SHERRITT GORDON MINES LIMITED

GOSSAN - SHERRITT
Joint Venture
STEPHEN LAKE PROJECT
SUMMARY REPORT

May 1984

Vincent Scime
Senior Project Geologist

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STEPHEN LAKE PROJECT
SUMMARY REPORT

INTRODUCTION:

The Stephen Lake property consists of 24 claims in the Cameron Lake area of N.W. Ontario and was acquired under option from Mr. B. Booth and Mr. J. Scouten early in 1983. Justification for acquisition was based on:

i) the presence of known but virtually unexplored gold occurrences within the volcanic and intrusive rocks of the claim group,

ii) gross similarities between the Kenty occurrence, the principal exploration target in the area, and the Dubenski prospect as observed during a 1982 property visit

iii) generally favourable structural and stratigraphic position with regard to the region as a whole.

GEOLOGY AND GEOCHEMICAL SURVEYS:

Work was initially focused to a thirteen mile control grid in the N.E. corner of the claim group and was intended to quickly appraise mineral potential in the area of known occurrences before proceeding with additional exploration.

Rocks in the area are dominated by very fine grained felsic to intermediate volcanics; believed to be ash flows. These are intercalated with narrow erratically distributed chert units. Primary structures observed at a few select outcrops indicate that the cherts are chemical sediments, probably exhalative in origin.

Geochemical work identified three broad regions within the felsic volcanic/chert assemblage carry highly anomalous quantities of gold. As defined by analytical values greater than 100 ppb, the anomalous zones appear to be sub-parallel and generally concordant with stratigraphy. The main zone has indicated widths in the order of a few hundred feet and in excess of 400 feet in the vicinity of the Kenty occurrence. This zone is also co-axial with a linear topographic feature traceable for approximately 2,000 feet. The Kenty occurrence is located along the eastern flank of the topographic low. Allowing for a minor offset, the zone can also be traced into the Stephen Lake Stock, where anomalous values are associated with sheared and sericitzed granitic rocks.

These observations lead to the conclusion that gold is related to a late (syn-or post-granitic emplacement) mineralizing event. Shearing in the granitic rocks and the topographic low in the volcanic rocks suggest that mineralization is, in part, structurally controlled. Aside from the association between anomalous gold values and sericitized granitic rocks, mineralization is also associated with alteration in volcanic rocks. Pyritic, carbonatized and sericitized felsic volcanics sampled at the Kenty occurrence returned assays as high 0.24 oz/ton.

These preliminary results were sufficiently encouraging to extend the grid to the entire property. This additional field work identified a strong relationship between stratigraphy and anomalous gold mineralization.

In total, the property is underlain by two distinctly different volcanic terrains. The lower sequence is dominated by intermediate to felsic, medium to coarse pyroclastic rocks intercalated with discreet units of intravolcanic clastic and chemical sediments. This assemblage is capped by a sulphidic marker horizon several tens of feet thick. This sulphide horizon is probably a lateral equivalent of the Wiesner Lake Zn-Cu occurrences located approximately a mile south of the Stephen Lake property. Excluding occasional single-station anomalies, the lower sequences hosts only background gold content. Anomalous gold values are essentially restricted to the overlying felsic volcanic/chert assemblage.

Late in the field season, additional samples were collected from the three anomalous regions. Analytical results verified earlier work and refined the previously established geochemical pattern. In summary, this phase of the geochemical program has:

i) confirmed and enhanced the presence of the two subordinate anomalies

ii) identified a previously unrecognized cross cutting geochemical anomaly which parallels the eastern contact of the Stephen Lake Stock.

iii) identified an anomalous halo within volcanic rock bordering the eastern contact of the stock. One lithogeochemical sample returned a value of 22,962ppb (0.73 oz/ton). This halo is also characterized by sporatic biotite alteration indicative of potassium metasomatism

iii) aside from the two cross cutting features described above, fill-in sampling has confirmed the generally concordant nature of the anomalous regions.

GEOPHYSICAL SURVEYS:

A detailed magnetometer survey, covering the entire grid, did not contribute significantly to a better understanding of the geology or the nature of gold mineralization in the area.

An I.P. survey, conducted over the original thirteen mile grid, was intended to further corroborate geochemical work and help establish drill targets. Several I.P. anomalies are present; four of which are definate bedrock features partially coincident with geochemical anomalies. The inability to correlate I.P and gold anomalies in all cases lends further support to the probable influence of structural controls during mineralization.

In summary, the 1983 surface program identified several features commonly found in producing areas:

i) Extensive regions containing highly anomalous quantities of gold are confined to a fairly specific stratigraphic location.

ii) The generally concordant nature of the anomalous zones contrasts with shearing in granitic rocks and cross-cutting geochemical features in volcanic rocks suggesting both structural and stratigraphic controls are in effect.

iii) Anomalous mineralization occurs near the contact of two distinctly different volcanic regimes.

iv) Mineralization occurs within a volcanic pile which could potentially host a base metal deposit.

v) Carbonate and sericite alteration is locally associated with economic grade mineralization.

vi) Mineralization shows a very close spatial association with post-volcanic intrusive rocks.

vii) Anomalous mineralization is associated with a hydrothermal alteration halo bordering the intrusive.

vii) Geophysical and geochemical anomalies are locally coincident.

The single most negative factor identified during the surface program is the apparent absence of multi-element geochemical patterns. It should be noted that this statement is made only after comparing a few key elements. This preliminary evaluation did, however, identify a weakly sympathetic relationship between Au and Na (albitization?) which should be added to the preceeding list of positive indicators. S. Amore is currently employing computer techniques to thoroughly evaluate all geochemical data. His work may reveal other subtle, presently unrecognized patterns.

In spite of the apparent absence of extensive (as opposed to localized) alteration patterns, the long list of positive factors is believed sufficient to justify a thorough drill program.

DIAMOND DRILLING:

A two phase, 5,000 ft. diamond drill program was proposed and budgeted for the Stephen Lake project. Of this, a minimum of 2,000 ft. was deemed necessary in the initial phase to test all first priority targets, with the remainder intended to follow-up on the anticipated success. The first stage of the program consisted of two parts. Drilling was planned to test mineralization in the immediate vicinity of the Kenty occurrence and also to test several coincident I.P. and geochemical targets at various stratigraphic levels.

The first few drill holes, collared on either side of the Kenty occurrence, failed to locate the mineralization - alteration noted on surface. The absence of mineralization, combined with the observed attitude of numerous quartz and quartz-carbonate veinlets in drill core, led to the conclusion that mineralization must be controlled by a westerly dipping structure. Reversing the drill direction confirmed this theory and the target horizon was intersected on the next three attempts. Mineralization was found to be associated with altered, pyritic felsic volcanics in contact with a narrow, slightly altered, pyritic mafic dike. Altered rocks were observed to have a maximum true width of approximately 20 ft. but contained only weak gold mineralization.

Five drill test in areas of coincident I.P. and geochemical anomalies generally identified the source of the geophysical responses to be fine disseminated pyrite, but failed to indicate any significant gold mineralization. Although other geophysical-geochemical targets remain to be tested, further drilling cannot be justified in light of the poor results to date. Roughly 2,900 of the originally proposed 5,000 feet were used in the total program.

CONCLUSIONS:

The following geologic interpretation is based on currently available information. S. Amore's work may alter the proposed account.

The presence of innumerable quartz and quartz-carbonate stringers in the felsic volcanic/chert assemblage suggests that these rocks responded in a brittle manner under regional deformation and/or emplacement of the Stephen Lake Stock. The resulting fracture system provided channels for mineralized fluids and ultimately acted as the site for quartz-carbonate deposition. Sporadic potassium metasomalism of volcanic rocks in contact with the stock suggests that the fluids were generated in a hydrothermal system during the time of emplacement. The principal fluid migration direction is believed to have been along intraformational boundaries, resulting in the concordant attitude of the anomalous zones and their coincidence with I.P. horizons. The cross cutting geochemical feature probably reflects channelling within a concentric fracture system developed at the time of intrusion.

The apparent absence of an extensive alteration halo, as indicated by direct field observation and the seeming lack of multi-element correlations, may be the result of several interrelated factors:

i) Fluids were pumped quickly and efficiently in a fairly open system. In the absence of secondary, confining structures, migrating fluids were simply allowed to disperse.

ii) The hydrothermal system was not active for a sufficiently long period of time.

iii) Brittle failure of competent rocks produced discreet rather than pervasive channelways ie, fractures rather than shear zones.

iv) The very fine grained, highly siliceous host rocks were not prone to alteration.

In spite of this, there is considerable evidence for the presence of incipient alteration:

i) Chemically, gold shows a weak correlation with Na.

ii) Field mapping has identified narrow reaction selvages enveloping quartz stringers.

iii) Volcanic rocks in contact with the Stephen Lake Stock locally show biotite alteration.

