

NA

41P11SW0004 63.4432 CHURCHILL

010

4900 Sheppard Avenue East, Suite 208, Scarborough
Ontario, Canada M1S 4A7 Tel. (416) 293-2990

NRX-85-01

ONITAP RESOURCES INC.

BEDROCK STRIPPING, TRENCHING
SAMPLING AND SOIL SAMPLING

Gosselin Property
Churchill and Asquith Township

LARDER LAKE MINING DIVISION

District of Sudbury

Ontario

JANUARY 1985



41P115W0004 63.4432 CHURCHILL

010C

TABLE OF CONTENTS

A. INTRODUCTION	1
Location Map	2
Plan of Claims - Gosselin Group	3
- Gibson Group	4
B. LOCATION AND ACCESS	1
C. TOPOGRAPHY AND DRAINAGE	5
D. PREVIOUS WORK AND HISTORY	6
E. GENERAL GEOLOGY	9
F. ECONOMIC GEOLOGY	10
G. GEOLOGY OF THE PROPERTY	11
H. DESCRIPTION OF SAMPLED AND STRIPPED AREAS	11
I. GEOCHEMICAL SOIL SURVEY	15
J. PRESENT SURVEY	17
K. DISCUSSION OF RESULTS	18
L. CONCLUSIONS AND RECOMMENDATIONS	19
REFERENCES	20
<u>Appendix A:</u>	
Map 1 - Geology map - Gosselin group- scale 1:2,400	
Map 2 - Geology map - Gosselin group- scale 1:2,400	
Map 3 - Geology map - Gosselin group- scale 1:2,400	
Map 4 - Geology map - Gibson-Moorecamp group-scale 1:2,400	
Appendix B: Drawings	1 to 9 incl.
Appendix C: Rock samples - analytical results	
Appendix D: Soil geochemistry - analytical results	
Appendix E: Sampling and sample preparation	
Appendix F: Soil Geochemical Survey Au in ppb Gosselin Group scale 1:2,400	



A) INTRODUCTION

1

This report for Onitap Resources Inc. covers stripping, trenching and sampling of bedrock and limited soil sampling during June to December, 1984 on seven (7) claims in Churchill and Asquith Townships, Larder Lake Division, District of Sudbury, Ontario. These seven claims are part of a larger block of 49 contiguous claims which is made up of the Gosselin and Gibson properties. The claims on which the work was done are L393621, 446557, 512315, 512318, 512385, 616409 and 616422.

Eight (8) areas (A to H) in the Gosselin group (geology maps Nos. 1, 2 and 3) and one area in the Gibson group (geology map No. 4) were stripped, trenched and sampled for Au-mineralization. Follow-up soil sampling was done on a very limited scale around areas C, D and E in the Gosselin group. The stripped areas are grouped in four (4) areas with areas A and B together in claims 393621 and 512385; areas C, D and E together in claims 512315 and 512318; areas F, G and H in claims 616409 and 616422; and in the Gibson group, claim 446557.

B) LOCATION AND ACCESS

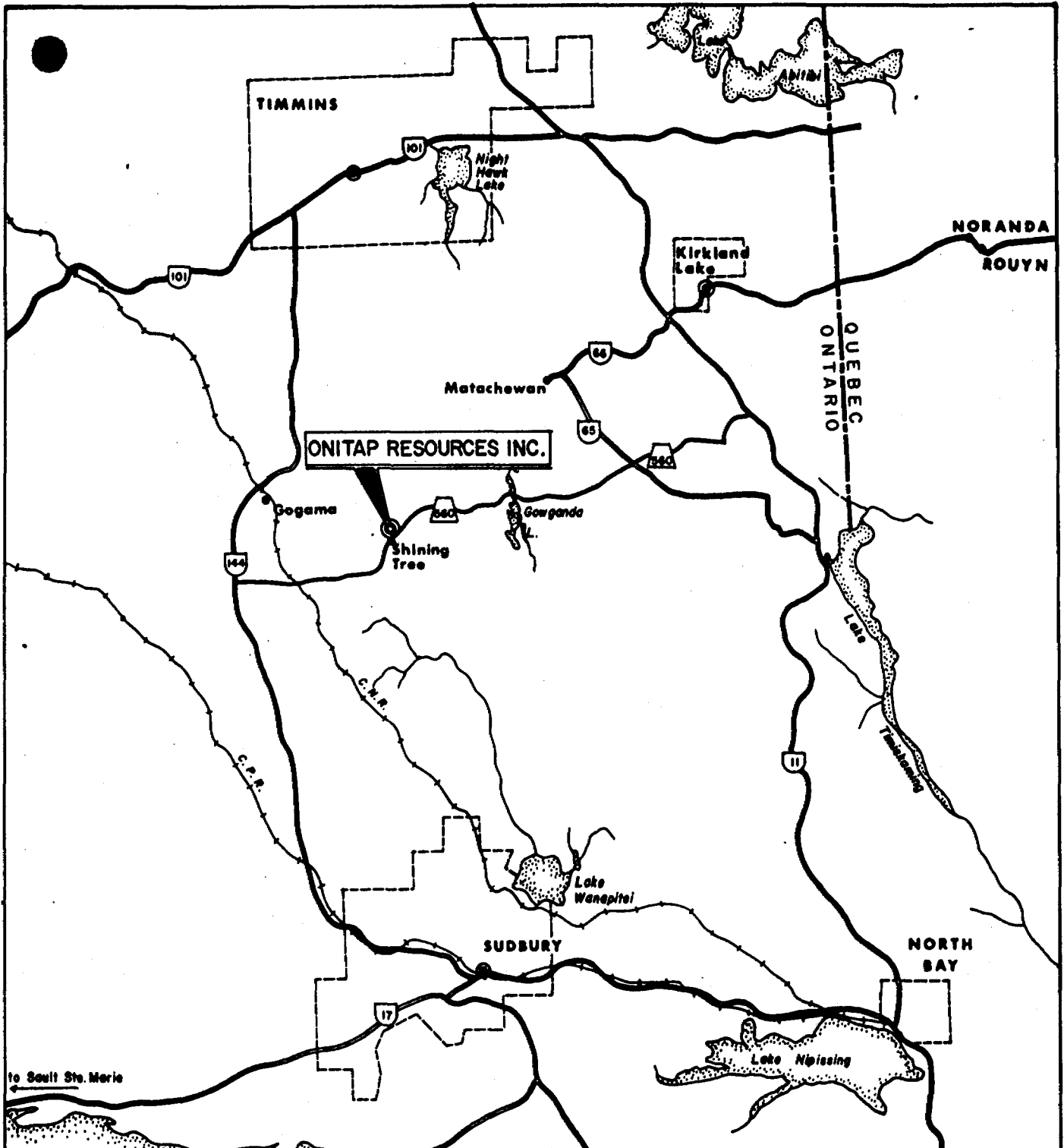
The Shining Tree area is located in the District of Sudbury, 77 miles due north of Sudbury or 65 miles south of Timmins.

(Fig. C-1)

Access is via secondary roads from the main Timmins-to-Sudbury highway #144. Secondary highway #560, bisects the area of interest. The Village of Shining Tree is located within this area.

Shining Tree is a community of some 50 residents, hosting a






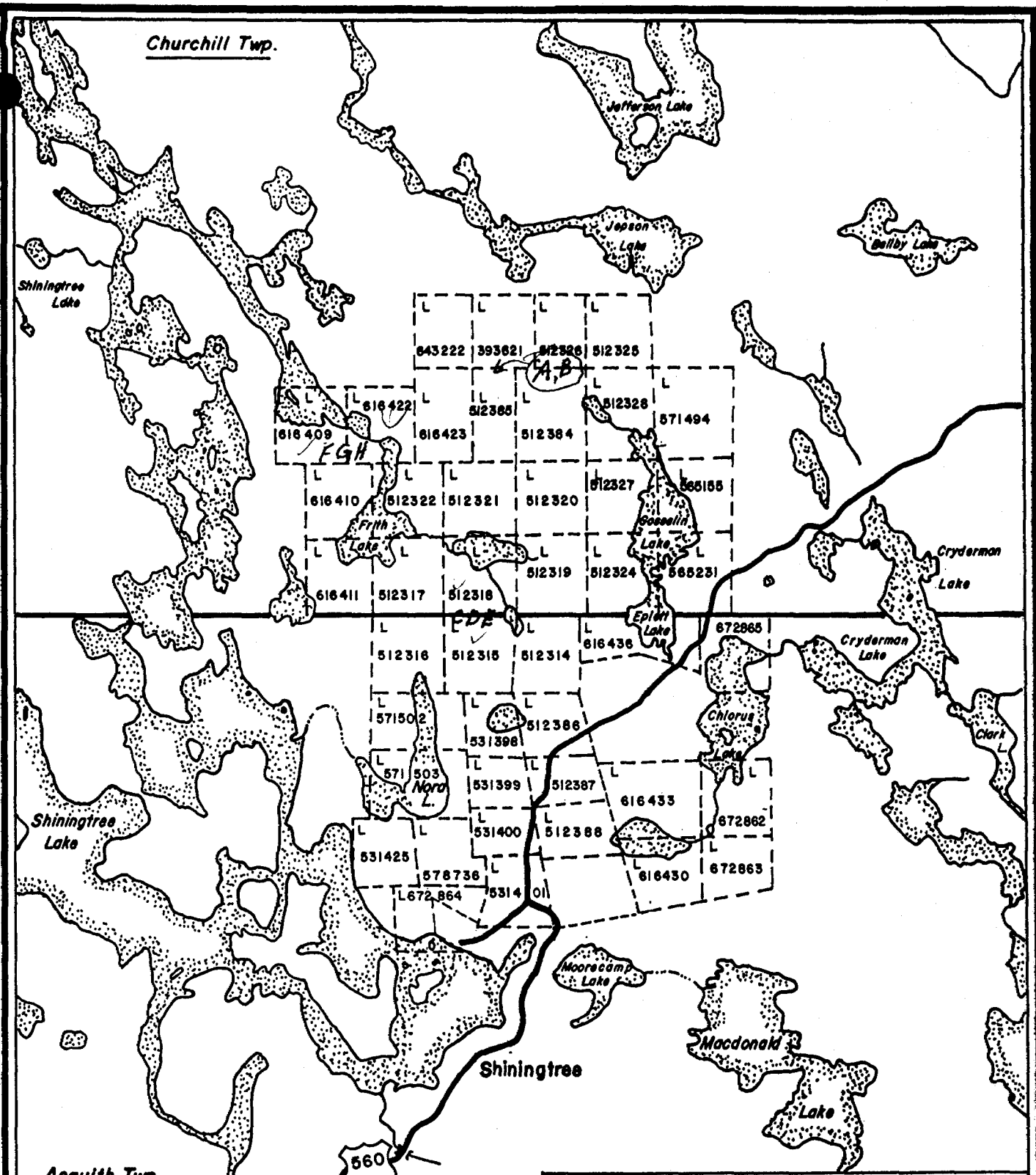
ONITAP RESOURCES INC.

SHINING TREE AREA CLAIMS
 ASQUITH, CHURCHILL, CONNAUGHT TWPS.
 DISTRICT OF SUDBURY ONTARIO

LOCATION MAP

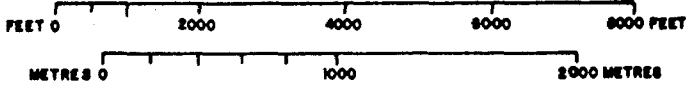
Work by: O.M.T.C.	1982/83	Scale:
Drawn by: R.E.O.	Date: Sept '83	1:1600 000


	NAREX Ore Search Consultants Inc.	FIG. C-1

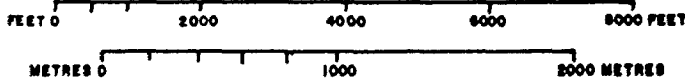
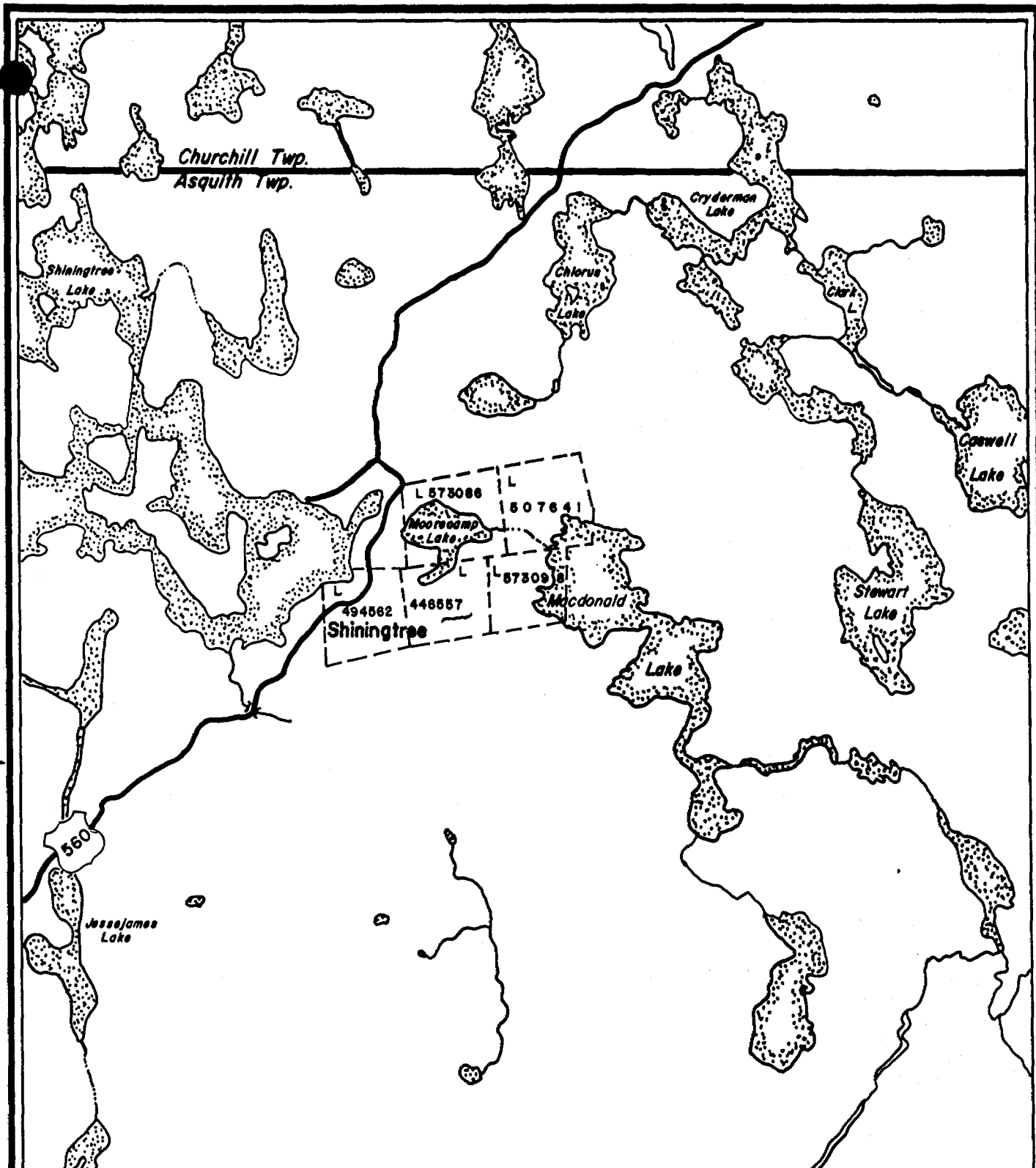


Asquith Twp.

Churchill Twp.



ONITAP RESOURCES INC.		
SHINING TREE AREA CLAIMS CHURCHILL AND ASQUITH TWPS., DISTRICT OF SUDBURY, ONTARIO.		
PLAN OF CLAIMS (GOSSELIN GROUP)		
BLOCK 3		
Work by: O.D.M.	M719-M637	Scale: 1" = 1/2 Mile
Drawn by: M.E.O.	Date: Sept. '83	
		NAREX Ore Search Consultants Inc.
		FIG. C-4



ONITAP RESOURCES INC.		
SHINING TREE AREA CLAIMS - ASQUITH TWP., DISTRICT OF SUDBURY, ONTARIO		
PLAN OF CLAIMS (GIBSON GROUP)		
		BLOCK 4
Work by: Q.D.M.	M 637	Scale: 1" = 1/2 Mile
Drawn by: M.E.O.	Date: Sept '83	
		FIG. C-5 NAREX Ore Search Consultants Inc.

Location and Access - concluded

general store, several gas stations and three tourist camps. The nearest float plane base is at Gogama on highway #144, some 23 air miles to the northwest. The regional Ministry of Natural Resources offices and base are located at Gogama.

The claims are located in northeastern Asquith Township and in the southern part of Churchill Township, east of highway #560 and about one mile east of the Village of Shining Tree, Ontario. Access to the property is by a series of bush roads which lead to highway #560.

