

63.4411.



42E13SE0146 63.4411 ELMHIRST

010

Report on
THE ELMHIRST TOWNSHIP CLAIMS
of the
ELMHIRST LAKE SYNDICATE .

F.J.L. Guardia, P. Eng.
Toronto
September 10, 1984



42E13SE0146 63.4411 ELMHIRST

CONTEN

010C

SUMMARY

BACKGROUND	page 1
CLAIMS STATUS & WORK FILED	3
GEOLOGY AND PREVIOUS WORK	3
Pinel Intrusion Group	3
O'Neil Creek Group	6
CONCLUSIONS & RECOMMENDATIONS	10
APPENDIX	

MAP

Ontario Geological Survey Map 2373
Elmhirst and Rickaby Townships
- showing claims location **back folder**

SUMMARY

The report makes recommendations for further exploration work on 46 mining claims held by the Elmhirst Lake Syndicate and located in Elmhirst Township in the Beardmore-Geraldton gold camp in the Thunder Bay Mining Division of NW Ontario.

In 1981 the Elmhirst Lake Syndicate located 363 claims in Elmhirst Township based on the concept that granodiorite intrusives occupying large portions of the township bore close resemblance to the intrusives hosting auriferous shear zones in the Bourlamaque gold camp. Based on this concept, VLF electromagnetic and magnetometer surveys were conducted over the entire claim group in 1983. As follow up to the 1983 surveys, a small program of prospecting, geochemistry and backhoe trenching was done in June 1984. It was concluded from this work that geological similarities between Elmhirst and Bourlamaque were not valid: intrusive rocks of the former showing very little sign of shearing or mineralization. As a result, all claims overlying intrusive rocks were allowed to lapse and assessment credits from the 1984 work were applied to 46 claims underlain by largely felsic volcanic rocks, and on which a number of untested VLF anomalies, possibly representing mineralized zones, had been shown to exist.

Felsic volcanic rocks in and around Elmhirst Township contain a number of base and precious metals occurrences, amongst the more important of which are the Kenty showing in Rickaby Township and the occurrences currently under exploration by Kengate Resources in the SW corner of Elmhirst. The main block of remaining claims of the Syndicate lie between these occurrences and appear to have similar geology. On the claims, a base metals occurrence with some indications of precious metals was explored in 1971 by Cerro Mining.

(ii)

It is recommended that all assessment reports pertaining to the volcanic rocks of the immediate area be studied, particularly the work of Cerro. The Cerro occurrences should be examined in the field with particular attention being paid to the presence or absence of features pertaining to volcanogenic concepts.

The untested VLF anomalies should be tested by a limited IP program which, where positive, should be followed up by diamond drilling. Costs of the proposed work are estimated at \$49,200.

BACKGROUND

The writer has been requested by Mr. C.L. McAlpine, Manager of the Elmhirst Lake Syndicate, to review exploration work to date in Elmhirst Township and to make recommendations for additional work on the remaining 46 claims.

In late 1981, a block of 363 contiguous claims, all in Elmhirst Township, were staked by Mr. R. Toms and associates based on a general concept of similarities between the intrusive Elmhirst and Coyle Lake stocks and the intrusive Bourlamaque Batholith in Quebec which is host to several economic gold deposits. The Bourlamaque deposits are hosted within pronounced zones of shearing and it was with this shear-hosted model in mind that the Syndicate commissioned a combined VLF and magnetometer survey over the entire claim group in the period March-June 1983. The survey, on lines 400 feet apart, was done by Hill, Goetler, De Laporte, and was successful in locating a large number of VLF anomalies of which 36 were recommended for follow-up by closer spaced VLF, shallow IP on selected targets and, ultimately, diamond drilling. The survey was done under an extension as no work had been performed in 1982 and the survey was sufficient only to maintain the claims to November-December 1983. The latter half of 1983 saw no further work and another extension was granted to June 29, 1984.

On April 29th, 1984, Guardia Exploration Inc. made recommendations to conduct a program of prospecting, backhoe trenching and geochemical sampling over as many anomalies as possible, following detailing with VLF, with a view to ascertaining whether the anomalies did represent shearing of Bourlamaque type and whether there were signs of gold mineralization in the system. Work was unable to proceed until the first week of June.

All 36 VLF anomalies were located and detailed but the great majority were found to underlie lakes, swamps and areas of

extensive glacial cover. As the only backhoe available on short notice was a small standard tractor mounted model rather than the large tracked backhoe originally contemplated, trenching was only attempted on two anomalies. Bedrock was reached in one trench. Where conditions allowed, geochemical samples of soil, basal till and bedrock were taken but all revealed low to negligible values. More importantly, prospecting by two geologists, both familiar with the Bourlamaque batholith, revealed little or no sign of shearing or mineralization in the intrusive rocks and it was concluded that comparison with the Bourlamaque model was not valid and that further investigation of anomalies within the intrusives was not justified.

The prospecting, trenching and geological work was only sufficient to renew 46 of the original 363 claims and it was decided, in light of the geological conclusions, to renew those claims that covered largely untested VLF anomalies falling in areas underlain by volcanic rocks. In the immediate vicinity of Elmhirst Township such volcanics are host to several precious and base metals deposits and are thought to offer the best chances of locating economic mineralization.

This report comments on previous work done in the vicinity of the reduced claims and makes recommendations for further work by the Elmhirst Lake Syndicate.

CLAIMS STATUS AND WORK FILED

The following table records claims status and work filed on the remaining claims in Elmhirst Township.

<u>Claim Nos.</u>	<u>No. of Claims</u>	<u>Work Filed June 29, 1984</u>	<u>No. of Days Filed</u>	<u>Expiry Date</u>
TB 615002-06	5	Surveys	40	Nov. 10, 1984
TB 615025-34	10	Surveys	40	"
TB 615048-56	9	Surveys	40	"
TB 615069-76	8	Surveys	40	"
TB 615083-86	4	Surveys	20	"
		Power Stripping	20	
TB 636846-48	3	Surveys	40	Dec. 14, 1984
TB 636849-51	3	Surveys	40	"
TB 636854-57	4	Surveys	20	"
		Power Stripping	20	
TOTAL CLAIMS	46			

GEOLOGY AND PREVIOUS WORK

The remaining 46 claims of the original holdings are divided up into two blocks. In the northwest part of Elmhirst Township, claims TB 615083-86 are staked over the same ground as surveyed claims TB 47123-26 shown on the accompanying Geological Map 2373 of the Ontario Geological Survey and are here referred to as the Pinel Intrusion Block. The other group of 42 claims straddles the Namewaminikan River in eastern Elmhirst and is here referred to as the O'Neil Creek Group.

Pinel Intrusion Group

Four VLF anomalies, on and in the vicinity of the 4-claim group, which were detected in the 1983 survey, were investigated in June, 1984 with results as follows:

Anom. 33

Swampy area - no outcrop, no samples taken;

Anom. 34

Supposedly crosses volcanic-granodiorite contact. Axis passes through lake and swamp. No samples taken;

Anom. 35

Axis in marsh area - no sampling possible;

Anom. 36

Two axes located - both in swampy areas - no sampling possible.

The anomalies, from the VLF survey maps of 1983, are shown on the accompanying geological map while more detailed information taken from the report of Nelson W. Baker, who performed the 1984 prospecting work is contained as part of the appendix to this report.

According to Map 2373, the claims are underlain principally by felsic volcanics with most outcrops being mapped as felspar porphyry. Baker, in prospecting in the vicinity of the anomalies, noted felspar porphyry with minor disseminated pyrite.

Ontario Geological Survey Report 168 - Geology of Elmhirst and Rickaby Townships - published in 1978, contains summaries of work undertaken in the Pinel Intrusion Group area under headings Consolidated Canadian Faraday Limited, p. 67 and Greenoaks Mines Limited, p. 71. Underlining is by the present writer.