The presence of incipient rather than pervasive alteration, would thus seem to imply that fluids and host rocks were not given sufficient time to interact, considering the type of host rock involved.

The apparent absence of economic concentrations of gold can probably be explained in a manner analogous to alteration. A simple mass transfer calculation indicates that a considerable amount of gold was released to the environment - enough to potentially produce a major occurrence. Unfortunately, in the absence of a secondary concentrating agent (whether it be a shear zone, a minor fold or, as is the case at Cameron Lake, a mafic sill) gold continued to disperse rather than accumulate at a specific site.

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GEOLOGIC REPORT ON DETAILED MAPPING OF CLAIM K590478

July 28, 1984

Iain Allen, B.Sc.

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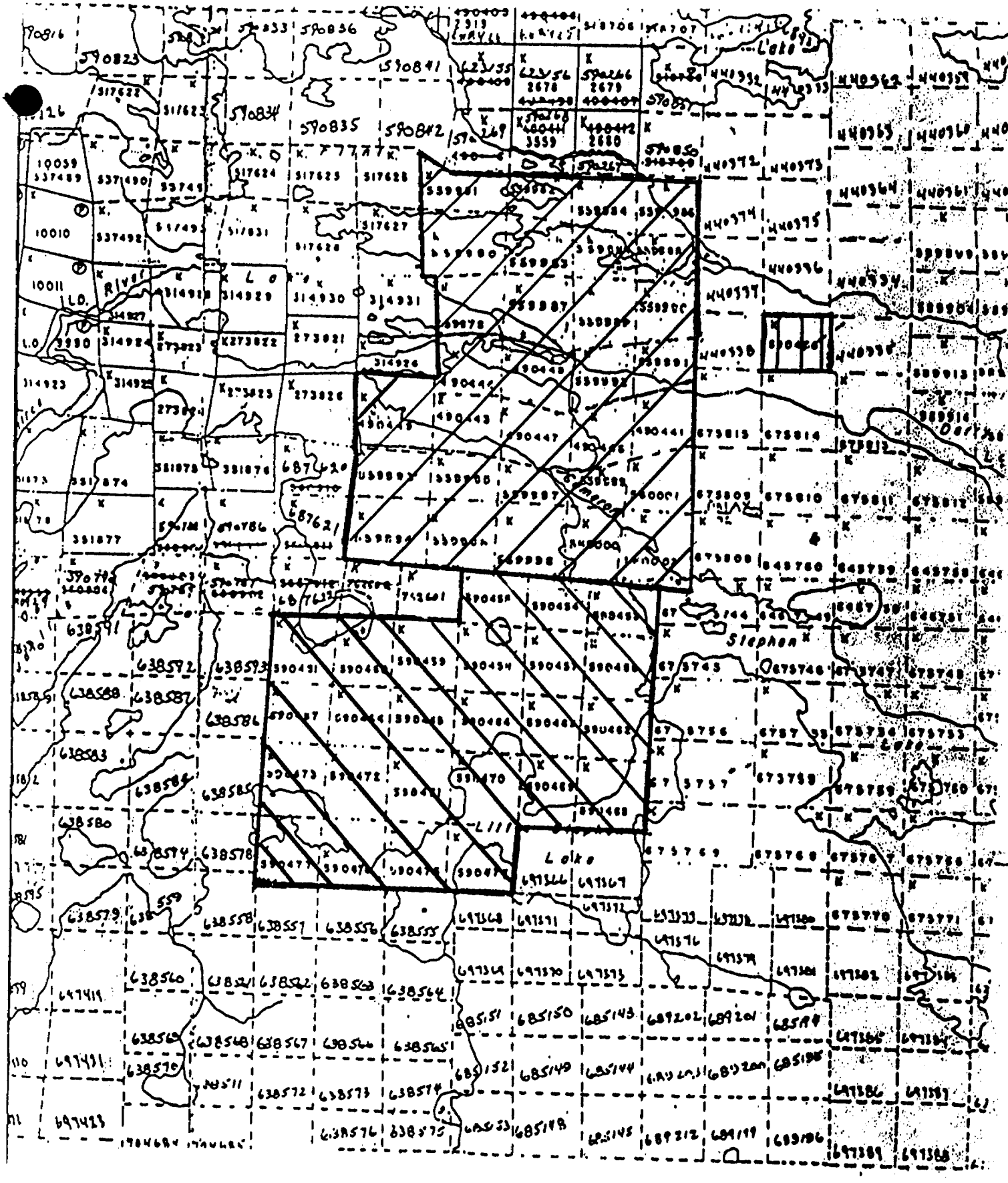

Figure 1. Claim Location Map (part of claim map M2585).

This report

Scouten Option
Stephen Lake

Other Sherritt
Properties

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GEOLOGIC REPORT ON
DETAILED MAPPING OF CLAIM K590478

INTRODUCTION:

This report describes the detailed mapping, at 1" to 400', and lithogeochemical sampling of claim K590478, part of the Scouten Option Agreement. The work was performed between June 16 and June 20, 1984, by I. Allen and D. Mundy.

LOCATION, ACCESS AND TOPOGRAPHY:

The claim is located approximately 2000' southeast of Flint Lake and is shown on claim map M-2585 (see figure 1), N.T.S. 52F/5SW.

The property is approximately 20% outcrop, the remainder of the claim being covered by an estimated 10-20' of overburden. There are major swamps along the southern boundary of the claim and in the northeast corner.

PREVIOUS WORK:

There is no previous work reported in the area of this claim in the Cedartree Lake Area Report (Geoscience Report 134) nor were there any indications of previous work seen during the mapping and sampling of the claim.

WORK PERFORMED:

Table 1 summarizes the work performed on this claim.

TABLE 1 SUMMARY OF WORK PERFORMED

Linecutting		No. of Lithogeo	Geol. Mapping	Geochem. Sampling	Report Prep'n (Mandays)	
Miles	Mandays	chemical Samples	Mandays	Mandays	Geology	Geochemistry
1.85	2	15	2.5	1.0	1.5	1.0

A grid was flagged in on the claim and used for location control during the geologic mapping and lithogeochemical sampling. A baseline, tie line and 5 north-south grid lines were established, with 100' stations along all lines. The north claim boundary was established as the baseline, the south claim boundary as the tie-line and north-south grid lines as follows: L0+00E (west claim boundary), L4+00E, L8+00E, L11+00E and L14+00E (east claim boundary).

Every outcrop in the claim was examined during the mapping. A total of 15 lithogeochemical samples were taken, as summarized in Table 2.

TABLE 2 SAMPLE SUMMARY

Sample numbers	Location	Rock Type	Comments
84YFES0690	1+00S, 0+00E	Feldspar-Quartz-Porphyry	
84YFES0691	0+80S, 0+00E	" " "	sheared, intense carbonatization
84YFES0692	3+70S, 0+40E	Intermediate Metavolcanic	.5% pyrite
84YFES0693	10+00S, 0+30E	" "	sheared, 1% pyrite, carbonat.
84YFES0694	TLS, 1+40E	Gabbro	intensely carbonatized
84YFES0695	8+30S, 6+30E	Intermediate Metavolcanic	
84YFES0696	9+20S, 5+80E	Talc-sericite schist	moderate FEOC staining
84YFES0697	0+00S, 8+00E	Feldspar-Quartz-Porphyry	
84YFES0698	6+30S, 7+20E	Intermediate Metavolcanic	3% pyrite, carbonatized
84YFES0699	5+90S, 10+70E	Feldspar-Quartz-Porphyry	
84YFES0700	5+90S, 10+70E	Quartz vein	minor FEOC staining
84YFES2701	12+70S, 10+70E	Intermediate Metavolcanic	moderately carbonatized
84YFES2702	12+30S, 13+60E	Felsic Metavolcanic	moderately silicified
84YFES2703	1+00S, 0+00E	Feldspar-Quartz-Porphyry	duplicate of 0690
84YFES2704	12+80S, 0+00E	Gabbro	intensely carbonatized

GEOLOGY:

The bedrock on this property is of Archean age. The accompanying geology map shows their relative ages and stratigraphic relationships.

Metavolcanics:

With the exception of a single outcrop of felsic metavolcanics in the southeast corner of the claim, all the metavolcanics on the property are intermediate in composition. They range from massive to highly sheared and alteration is variable from weak to intense. All the schistose outcrops are intensely altered (carbonatization, chloritization and sericitization) while the massive to weakly foliated outcrops varied from weakly to intensely altered (carbonatization). This is shown in Table 2.

