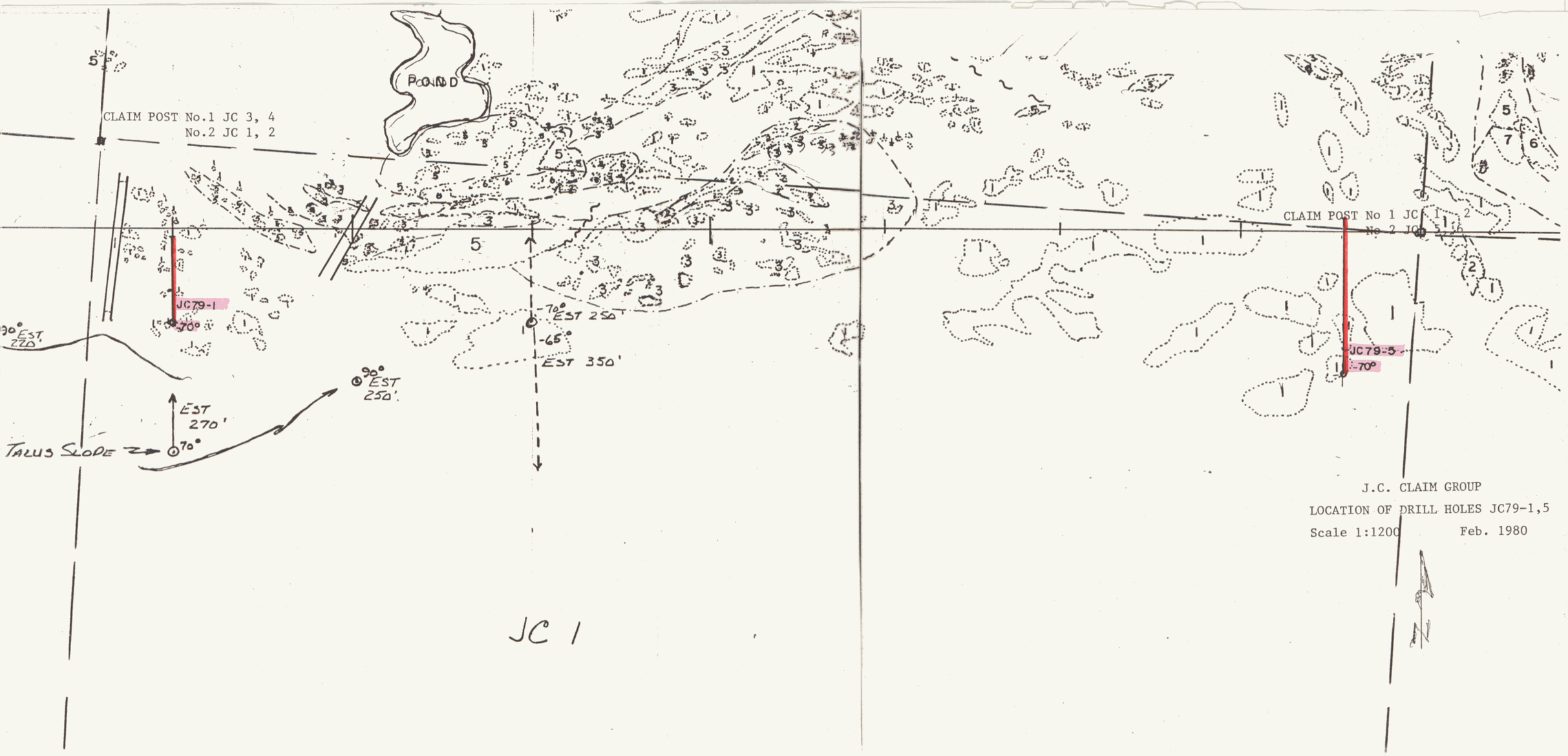
229 TOURMALINE-QUARTZ FILLED FRACTURES

240' END OF HOLE

Length ____ Contractor ____
Bearing ____ Core ____ Stored ____
Dip ____ Casing ____
Lat. ____ Logged by ____ Date ____
Dep. ____ Location ____
Elev. ____
O.B. Thickness ____ Started ____ Finished ____
B.R. Thickness ____ Started ____ Finished ____

J.C. STEPHEN EXPLORATIONS LTD.