CONSOLIDATED CANADIAN FARADAY LIMITED (9)

In 1972, a block of four leased claims, 47123 to 47126 inclusive, in northwestern Elmhirst Township, were held by this company. No work has been reported on the property since it was held by Augustus Exploration Limited in 1960. At that time geological and geophysical surveys were undertaken in a joint venture with Greenoaks Mines Limited, whose property adjoins to the south and west. Three diamond drill holes were put down near the centre of claim 47123, and several holes were drilled on the Greenoaks Mines Limited property to test the continuity of gold-bearing surface showings associated with east-west shear zones and cross fractures cutting felsic to intermediate metavolcanics (Assessment Files Research Office, Ontario Division of Mines, Toronto).

Most of these four claims are underlain by felsic to intermediate metavolcanics. Tuff-breccia and massive flows are predominant. Part of the two southern claims is underlain by granodiorite of the Elmhirst Lake stock and part of the eastern claims is underlain by the Pinel Creek gabbro body. A more complete description of the local geology and exploration activities is given under the heading Greenoaks Mines Limited.

GREENOAKS MINES LIMITED (13)

The Greenoaks Mines Limited property in 1972 consisted of 15 patented claims, 7 of which, 35571 to 35574 inclusive, 35568, 38746 and 38747, are in western Elmhirst Township. This property has been explored on several occasions for gold and base metals.

History

The main gold showing, on claim 35563, in Pifher Township, was discovered in the summer of 1947. Stripping and diamond drilling totalling 449 m (1,472 feet) in 22 holes, were carried out in that year. In 1953, resistivity and ground magnetometer surveys were conducted and a geological map of the property was prepared. Later in 1953, three drill holes totalling 509 m (1,667 feet) were put down over resistivity anomalies but little mineralization was found. The claims were patented in 1954, but no further work took place until 1960 when a magnetometer survey took place followed by a detailed geological mapping program. An additional five holes totalling 303 m (990 feet) were put down in the summer of 1960. No further work appears to have taken place since that time.

General Geology

Most of this property in Elmhirst Township is underlain by felsic to intermediate metavolcanics and fine-grained porphyritic rocks believed to be intermediate intrusives, but which may in part be recrystallized volcanic rocks. The general strike is east to northeast and dips are steep. Parts of the two easternmost claims in the block are underlain by granitoid rocks of the Elmhirst Lake stock, and hybridization has rendered metavolcanic and intrusive lithologies indistinguishable in that area.

The metavolcanics include massive light green rhyolitic to dacitic flows and possible tuffs along with andesitic flows which are commonly porphyritic, and intermediate to mafic agglomerate units. Flows appear to be more abundant than pyroclastic rocks.

Shearing is predominant in several places, cutting both volcanic and intrusive rocks at between N75E and N85E.

Mineralization

Gold mineralization has been reported by Burr (1953) in several trenches and diamond drill hole intersections where felsic volcanic rocks are cut by shear zones.

A number of electrical conductors outlined on the property were investigated because of the possibility that they represented auriferous shear zones. Several of these turned out to be occurrences of disseminated sulphide minerals, mostly pyrite and pyrrhotite with specks of chalcopyrite and a low gold content (Burr 1953).

The references to gold being associated with shear zones in felsic volcanics in the above excerpts are significant. Two subparallel lineaments shown on the map appear closely associated with the VLF anomalies on the claims block and may be representative of major shear zones. The limited exploration to date and very widespread overburden strongly suggest exploration potential for gold has been far from exhausted. However, further work should be undertaken after detailed examination of available assessment reports.

O'Neil Creek Group

Forty two contiguous claims straddle the Namewaminikan River and cover an area largely underlain by a thick pile of felsic to intermediate volcanic flows and pyroclastics. A discontinuous zone of base metals mineralization with minor gold values occurs on the claims but there are no other reported gold occurrences. However, significant gold values with associated base metals are known on general strike both to the east and west of the claim group and a number of VLF anomalies located in 1983 still require explanation, many being covered by water, swamp and extensive overburden.

VLF anomalies 7-12 occur on or in the immediate vicinity of the claims group and are shown on the accompanying map. The results of June 1984 prospecting are summarized below but are given in more detail in the appendix:

Anom. 7 (N. of River)

Located in swamp - some felspar porphyry outcrop in vicinity. No sampling possible;

Anom. 7 (S. of River)

No outcrop - anomaly in area of heavy overburden (esker) 6 soil samples ran nil to 5 ppb maximum;

Anom. 8

Successfully trenched by backhoe. Anomaly axis appears to correspond with contact between sheared quartz-felspar

porphyry, containing minor disseminated pyrite, and lapilli tuff. All units dip steeply south. Signs of previous trenching. Six basal till samples all gave nil values. Three rock samples reached maximum of 0.002 oz Au/t.;

Anom. 9

Falls in swamp area with outcrops of felsic volcanics to the north and to the south. No sampling possible;

Anom. 10

Axis of anomaly falls along centre of small lake and thence eastwards into wet swampy ground and O'Neil Creek. South of the small lake are outcrops of massive, felsic to intermediate flow rock with no sign of either shearing or mineralization. Axis area too wet for sampling;

Anom. 11

Axis passes under lake and swamp. No outcrop in vicinity, no sampling possible;

Anom. 12

Axis located on small peninsula in lake. Immediate area is one of sandy overburden. Of 6 soils collected, highest ran 10 ppb. 2 rock samples from weakly pyritized shear zone in an intermediate-felsic flow rock, 500 ft north of axis yielded nil gold values.

The presence of weak gold values in sheared pyritic quartz-felspar porphyry coincident with Anomaly 8 can be considered encouraging but all other anomalies remain unexplained and worthy of further investigation.

The geology of the O'Neil Creek Group is shown on Map 2373. Except for the southwest corner, the group is underlain by felsic to intermediate volcanic rocks which are largely of pyroclastic origin varying from relatively coarse tuff-breccias to crystal tuffs. Felspar porphyry is shown on the map but does not appear widespread. Prospecting in June 1984 located massive

flow rocks just south of Anomaly 10 but apparently such rocks are subordinate to the pyroclastics.

Faulting is observed on the geological map in the vicinity of Anomaly 8, where displacement of the contact between intrusives and volcanics has been noted. Trenching at Anomaly 8 suggests this fault has been accompanied by shearing in the volcanics immediately to the north. Two lineaments are shown on the map in the northwest portion of the claims, one of which coincides with the eastern part of Anomaly 10. The linearity of the Namewaminikan River on the claims and immediately to the east, on the Elmhirst-Rickaby boundary, strongly suggests other structural elements such as faulting or shearing are present on the claims.

Detailed exploration appears to be confined to the work of Cerro Mining Corporation on the southeastern corner of the claims. The following is an excerpt from Report 168 p. 62 and is accompanied by the sketch map on the following page:

CERRO MINING COMPANY OF CANADA LIMITED (5, 28)

In 1971 this company held options on 53 claims recorded under the names of A.J. Douglas (4 claims numbered TB 303238 to 303240 inclusive and TB 304689) and C.E. Bye (49 claims numbered TB 282654 to 282663 inclusive and TB 282755 to 282793 inclusive). The block of claims straddled the southern part of the Elmhirst-Rickaby Township boundary.

Until 1971 no work had been reported on the property since the 1930s gold rush when all of the map-area was prospected. In 1971, A.J. Douglas discovered a number of showings containing chalcopyrite, sphalerite and galena, and staked the four claims in the centre of the present block. In the fall of that year, an electromagnetic survey was conducted over the property by the company and magnetometer surveys were carried out around known mineralized occurrences. Considerable trenching was carried out in an attempt to extend the known showings.

Most of the claims are underlain by felsic to intermediate coarse pyroclastic rocks such as tuff-breccia, lapilli-tuff and crystal tuff. The metavolcanics strike at about N70°E and dip quite steeply to the south. Patches of gossan covering the felsic metavolcanics are common, and in some places pyrite forms as much as 10 percent of the rock.