Pyrite is present in most of the outcrops, in amounts ranging from 0.5 to 3.0%, usually as 1-4mm cubes. Quartz-carbonate-epidote stringers are also common, ranging from 1mm to 2cm in width. They contain no sulfides and are discontinuous within the outcrops.

The outcrop of felsic metavolcanic is equigranular, weakly foliated (at 118/60N), moderately silicified and weakly carbonatized. Iron staining is present on fracture surfaces, probably due to very fine-grained disseminated pyrite, although no sulphides were seen.

Mafic Intrusive Rocks:

The large gabbro outcrop in the southwest corner of the claim is coarse-grained, massive and equigranular to porphyritic. It is extremely carbonatized ($\approx$10%) and chloritized ($\simeq$10%) which occasionally results in a porphyritic appearance. The surface and fractures in the outcrop are very gossan stained, probably due to a combination of iron carbonate and very fine disseminated pyrite.

Felsic Intrusive Rock:

This rock is a feldspar-quartz porphyry (feldspar / quartz phenocryst ratio = 4:1) intruding the metavolcanics. The phenocrysts range in size from 0.5-8mm. The outcrops are foliated to locally schistose. The intensity of alteration (carbonatization + chloritization) is proportional to the intensity of shearing. No sulfide minerals were seen, however, iron oxide staining was present, permeating the rock in the schistose zones, coating the fracture planes in less sheared zones.

STRUCTURE AND METAMORPHISM:

This claim is located immediately north of the Pipestone-Cameron Lakes fault and the associated shear zone. The consistant 100-120^{o}/65-77N foliations and schistosities seen in the outcrops on the property are a reflection of this regional feature. The level of metamorphism in the area is lower greenschist.

CONCLUSIONS AND RECOMMENDATIONS:

The location of this claim, adjacent to the Cameron-Pipestone Lakes fault zone, a major regional feature, combined with the generally high degree of alteration and local shearing, and the presence of felsic intrusions on the property make it an attractive exploration feature.

Unfortunately, the results of the lithogeochemical analysis of the samples taken (all samples <2 ppb Au) indicate that this claim has very low potential for hosting a gold deposit. Unless the detailed analysis of the results of the geochemistry is very favourable no further work should be performed on this property unless it is required in order to retain the other claims covered under the Scouten Option Agreement.

Submitted July 28, 1984

Iain Allen

Iain Allen, B.Sc.

sherritt

STEPHEN LAKE DRILL REPORT

Project No. 1288

Iain Allen

Iain Allen

STEPHEN LAKE DRILL REPORT

INTRODUCTION:

A 10 hole, 3051', BQ drill program was completed on the Stephen Lake group of claims (K590453 to 590477 inclusive, K762601, 762602 and 762606- see Figures 1 and 2), Project 1288, during the periods December 6, 1983 to December 20, 1983 (3 holes - 1068') and January 12, 1984 to February 19, 1984 (7 holes - 1983'). The drilling was contracted to Norwescon Development Ltd., of Fort Frances, Ontario. Logging, splitting and sampling were performed by the author. This program was designed to test a number of lithogeochemical and/or IP anomalies. The location of the holes is shown on the accompanying D.D.H. Location Map.

SURFACE GEOLOGY:

The surface geology of the claim group is shown on the Stephen Lake Geological Map and is discussed in detail in the accompanying report. All the drilling was conducted in the metavolcanic rocks east of the 20 + 00 W baseline. These rocks are felsic to slightly intermediate in composition, weather to a creamy gray colour, are quite fine grained and break with a pronounced conchoidal fracture. Chert is intercalated throughout these metavolcanic rocks.

SUBSURFACE GEOLOGY:

During the course of core logging, 4 rock types were distinguished. These are: unaltered felsic metavolcanics (1a), altered felsic metavolcanics (1 b), chert (2) and mafic dikes (3).