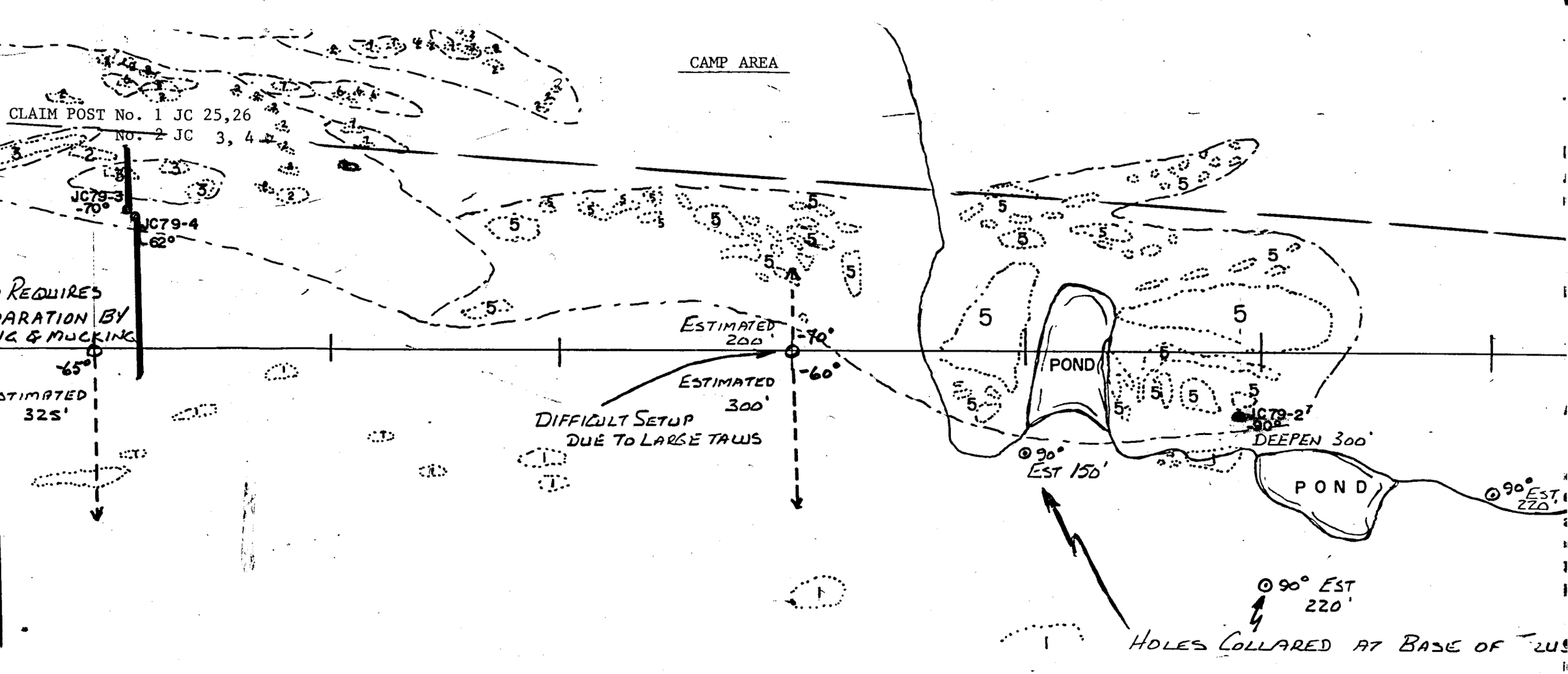
Hole No. JC 79-8
Project ____
Claim ____