C) TOPOGRAPHY AND DRAINAGE

The area in the vicinity of the property is quite typical of the Precambrian Shield, with gently rolling relief. Rock outcrop represents about 5-15% of the surface, the rest is covered with a mantle of muskeg, bouldery clay and sandy clay, till, and dotted with small swampy lakes.

The higher ground of the area is covered with a mature growth mixture of birch, poplar, spruce and balsam and an undergrowth of alder and hazel. The intermediate flat areas consist usually of open spruce and balsam forest. The low-lying or swampy areas consist of an intermixed growth of balsam, cedar, tamarack and alders.

The property is wooded in all areas not occupied by lake or swamp, containing predominantly black spruce, balsam, some white pine and birch trees.

There have been forest fires in the area some years ago as



Topography and Drainage - concluded

evidenced by the charcoal layer below the organic material near surface in several places.

D) PREVIOUS WORK AND HISTORY

The Gosselin group, Asquith and Churchill Townships

Gold in the Shining Tree area was originally discovered on this block of claims in 1911 by Fred Gosselin. He, along with the Pakowsky interests of Duluth, formed Gosselin Gold Mines Ltd. to develop the "Gosselin Gold Zone". No work was ever filed from this phase of exploration but old Ontario government reports and the present exploration programs have shown that a considerable amount of trenching and stripping was done during the 1912-1918 period.

During the same period, a shaft was sunk to a depth of 45 feet on an off-shoot of the Main Vein. It was reported that gold occurred in various places throughout the shaft but that the distribution was erratic. Visible gold can still be found in the muck from the shaft. The "Gosselin Gold Zone" consists of two quartz veins: the Gosselin Vein or Main Vein, which is 1-1/2 miles long, 1.6 to 65 feet wide and strikes N 15 W with a dip of 60 degrees west; and the Discovery Vein which is 2,000 feet long, 3 to 6 feet wide and strikes N 73 W. Mineralization consists of gold, pyrite, chalcopyrite, tetrahedrite and tellurides in scattered pockets. Further trenching and sampling was done by Gosselin Gold Mines Ltd. in 1928 and 1929, by McIntyre Porcupine Mines Ltd, probably in the 1930s, and by Sylvanite Gold Mines Ltd., in 1937. No drilling was ever carried out on the property and development work appears to have ceased in 1937. In 1958, the property was under option



Previous Work and History - continued

to Bolduc Gold Mines Ltd. The best assay obtained on the Main Vein was reported in 1922 as 4 oz Au/ton and 20.1 oz Ag/ton. Sampling in 1959 by the government resident geologist from Kirkland Lake gave an assay value of 0.21 oz Au/ton over a 7.8-foot width.

It was not until 1973, when Noranda Exploration Company Ltd. obtained an option on ten claims which included the Gosselin Zone, that more detailed exploration on the whole property was undertaken. The work conducted by Noranda consisted of a magnetometer survey, geological mapping with a sampling program, and five short packsack drill holes. The results were inconclusive, although some good assays were obtained (e.g. 0.44 oz Au/ton over 2 feet). Noranda dropped the option in 1974.

In 1975 Tribridge Consolidated Gold Mines optioned the ten claims and conducted a program of geological mapping, sampling and the drilling of three diamond drill holes. For the first time, an alteration zone was noted but not recognized as being associated with the mineralization. One of the Gosselin Zone assayed 0.052 oz Au/ton over 55 feet. Some of the samples from a trench of an offshoot of the Gosselin Zone assayed up to 0.29 oz Au/ton and 1.32 oz Ag/ton over 2.5 feet. Tribridge allowed the claims to lapse in 1978.

The claims were restaked by R. Annett, T. Saville and J. Sauvé and optioned to Patino Mines (Quebec) Ltd. Patino cut a grid and ran EM-16, magnetometer and geological surveys along with some trenching and drilling. Patino's goal was to discover a large, low-grade, open-pit type gold deposit.



Previous Work and History - continued

They recognized a quartz-carbonate-fuchsite alteration zone associated with the Gosselin Zone and widespread mineralization throughout the zone. Patino also discovered a new quartz-carbonate-fuchsite zone south of the Gosselin Zone associated with a porphyry where a five-foot section of drill core assayed 0.16 oz Au/ton and 0.51 oz Ag/ton. Some of the sampling returned good assays in other parts of the grid and several untested EM conductors were discovered from their surveys. In September of 1981 Northgate Exploration purchased Patino Mines (Quebec) Ltd. and consequently terminated the option and returned the claims to the optioner, J. Sauvé.

Mr. Sauvé transferred the claims to Timmins Gold Resources Ltd. NAREX Ore Search Consultants Inc. was retained to manage the properties. Subsequently the claims were transferred to 117455 Canada Ltd., a private company which made a joint-venture agreement with Timmins Gold Resources Ltd. The property is now part of the holdings of Onitap Resources Inc. NAREX outlined the south alteration zone and showed it to be very anomalous in gold and thus a good exploration target. A previously unknown iron formation was also tested by drilling and assayed 0.36% Zn, 0.057% Cu, 0.002 oz Au/ton, 0.08 oz Ag/ton over 3.7 feet and lower values over the adjacent 10 feet. Although the values are low, they show the presence of base metals in the iron formation which has been traced geophysically for over a mile. An assay of 0.55 Au/ton over 2.8 feet, resulted from detailed mapping of part of this formation in August of 1982.

Further detailed geological mapping of the individual veins, together with bulk sampling is proposed for a first phase program. A second phase with pilot-scale milling or leaching would follow.



Previous Work and History - concluded

Gibson group, Asquith Township

Trenching and stripping was done in the period between 1912 and the 1930s. NAREX ran EM-16, magnetometer and geological surveys on the claim block during 1982. Some drilling was also done in an attempt to trace a shear zone carrying gold-bearing quartz-carbonate stringers.

This shear zone has now been traced over a strike length of one-half mile, with visible gold seen in outcrop and drill core, and assay results of 0.79 oz Au/ton over 2 feet, 0.55 oz Au/ton over 2.5 feet and many lower values over wider widths, such as 0.043 oz Au/ton over 20 feet. Fluid inclusion studies, at the Pennsylvania State University, Ore Deposits Research Section, of the quartz veining in the shear zone, indicate that the drilling may have been too shallow to intersect the main mineralized horizons.

Bulk sampling and metallurgical testing in a first phase is proposed followed by a second phase of diamond drilling to examine depth extension of the vein.

E) GENERAL GEOLOGY

The Connaught, Churchill and Asquith Townships area is underlain by a thick pile of Archean metavolcanic rocks. Early Precambrian rocks comprise a suite of subalkalic and alkalic metavolcanics, interlayered mafic and ultramafic intrusive rocks, and clastic and chemical metasediments.

The subalkalic metavolcanics range in composition from basalt to rhyolite. The alkalic metavolcanics range from kawaiite to



General Geology - concluded

trachyte in composition. The uncommon ultramafic and mafic intrusive rocks are interlayered with the mafic metavolcanics. Top determinations on pillowed structures in lavas, and graded bedding in subaqueous tuffs indicate the rocks become younger northeastward. An iron formation occurs in Churchill Township in the Michiwakenda and Okawakenda Lakes area and in the northern half of Connaught Township. The metavolcanic-metasedimentary rocks have been intruded by granitic rocks.

Early to Late Precambrian rocks, represented by numerous diabase dikes, varying in trend from northwest to north to northeast, are cutting both the metavolcanic and metasedimentary rocks and the granitic rocks at Elephant Head Lake.

Midle Precambrian rocks rest unconformably on the older Early Precambrian rocks and comprise rocks belonging to the Espanola Formation of the Quirke Group, the Gowganda Formation of the Cobalt Group, and Nipissing Diabase.

Grey and white limestone, consisting of recrystallized calcite, belonging to the Espanola Formation, occurs in one area only about half a mile north-northwest of Elephant Head Lake in southern Connaught Township.

F) ECONOMIC GEOLOGY

Exploration activity in these three townships was carried out mainly for gold and copper deposits. Gold exploration was concentrated mainly in Churchill and Asquith Townships and copper exploration primarily in Connaught Township.



Economic Geology - concluded

Many gold-bearing quartz veins and shear zones are present in the area and some high-grade gold occurrences have been discovered. The gold-bearing quartz veins are usually lensoid and limited in extent, although the Gosselin Vein has been traced for over a mile in strike length and other veins associated with gold-bearing shear zones and carbonate-fuchsite alteration zones are of considerable extent. It has also been suggested (M. W. Carter 1980) that iron formation in the area and gold in this formation are genetically related to the volcanic activity. Copper mineralization has been located at contacts between felsic and intermediate volcanics in northern Connaught Township and in Asquith Township. Copper mineralization is also associated with the Espanola Formation.

G) GEOLOGY OF THE PROPERTY

The property is situated in an area underlain by the Archean Sinclair group which is made up predominately of komatiitic rocks. The lithologic units strike in a NNW direction and outline a sequence of older ultramafic flows on the eastern shore of Gosselin Lake progressing to younger dacite flows to the east near Cryderman Lake. Several exhalite horizons are also intercalated in the volcanic pile with some quartz-feldspar porphyries and carbonate-fuchsite alteration zones present in the region of the ultramafic flows.

H) DESCRIPTION OF SAMPLED AND STRIPPED AREASGosselin Group - Maps 1 and 2Area A - claim 512385 (Drawings 1 and 1-1)

In this location an area of 140 feet x 140 feet was stripped and several trenches were blasted. The geology consisted



Description of Sampled and Stripped Areas - continued

mainly of carbonatized pillow basalt. The main trench gave results of 0.43 oz Au/ton, 2.3 oz Ag/ton over a 1-foot quartz vein for a length of 100 feet (Drawing 1-1). Two other veins very sampled in area A (Drawing 1) and resulted in values of .047 oz Au/ton over 1 foot over a length of 10 feet; and .044 oz Au/ton over a vein of 6 inches over a length of 20 feet. The high silver content suggested the presence of tellurides is probable in these quartz veins.

Area B - claim 393621 (Drawing 2)

An area of approximately 60 feet x 60 feet was cleared and a trench reblasted. The geology consists mainly of carbonatized basalts and a silicified basalt shear zone, with some quartz veining. The average results were 0.11 oz Au/ton, 1.0 oz Ag/ton in a 1-foot wide zone over a length of 30 feet.

Area C - claim 512315 (Drawing 3)

An area of approximately 250 feet x 60 feet was cleared in Area C. The geology consists mainly of an altered sericitized and silicified basalt and minor altered ultramafic rocks (probably flows). Several areas of quartz veining and stringers occur and were trenched. In total six small trenches were blasted and sampled. The results were not encouraging with the highest values of about 392 ppb Au. Most of the samples of veinlets and silicified basalts had values of approximately 200 ppb.

Area D - claims 512315 and 512318 (Drawing 4)

This consists of a stripped area 300 feet x 100 feet with the geology consisting mainly of silicified and sericitized



Description of Sampled and Stripped Areas - continued

basalts with some minor fuchsite alteration hosted in ultramafic rocks (probably flows) and some chert beds. These latter lithologies are found at the eastern extremity of the cleared area. Extensive quartz-carbonate veining is hosted mainly in the altered, silicified and sericitized rocks (i.e. the altered basalts). This is a zone of intense metasomatic alteration with numerous quartz veins all striking at a 060-090° direction. In total nine trenches were blasted and sampled for Au mineralization. In addition several other grab samples of vein material were taken. In the westernmost portion of the vein (between 0+30E and 0+30W) the main quartz vein is approximately 3-4 feet wide with an average grade of 0.03 oz Au/ton. Elsewhere the values are generally in the range of 100-300 ppb Au, especially in trenches 5 and 6. In other localities the values are less than 100 ppb Au.

Area E - claim 512318 (Drawing 5)

Area E represents an area of 60 feet x 40 feet which has a geology of fuchsitic carbonate zone hosted in probable altered ultramafics and carbonatized basalt flows. Several quartz veins are hosted by the alteration zone which is cut by two trenches. The samples from the trench indicated no Au mineralization with values of 5 ppb Au.

Gosselin group - Map 3

In claim L616409 and along its eastern boundary with 616422 there are three stripped areas of particular interest - areas F, G and H. They align in a 320° Az direction with the distance between F and G being 100 feet and between G and H, 600 feet.



Description of Sampled and Stripped Areas - continuedArea G - claim 616409 (Drawing 7)

This is a stripped area of 150 feet x 60 feet with two en echelon shear zones with quartz veining hosted by carbonatized basalt flows. The values indicate some minor Au mineralization with .043 oz Au/ton over 1 foot width over a length of 10 feet.

Area H - claim 616409 (Drawing 8)

This represents a stripped area of about 200 feet x 60 feet but due to thick overburden the outcrop area is only 60 feet x 30 feet. One long 60-foot trench is located at the southern edge of the outcrop. The geology consists of carbonatized basalts which host a 5-foot wide shear zone with quartz veins over a length of 50 feet and some Au mineralization. The quartz vein is 2-4 inches wide with 1-3% pyrite, +/- galena, +/- tellurides plus some visible gold near the lake in a quartz vein in the shear zone. The average value of samples is 0.12 oz Au/ton over 1 foot over a distance of 10 feet.

Gibson Group - Map 4; 446557 (Drawing 9)

The stripped area has a size of 130 feet x 50 feet with a series of five trenches evenly spaced across the zone. The geology is mainly that of a pillowed carbonatized basalts in contact with an intense ductile shear zone consisting mainly of sheared basalts and possibly some minor pyroclastic beds. This shear zone has a maximum width of 20 feet (10-foot width average) and contains about 50% quartz vein material. The veins are also sheared and recrystallized cataclastic (tactolites, etc.). These quartz veins are a dark grey colour with



Description of Sampled and Stripped Areas - concluded

no sulphides and also occur along the sharp contact between the shear zone and adjacent pillow basalts.

The best results of the sampling indicated grades of about 0.10 oz Au/ton over a 10-foot width in the shear zone in trench 2. In trench 1, the results varied from 609 ppb Au to 0.38 oz Au/ton over 2 feet as a high value. Other results of the sampling indicated Au values of approximately 200-800 ppb over sample width of 10 feet which is the entire width of the shear zone in most eastern parts of the stripped area.

A list of all the assay values is given in Appendix C and their number and locations are given on Drawings 1-9.

I) GEOCHEMICAL SOIL SURVEY

Overburden and Soils

The overburden on the property consists of light brown to buff coloured poorly consolidated glacial till deposited about 11,000 years ago by continental ice sheets. The thickness of the glacial till in this area ranges from a few inches to probably 30-40 feet in swamps.

The surficial parts of the till have weathered to form a thin mantle of soil whose thickness ranges from 1-6 inches. The area has what would be classified as a podzolic soil.

The surficial organic A - horizon soil which consists of loose leaves, moss and partly-decomposed plant debris. The A₁ horizon (humus) underlies the A₀ layer and is characterized by a dark



Geochemical Soil Survey - continued

colour and consists mainly of decomposed organic material. The horizon is generally thin with from 1-3 inches present in swampy areas to less than 1/2-inch thick in well drained areas. In these areas a distinctive charcoal layer is part of the A-horizon and indicates that much of the organic material was destroyed by previous forest fires.

Where A₁ is not directly underlain by bedrock, it grades into a light coloured A₂-horizon of fine silty material and sand. This represents the leached soil zone and is generally widespread and 2-4 inches thick.

The A₂-horizon is underlain by the B₁-horizon and is well developed throughout the property area except in swampy areas where it may lie below a thick A-horizon. The progression shows a B₁-horizon which is chocolate brown or reddish brown colour consisting of an admixture of different proportions of very fine grained sand, clay and silty material with some pebbles. Its thickness ranges from 2 inches to about 4 inches and it is best developed in well-drained areas with undulating topography. In some areas the soil colour is particularly reddish and this was thought to be related to high concentrations of hydrous oxides of iron.

Ideally the B₁-horizon grades into the B₂-horizon which has a lighter brown colour. The B₂-horizon is generally more sandy than the B-horizon. In areas of impeded subsurface drainage, both the B₁ and B₂-horizons are poorly developed and tend to have mottled colours. The thickness of the B₂-horizon ranges from about 2 inches to over 10 inches.

The C-horizon underlies the B₂-horizon. It consists mainly of glacial till which has been only slightly affected by soil



Geochemical Soil Survey - concluded

forming processes. The horizon has a very light brown to earthy colour and its main constituents are unconsolidated sands and gravel, rock fragments and pebbles.

Generally, a lodgement till of some type would be present in the lower-most portion of the till directly overlying the bedrock.

J) PRESENT SURVEY

The survey completed by NAREX Ore Search Consultants was carried out in October, 1984. The survey entailed sampling of the B₁-horizon where it was present and elsewhere the A₁-horizon. The B-horizon is well developed throughout most of the property except into very low swampy areas where A₁ samples were taken. In some cases it was not possible for any samples to be taken since only living plant matter was present in the top 12 inches below the surface.