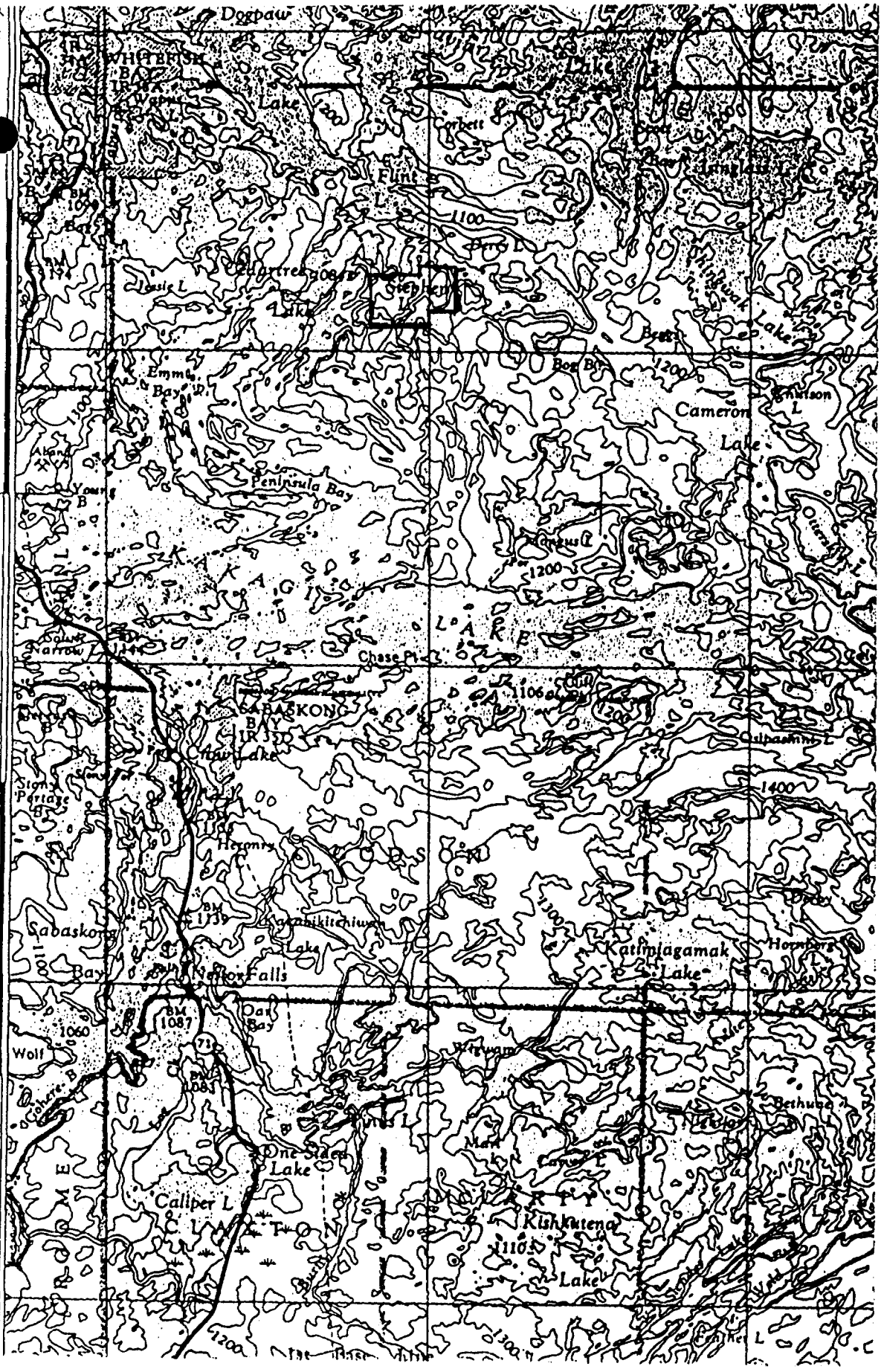

Fig. 1 CLAIM GROUP LOCATION MAP

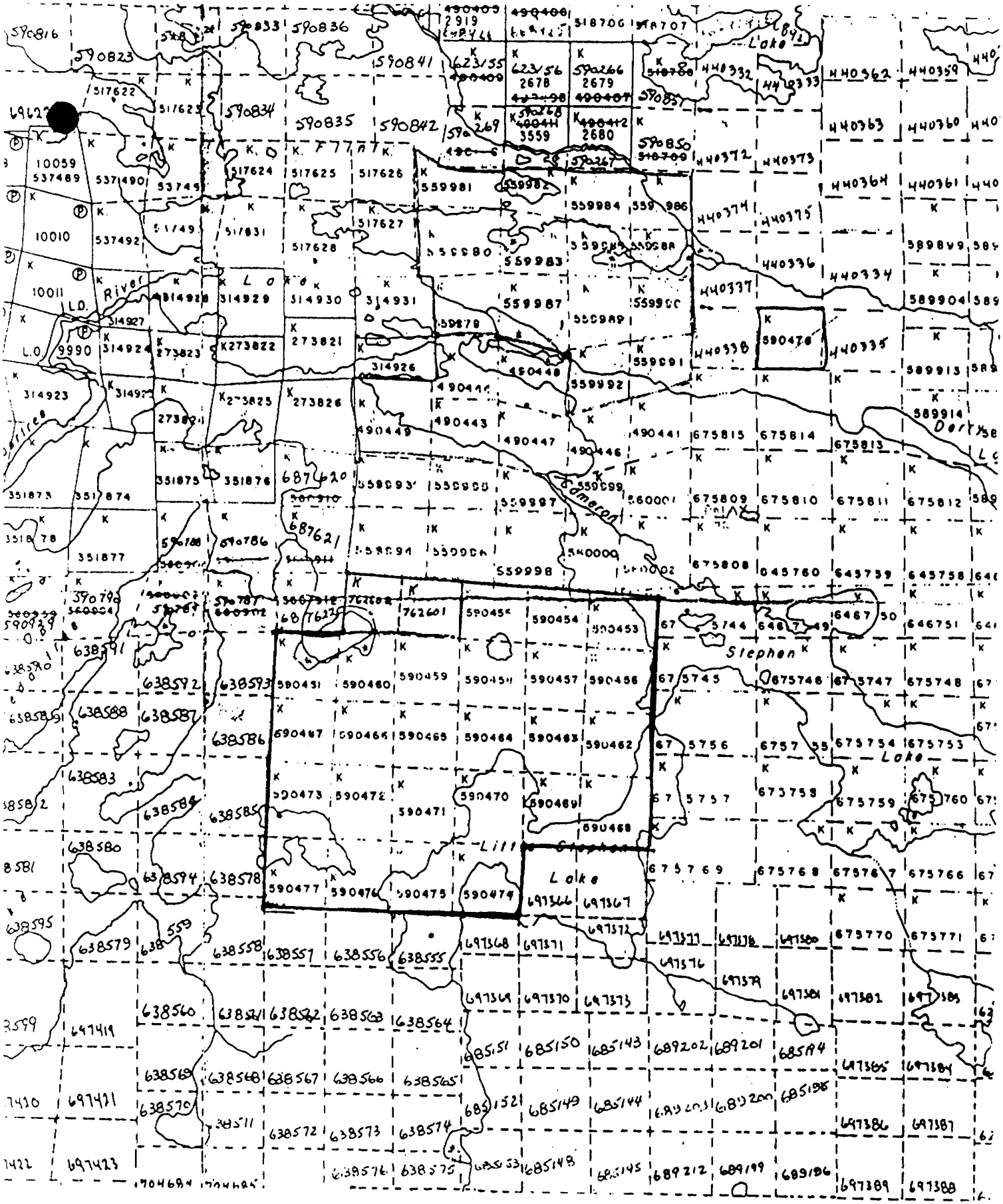

Fig. 2 STEPHEN LAKE CLAIMS

Subsurface Geology cont'd:

Unaltered Felsic Metavolcanics (1 a)

These rocks are generally dark grey, massive, and fine grained. Quartz-carbonate stringers, occasionally with admixed chlorite, are usually present. They range in width from <1mm (common) to 1-2 cm (rare). Pyrite is occasionally present as very thin, foil-like flakes on fracture surfaces.

Altered Felsic Metavolcanics (1 b)

The alteration in this unit consists primarily of carbonatization and silicification. These rocks are a lighter gray colour than the unaltered rock, are frequently quite brecciated and almost always contain 10-40% chert, primarily as scattered, irregular, discontinuous pockets and lenses; 1-10% pyrite, as very fine disseminated grains and <1mm to 3mm cubes, is common in this unit.

Chert (2)

This unit is creamy brown, extremely fine-grained and contains variable amounts of carbonate. Up to 2% pyrite, as very fine disseminated grains and <1mm to 3mm cubes is common in this unit.

Mafic Dikes (3)

These relatively thin (4'-10' wide) dikes are dark green, medium grained and chloritic. They are rich in carbonate and contain up to 1% fine disseminated pyrite.

Subsurface Geology cont'd

Although no discrete stratigraphy was noted during the logging of the core, certain associations became evident. Chert almost never occured as a discrete unit, rather it was present in varying amounts in all the other units as very irregular, discontinuous pockets and lenses. In almost every case chert was the subordinate unit in these associations, rarely exceeding 25% of the rock. It was not uncommon, however, to find the other units without chert, although no pattern was evident in the presence/absence of chert in these units.

Examination of the assay results indicates that chert, alteration and pyrite are associated with the gold mineralization. The fact that the best assay results (.06/1', .16/2.5') came from units of 1 b immediately adjacent to a mafic dike suggests that this dike may have enhanced the gold mineralization.

DRILLING:

Drilling proved to be quite slow on this property with 3,051 feet drilled in 54 days, ie, 56.5'/day. This was due mainly to numerous equipment breakdowns, although the rock being drilled was quite hard and at times blocky.

As both the geological mapping and the IP survey indicated that the rock units in the area dipped steeply to the east, the first three holes were drilled west. The lack of encouragement from these holes prompted the drilling of the fourth hole to the east. This hole intersected mineralized rock and indicated that the mineralized zone dipped west. Drilling was also easier and faster to the east so, with the exception of SL-34-2, all subsequent holes were drilled east.

Drilling cont'd

The first five holes were sampled in their entirety, however, only the cherty, altered and mineralized sections of the last 5 holes were sampled.

D.D.H.'s	SL-83-1	SL-83-2	SL-83-3
Collar location	79+77N, 3+25W	81+67N, 3+00W	81+90N, 5+28W
Angle, bering	-45^{0} @ 303^{0}	-45^{0} @ 303^{0}	-45^{0} @ 303^{0}
Depth	363'	353'	352'

These three holes were drilled west, under the area of the old trenches. Very little of interest was intersected in these three holes, a fact that is reflected in the assay results, almost all of which were trace. SL-83-1 returned one assay of .02 oz/ton over 5', from 158'6" to 163'6"; SL-83-2 returned one assay of .01 oz/ton over 4', from 184' to 188' and SL-83-3 returned one assay of .01 oz/ton over 5', from 304' to 309'.

D.D.H.'s	SL-84-2	SL-84-5
Collar location	78+00N, 6+81W	90+05N, 9+06W
Angle, bering	-45^{0} @ 303^{0}	-45^{0} @ 123^{0}
Depth	303'	325'

These holes will be dealt with together, despite being 1200' apart, because both were drilled to test strong (coincident chargeability and resistivity) IP anomalies in areas of geochemical anomalies and neither intersected the expected mineralization.

SL-84-2 returned 3 assays of .02 oz/ton over 2', from 186' to 188', from 248' to 250' and from 262' to 264', as well as one assay of .01 oz/ton over 1', from 64' to 65'. However, all other samples from this hole and all the samples from SL-84-5 returned trace values.

Drilling cont'd

D.D.H.'s	SL-84-1	SL-84-3	SL-84-4
Collar location	80+64N, 6+12W	80+68N, 7+12W	80+62N, 7+90W
Angle, bering	-45^{o} @ 123^{o}	-45^{o} @ 123^{o}	-60^{o} @ 123^{o}
Depth	203'	151'	275'

SL-84-1 was drilled directly under an old trench that returned an assay of 8548 ppb (≈ .27 oz/ton) Au. Holes SL-84-3 and 4 were drilled below 84-1 to determine if the highly altered, cherty, pyritic rock encountered in SL-84-1 continued to depth.

The best assay returned from SL-84-1 was .06 oz/ton over 1', however a number of .02 and .01 assays over 1' to 4' also intersected. Most of these results were clustered around a 6'6" wide mafic dike (from 16' to 22'6"). The dike itself returned trace assays. SL-84-3 returned a best assay of .16 oz/ton over 2.5', as well as a number of .01 and .02 values, again clustered around the mafic dike (from 88' to 91'6"). Interpolation between the trench on surface and the mineralized zones in 84-1 and 84-3 indicates that the mineralized zone dips west at 54^{o}. A second zone of highly altered, cherty, pyritic rock was intersected in SL-84-3, from 133' to 145'. There was no dike associated with this zone and the best assay result was .01 oz/ton over 3', all others were trace.

Unfortunately, although the mafic dike was intersected, from 146' to 156', in SL-84-4, the highly altered rock associated with this dike in the previous two holes, was not present. All assays from SL-84-4 returned trace values, suggesting that the zone of interest is quite shallow. The second zone seen in SL-84-3 was absent from SL-84-4 as well.