Figure 10 shows the location of trenches and pits dug by Cerro Mining Company of Canada Limited in 1971. Pit #5 on claim 303240 proved the most interesting. Here, massive chalcopyrite and pyrite lenses occur in a quartz sericite schist over a width of about 18 cm (7 inches). Giblin (1971) reported that a chip sample across a 18 cm (7 inch) width assayed 3.32 percent copper, 0.08 percent zinc, 0.01 ounce of gold/ton and 0.43 ounce of silver/ton. In the vicinity of Pit #1 stringers of chalcopyrite, pyrite, and pyrrhotite occur in chlorite schist. Giblin (1971) reported that this assayed 0.70 percent copper and 0.03 percent zinc with traces of gold and silver over a width of 1.3 m (4.4 feet). In other pits

and trenches, small lenses of chalcopyrite occur with minor amounts of pyrite in sheared and silicified metavolcanics and quartz veins. In general, Giblin interpreted the mineralization to be discontinuous and of limited extent. This coupled with the inability of geophysical surveys to outline additional targets led to the termination of exploration work after the fall of 1971. No further work in this area has been reported.

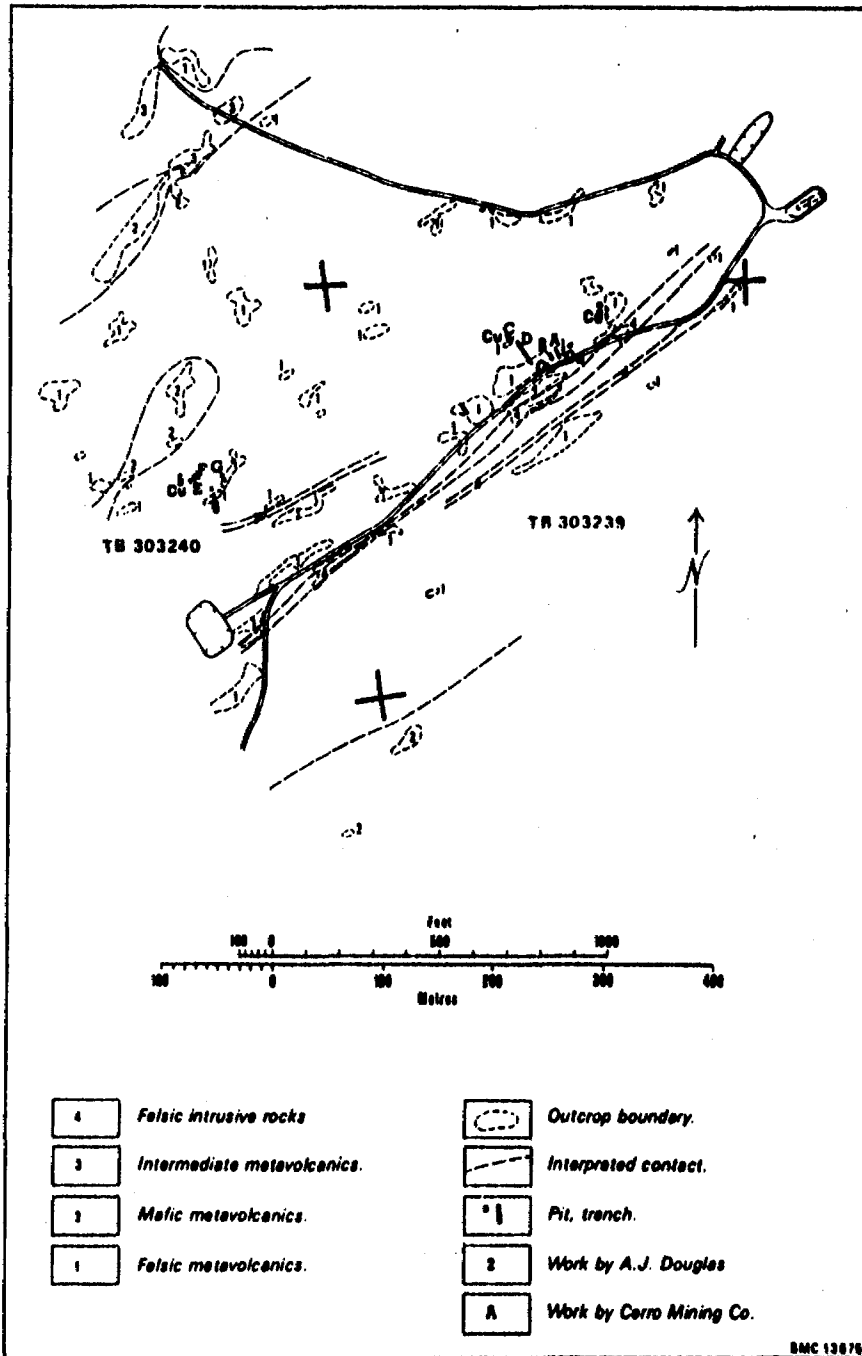


Figure 10—Geology and workings in part of the Douglas Property in east-central Elmhurst Township.

The above excerpt is suggestive of a volcanogenic type of base metal deposit but is not sufficiently detailed to evaluate whether exploration was exhaustive. The descriptions are somewhat reminiscent of the alteration or stringer zones that are found underlying massive sulphide deposits of Noranda type. The possibility should be pursued by examination of all assessment work and by field examination.

Significantly minor gold is associated with the base metals in the Cerro showings which compels comparison with the numerous showings in the extreme southwest corner of Elmhirst (see OGS Report 168 - Carling Copper Mines Limited p. 58 and Jupiter Minerals Incorporated p.77) now held by Kengate Exploration and which have produced some scattered but spectacular gold values. Without the disruption of the Coyle Lake Intrusive, the volcanics hosting the Kengate showings would appear to be strike correlatives of the rocks on the O'Neil Creek Group. Similarly coarse pyroclastics associated with base and precious metal mineralization occur on strike to the east at the Kenty showing in Rickaby Township (Report 168 - Phelps Dodge Corporation p.84).

CONCLUSIONS & RECOMMENDATIONS

A combined VLF and magnetometer survey was conducted over a group of 363 claims in Elmhirst Township in 1983. The surveys were designed to locate zones of shearing in intrusive rocks based on the theory that these intrusives bore strong similarities to the Bourlamaque Batholith in Quebec, which is host to several auriferous deposits. The work was successful in outlining many VLF anomalies which could be representative of shear zones. Thirty six anomalies were recommended for follow up. In June 1984, a small follow-up program using prospecting, trenching and geochemistry was mounted. In this program all 36 VLF anomalies were detailed using closer line spacing but in all cases, except one, the anomalies occurred in areas of extensive and deep overburden and swamp which precluded closer examination. Geologically, it was concluded from examination of

many outcrops of the intrusive rocks in the vicinity of the VLF anomalies that if shearing was present it was only of minor importance and that there was little or no similarity to the Bourlamaque situation. It was further concluded that the small amount of assessment credits arising from the 1984 program would be better utilized in maintaining claims falling over volcanic rocks which not only had unexplained VLF anomalies but which had demonstrated gold potential on or on strike from the claims. Thus, the claims have been reduced to 46 in number in two groups covering what are mainly felsic volcanic rocks.

Future work should include detailed studies of assessment files pertaining to the areas of volcanics in the vicinity of the claims, a program of shallow IP over the VLF conductors (and the Kennco showings area) to determine whether sulphide mineralization is present and a small program of diamond drilling on IP targets established.

Costs of such a program are estimated as follows:

Geological Research and Reports Geologist - 6 weeks	\$ 7,200
IP Survey. 10 line miles Incl. mob./demob. and report	6,000
Room, Board and Transportation	3,000
Diamond Drilling 1500 ft BQ at \$15/ft	22,500
Assays	1,000
Contingency	5,000
Management and Supervision	4,500
	<hr/>
TOTAL	\$ 49,200

Such expenditure would enable renewal of 44 claims for 2 years and is of such a nature as to qualify for further assistance under the OMEP plan.