Sample location sites are plotted on the map. Samples were collected at 50-foot intervals along the grid and base lines. The lines are generally oriented east-west and are spaced at 800-foot intervals across the property. The sampling was done in the vicinity of stripped areas C, D and E - Gosselin group.

A total of 39 samples were obtained from the property. The samples were subsequently hang-dried and submitted to Assayers (Ontario) Limited for geochemical analysis for gold (parts per billion).

The analytical results and costs of the survey are tabulated



Present Survey - concluded

in Appendix D and are also presented on contour maps accompanying this report. The survey and analytical methods are described in Appendix E for the sampling program.

K) DISCUSSION OF RESULTS

Gold values obtained from soil samples of the three blocks ranged from less than 5 ppb to 82 ppb. Background gold content appears to be in the range of 5 ppb for both B₁ and A₁-horizons; comparing the two horizons in several localities indicates that the values of the B₁-horizon are approximately double that of the corresponding values in the A₁-horizon.

The soil geochemical survey outlined three anomalous zones oriented in a northwest direction. Of the 39 samples, 13 had values of greater than 10 ppb Au and 3 of these had values of greater than 40 ppb with the maximum being 82 ppb Au.

The entire sample area is underlain by the metasomatic alteration zone but the highest values are underlain by extremely silicified and sericitized basalts near the base line. Although the values are not very high they probably reflect the underlying stratigraphy.

The general spatial distribution of Au anomalies suggest a stratabound NNW-trending source for the Au mineralization. Gleeson (1979) has found that anomalies in humus horizons, but also in B₁-horizons, generally occur directly over outcrops of auriferous zones and their dispersion patterns are little affected by glacial transport.



The broad type of anomalies and their trend suggest that the Au source could mainly be stratabound rather than vein type Au mineralization. This is interesting since most of the known Au showings in the Shining Tree area in quartz veins. Clearly in the case of the high Au values it appears that they are associated with the contact of the intrusive quartz-feldspar porphyry and carbonate silicified alteration zones.

L) CONCLUSIONS AND RECOMMENDATIONS:

As a result of extensive stripping in eight areas of the Gosselin and Gibson claim blocks several areas of significant vein type Au mineralization has been outlined.

In area A and A₁ the values indicate grades of 0.43 oz Au/t and 2.3 oz Ag/t over a 1 foot width for a length of 100 feet. In area B a vein gave results of 0.11 oz Au/t, 1.0 oz Ag/t over a 1 ft. width for a length of 30 feet.

In area F, values of 0.17 oz Au/t over a 1 foot width for a length of 30 feet were obtained.

In area H, an average value of 0.12 oz Au/t over a 1 ft. width for a length of 10 feet was obtained. In addition some free gold was observed nearby but not assayed.

In the Gibson group, the sampling resulted in an indicated grade of .10 oz Au/t over a 10 foot width in a shear zone with sheared quartz veins. The length of this is probably at least 10-20 feet.

.../..



Other low grade (0.04 oz Au/t) sections were outlined in areas A, D and G where there might be possibilities for some sort of heap leaching process.


The geochemical survey near stripped areas C, D and E outlined a few weak anomalies which reflect some underlying difference in rock type in the carbonate-fuchsite alteration zone. There may be some preferential enrichment of Au in the silicified and sericitized basalts as opposed to the fuchsite-carbonated ultramafic rocks.

Below is a list of costs incurred during the mapping, stripping, trenching, sampling assaying program on the Gibson-Gosselin group and subsequent report etc.:

Expenditures:

Contractor cost stripping, trenching balsting,	35,712
Sampling, mapping, supervision, drafting, report writing, & expenses	22,102
Assaying - soil & work samples	<u>2,127</u>
	59,941

PB/cb


Peter Born
Project Geologist



REFERENCES

Carter, M.W.

1980: Geology of Connaught and Churchill Townships, District of Sudbury; Ontario Geological Survey Report 190, 81p. Accompanied by Geological Map 2414, scale 1:31,680 or 1 inch to 1/2 mile.

Carter, M.W.

1979: Asquith Township, District of Sudbury; Ontario Geological Survey Preliminary Map. P.2312 Geol. Series, scale 1:15,840 or 1 inch to 1/4 mile. Geology 1976.

Curtin, G.C. Lakin, H.W., Neuerberg, G.J. and Huber, A.E.,

1968: Utilization of humus rich forest soil (mull) in geochemical exploration for gold, U.S. Geol. Survey Circ. 562, 11 p.

Gleeson, C.F.,

1979: Consider geochemistry when seeking gold., The Northern Miner, Exploration issue, March 8, 1979.

All Authors - Ontario Ministry of Natural Resources,
Division of Mines, Work Assessment Files.

All Years -Northern Miner Press.



October 26, 1984

Mr. K.A. Naert
Onitap Resources Inc.
4900 Sheppard Ave., East
Suite 208
Scarborough, Ont.
M1S 4A7

Dear Mr. Naert:

Testwork on Au Ore Sample

A composite of equal weights of Samples 2212 and 2215 was prepared.
The sample assayed:

Au 56.4 g/t 1.64 oz/ton
Ag 210 g/t 6.12 oz/ton
Fe 5.32 %
S 4.68 %

A semi-quantitative XRF scan was conducted:

Element	Head Composite	Element	Head Composite
Titanium	ND	Uranium	ND
Chromium	FT	Thorium	ND
Manganese	T	Yttrium	ND
Iron	M	Columbium	ND
Cobalt	ND	Molybdenum	ND
Nickel	ND	Silver	T
Copper	T	Cadmium	ND
Zinc	L	Tin	ND
Arsenic	ND	Antimony	ND
Bismuth	ND		
Lead	L		

CODE: H - 10 % plus L - .1 - 1 %
 MH - 5 - 15 % TL -.05 -.5 %
 M - 1 - 10 % T -.01 -.1 %
 LM - .5 - 5 % FT - Less than .01 %
 ND - Not Detected

... Continued ...

Four cyanidation tests were conducted. The leach time was 48 hours.

Test No.	Grind % -200M	Sol'n Composite g/L		Reagent Cons. kg/t		Residue Assay, g/t		% Recovery		Head g/t	
		NaCN	Ca(OH) ₂	NaCN	CaO	Au	Ag	Au	Ag	Au	Ag
1	56.1	0.50	0.20	0.50	0.32	6.38	29.2	89.8	87.9	62.7	242
2	56.1	1.00	0.20	0.68	0.28	6.09	27.0	90.5	88.8	63.6	240
3	89.7	0.50	0.20	0.50	0.44	3.66	16.2	94.0	93.2	61.4	237
4	89.7	1.00	0.20	0.80	0.40	3.71	16.5	94.1	93.3	63.3	244

Because of the higher than expected head assays a sample was taken from the remaining individual samples for analysis.

The samples assayed:

Sample No.	Au		Ag	
	g/t	oz/ton	g/t	oz/ton
2212	21.0	0.61	80.0	2.33
2215	96.9	2.83	356	10.38

These are in good agreement with the composite assay.

Yours sincerely,
LAKEFIELD RESEARCH

Keith Sarbutt

K.W. Sarbutt
Chief Project Engineer

KWS:slk

APPENDIX C

ROCK SAMPLES - ANALYTICAL RESULTS

56 - 20 Au Ag
36 Au

Note: sample numbers
refer to sample locations
plotted on sketch maps
given in Appendix B.





ASSAYERS (ONTARIO) LIMITED

33 CHAUNCEY AVENUE TORONTO, ONTARIO M8Z 2Z2 · TELEPHONE (416) 239-3527

Certificate of Analysis

Certificate No. NX-24 /02 /#3579 Date: November 6, 1984
Received _____ 54 Samples of Rocks
Submitted by Narex Ore Search Consultants Inc. Att'n: Mr. P. Born

Sample No.	Au ppb	Au oz/ton	Sample No.	Au ppb	Au oz/ton
9976	65		9993	6850	.20
9977	110		9994	8	
9978	10		9995	2693	.080
9979	172		9996	1099	.037
9980	141		9998	196	
9981	69		9999	172	
9982	879		10000	265	
9983	<5		10001	5	
9984	158		2386	762	
9985	254		2387	820	
9986	<5		2388	127	
9987	<5		2389	392	
9988	62		2390	31	
9989	6		2391	489	
9990	1567	.057	3098	609	
9991	110		3099	723	
9992	4165	.13	3100	1140	.038

ASSAYERS (ONTARIO) LIMITED

Per _____

J. van Engelen Mgr.



ASSAYERS (ONTARIO) LIMITED

33 CHAUNCEY AVENUE TORONTO, ONTARIO M8Z 2Z2 · TELEPHONE (416) 239-3527

NOV - 9 1984

Certificate of Analysis

Certificate No. NX-24 /#3579 /01

Date: November 6, 1984

Received _____ 54 Samples of Rocks

Submitted by Narex Ore Search Consultants Inc. Att'n: Mr. P. Born

Sample No.	Au ppb	Au oz/ton	Ag oz/ton
9836	<5		
9837	<5		
9838	<5		
9839	1330	.039	.17
9840	2000	.056	.32
9841	>10000	.35	2.16
9842	>10000	1.27	6.07
9843	10000	.30	2.10
9844	10000	.31	2.07
9845	1590	.047	
9846	1545	.044	
9847	4847	.18	
9848	1381	.031	
9849	2370	.092	
9850	296		
9971	708		
9972	3417	.056	
9973	1327	.014	
9974	165		
9975	75		

ASSAYERS (ONTARIO) LIMITED

Per _____

J. van Engelen Mgr.

APPENDIX D

SOIL GEOCHEMISTRY - ANALYTICAL RESULTS

Note: Sample numbers
refer to line and station
location which corresponds
directly to coordinates on
maps.





ASSAYERS (ONTARIO) LIMITED

33 CHAUNCEY AVENUE TORONTO, ONTARIO M8Z 2Z2 · TELEPHONE (416) 239-3527

Certificate of Analysis

NOV 20 1984

Certificate No. NX-25 / #3604

Date: November 14, 1984

Received _____ 39 Samples of Soils

Submitted by Narex Ore Search Consultants Inc. Att'n: Dr. Karl Naert

Sh. Tree

Sample No.	Au ppb	Sample No.	Au ppb
K-L4N 0+50E	<5	K-L12N 1+50W B	<5
1E B	<5	2 W B	<5
1+50E B	<5	2+50W B	6
2 E B	<5	3 W B	55
2+50E B	<5	3+50W B	<5
3 E B	<5	K-L12N 4 W B	6
K-L4N BL B	6	K-L20N 0+50N? B	37
0+50W B	<5	1 E B	<5
1 W	14	1+50E B	<5
1+50W B	<5	2 E B	17
2 W B	<5	2+50E B	37
2+50W B	<5	K-L20N 3 E B	24
3+00 B	6	K-L20N BL B	<5
K-L12N BL B	34	0+50W B	20
0+50E B	<5	1 W B	<5
1 E B	<5	1+50W B	<5
1+50E B	<5	2 W B	17
K-L12N 2 E B	<u>58</u>	2+50W B	<5
K-L12N 0+50W	82	K-L20N 3 W B	37
K-L12N 1 W B	11		

ASSAYERS (ONTARIO) LIMITED

Per _____

J. van Engelen Mgr.

APPENDIX E.

SAMPLING AND SAMPLE PREPARATION

All samples were collected along grid lines separated at 400-foot intervals across the property. The sampling interval was every 100 feet. Samples were taken only from the A₁ horizon and consisted of black inhomogeneous mixture of completely decomposed plant debris. In total 39 samples were collected.

All samples were collected in Kraft paper sample bags, using a small hoe. They were all air dried in the field camp before being transported to the assay lab (Assayers Ontario Limited) where they underwent thorough air drying again before removal from the bags for sieving or ashing.

After drying the samples collected from the A₁ soil horizon were ashed in a muffle furnace overnight at 500°C in order to remove organic matter which could form organic colloids and dangerous reactions with HClO₄ during digestion. The ashed samples were then sieved through a 60-mesh (250 m) stainless steel sieve and the minus 60-mesh size fraction of each sample was retained for the various digestions and analyses. In general, all ashed samples passed through the 60-mesh sieve except for occasional grains of sand that were incorporated in the material during sampling.

The standard procedure for a sample is to first do a fire assay and then redissolve the bead and then to use Atomic absorption (AA) to give another value which has accuracy of 5 ppb.

Described below is the standard methods used. This is taken from Ontario Geological Survey Miscellaneous Paper 110 (1983) in a paper by C. Riddle, Analytical Methods for Gold:

Routine Fire Assay

(Flux fusion, extraction into lead, parting of Dore bead, gravimetric determination, factoring).

The standard crucible assay requires the following steps:

- a) weight out pulp (14.583 g, ½ assay ton)
- b) add stock flux (listed below) approximately 100 g.
- c) mix ore and reagents in crucible
- d) place in furnace (preheated to 1025°C) and heat for 35 minutes
- e) pour molten charge into cast iron mold



- f) inspect crucible for lead loss
- g) note slag colour for possible interference
- h) note size and appearance of lead button
- i) break slag and free lead button (20-25 g)
- j) cube lead button with hammer
- k) place lead cube in furnace on preheated cupel (950°C) and heat in vented atmosphere for approximately half an hour, until lead is absorbed in cupel
- l) remove silver bead and note any peculiarities
- m) brush and accurately weigh silver bead using fine balance
- n) digest silver in hot nitric acid and wash residue with distilled water
- o) anneal and accurately weigh (to 2 micrograms) gold using fine balance
- p) record all results and observations
- p) calculate silver weight and report gold and silver results

The stock flux contains the following:

litharge	80 g
sodium carbonate	40 g
silica	12 g
borax glass	12 g
flour	2.5 g

Geochemical Gold Determination

(Dore bead preparation, acid digestion, graphite furnace atomic absorption, calibration calculation)

The logic behind the fire assay concentration is to (1) take a large enough sample to get enough of the precious metal present to give good precision, and (2) to transform the possibly complex matrix of the ore into a simple metal alloy.

The method used for concentrating precious metals for AA analysis is as follows:

- a) weigh out 10 g of sample pulp
- b) mix with approximately 75 g of standard flux
- c) add 2 drops silver nitrate (AgNO_3) solution (this furnace charge makes a bead of approximately 15 mg)
- d) follow "regular gold and silver assays" from step (c) to step (e)



e) pass on beads to AA laboratory for analysis.

Blanks and control standards are processed with every batch of samples.

Dissolution of the silver bead is accomplished with nitric acid in a 10 by 75 mm test tube placed in an aluminum rack and set on a hot-plate. The silver is precipitated as the chloride with hydrochloric acid, whereby the gold is dissolved in the aqua regia. The acid mixture is diluted with water, mixed and the AgCl allowed to settle on the bottom of the test tube. An aliquot of the supernatant liquid is atomized in a graphite furnace and the atomic absorption signal observed as a recorder trace.