Drilling cont'd

D.D.H.'s	SL-84-6	Sl-84-7
Collar location	92+00N, 6+27W	78+12N, 0+59E
Angle, bering	-45^{0} @ 123^{0}	-45^{0} @ 123^{0}
Depth	353'	373'

Both of these holes were drilled to test IP anomalies in areas of geochemical anomalies, and although both holes intersected enough sulfide mineralization (pyrite +/- pyrrhotite) to explain the anomaly, all assays were trace.

SL-84-6 was drilled to test a moderate anomaly and intersected 110' of rock containing at least minor (ie. >< 1%) pyrite, with some altered sections containing 1-2% pyrite.

SL-84-7 was drilled to test a strong IP anomaly and intersected pyrite and pyrrhotite mineralization throughout the length of the hole. This included a 13' section, from 83' to 96', of extremely altered, cherty rock containing 1-5% pyrite and trace to minor pyrrhotite. It was in this hole that pyrrhotite became common, present in trace amounts throughout the hole, with local concentrations of up to 1%.

CONCLUSIONS AND RECOMMENDATIONS:

This drill program was designed to test a number of coincident litho-geochemical and IP anomalies. 10 holes were drilled, totalling 3,051', with very disappointing results. The best assay results obtained were .16 oz/ton Au over 2.5' in hole SL-84-3 and .06 oz/ton Au over 1' in SL-84-1. Several .01 and .02 assays, over widths of 1' to 5' were obtained from these and other holes, however, they were very spotty and inconsistent. In the case of hole SL-84-6 and SL-84-7 significant widths (15-20') of very promising rock were intersected, however, all assays returned trace values.

Despite these discouraging results, this author feels that this property deserves more work. The extremely encouraging surface lithogeochemical anomalies, with conincident IP anomalies, warrants more attention.

I propose a program of stripping, and possibly trenching, in the areas of the trenches on L80-82N, along with detailed mapping of the stripped area. A special effort should be made to obtain more structural information from this area. A more detailed soil and lithogeochemical survey in the area of these trenches should also be completed.

The final decision as to whether any further drilling should be carried out on this property should wait until all the additional information has been collected and interpreted.

Iain Allen

Junior Exploration Geologist
Mineral Resource Development
Sherritt Gordon Mines Limited
Dryden, Ontario

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MINISTRY OF NATURAL RESOURCES
RECEIVED
OCT 29 1985
THE DIRECTOR
Mining Taxation &
OMEP Office

October 22, 1985

Mr. R. Huggins
OMEP Evaluator
Mining Taxation and OMEP Office
Room 6449, Whitney Block
Queen's Park
Toronto, Ontario
M7A 1W3

OM83-3-JV-339

Dear Mr. Huggins;

As requested, I am enclosing an additional copy of drill logs, sections and assays regarding this program.

Sincerely yours;

Vincent Scime
Senior Exploration Geologist

Sherritt Gordon Mines Limited/Mining and Milling Division
Exploration Field Office
P.O. Box 723, Claybanks Road, Dryden, Ontario P8N 2Z4/Tel: (807) 223-5365

#63.4547

Sherritt Gordon/Gossan Resources Jun. 15/87

OMEB-3-IV-339

THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

COMPARABLE MATERIAL

① Diamond Drill Log, Sherritt Gordon/Gossan Resources, Stephen LK. Property, Dec. '83 → Feb. '84.
SL83-1 to SL83-3
SL84-1 to SL84-7

→ See Toronto File Dagpaw Lake D.D. #41

Iain Allen 15/06/84

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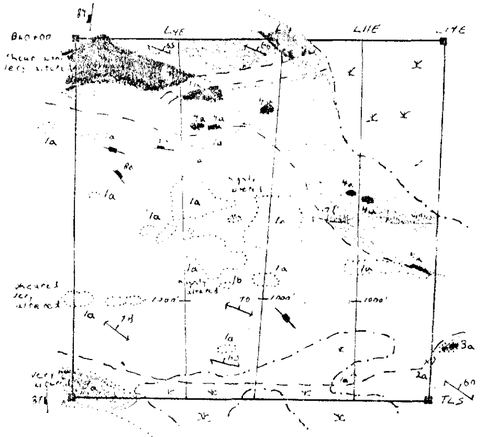
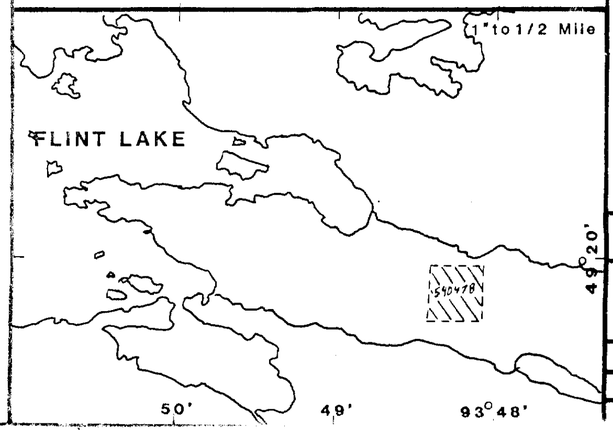




LEGEND

PRECAMBRIAN

FELSIC INTRUSIVE ROCKS

4 — 4a Feldspar-Quartz Porphyry

MAFIC INTRUSIVE ROCKS

3 — 3a Gabbro

FELSIC METAVOLCANIC

2 — 2a Flow

INTERMEDIATE METAVOLCANIC

1 — 1a Flow

1b Talc-Sericite Schist

SYMBOLS

- Geological Boundary
- Outcrop
- Swamp
- Claim Post
- Foliation
- Jointing

1 inch to 400 feet

400' 0 400' 800'

SHERRITT GORDON MINES LTD
Dryden, Ontario

STEPHEN LAKE
GEOLOGICAL SURVEY

Area: M2585	Project: 1288
Date: 21/06/84	By: IAIN ALLEN
Scale: 1"to400'	Updated:

OM82-5-9

63.4547

Stephen Lake Stock

Gabbro-Peridotite

Little Stephen Lake

N

Felsic Volcanic/Chert Assemblage

Felsic/Intermediate

Lower Volcanic Assemblage

Sulphide Marker Horizon

3 Felsic Tuffs

2 Volcanoclastic and Chemical Sediments

1 Intermediate Tuffs and Breccias

Lithogeochemical Au > 100 ppb

IP anomaly

Potassium metasomatism

* Kenty occurrence

GOSSAN-SHERRITT J.V.

STEPHEN LAKE PROJECT

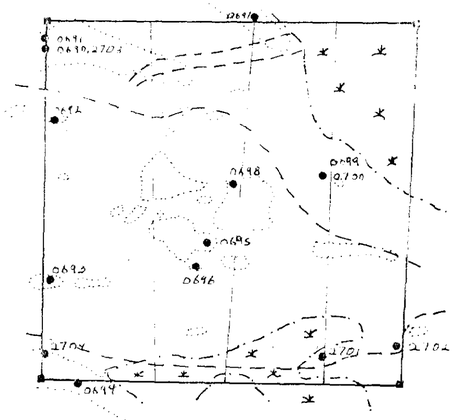
GEOLOGIC COMPILATION

1" : 625' 52F-5SW

210

Iain Allen 15/08/84

N

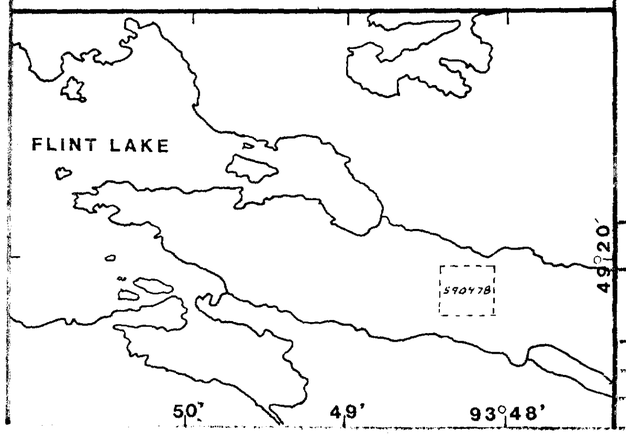


LEGEND

- SAMPLE LOCATION
- GEOLOGICAL BOUNDARY
- CLAIM POST
- SWAMP

NOTE: All Sample Numbers Are Prefixed By - 84YFES

LOCATION MAP SCALE: 1" to 1/2 mile



0 400 800 1200

Scale (in feet)