Respectfully submitted,

A handwritten signature in cursive script that reads "Francis J.L. Guardia". The signature is written in dark ink and is positioned above the printed name.

Francis J.L. Guardia, P. Eng.

APPENDIX

VLF anomaly descriptions - excerpts from
SUMMARY OF EXPLORATORY WORK ON THE
ELMHIRST TOWNSHIP PROPERTY OF THE
ELMHIRST LAKE SYNDICATE

by Nelson W. Baker, P. Eng.

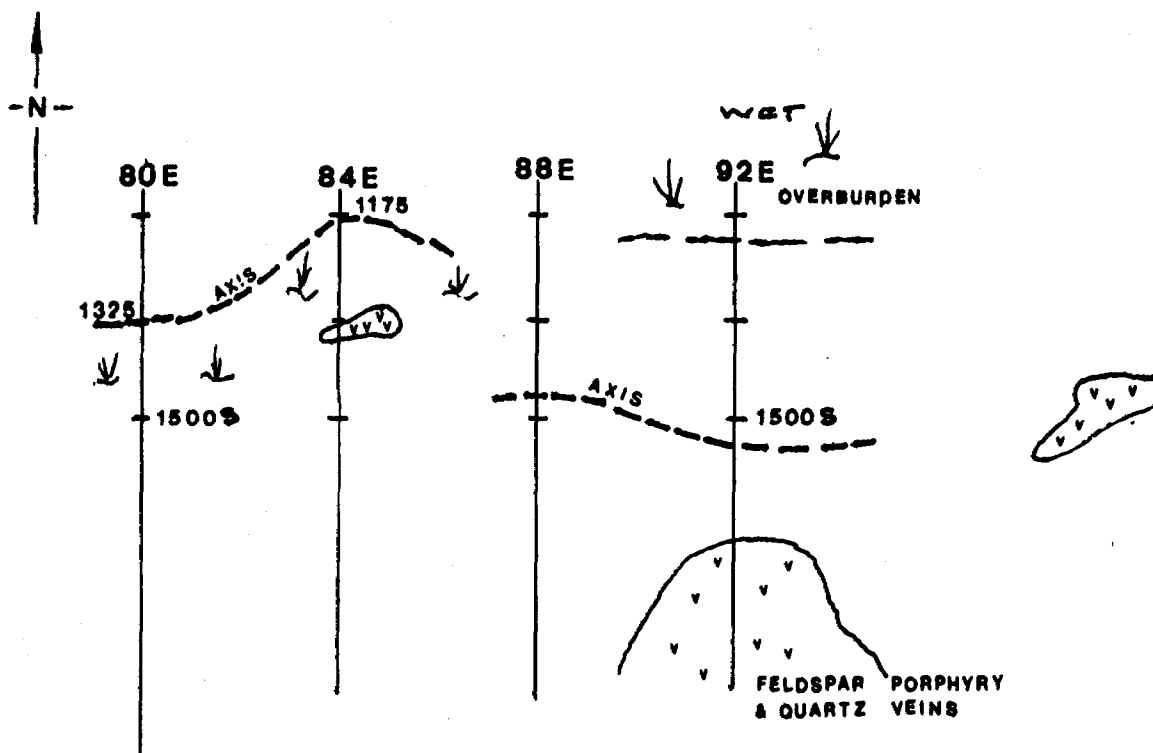
July 4, 1984

ANOMALY # 7 (NORTH OF RIVER)

This conductor was located using geophysics lines 80E, 84E, 88E, 92E.

The axis is located in a swamp between all these lines. On line 84E, outcrop of feldspar porphyry was found and swamp to north and south. Line 88E was swamp with no outcrop. Line 92E located the conductor in a swamp with outcrop to the south and overburden to the north.

SKETCH MAP



SCALE 1" = 200' APPROX

LEGEND

 FELDSPAR PORPHYRY

ANOMALY #7 (south of river)

The axis of this anomaly is found on geophysical lines 56E (I25) and 60E (I800 - I825). The area was traversed and axis located using VLF.

The area around the anomaly is overburden. There were no outcrops found. There is an esker 200'N of the axis of the anomaly and overburden to the south.

Geochemical samples were taken n line 56E across the axis. The samples are labelled and located as follows:

AN7 #1 - I825'
AN7 #2 - I850'
AN7 #3 - I900'

AN7 #4 - I800'
AN7 #5 - I775'
AN7 #6 - I725'

All are on line 56E. The axis was followed between lines and last at the road.

ANOMALY # 8

The anomaly is located on lines 96E (4800 - 4900), and 100E (4800 -4900). On line 96E, walk from swamp in the north, to felsic rock on the south. The axis is near the boundary of the felsic outcrop and the swamp. There is outcrop for 300'E and about 200'W at 4900S on the line. As you walk north on the outcrop toward the axis, the schistosity increases.

Geochemistry was performed on the area.

ANOMALY NO. 8

Re: Backhoe trenching

On June 21st, a trench was dug to cross-section the axis of anomaly No. 8 near 48 25S on L96E near the southeastern corner of the Elmhirst claim group.

A trench about 45 feet long, 8 feet wide on average and up to 18 feet deep at the north end of a very old, "filled - in" trench.

The axis of anomaly #8 appears to correspond with the contact between a sheared quartz-feldspar porphyry unit and a lapilli-tuff is shown on the sketch. The quartz-feldspar unit was not entirely crossed because of extensive overburden depth on the north end.

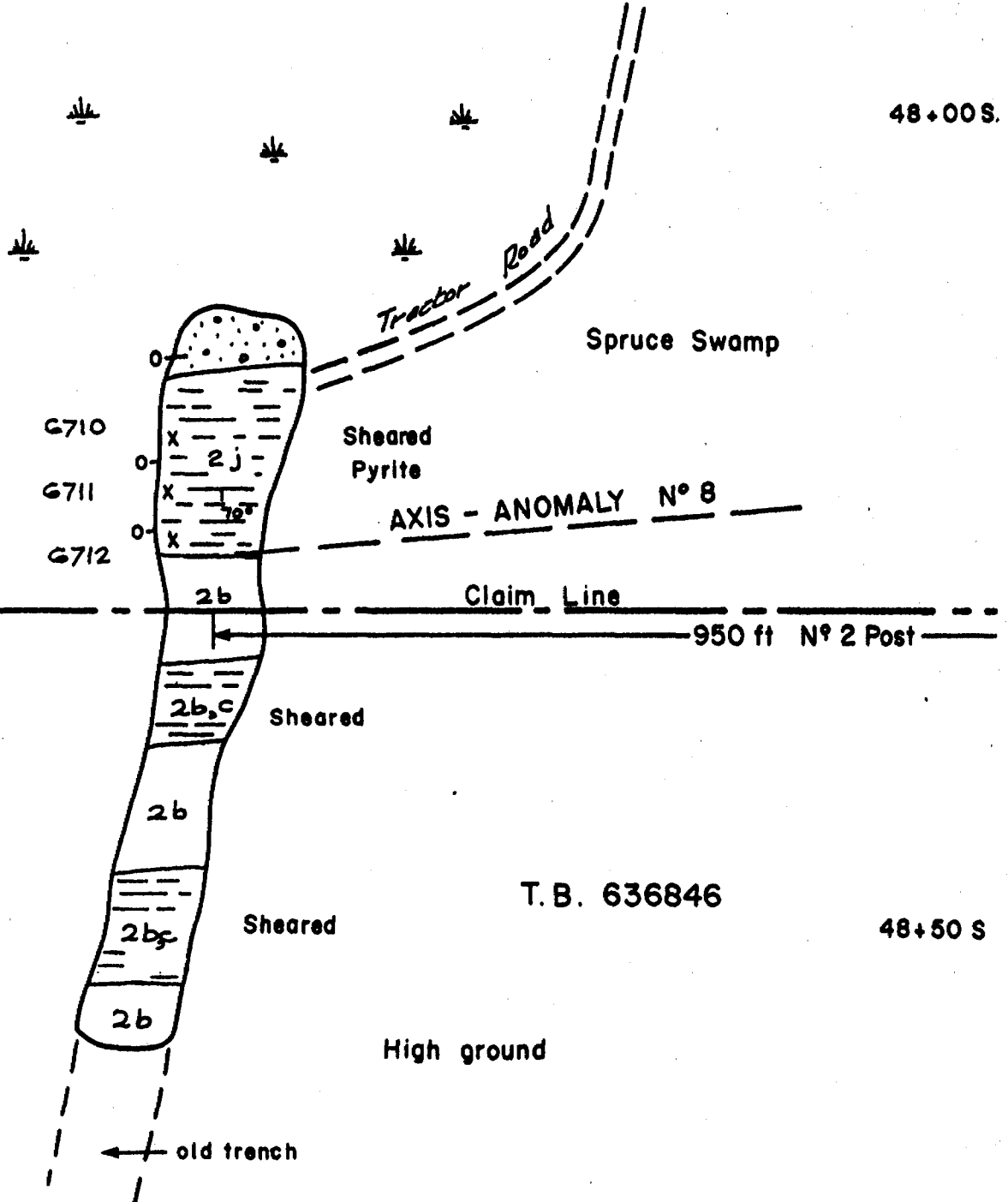
These rock samples of unit 2; were taken and as well, three basal till samples were taken. Minor disseminated pyrite was noted in the quartz feldspar unit. All rocks were dipping steeply to the south.