The concentration of gold in the sample solution is read with the aid of a calibration graph. The net concentration is obtained by subtracting the average overall-blank value. The gold content in rock is calculated according to the formula:

$$Au = CV/W \times 1000$$

Where

Au = ppb of gold in rock,

C = net concentration of gold in micrograms/ml in solution,

V = volume in ml of the sample solution (usually 2 ml) and

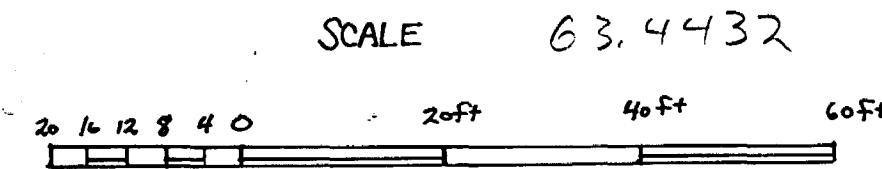
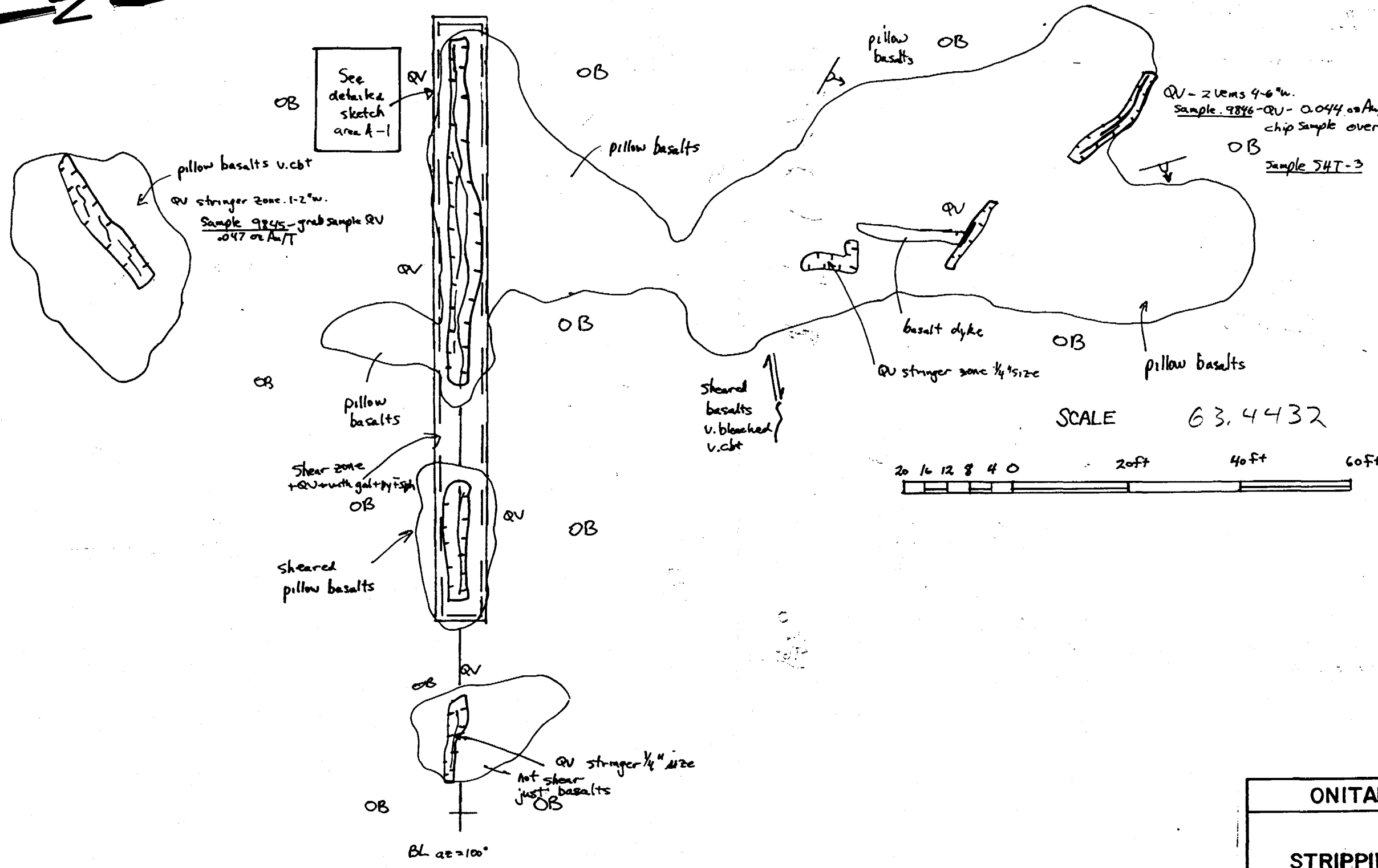
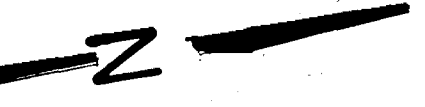
W = weight of sample in grams (usually 10 g)

The optimum working range is 0.05-0.20 micrograms Au per millilitre in solution. The detection limit is 2 ppb in rock.



80S 60S 40S 20S 0 20N 40N 60N 80N 100N 120N 140N

140W
120W
100W
80W
60W
40W
20W
0



QV - 2 veins 4-6" w.
Sample 9896-QV - 0.044 gAu/T
chip sample over length of 20'
Sample 54T-3 .023 gAu/T/3' w.

pillow basalts v. cbt
QV stringer zone 1-2" w.
Sample 9845 - grab sample QV
.047 gAu/T

See detailed sketch area A-1

Sheared basalts v. bleached v. cbt

Shear zone + QV with gal + py + sph
OB

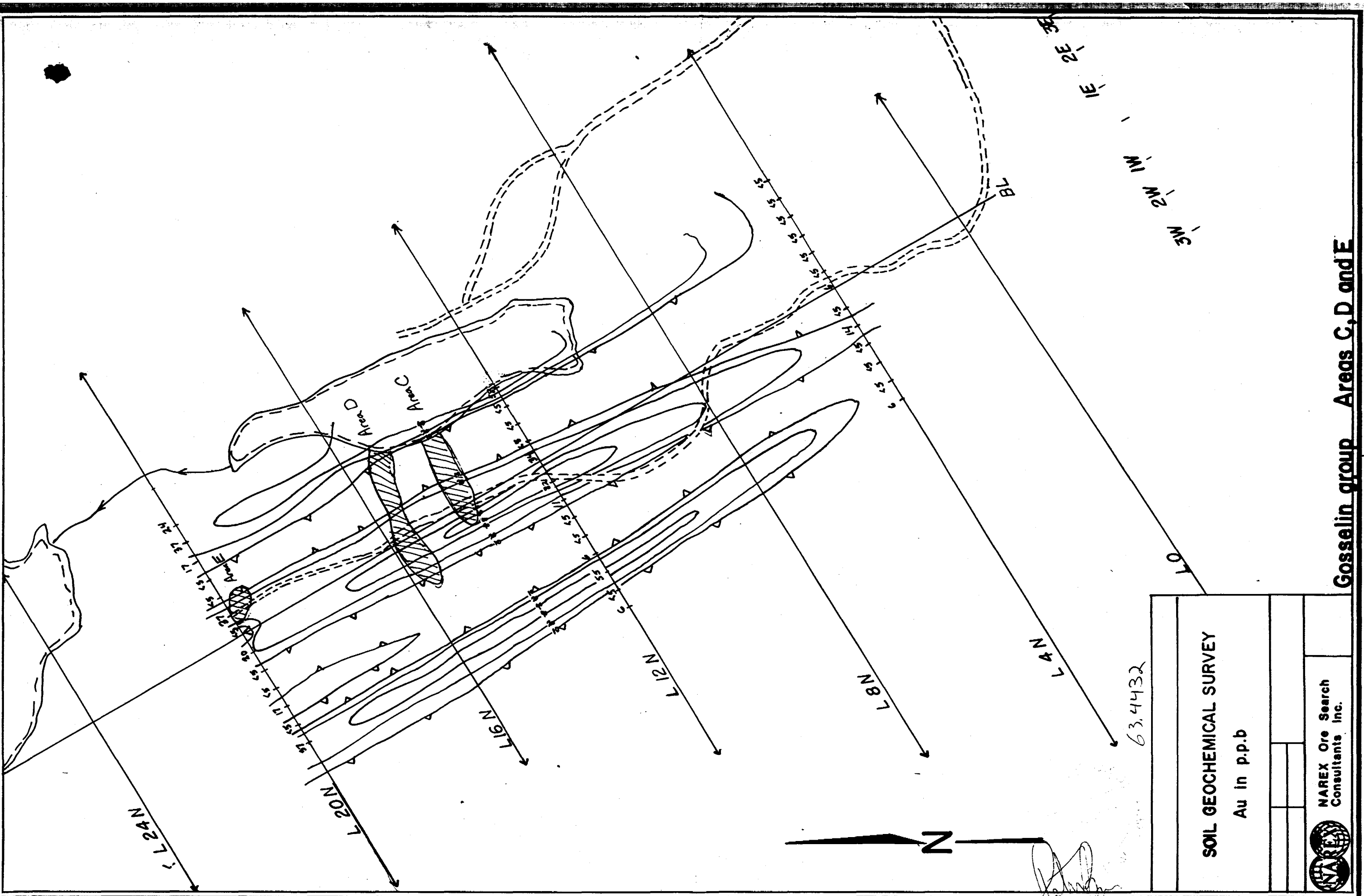
sheared pillow basalts

QV stringer 1/4" size
not shear just basalts
OB

BL az = 100°

Gosselin group area A

ONITAP RESOURCES INC.		
STRIPPING and TRENCHING		
work by: L PB	date: DEC/84	scale: 1:240
drawn by:	date:	
NAREX Ore Search Consultants Inc.		drawing no. 1



SOIL GEOCHEMICAL SURVEY

Au in p.p.b

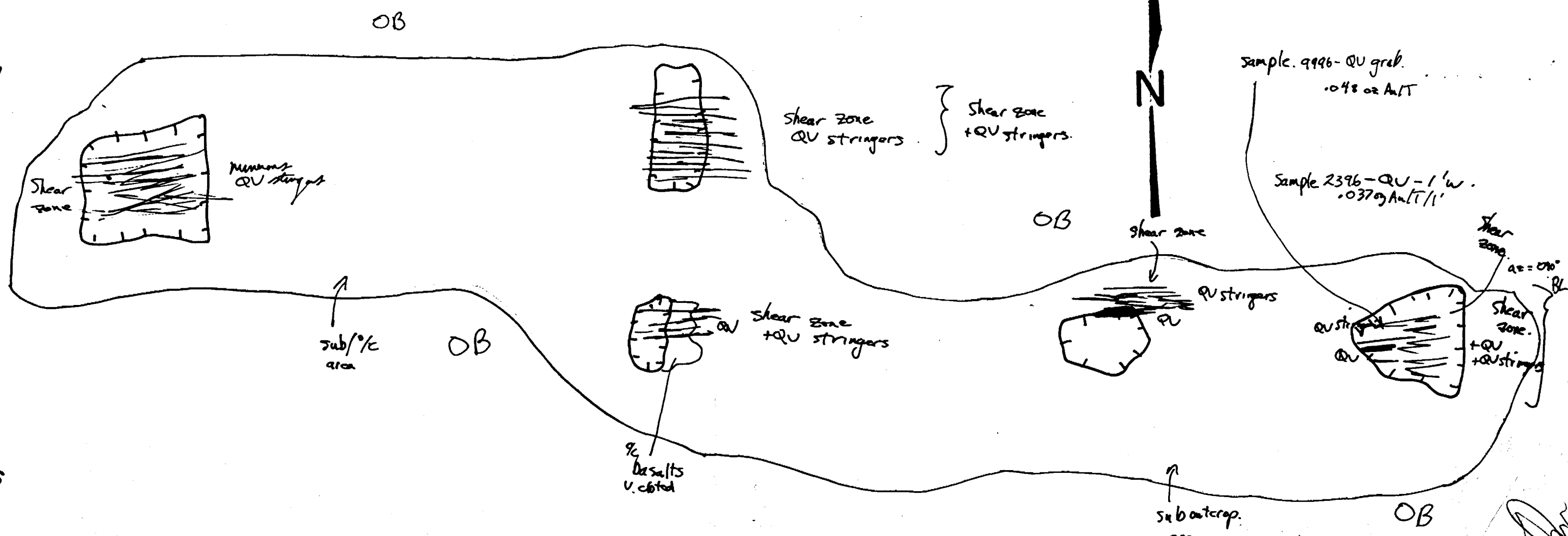
NAREX Ore Search
Consultants Inc.



Gosselin group Areas C, D and E

130W 120W 110W 100W 90W 80W 70W 60W 50W 40W 30W 20W 10W 0

30N
20N
10N
BL
10S
20S

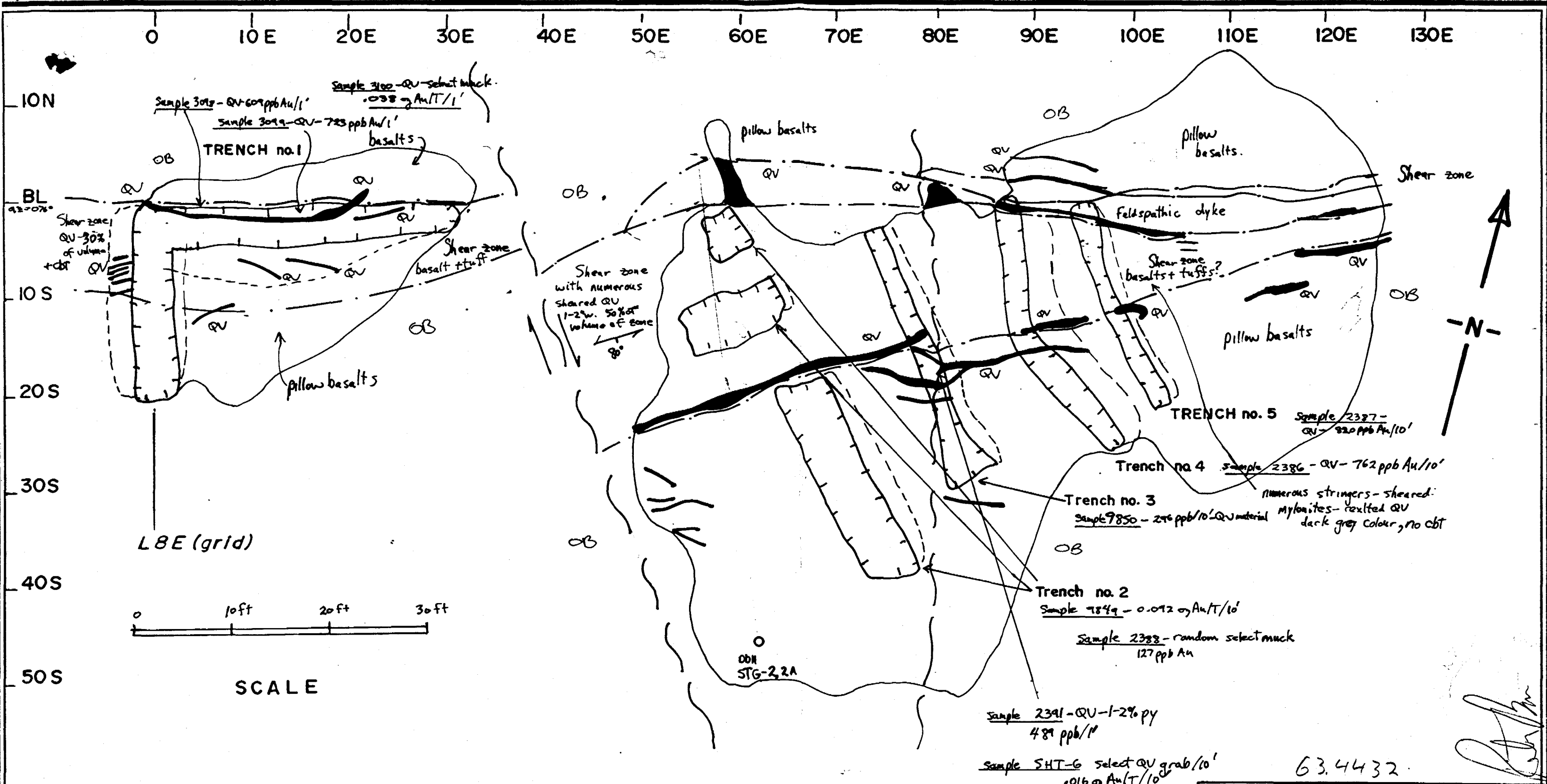


10ft 20 30 ft

63.4432

Gosselin group - area G

ONITAP RESOURCES INC.		
Trenching and Stripping		
Work No: PB	Date: DEC/84	Sheet:
Drawn by:	Scale:	
		NAREX Ore Search Consultants Inc.



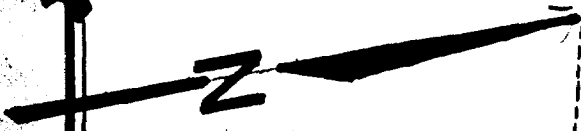
Gibson stripping & trenching

ONITAP RESOURCES INC.		
STRIPPING and TRENCHING		
work by: PB	date: Dec/84	scale: 1:120 1 inch to 10 feet
		NAREX Ore Search Consultants Inc.
		9

63.4432

[Handwritten signature]

140W-



average
v.cbt basalts
more than
north side

0.31 g Au/T
2.07 g Ag/T / 30'

3213 .0570 Au/T / 3' QUT wall

Sample 9943 - 0.30 g Au, 2.10 g Ag/T / 1'
chip sample of QV between
110-140W

Sample 9944 - 0.31 g Au, 2.07 g Ag/T / 1'
select muck from 110-140W

Sample 3214 QUT wall .1450 Au/T / 4'

stringer
QV
QV 6" w
+ py

2" w QV
QV 10" w + py
v. cbt basalt

} galena rich
this part of trench is 4ft
lower than more eastern part

average

.31 g Au/T
4.1 g Ag/T / 40'

sil. cbt
basalts.

several
stringer 1/2" w.

Sample 9841 - 0.35 g Au, 2.16 g Ag/T / 1'
chip sample of QV between 80-100W

Sample 9842 - 1.27 g Au, 6.07 g Ag/T / 1'
select muck from 80-100W QV

QV in this section has 3-5% py + 1% gal
+ tr. sph.

80 W -

v.cbt more
than north side

6" QV
10" w
3" w. QV

Break

60 W -

v. cbt. basalt

.05 g Au/T
.25 g Ag/T / 30'

muck.

Sample 9939 - .039 g Au, 0.17 g Ag/T / 1'
chip sample of QV between 40-60W

Sample 9940 - .056 g Au, .32 g Ag / 1'
select muck from 40-60W

QV + 1-2% py no galena etc

Sample .07 g Au/T 1'
SHT-2

Scale 1 inch to 10 feet

40W -

silicified + cbt, basalts.