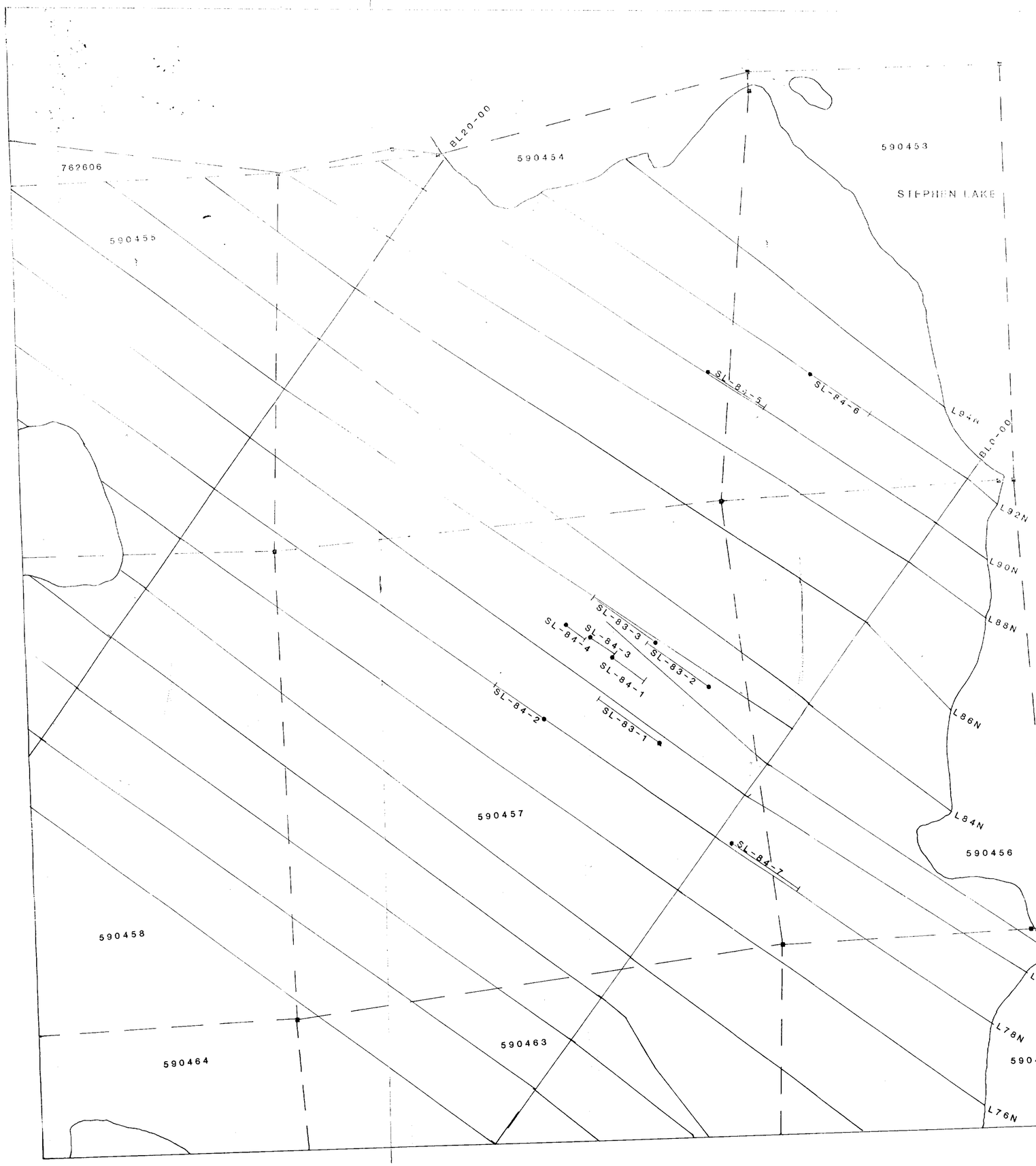
SHERRITT GORDON MINES LTD
Dryden, Ontario

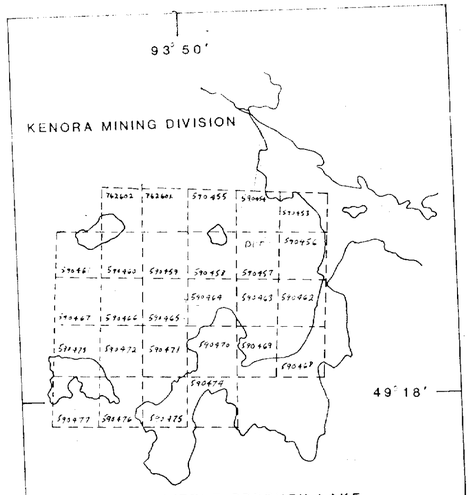
STEPHEN LAKE CB590478
SAMPLE LOCATION MAP