J.C. CLAIM GROUP

LOCATION OF DRILL HOLES JC79-1,5

Scale 1:1200 Feb. 1980



J.C. CLAIM GROUP

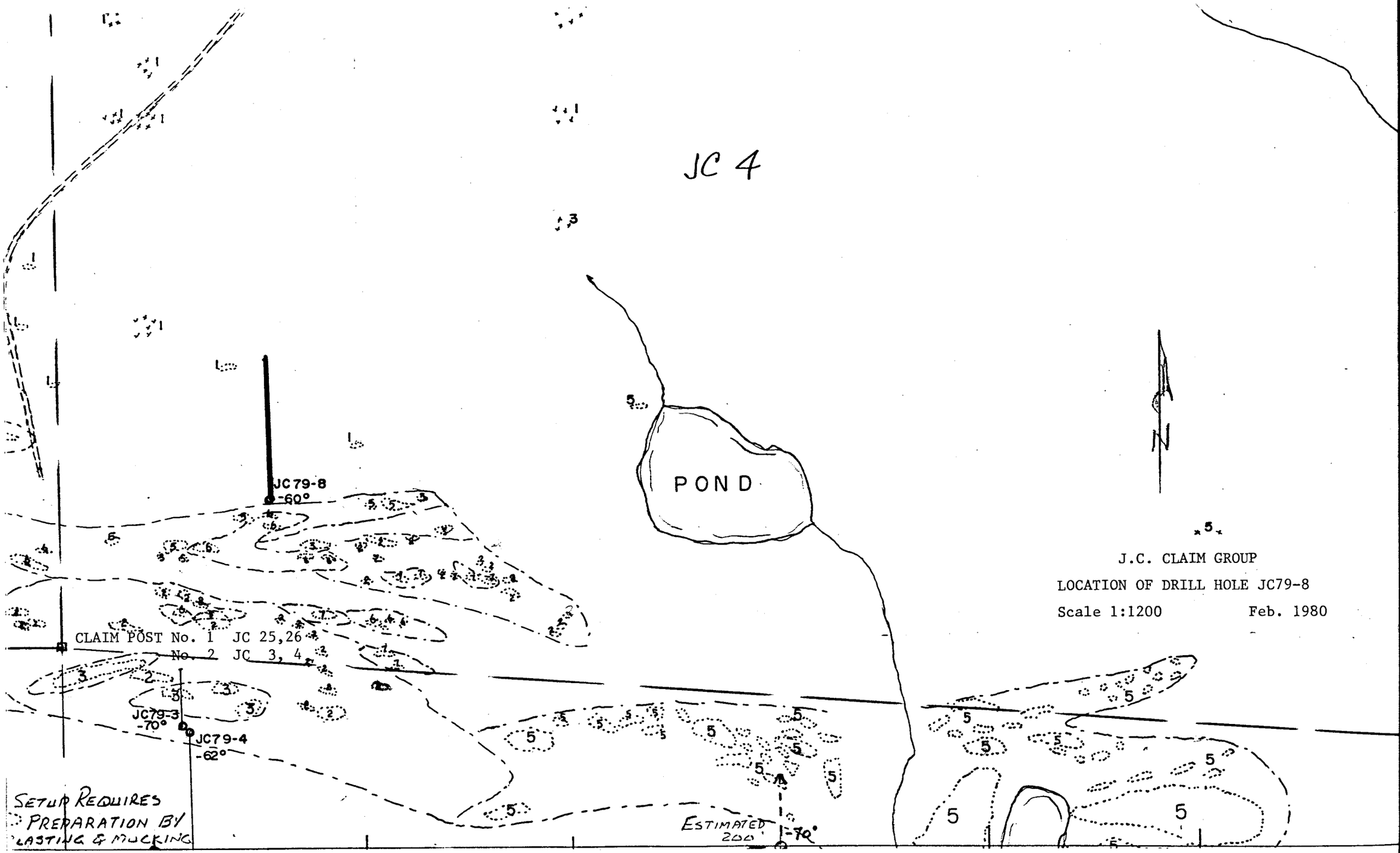
LOCATION OF DRILL HOLES JC79-2,3,4

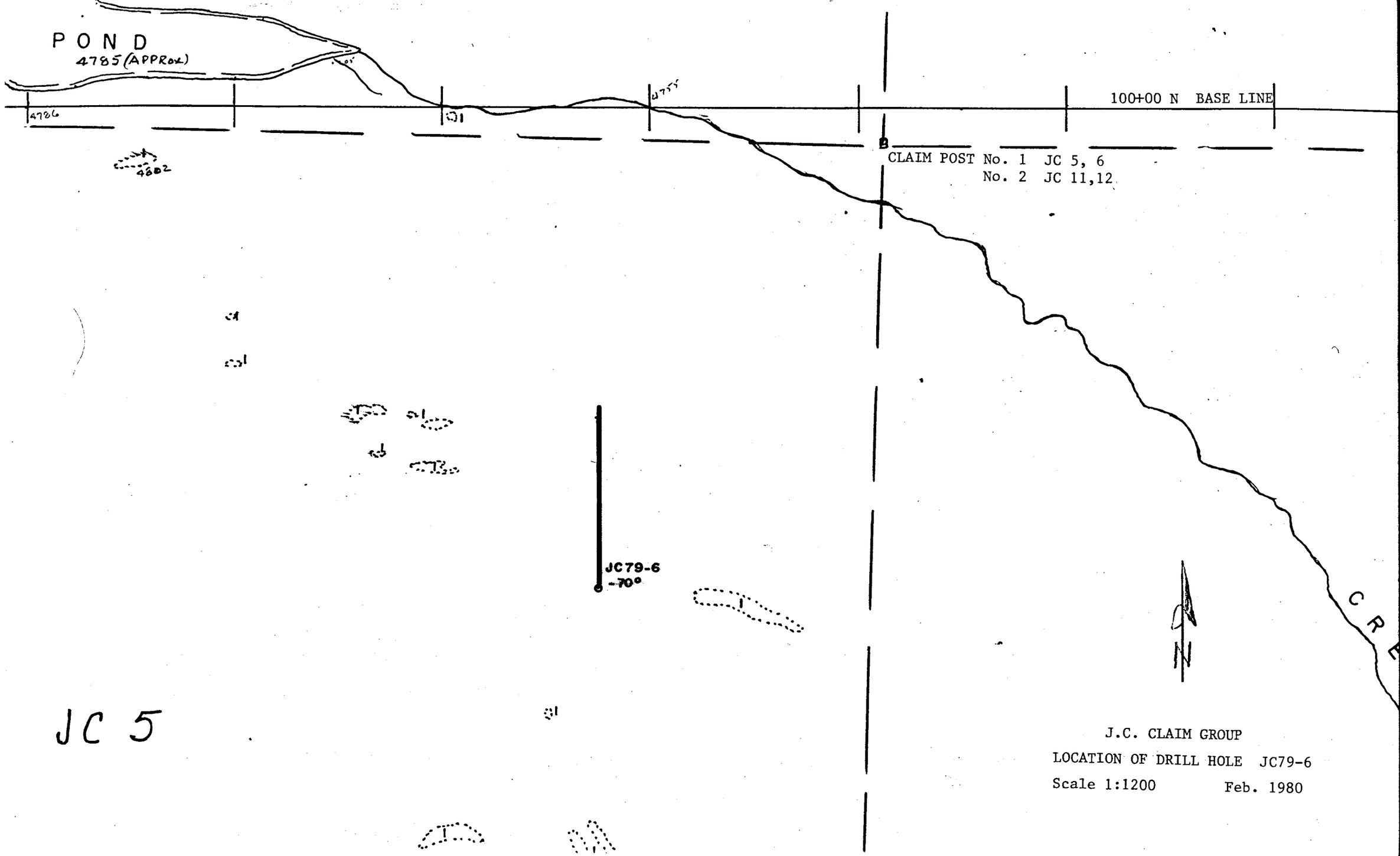
NEW DRILLING INDICATED TOTALS 2835