10ft 8 6 4 2 0

10ft

STRIPPING and TRENCHING
Drawing No. 1-1

BL 42 = 100°

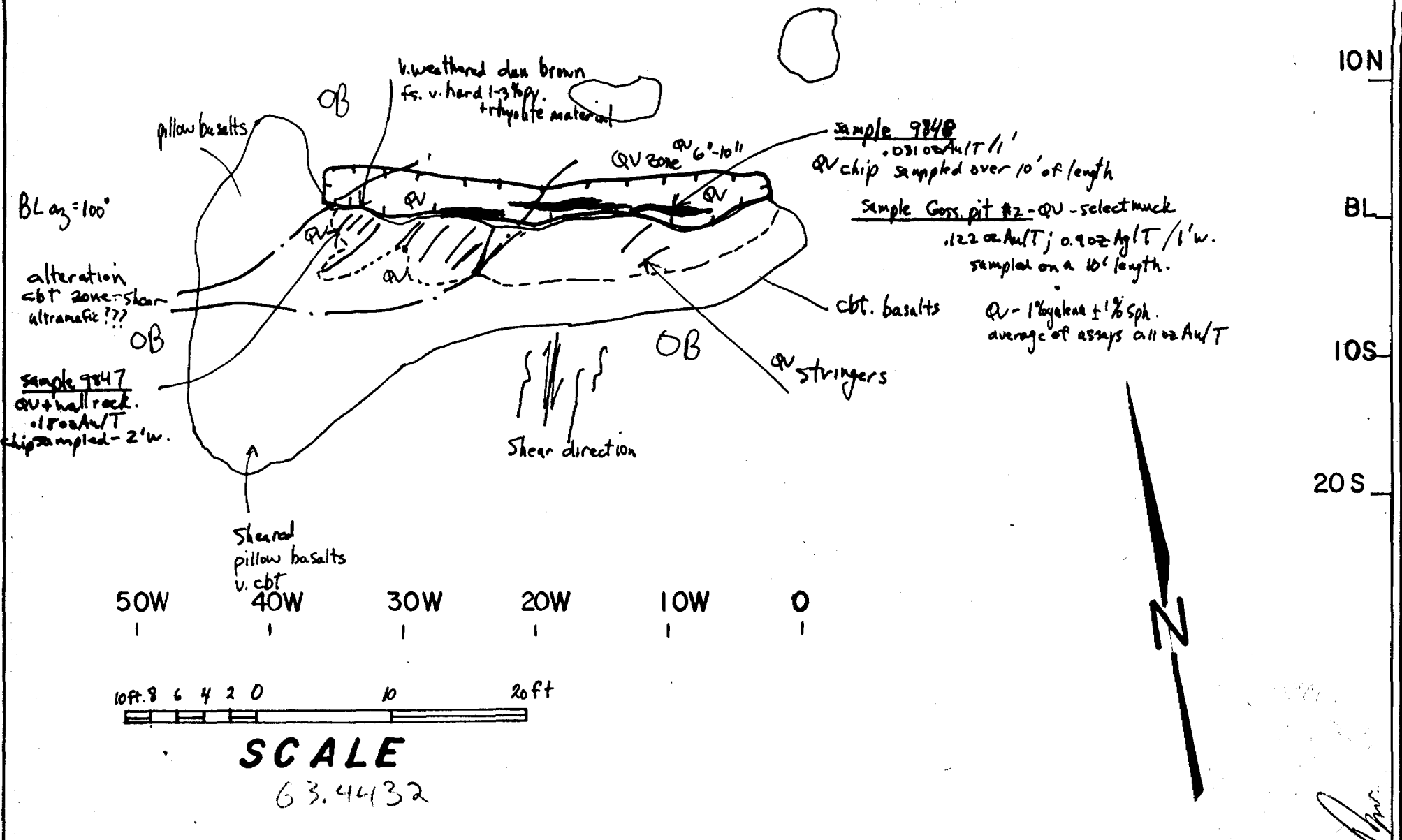


NAREX Ore Search
Consultants Inc.

BL

ONITAP RESOURCES INC.
Gosselin group - area A-1

63,4432

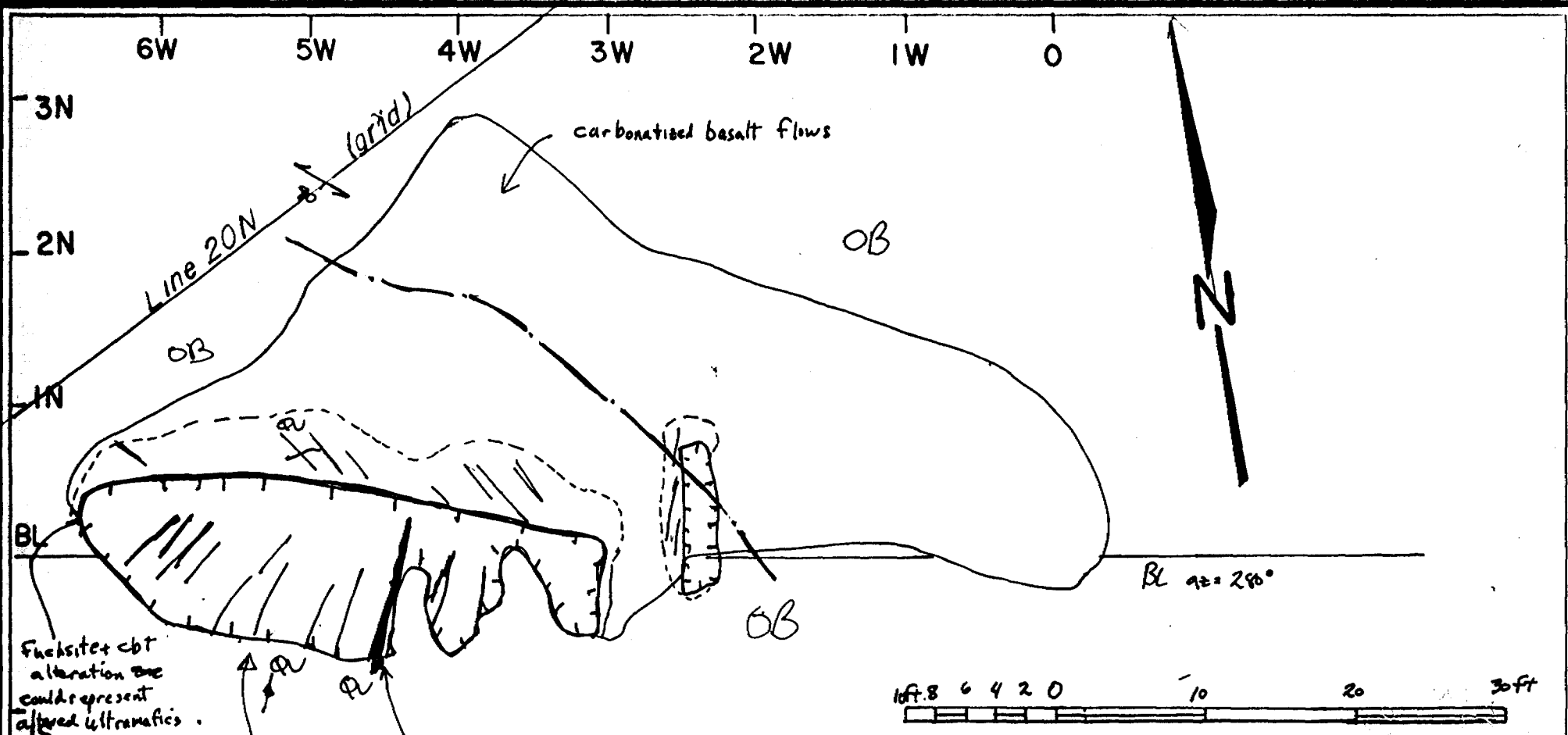


ONITAP RESOURCES INC.
Gosselin group - area B STRIPPING and TRENCHING

Drawing no.2



NAREX Ore Search
 Consultants Inc.



Fuchsite + cbt alteration zone could represent altered ultramafics.

Sample 9836
 < 5 ppb Au

Sample 9837 chip sample
 QU < 5 ppb Au

Sample 9838 - select muck QU
 - 5 ppb. Au. - chip sample

Sample 54T-5 QU-4'w. - 1006 oz Au/T
 grab sample.

SCALE

63,4432

John [Signature]

DRAWING No. 5

ONITAP RESOURCES INC.
Gosselin group - area E STRIPPING and TRENCHING



NAREX Ore Search
 Consultants Inc.

0 1W 2W 3W 4W

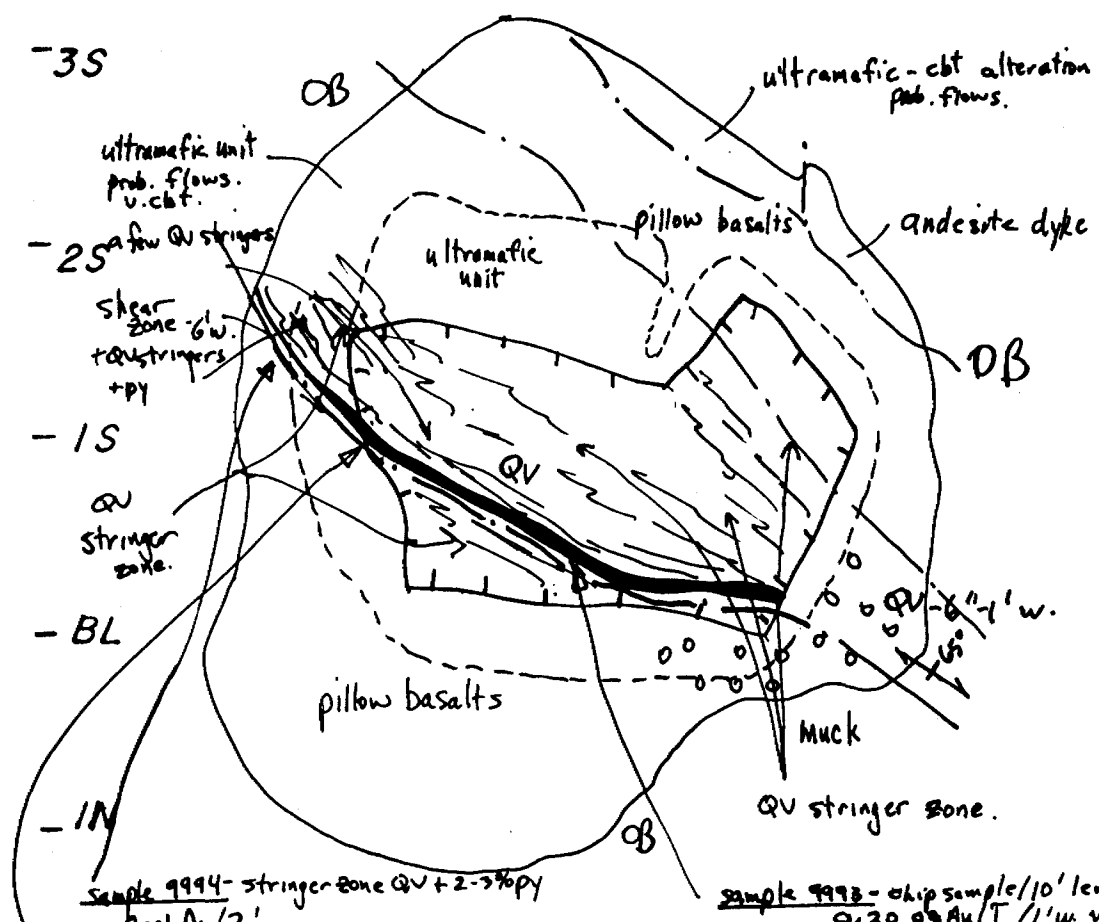
-3S

-2S

-1S

-BL

-1N



63,4432

ONITAP RESOURCES INC.		
STRIPPING and TRENCHING		
work by: PB	date: DEC/84	scale:
drawn by:	date:	1:120 1 INCH TO 10 FT
NAREX Ore Search Consultants Inc.		drawing no. 6

sample 9994 - stringer zone QV + 2-3% py
 8ppb Au/2'

sample 9993 - chip sample/10' length
 0.20 oz Au/T /1'w vein

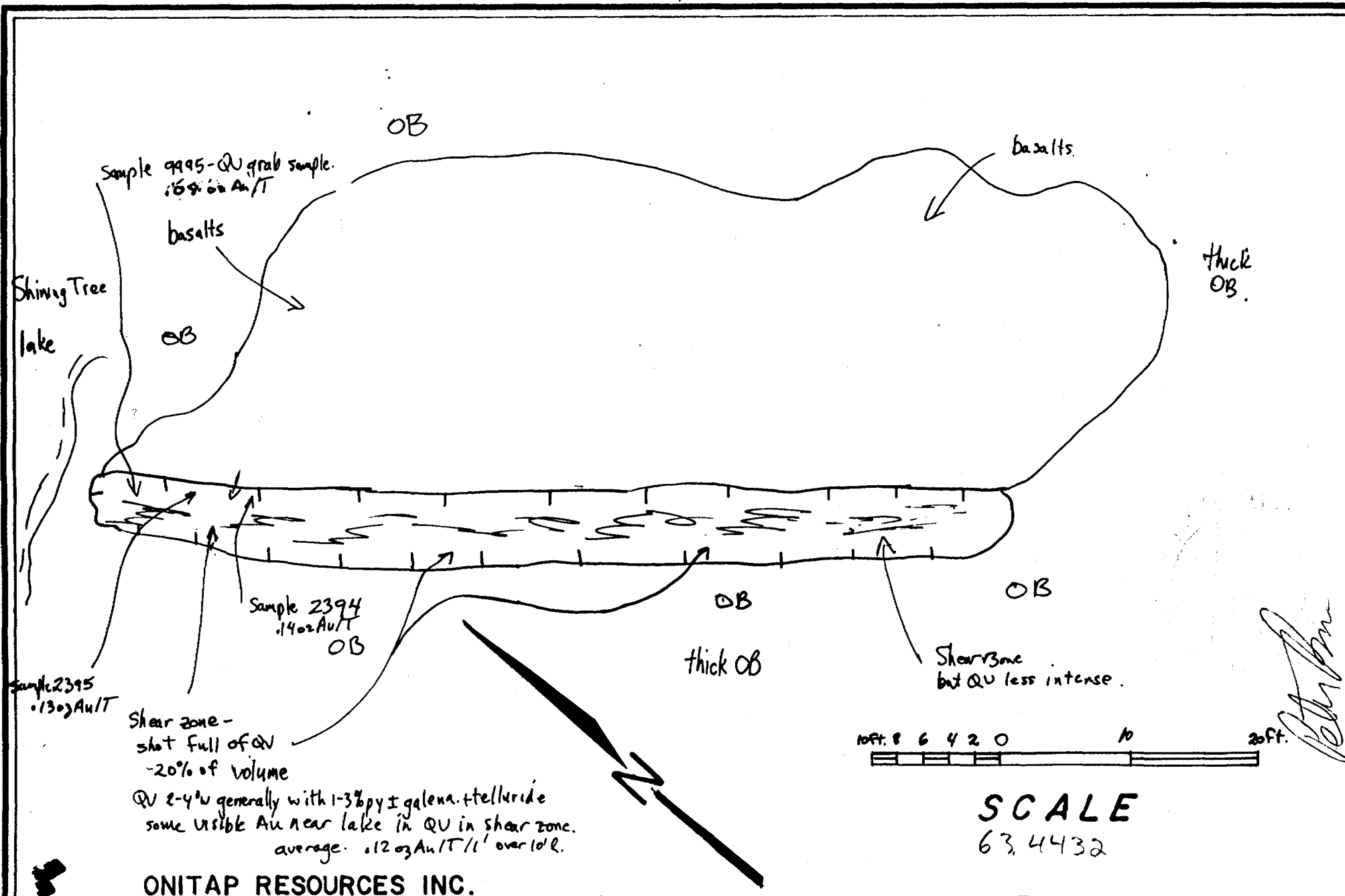
sample 9992 - QV - 0.13 oz Au/T /1'
 chip sample /10' length

average 0.17 oz Au/T /1' width
 for a 20' length.



NAREX Ore Search Consultants Inc.

Gosselin group area F



Sample 9995 - QU grab sample.
.169 oz Au/T

basalts

Shiny Tree
lake

OB

basalts

thick
OB.

Sample 2394
.1402 Au/T
OB

OB

OB

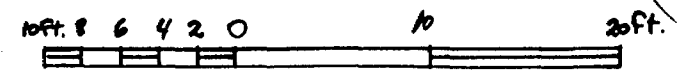
thick OB

Shear zone
but QU less intense.

Sample 2395
.1303 Au/T

Shear zone -
shot full of QU
-20% of volume

QU 2-4' generally with 1-3% py + galena + telluride
some visible Au near lake in QU in shear zone.
average: .12 oz Au/T/1' over 10' l.



SCALE
63,4432

John M.

ONITAP RESOURCES INC.