Nelson W. Baker.



T.B. 636846

48+00S.



G710

G711

G712

Sheared
Pyrite

AXIS - ANOMALY N° 8

Claim Line

950 ft N° 2 Post

Sheared

Sheared

T.B. 636846

48+50 S

High ground

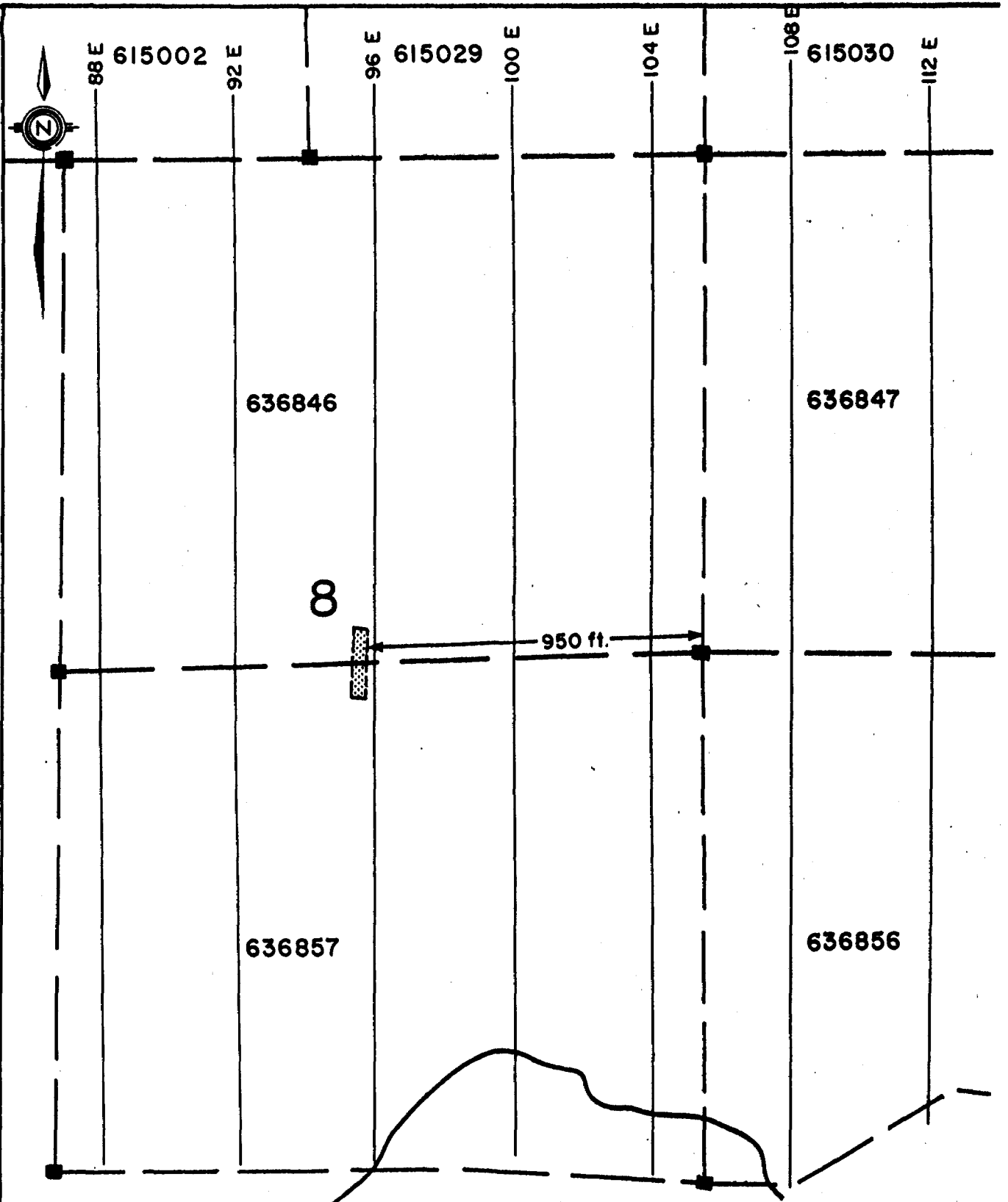
old trench

LEGEND

- OVERBURDEN
- 2b,c LAPILLI, CRYSTAL TUFF
- 2j QTZ, FELDSPAR PORPHYRY
- x ROCK SAMPLE N°
- o SOIL SAMPLE N°

DIMENSIONS OF TRENCH
5' x 40' x 16' deep

ELMHIRST LAKE SYNDICATE	
ELMHIRST PROJECT 2500	
DETAILED PLAN - BACKHOE TRENCH	
ANOMALY N° 8	
SCALE 1 in. to 10 ft.	DWG. No. 3
NELSON W. BAKER	
GEOLOGICAL SERVICES LIMITED	