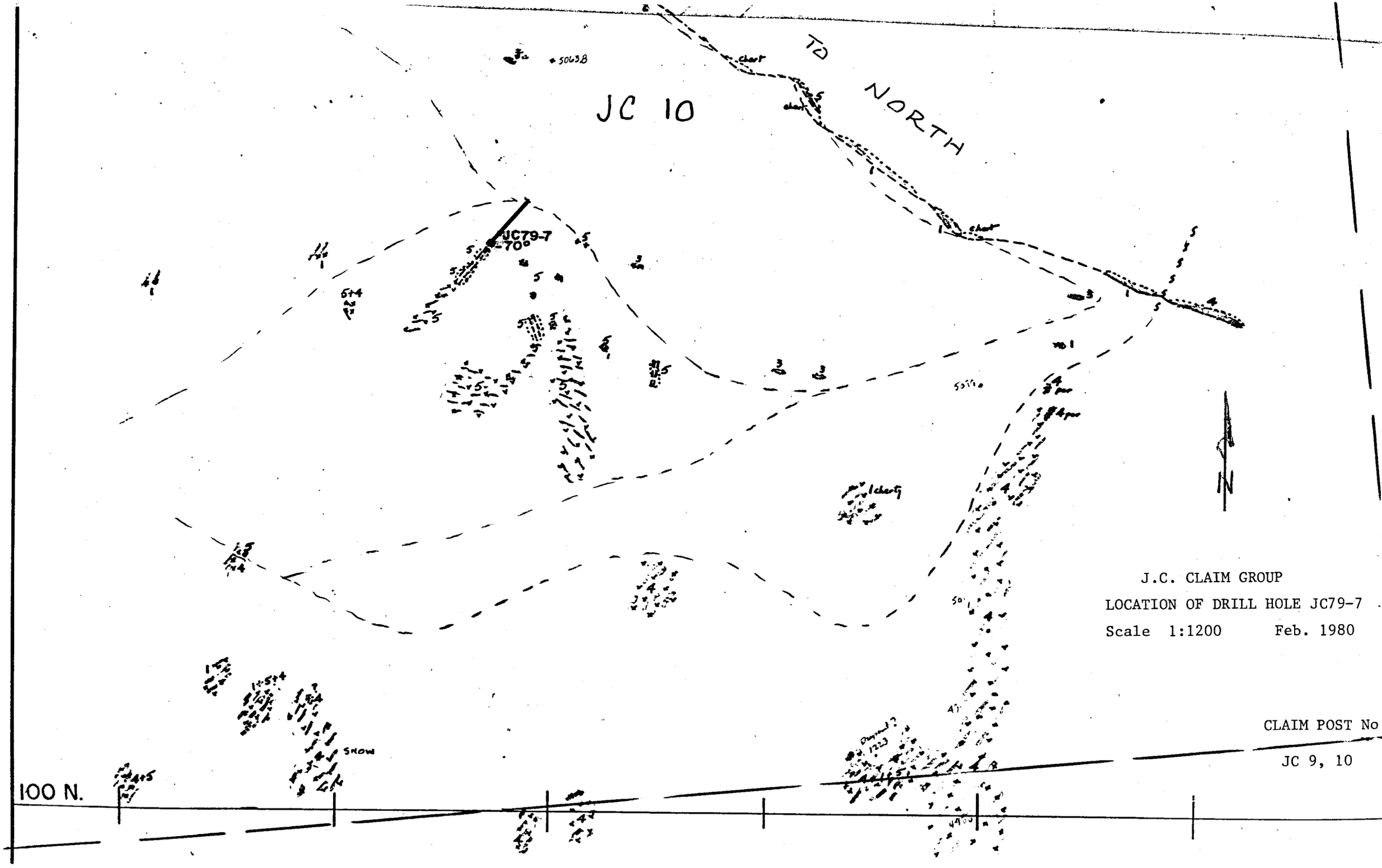
Scale 1:1200 Feb. 1980

JC 3

N


JC 4
POND
JC79-8
-60°
JC79-3
-70°
JC79-4
-62°
CLAIM POST No. 1 JC 25,26
No. 2 JC 3, 4
SETUP REQUIRES
PREPARATION BY
LASTING & MUCKING
ESTIMATED
200'
-70°
N
J.C. CLAIM GROUP
LOCATION OF DRILL HOLE JC79-8
Scale 1:1200 Feb. 1980


POND
4785 (APPROX)
4786
4802
100+00 N BASE LINE
CLAIM POST No. 1 JC 5, 6
No. 2 JC 11,12
JC79-6
-70°
JC 5
J.C. CLAIM GROUP
LOCATION OF DRILL HOLE JC79-6
Scale 1:1200 Feb. 1980