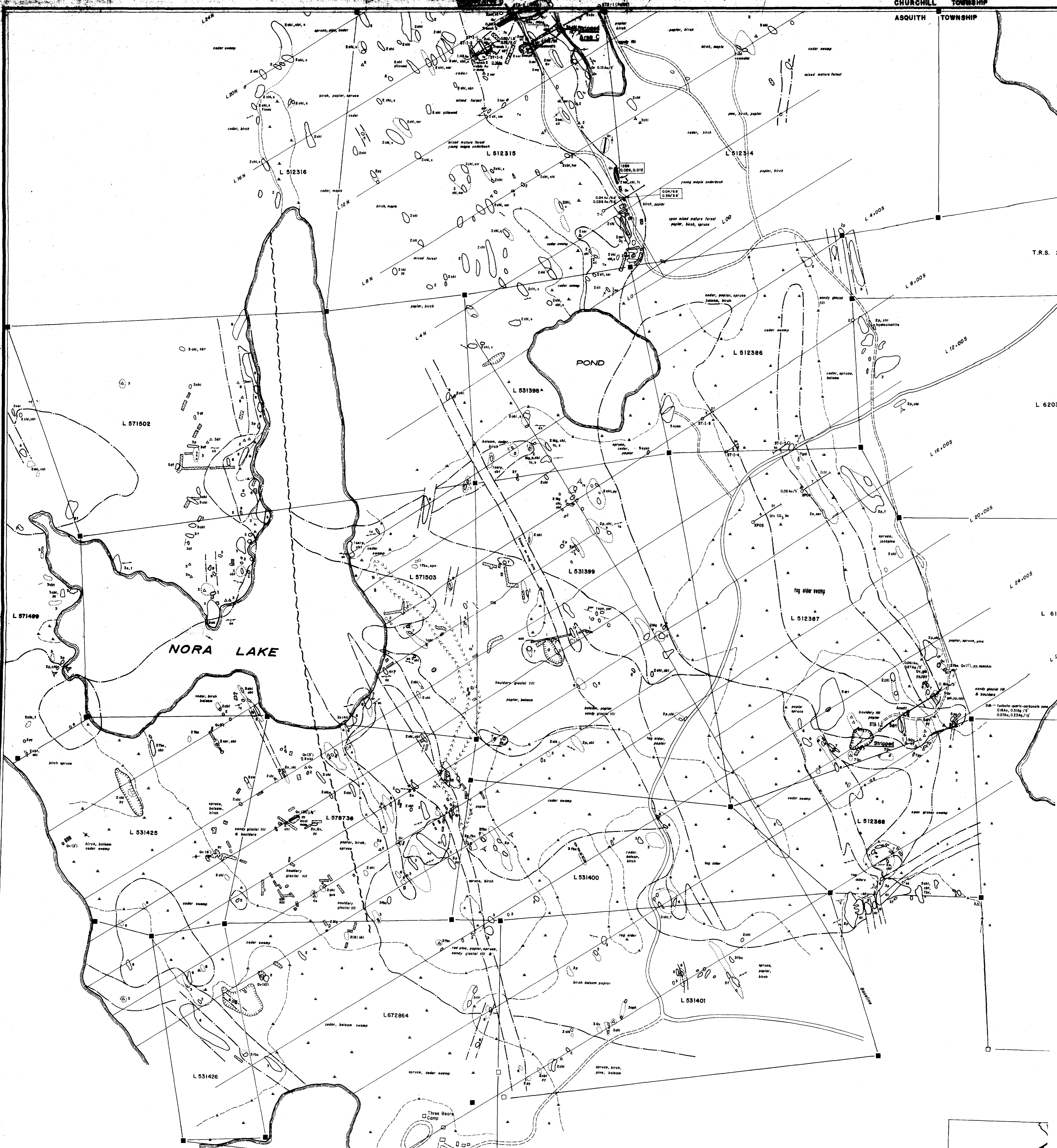
Gosselin group - area H

STRIPPING and TRENCHING

Drawing
No 8



NAREX Ore Search
Consultants Inc.



T.R.S. 2

L 6205

L 611

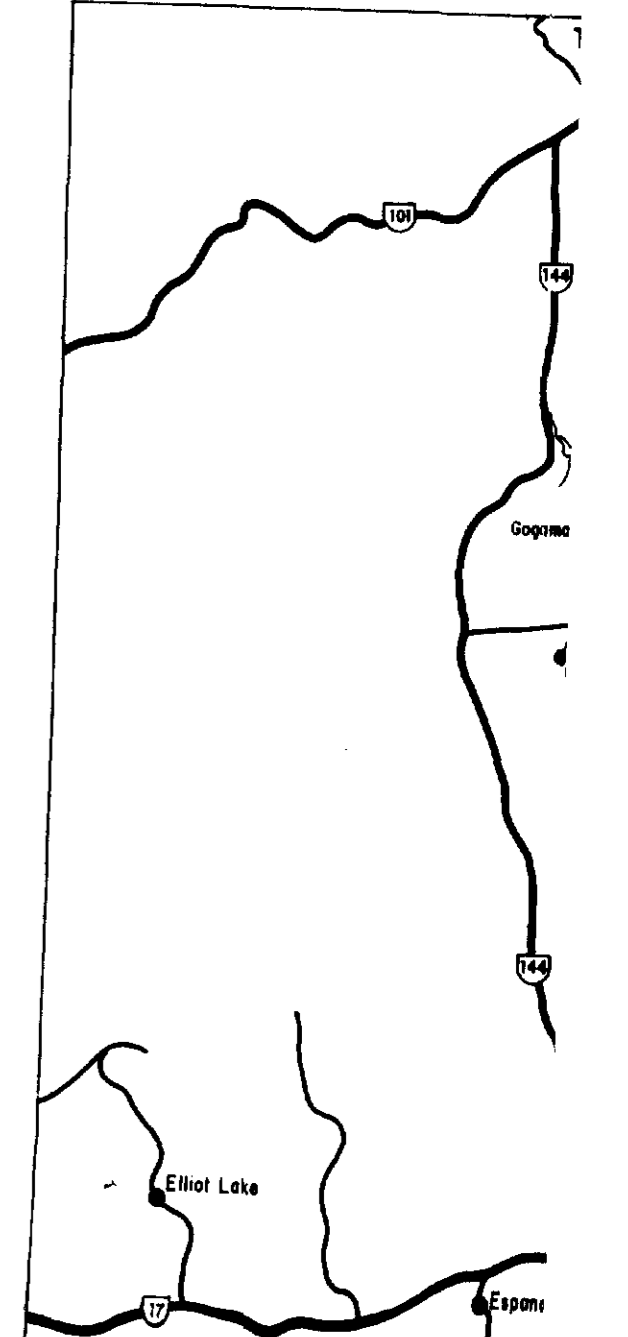
L 611

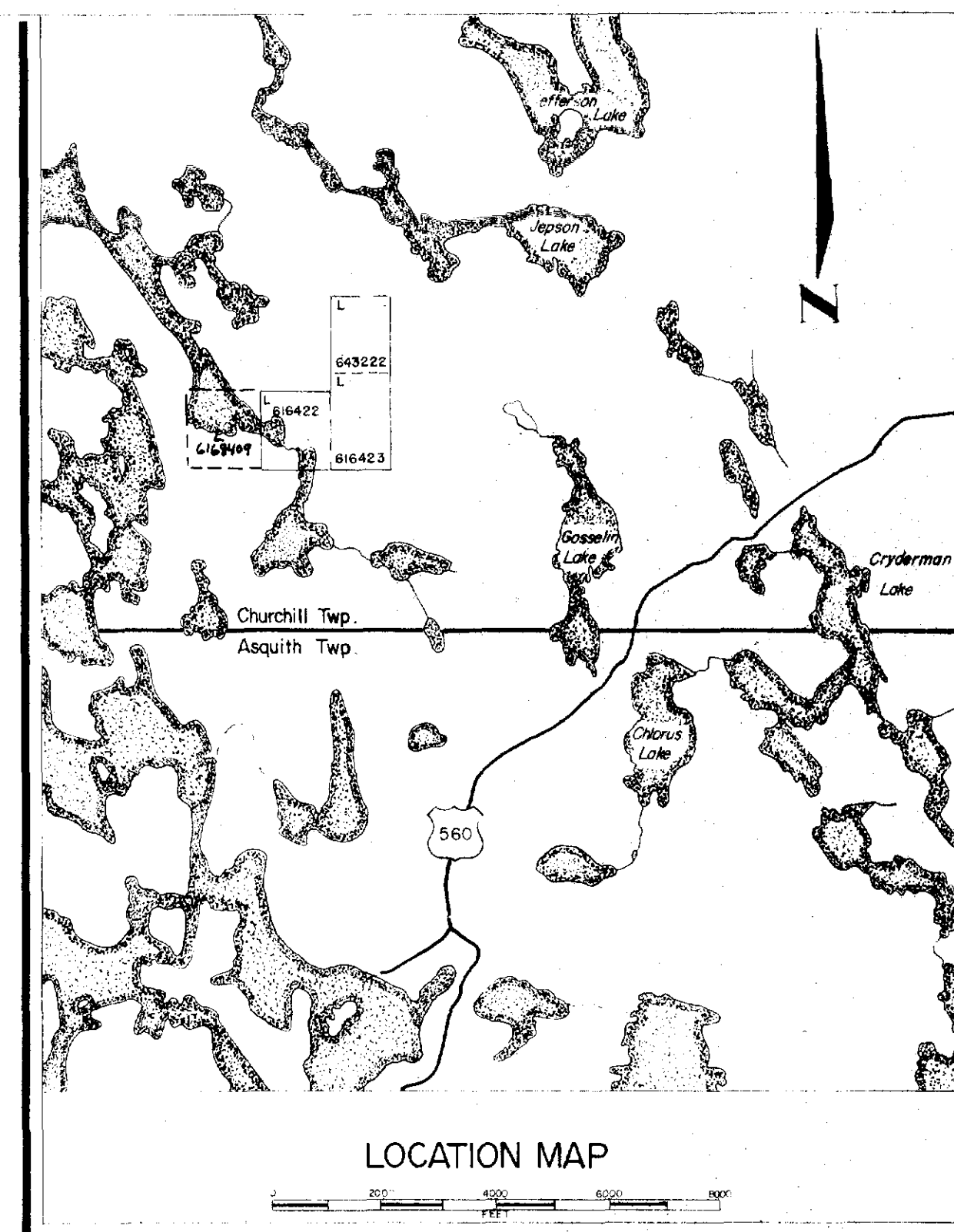
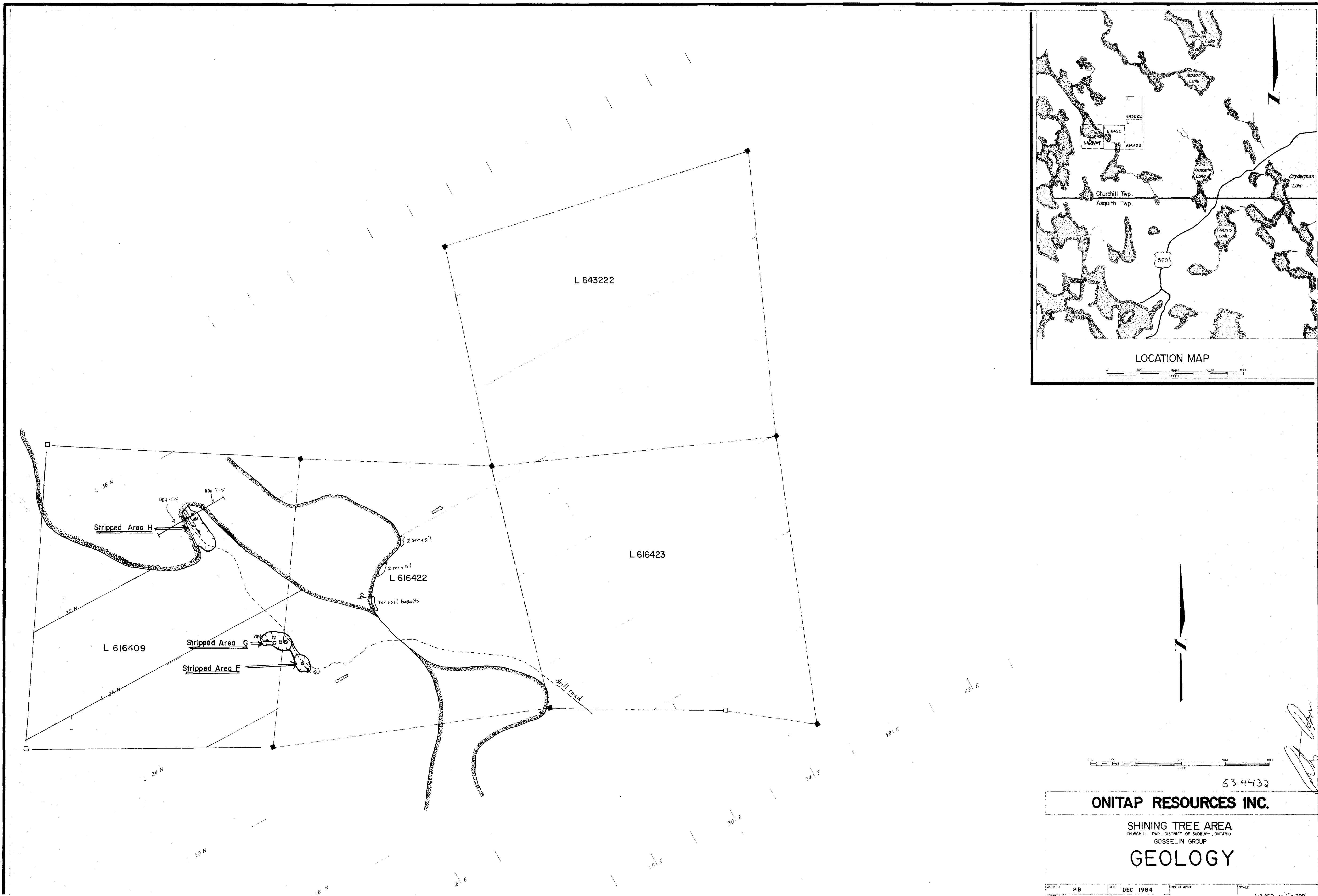
L 611

L 611

L 611

L 611





LOCATION MAP



63.4432

ONITAP RESOURCES INC.

SHINING TREE AREA
 CHURCHILL TWP., DISTRICT OF SUDBURY, ONTARIO
 GOSSELIN GROUP

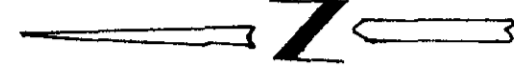
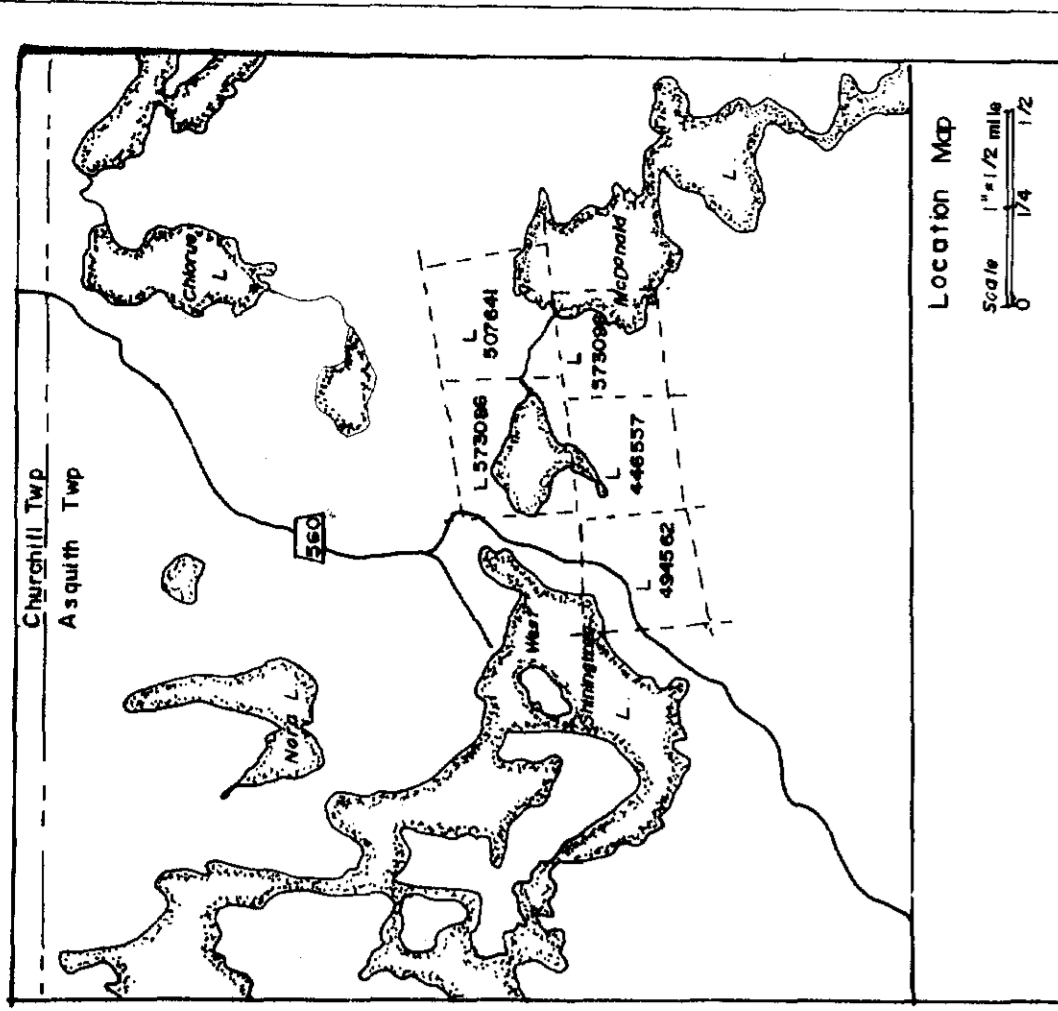
GEOLOGY

WORK BY: PB	DATE: DEC 1984	INSTRUMENT:	SCALE: 1:2 400 or 1" = 200'
BY: M.E.O.	DATE: July 1984		DRAWING NO:



NAREX Ore Search Consultants Inc.