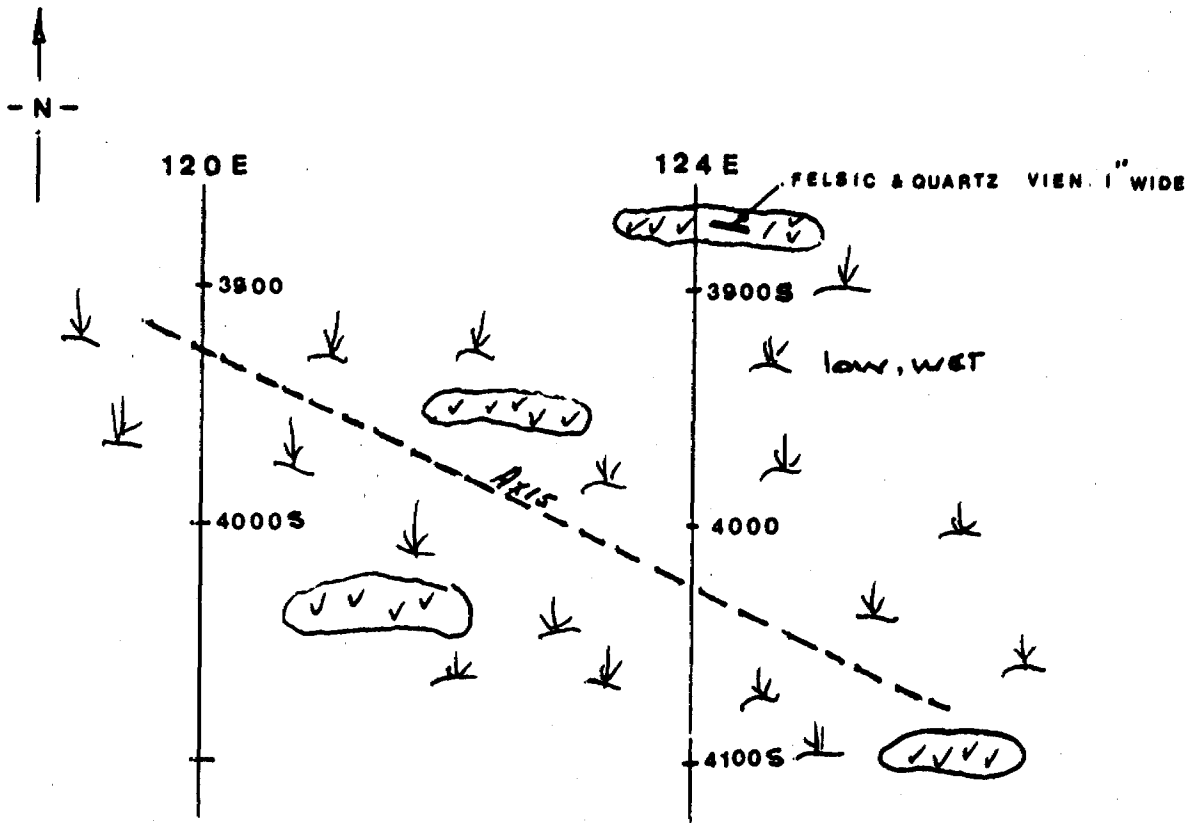
ELMHIRST LAKE SYNDICATE	
ELMHIRST PROJECT 2500	
LOCATION PLAN - BACKHOE TRENCH	
ANOMALY N° 8	
SCALE 1 in to 400 ft.	DWG. No. 4
NELSON W. BAKER	
GEOLOGICAL SERVICES LIMITED	

ANOMALY #9

This anomaly is located on lines I20E (3900 - 4000), and I24E (4000 - 4100). This area was traversed and terrain and rock type noted.

The anomaly falls in a swamp. The axis follows the swamp but outcrops of felsic rock were found north and south of the axis.

SKETCH MAP



SCALE 1" = 200' APPROX

LEGEND

 FELSIC

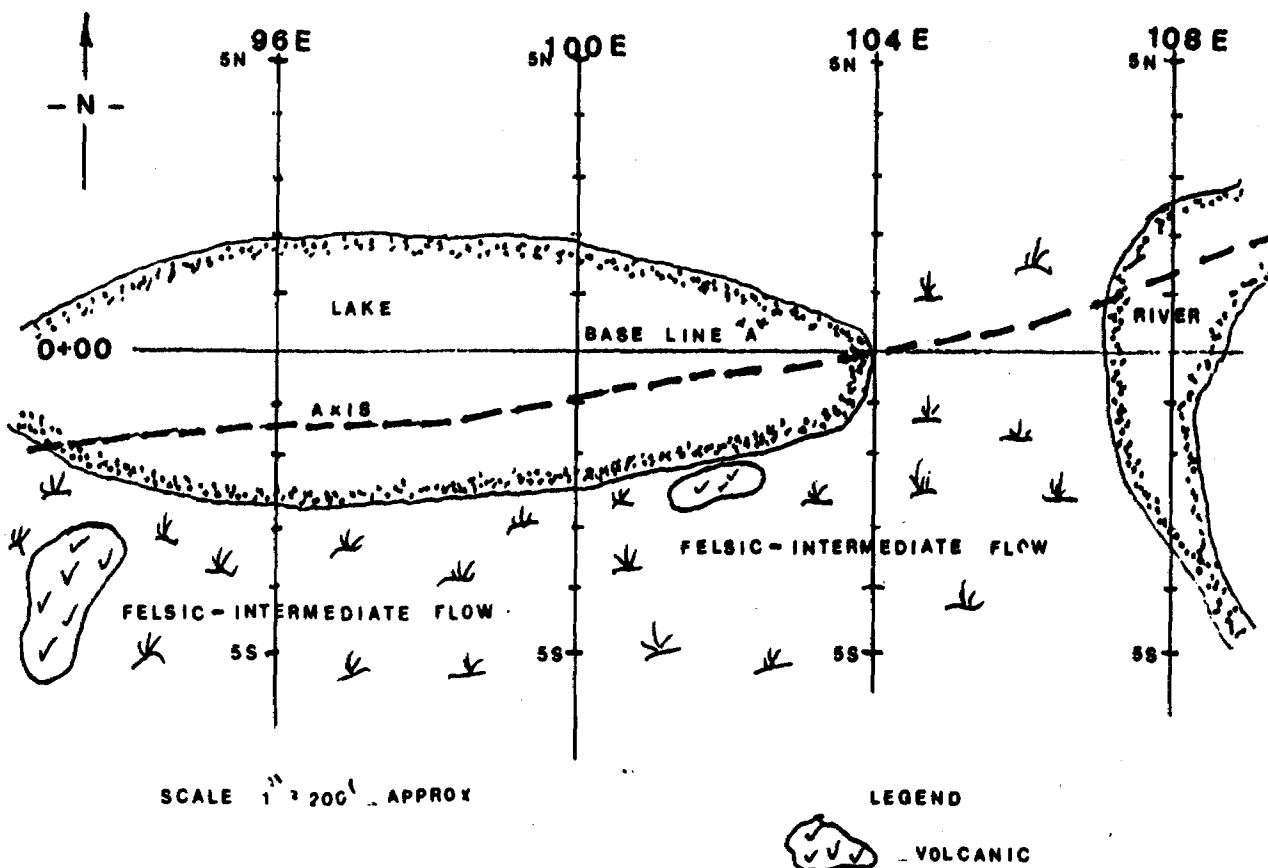
ANOMALY #10

Anomaly #10 is a long conductor axis located on four geophysical lines. The anomaly was checked on lines 96E (100 - 200S), 100E (100 - 200S), 104E (0 - 100N), 108E (2 - 300N). The area on these lines was traversed and field checked.

The axis was located in the centre of a small lake on lines 96E and 100E. The south shore of the lake had intermediate to felsic flow, no pyrite and very massive rock. There was no indication of shearing or any mineralization.

The axis on line 104E was located in swamp at the east tip of the lake, and the axis on line 108E was located in a river. No soil samples or rock samples were taken as the soil was only humus near the lake and extremely wet. The rocks appeared to have no mineralization of interest.