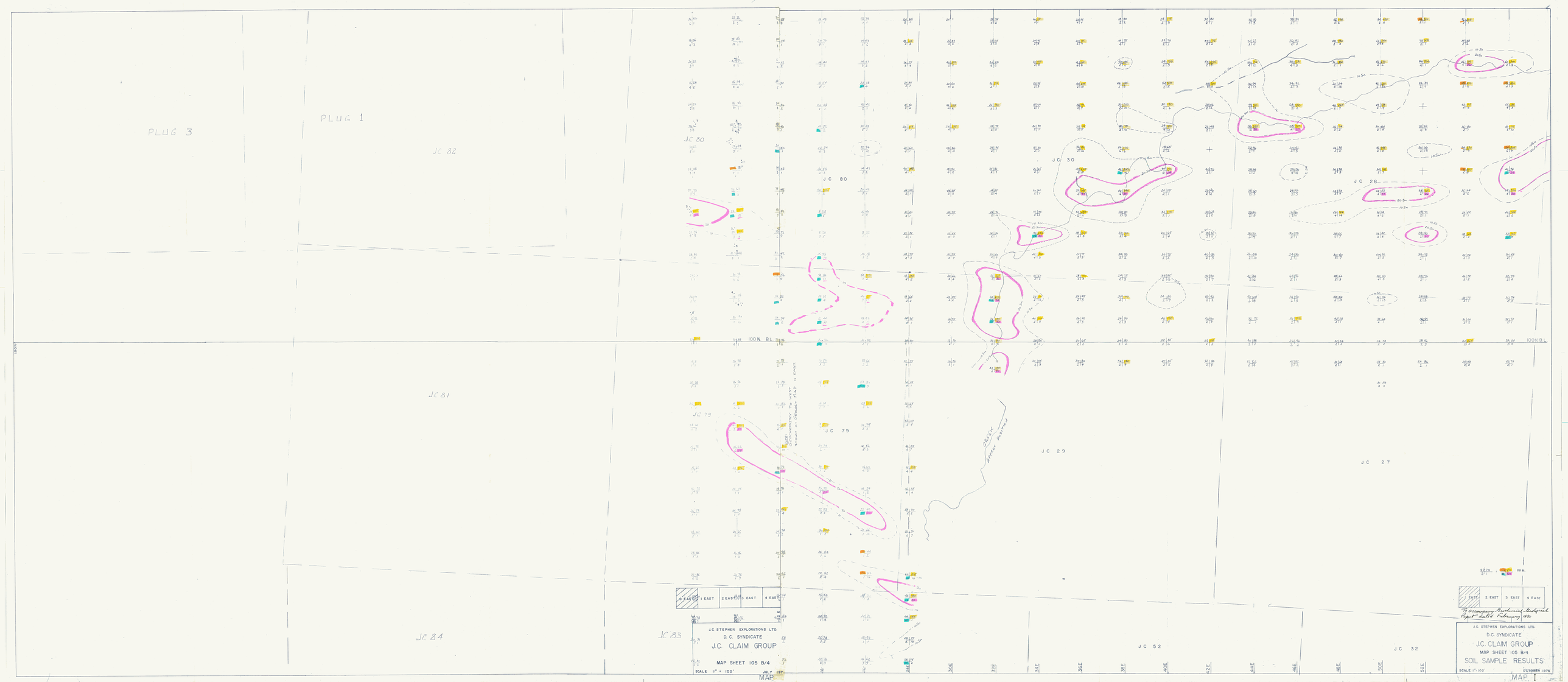
J.C. CLAIM GROUP

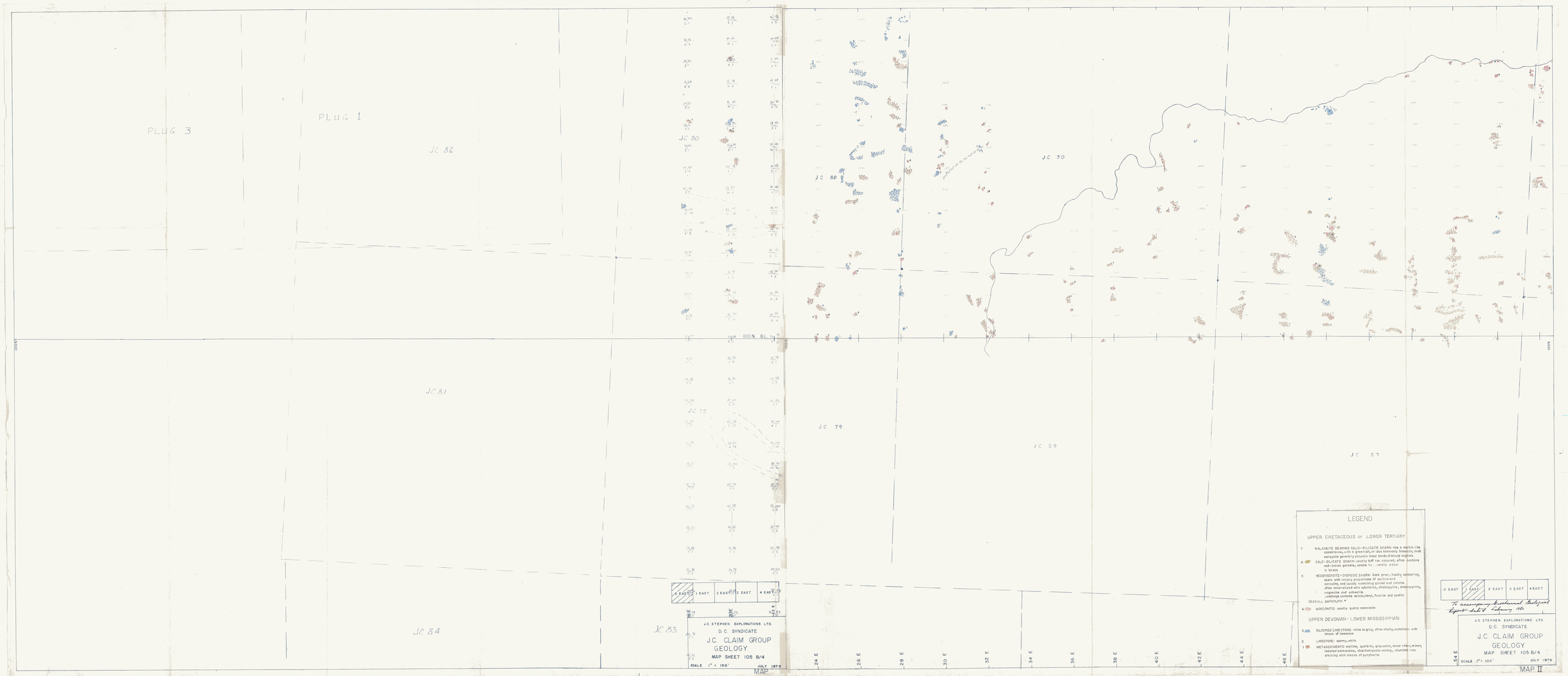
LOCATION OF DRILL HOLE JC79-7

Scale 1:1200 Feb. 1980

CLAIM POST No

JC 9, 10


PLUG 3
PLUG 1
JC 82
JC 80
JC 30
JC 28
JC 81
JC 79
JC 29
JC 27
JC 84
JC 83
JC 52
JC 32
100N BL
0 EAST
1 EAST
2 EAST
3 EAST
4 EAST
J.C. STEPHEN EXPLORATIONS LTD.
D.C. SYNDICATE
J.C. CLAIM GROUP
MAP SHEET 105 B/4
SCALE 1" = 100'
JULY 197
MAP
J.C. STEPHEN EXPLORATIONS LTD.
D.C. SYNDICATE
J.C. CLAIM GROUP
MAP SHEET 105 B/4
SOIL SAMPLE RESULTS
SCALE 1"=100'
OCTOBER 1976
MAP I


PLUG 3
PLUG 1
JC 82
JC 80
JC 81
JC 79
JC 84
JC 83
JC 30
JC 29
JC 27
100N. BL.
24 E
26 E
28 E
30 E
32 E
34 E
36 E
38 E
40 E
42 E
44 E
46 E
48 E
0 EAST
1 EAST
2 EAST
3 EAST
4 EAST
LEGEND
UPPER CRETACEOUS or LOWER TERTIARY
7 NALAYAITE BEARING CALC-SILICATE SKARN: has a marble like appearance, with a greenish, or less commonly bluish, host malayaite generally occurs in linear bands of minute crystals.
6 CALC-SILICATE SKARN: usually buff tan coloured, often contains red-brown garnets, seems to generally occur in lenses.
5 HEDENBERGITE-DIOPSIDE SKARN: dark green, hackly weathering, skarn with varying proportions of epidote and calcite, and usually containing garnet and calcite, often mineralized with sphalerite, chalcopyrite, arsenopyrite, magnetite and scheelite, sometimes contains calcite, beryl, fluorite and apatite
SEAGULL BATHOLITH
4 MONZONITE: usually quartz monzonite
UPPER DEVONIAN - LOWER MISSISSIPPIAN
3 SILICIFIED LIMESTONE: white to grey, often cherty, sometimes with lenses of limestone
2 LIMESTONE: sparry, white
1 METASEDIMENTS: argillites, quartzites, greywacke, minor chert, minor, isolated exhalenes, abundant quartz veining, abundant iron staining with traces of pyrrhotite
To accompany Assessment Report dated February 1980
J.C STEPHEN EXPLORATIONS LTD.
D.C. SYNDICATE
J.C. CLAIM GROUP
GEOLOGY
MAP SHEET 105 B/4
SCALE 1" = 100'
JULY 1979
MAP II