LEGEND

EARLY TO LATE PRECAMBRIAN

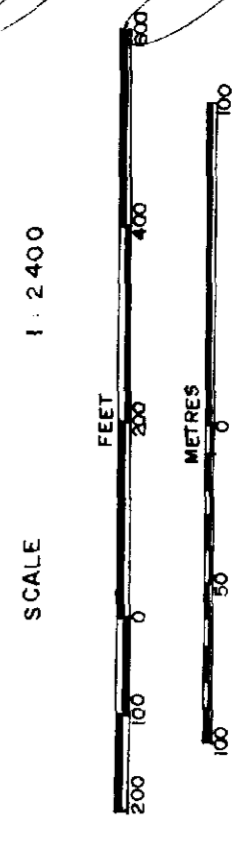
MAFIC INTRUSIVE ROCKS

- 4 Gabro - mainly as dykes
- 3 Pyroxenite dykes

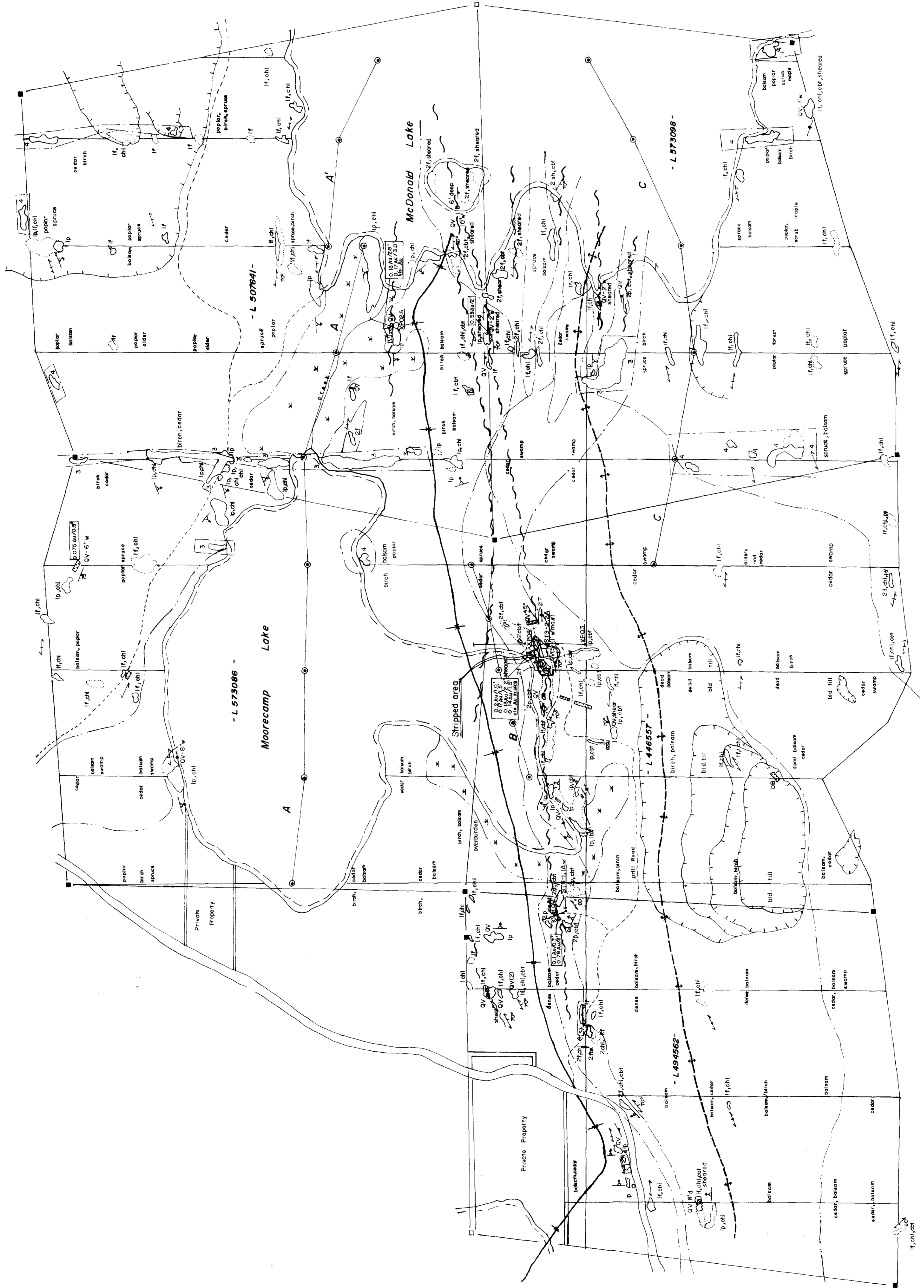
INTERMEDIATE TO MAFIC METAVOLCANIC ROCKS

- 2 2T - tuffs
2 ch - chloritized
2 car - carbonatized
2 fba - flow breccia
- 1 Basalt
1p - pillowed flows
1f - flows
1ch - chloritized
1sh - sheared
1cb - carbonatized

- Geological contacts
- pillowed flows
- Quartz veins; vertical dipping
- Position of vertical dipping
- Extent of swelling area
- Extent of gaseous hummocks
- Trace of fault
- Fault shear zone
- Syncline axis (known)
- Anticline axis (probable)
- Quartz vein
- Extent of swelling area
- Extent of sub-basalt area
- Extent of swelling area
- Extent of gaseous hummocks
- Trace of fault
- Fault shear zone
- Syncline axis (known)
- Anticline axis (probable)



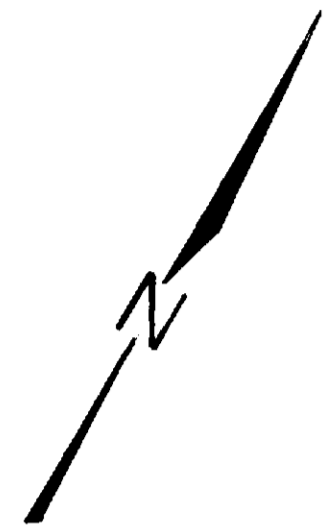
GIBSON-MOORECAMP LAKE PROPERTY
GEOLOGY
Asquith Township, Ontario
634432
Scale: 1 inch to 200 feet 1:2400
MAREX Ore Search Consultants Inc.
DATE: MAY 1984
SURVEYED BY: P. BERN
DWG. No. 4



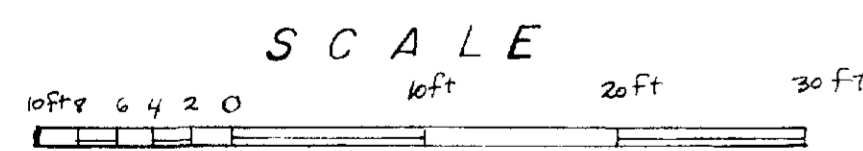
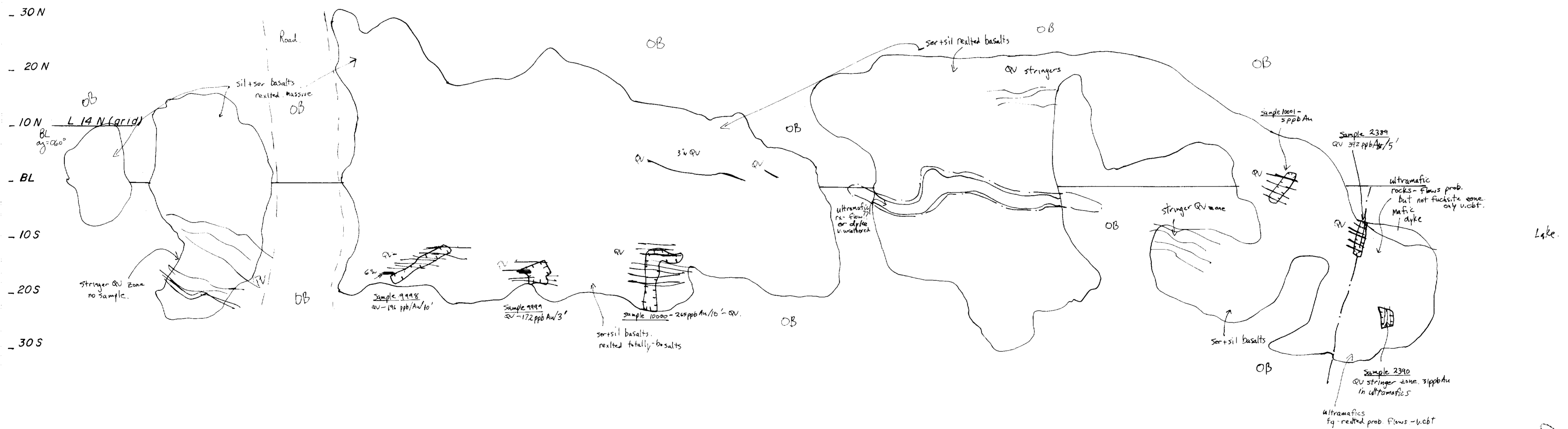
20100 N
16100 N
12100 N
8100 N
4100 N
Baseline
4100 S
8100 S
12100 S

L 12W L 8W L 0 L 8E L 12E L 20E L 24E L 28E L 32E





50W 40W 30W 20W 10 0 10E 20E 30E 40E 50E 60E 70E 80E 90E 100E 110E 120E 130E 140E 150E 160E 170E 180E 190E 200E



Gosselin group - area C

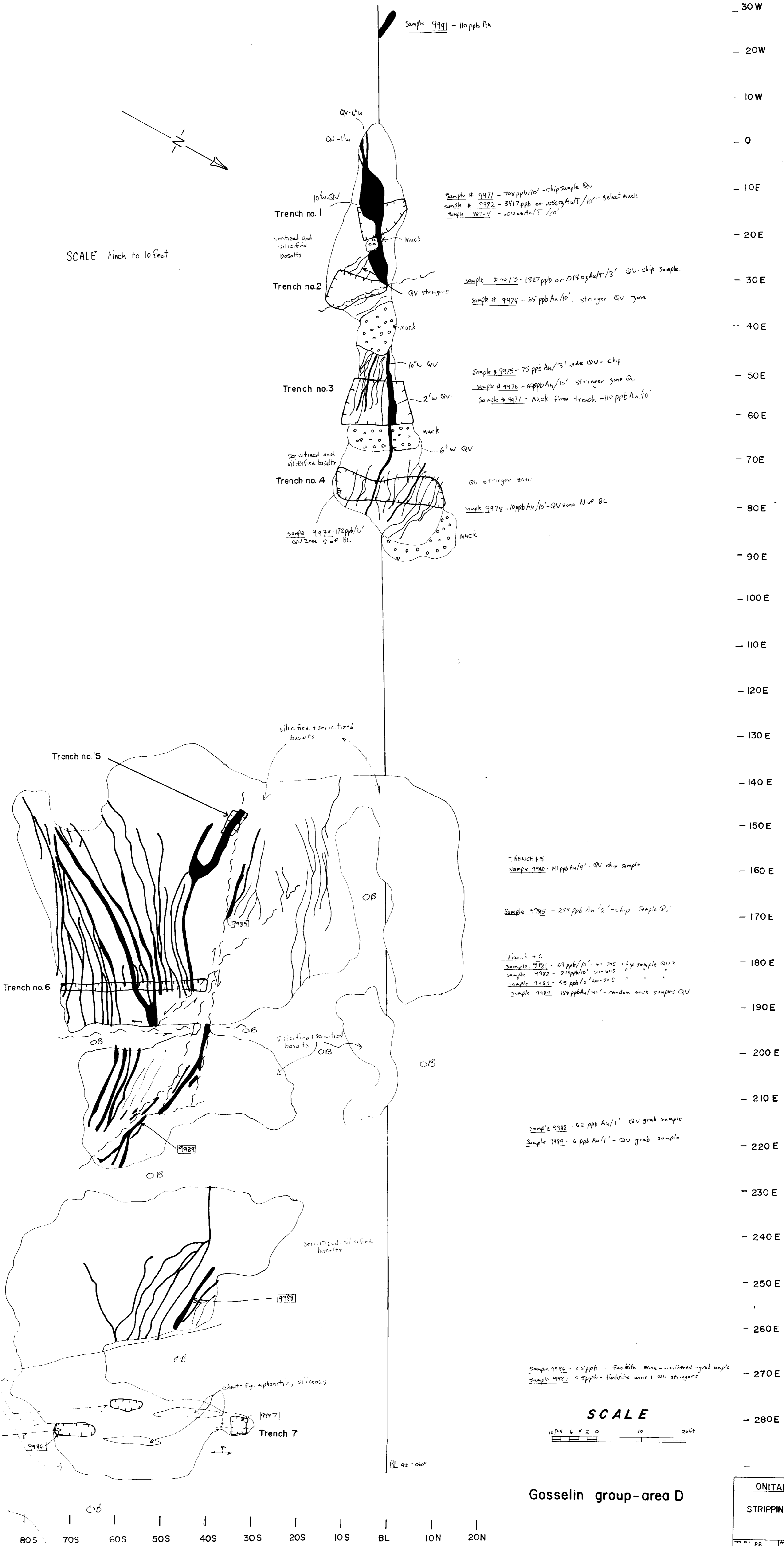
Handwritten signature

63.4432

ONITAP RESOURCES INC.			
STRIPPING and TRENCHING			
DATE: PB	DATE: DEC/04	SCALE: 1:120 1 inch to 10 ft	
NAREX Ore Search Consultants Inc.			3



SCALE 1 inch to 10 feet



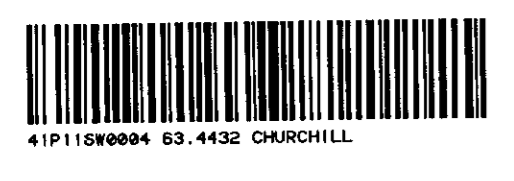
SCALE
10ft 6 4 2 0 10 20ft

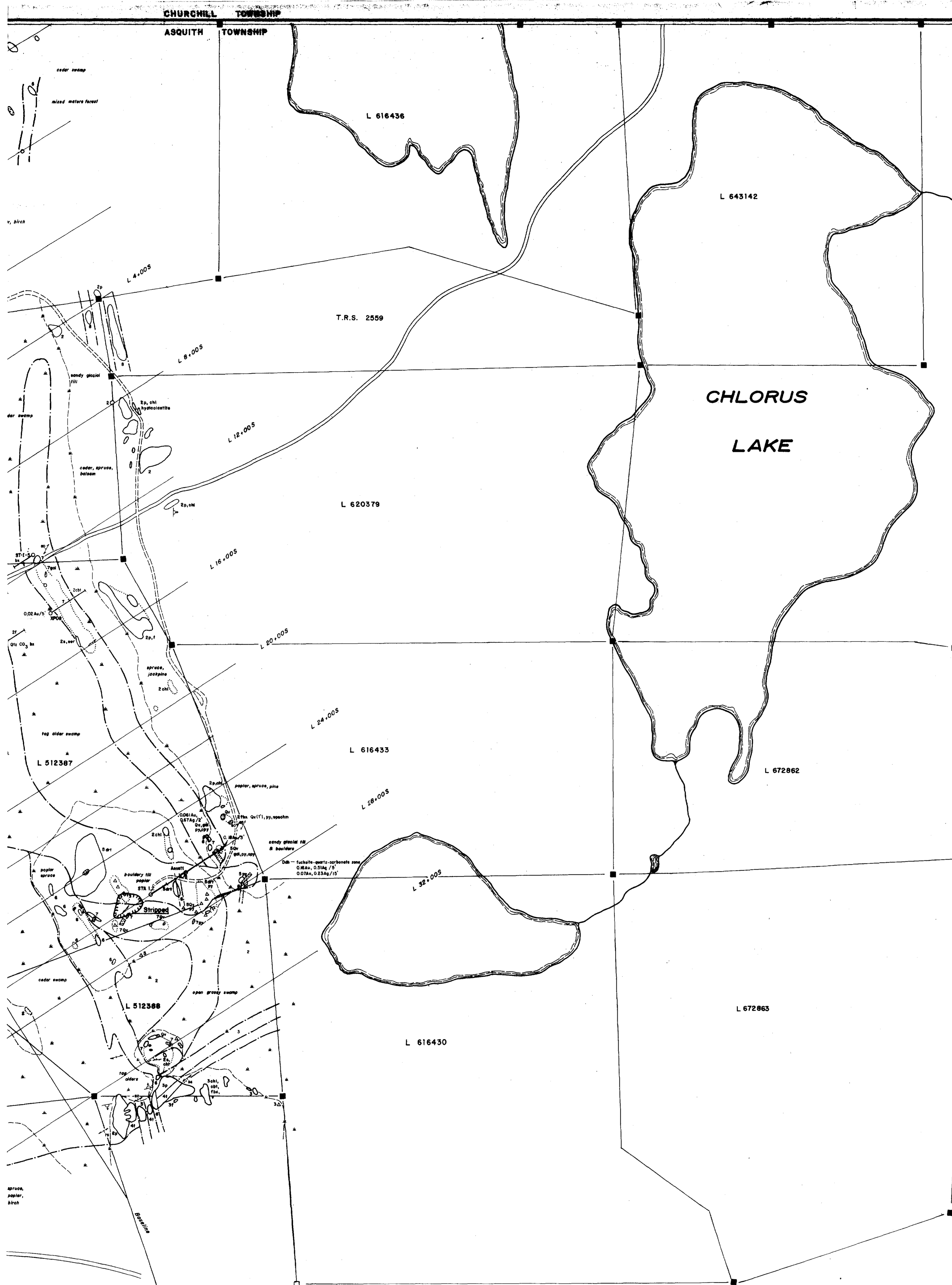
Gosselin group-area D

30W
20W
10W
0
10E
20E
30E
40E
50E
60E
70E
80E
90E
100E
110E
120E
130E
140E
150E
160E
170E
180E
190E
200E
210E
220E
230E
240E
250E
260E
270E
280E