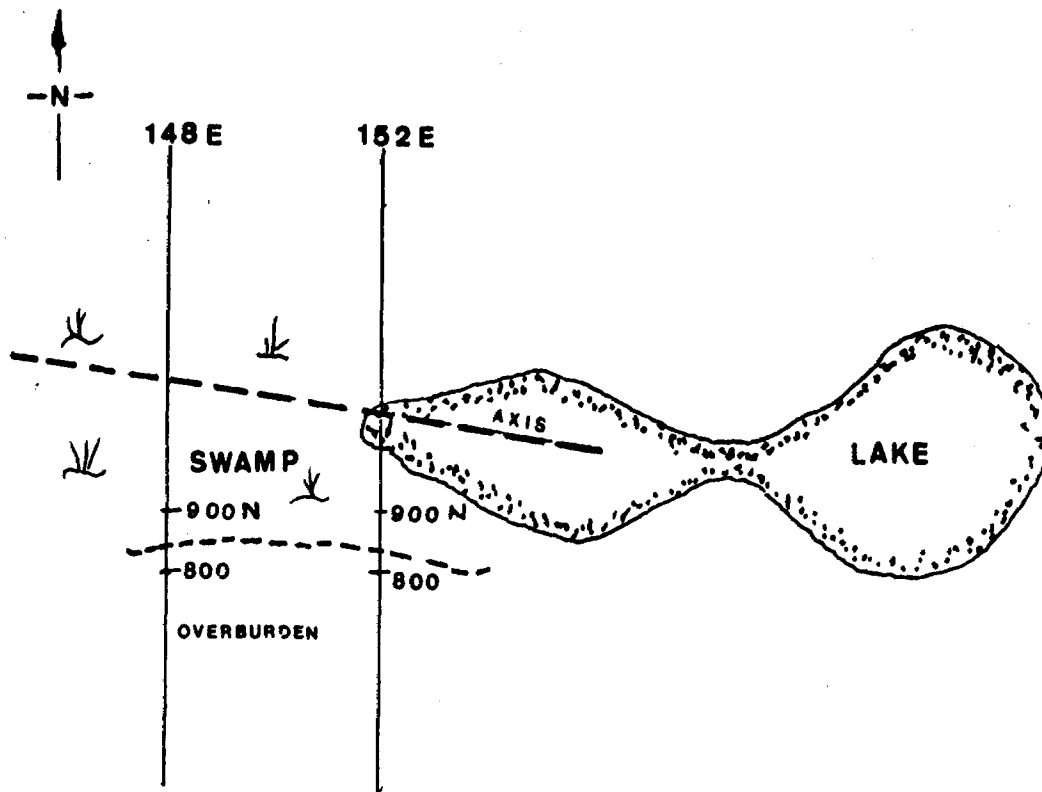
SKETCH MAP



ANOMALY #II

The anomaly is located on geophysics lines I52E and I48E. The conductor axis on line I52E falls in the centre of a lake and continues through a marsh to line I48E. Overburden was located 200' south of the lake and at the edge of a hill. Overburden was located about 300' south of the axis on line I48E.

SKETCH MAP



SCALE 1" = 200' APPROX

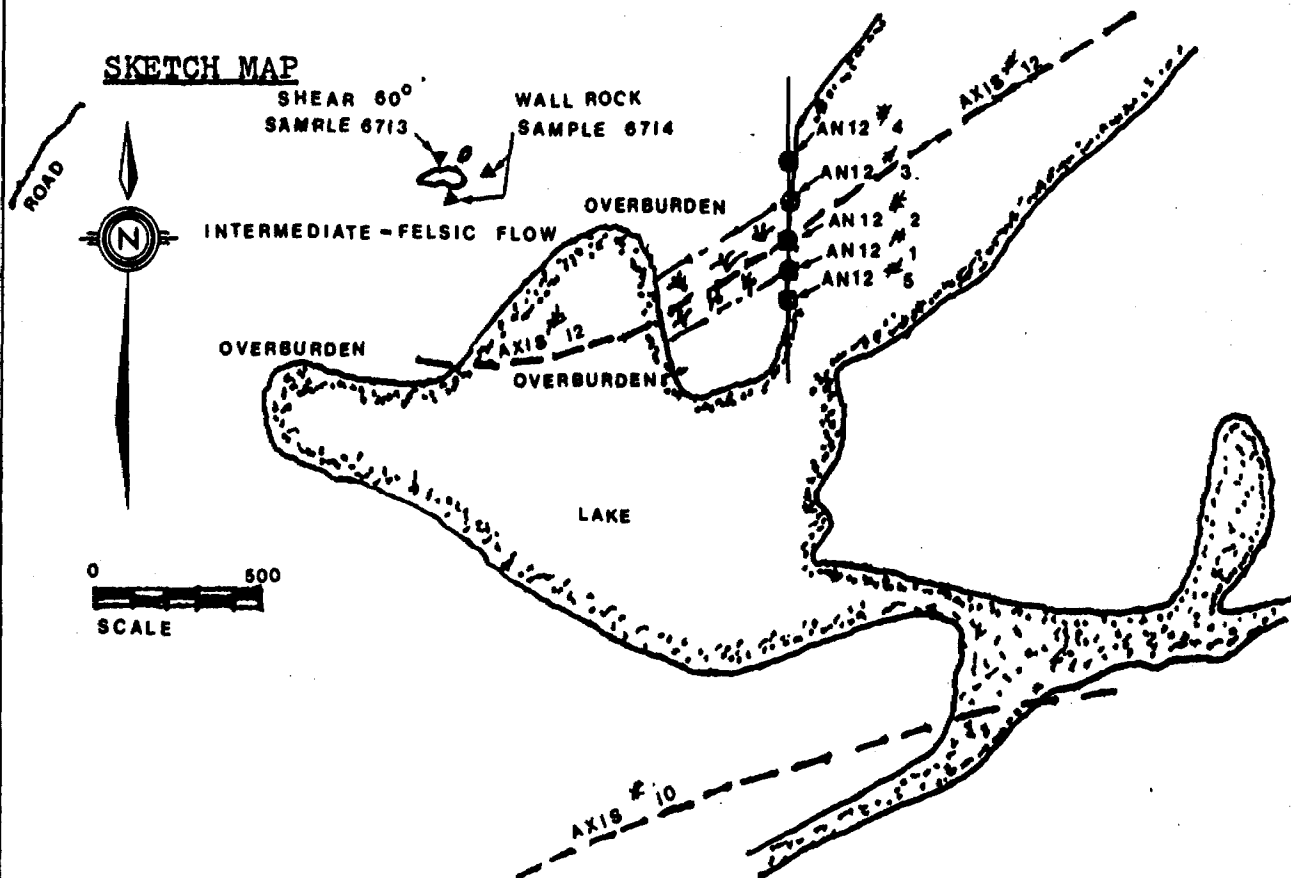
ANOMALY #12

This anomaly was checked on four geophysical lines, I20E (2700 - 2800N), II6E (2300 - 2400N), II2E (2100 - 2200N), and I08E (2100 - 2200N). Two of the points mentioned were in a lake and couldn't be checked directly, but lakeshore was checked and no outcrop was found. The shoreline has a predominantly sandy overburden.

Lines II6E and I08E were located by compass and pace, the axis located by VLF.

The axis was located in a swamp with 2 steep hills of overburden to the north and south of the axis. Geochemical soil samples were taken near line II6E on the shoreline of the lake. This is near the strongest part of the anomaly.

A bearing due east was taken from this point and a small shear in intermediate felsic flow located between lines I08E and II2E. The shear had disseminated pyrite, 3 feet wide and a strike of 60° (parallel to anomaly axis, but 500' north). Samples in the shear (67I3) and wall rock (67I4) were taken. This small shear is indicative of possible major shearing in the area.