Area M2585	Project 1288
Date 22/06/84	By IAIN ALLEN
Scale 1" to 400'	Digitized

OM83-339

63.4547





SHERRITT GORDON MINES LTD

OUTSIDE EXPLORATION, DRYDEN, ONTARIO

D.D.H. LOCATION MAP

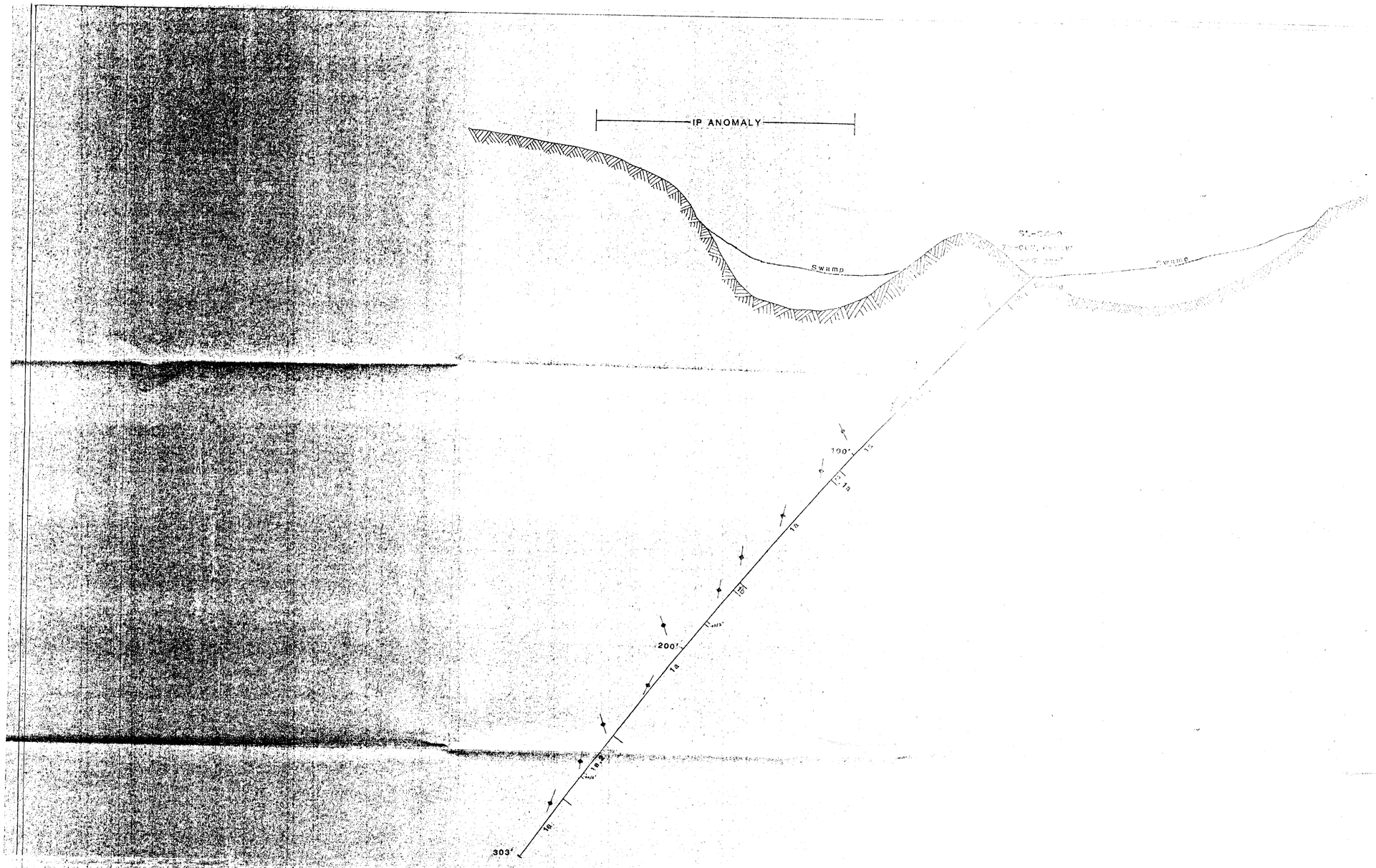
AREA: CEDARTREE LAKE
NTS: 52 F/5SW
SCALE: 1" TO 200'
DRAWN BY: IAIN ALLEN

GROUP: STEPHEN LAKE
CLAIM MAP NUMBER: 2585
DATE: MAR. 9, 1984

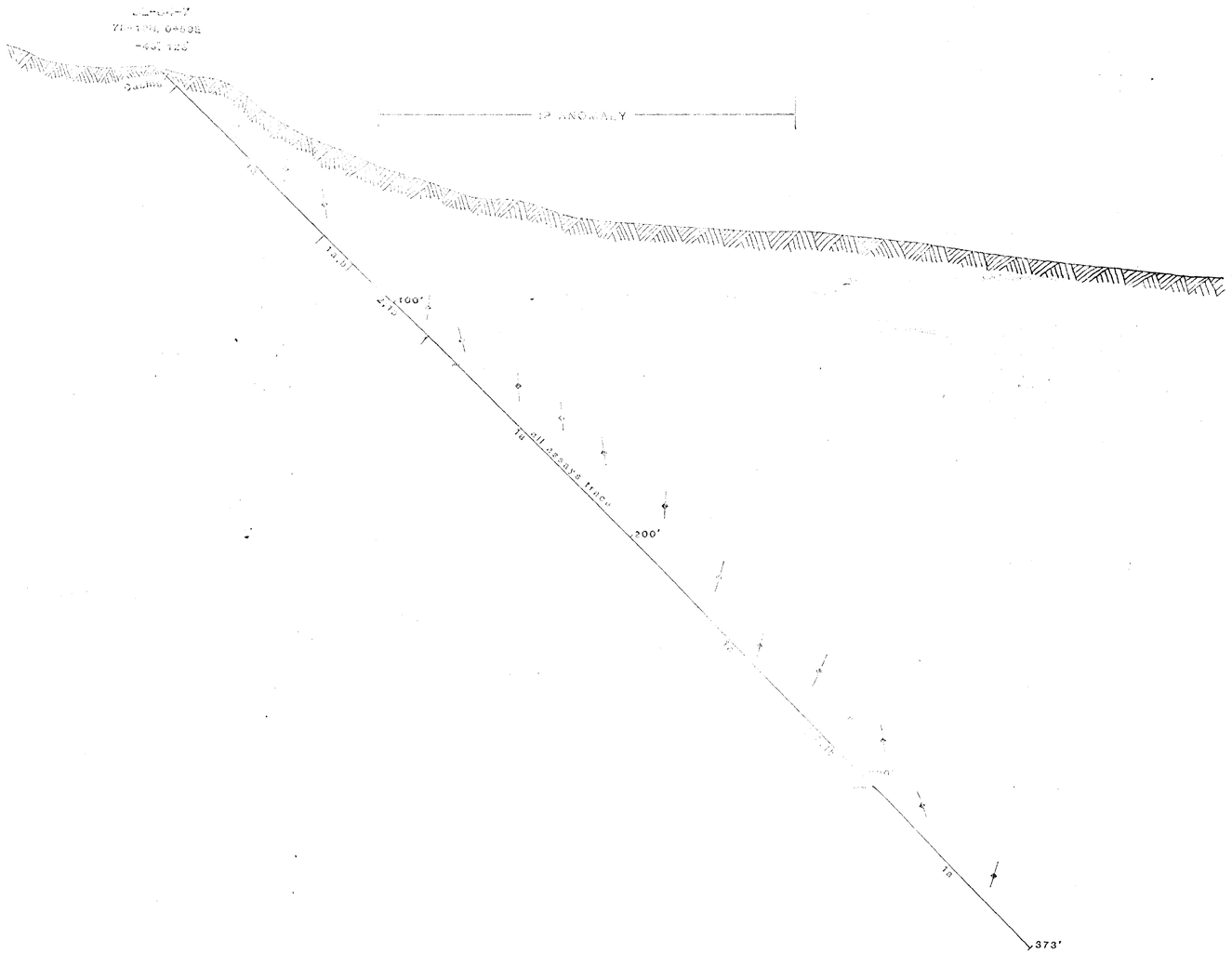
Iain Allen

OM87-239

63.4547



OM82-229
63.4547



LEGEND

1a	Felsic metavolcanics
1b	Altered felsic metavolcanics
2	Chert
3	Mafic dyke

SYMBOLS

Sample location, assay result (oz./t. Au, width)

Core angle Bedrock

63.4547
QM83-339

SHERRITT GORDON MINES LTD

VERTICAL CROSS SECTION ON:

78+12N

DDH NOS: SL-84-7

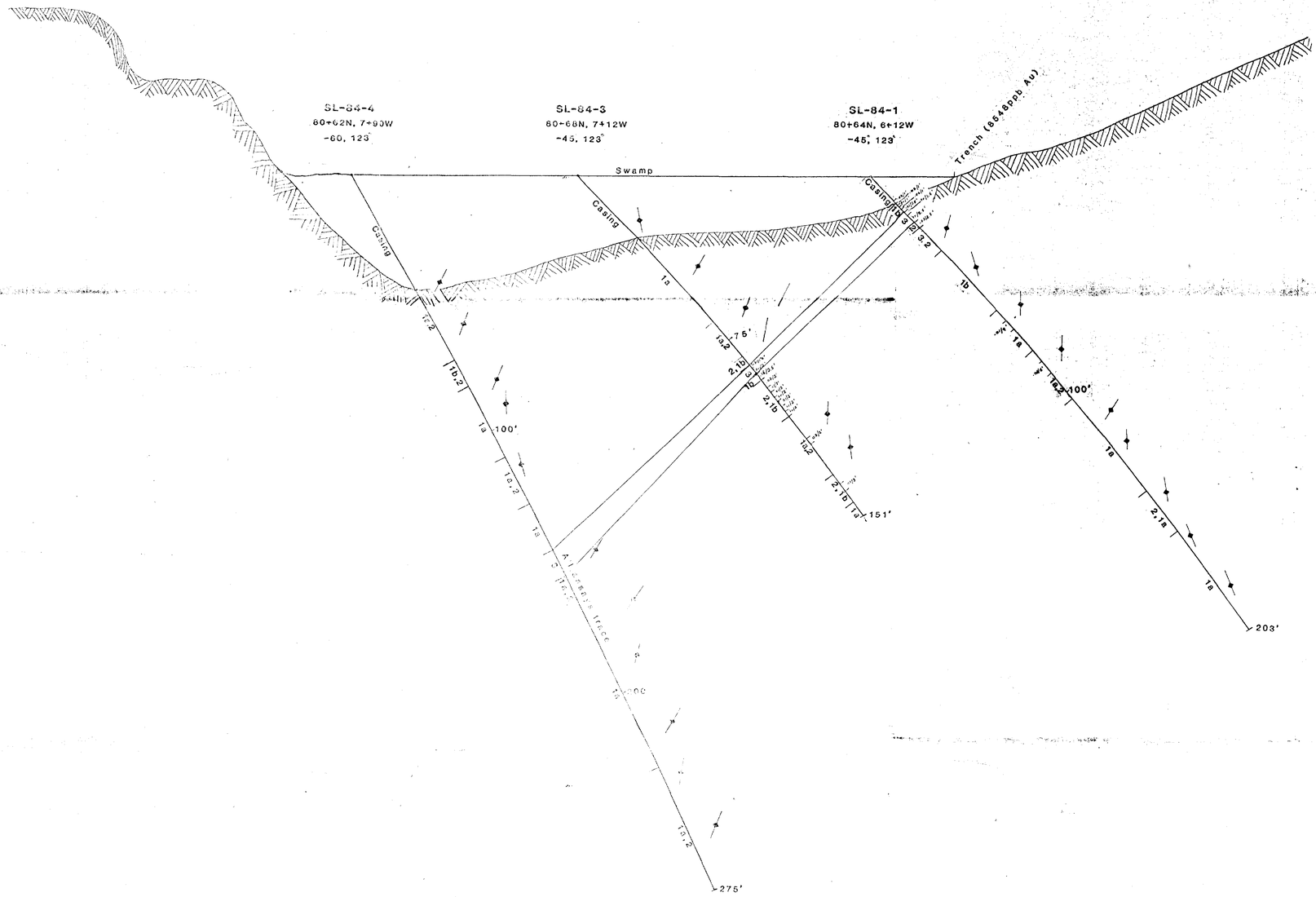
STEPHEN LAKE

CEDARTREE LAKE AREA — 52 F/5SW

SCALE: 1" to 20'

52F05SW0036 63.4547 DOGPAW LAKE

250



LEGEND

1a Felsic metavolcanics

2 Chert

3 Mafic dyke

SYMBOLS

Sample location, assay result (oz./t. Au, width)

Core angle

Bedrock

63.4547

OM83-339

SHERRITT GORDON MINES LTD

VERTICAL CROSS SECTION ON:

80+65N

DDH NOS.