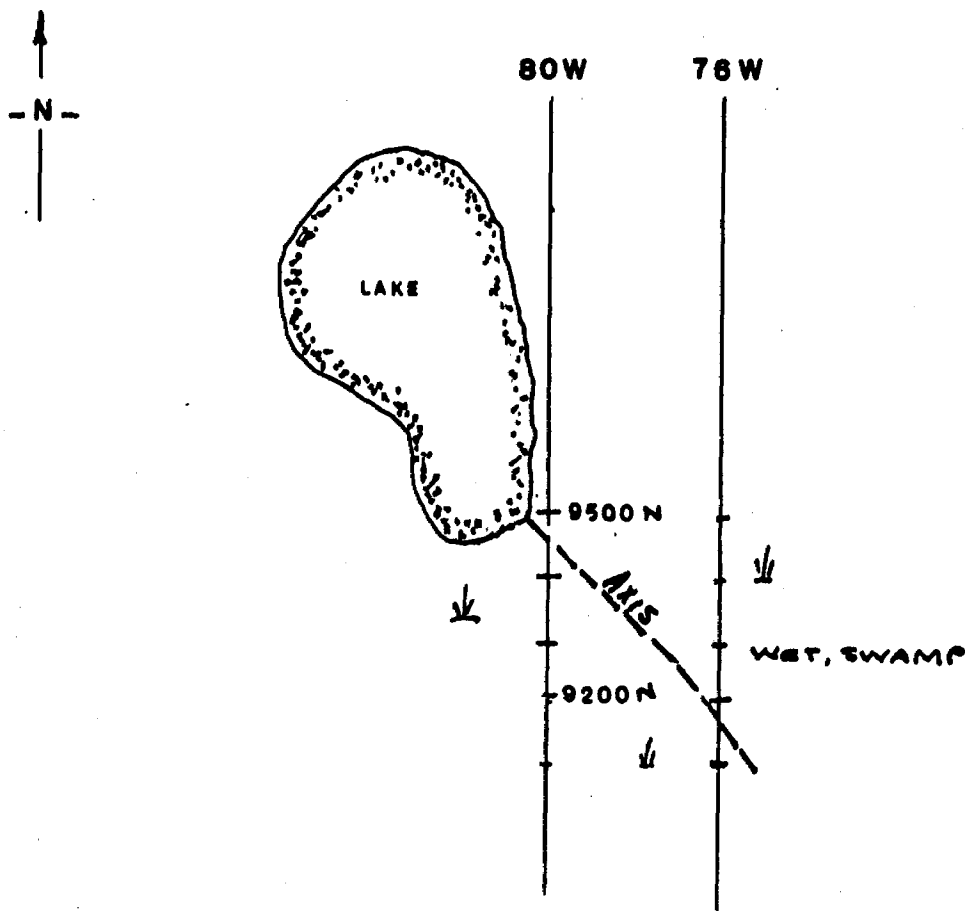


ANOMALY #33

The anomaly was checked on geophysical lines 80W and 76W. The axis was located 80W 9500' and 76N 9100'.

The axis was at the edge of a small lake following a stream and continued east to line 76 through a swamp. There were no outcrops around the area, and only overburden around the edges of the swamp.

SKETCH MAP



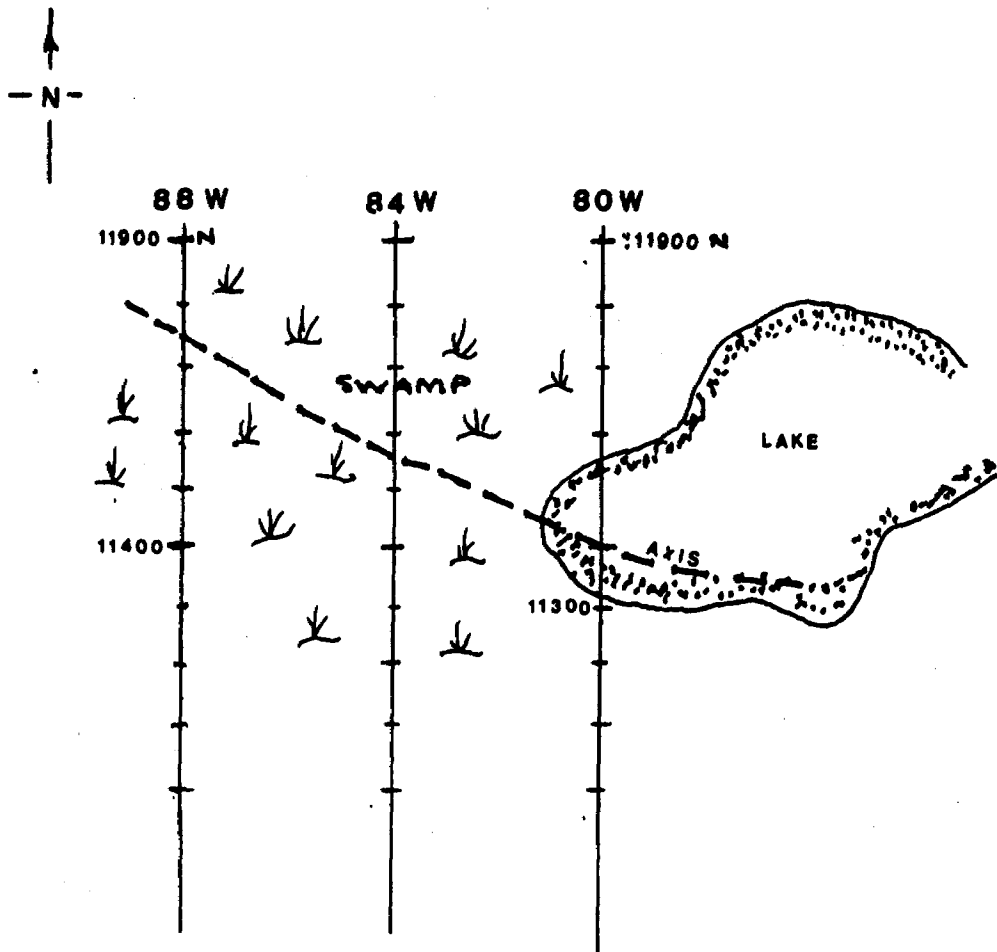
SCALE 1" = 200' APPROX

ANOMALY #34

This anomaly, located in the northern part of the claim group, and crossing the granodiorite volcanic contact, is located in swamp and a lake. The area was checked using VLF and prospecting. There were no geochemical samples taken as the ground was too wet.

The anomaly is located on lines 80W (II400'N, II300'N), 84W (II700', II600'), 88W (II700', II600')..

SKETCH MAP



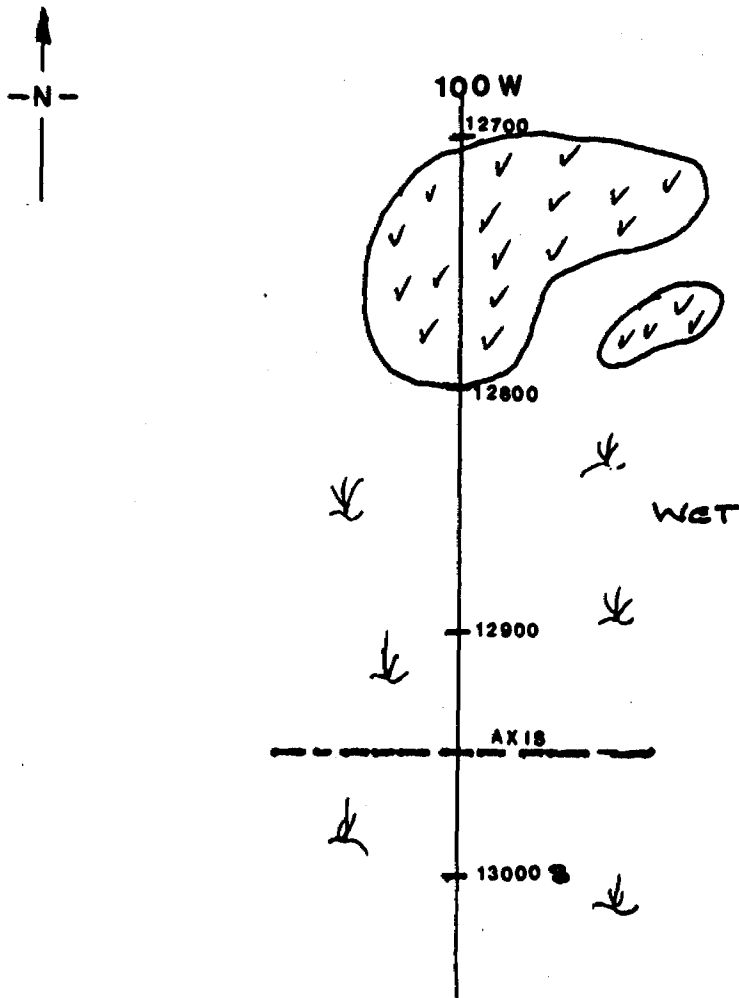
SCALE 1" = 400' APPROX

ANOMALY #35

The conductor axis was found on line 100W at I2950'N. The axis is in a marsh. The swamp starts at I2800N and continues past the conductor axis for a few hundred feet.

Outcrop was found at I2800 and was feldspar porphyry with traces of disseminated pyrite.

SKETCH MAP



SCALE 1" = 200' APPROX

LEGEND

 FELDSPAR PORPHYRY