SL-84-1, SL-84-3, SL-84-4

STEPHEN LAKE

CEDARTREE LAKE AREA

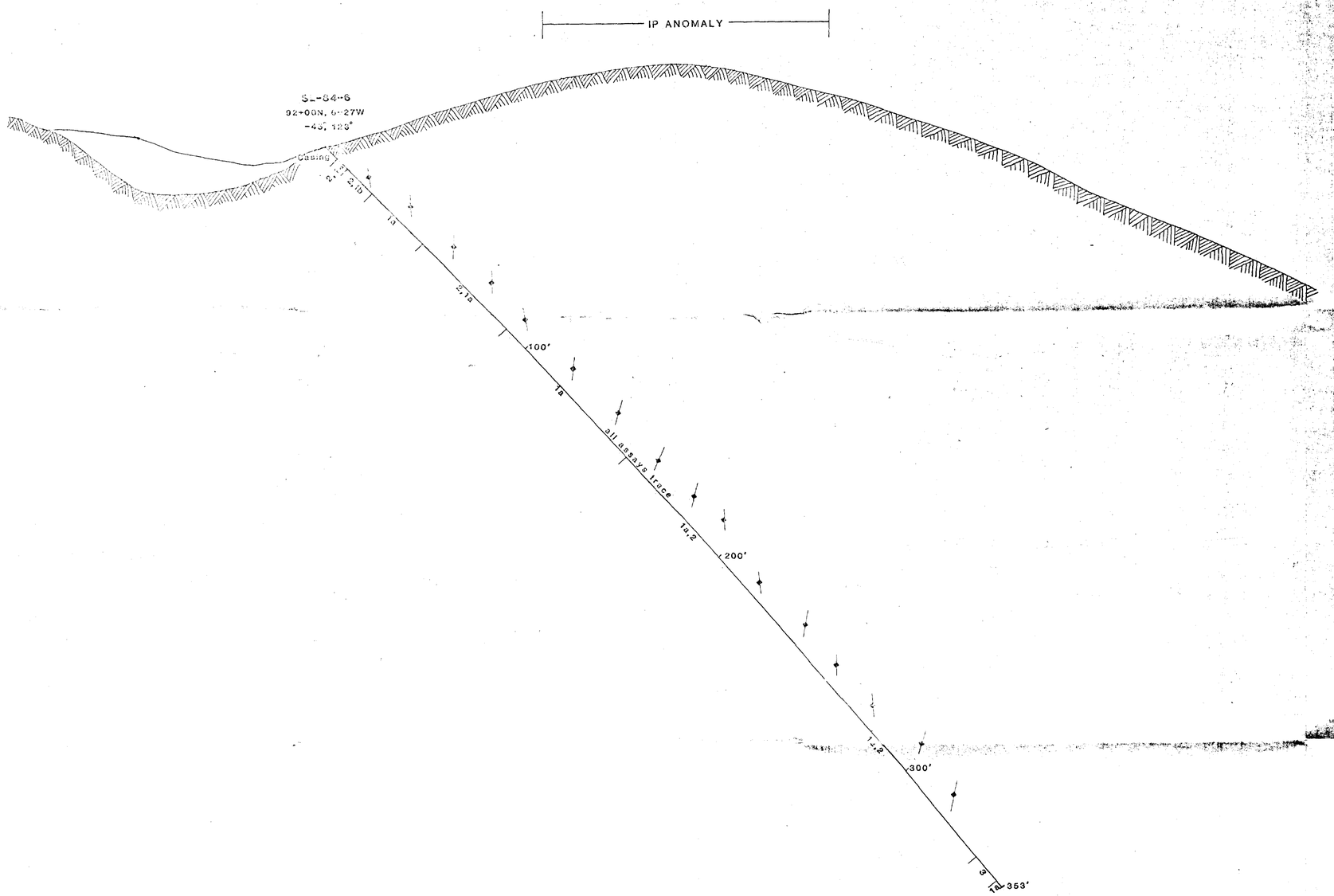
52 F/SSW

SCALE: 1" to 20'

(M-2585)

52F8SSW0036 63.4547 DOGPAW LAKE

270



LEGEND

1a Felsic metavolcanics

2 Chert

3 Mafic dyke

SYMBOLS

Sample location, assay result (oz./t. Au, width)

Core angle Bedrock

63.4547

OM83-339

SHERRITT GORDON MINES LTD

VERTICAL CROSS SECTION ON:

92+00N

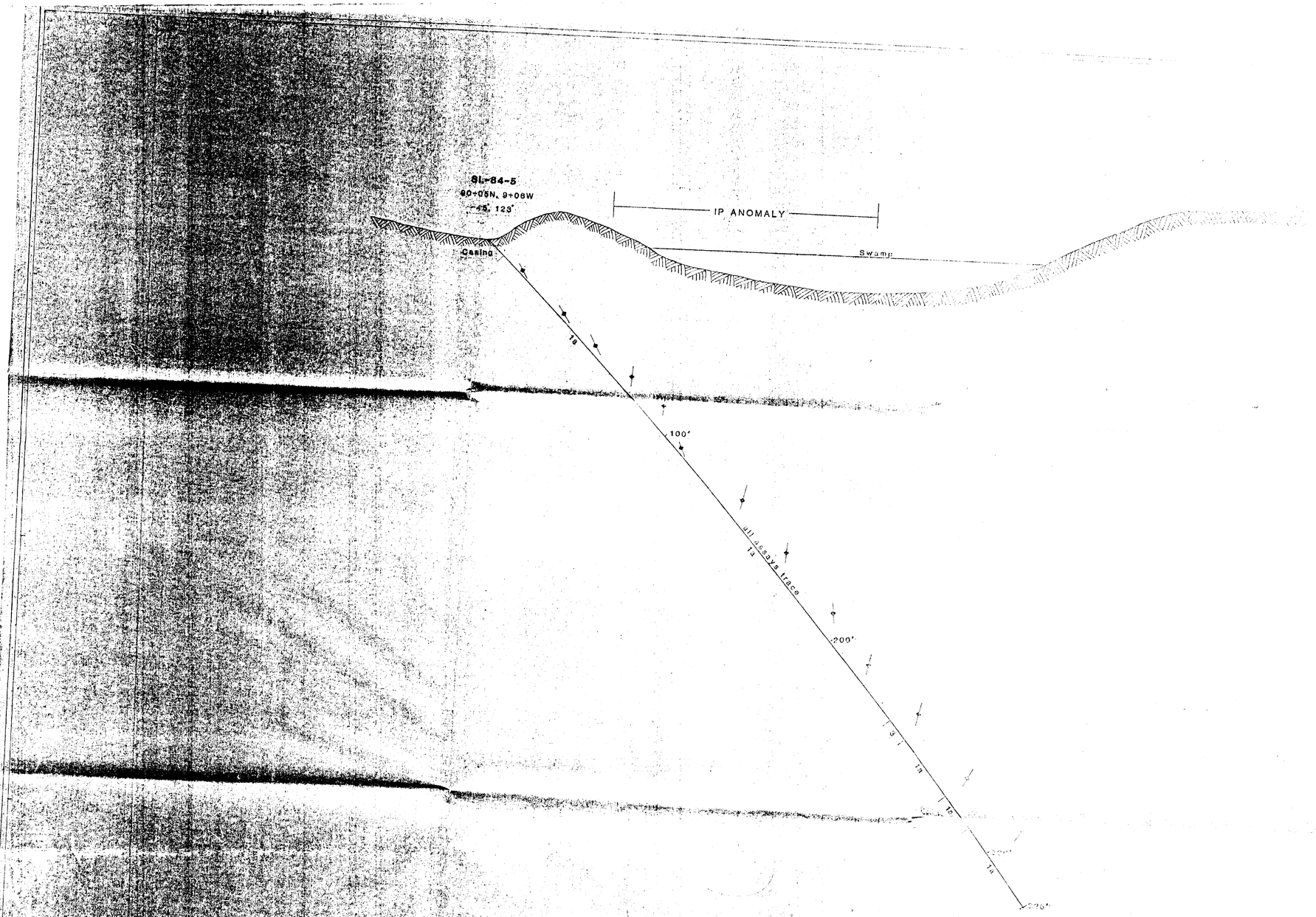
DDH NOS: **SL-84-6**

STEPHEN LAKE

CEDARTREE LAKE AREA — 52 F/5SW

SCALE: 1" to 20' — (M-2585)

Jean Allen



LEGEND

Felsic metavolcanics

SYMBOLS

Sample location, assay results (oz./t. / w. width)

Core angle Bedrock

63.4547

OM82-339

ASHCROFT GORDON MINES LTD.

VERTICAL CROSS SECTION ON

90+05N

SL-84-5

SECTION 1A

SOUTH BIG LAKE AREA

1" to 50'