63,4432

ONITAP RESOURCES INC.	
STRIPPING and TRENCHING	
DATE: PB	DATE: DEC/84
SCALE: 1:120 (1 inch to 10 ft)	
NAREX Ore Search Consultants Inc.	
PROJECT NO. 4	





EARLY TO LATE PRECAMBRIAN

MAFIC INTRUSIVE ROCKS

8 Diabase

ALTERATION ZONE ROCKS

7 Green carbonate (dolomite and calcite) fuchsite-bearing alteration zone 7a - Sericitized alteration zone

MAFIC INTRUSIVE ROCKS

6 Mafic gabbro and pyroxenite

FELSIC INTRUSIVE (HYPABYSSAL) ROCKS

5 Feldspar porphyry
 5s - schistose 5ser - sericitic 5cbt - carbonitized
 5eyen - syenitic composition 5drt - dioritic composition 5hem - hematized

Ultramafic to intermediate metavolcanic rocks and related volcano sedimentary rocks

4 Chloritic tuff and exhalite
 4t - tuffs 4e - exhalite 4bx - breccia

3 Andesite

3p - pillowed 3chl - chloritized 3cbt - carbonitized 3aph - aphanitic 3ser - sericitic
 3sil - silicified 3f - flows 3fbx - flow breccia 3v - vesicular 3d - dacitic

3d

2 Basalt

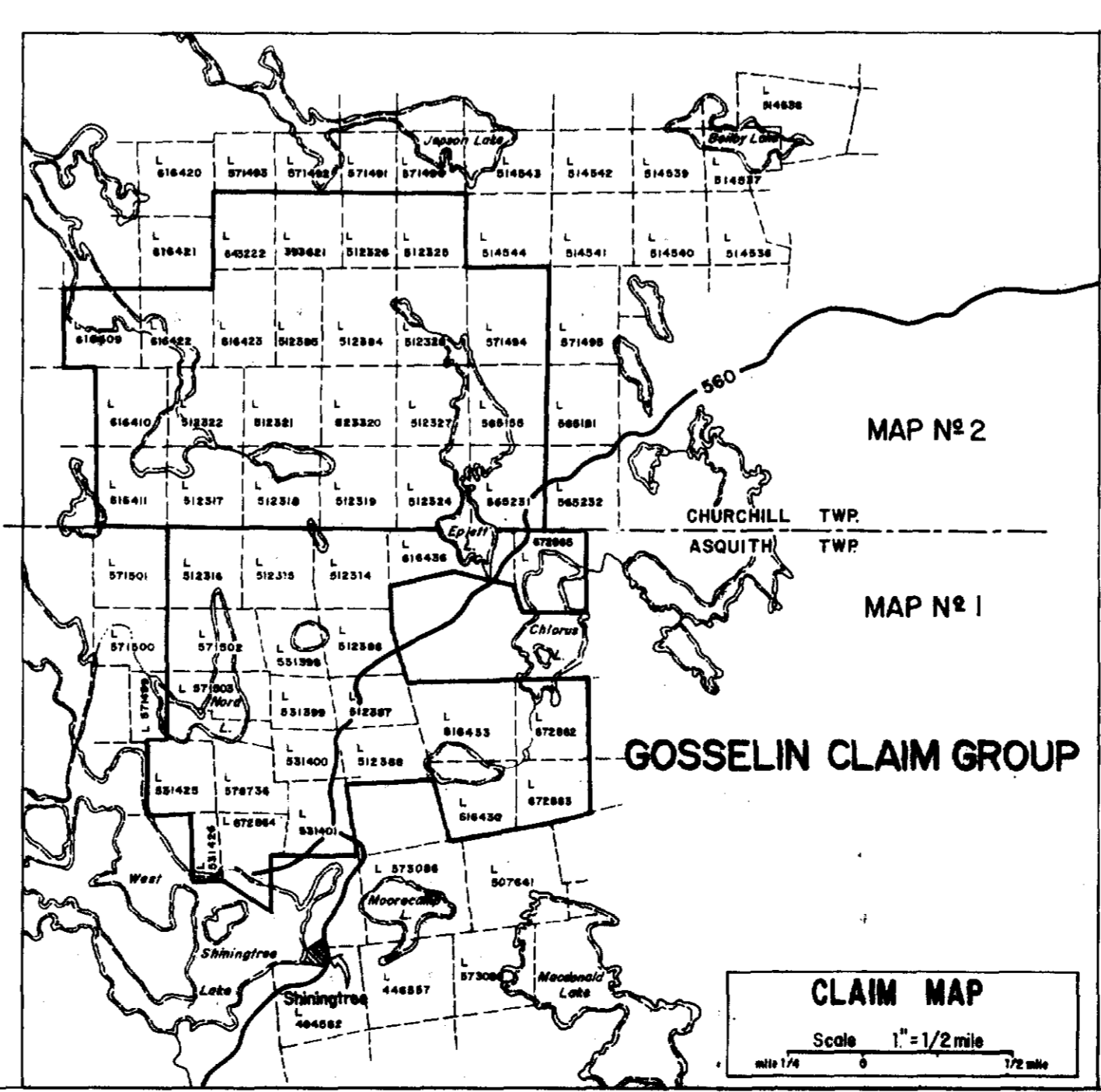
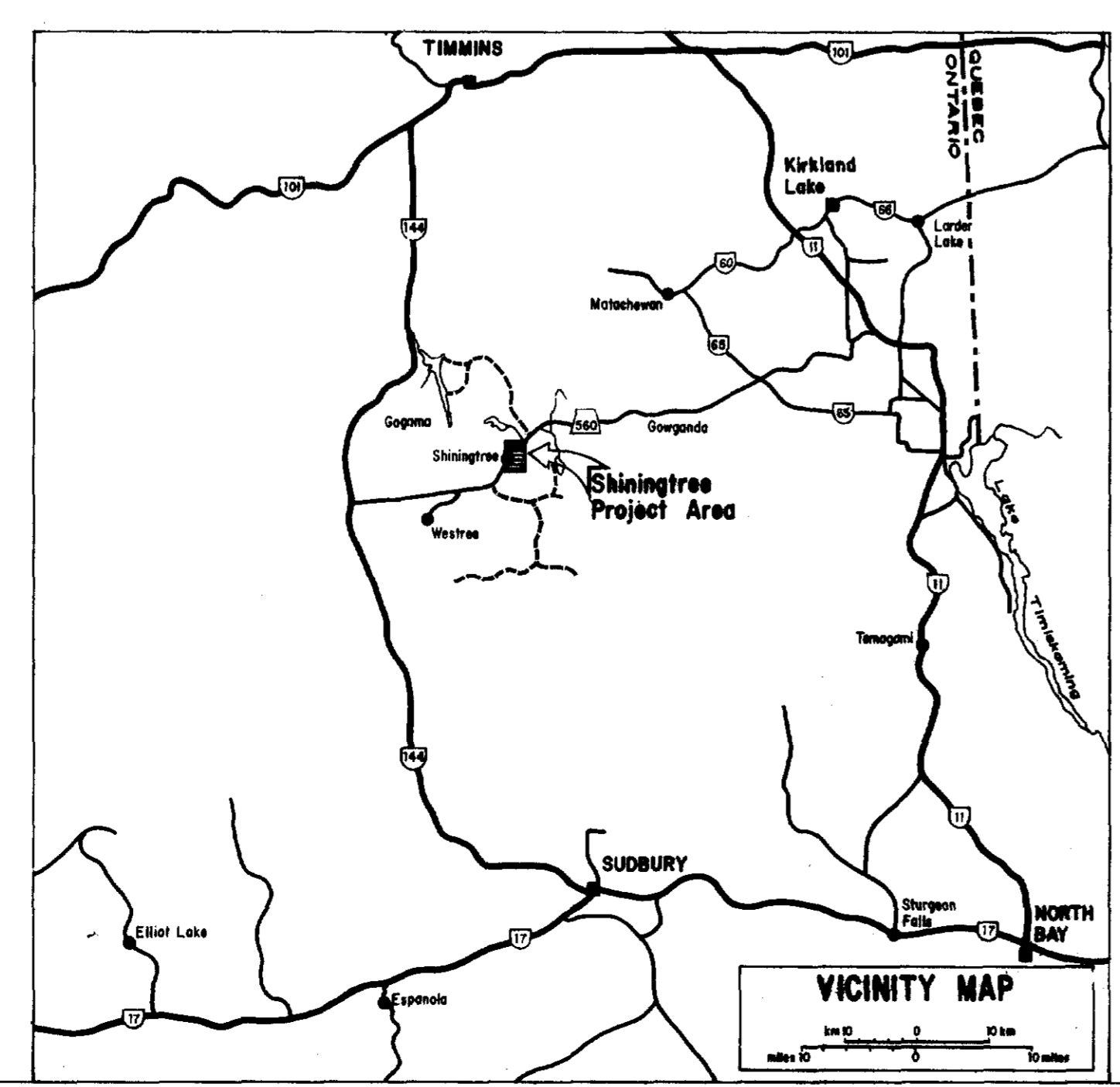
2ep - epidotized 2chl - chloritized 2ser - sericitized 2fc - talcose 2Mg - Mg rich basalt (possibly komatiitic) 2sil - silicified
 2fc - fuchsite bearing 2p - pillowed 2fbx - flow breccia 2s - schistose

2ser

1 Komatiites

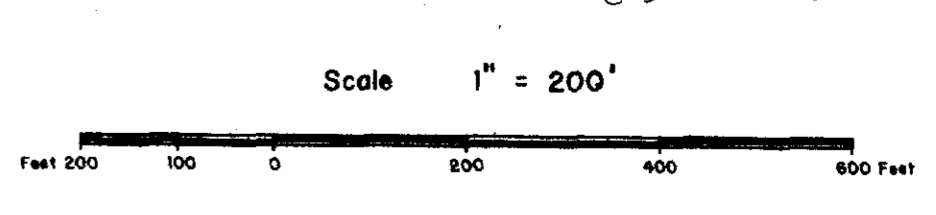
1spn - spinifex textured 1serp - serpentized 1p - polygonal jointing 1per - peridotitic komatiites 1cbr - carbonitized 1tc - talcose

- Qv — Quartz vein
- Extent of outcrop area
- Extent of sub-outcrop area
- Extent of swamp area
- Extent of glacial hummocks
- △ Boulder
- Frost heave
- ≡≡≡ Esker
- Trench, pit
- Fault
- ∧ Drag fold with plunge
- Geological contacts known, assumed
- Pillowed, top
- Quartz veining; vertical, dipping
- Foliation; vertical, dipping
- Flow contacts; vertical, dipping
- Diamond drill hole
- Claim post; known, inferred location
- 1286 1286 Au(oz/t), Ag(oz/t)
- py pyrite
- specm specular hematite
- gal galena
- gss gossan
- cpy chalcopyrite



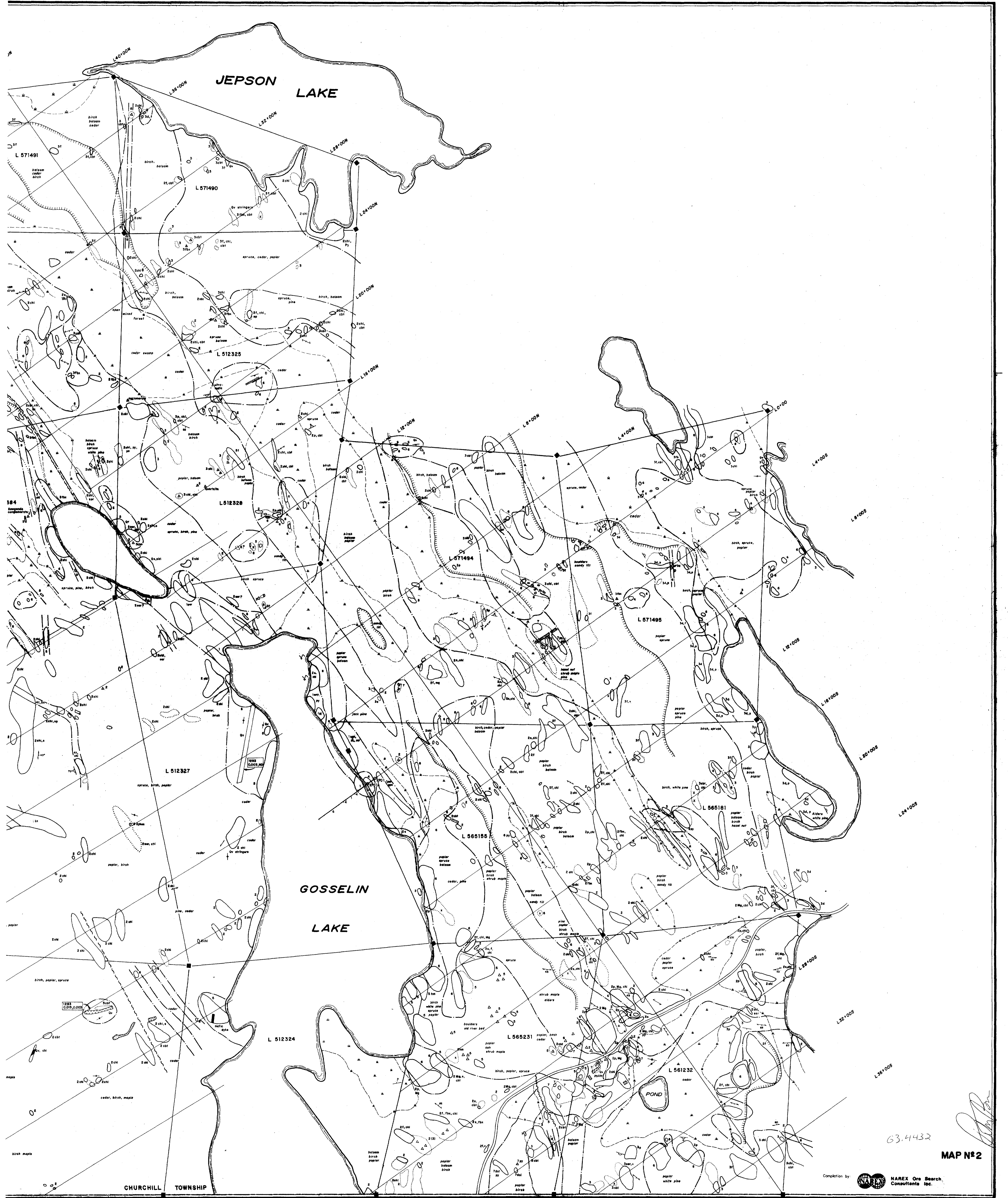
SHININGTREE PROPERTY
 Churchill Twp. & Asquith Twp., District of Sudbury, Ontario

**GEOLOGY
 COMPILATION MAP**
 63,4432



Completion by **MAREX Ore Search Consultants Inc.**

MAP #1



63.4432

MAP N°2

Completion by  NAREX Ore Search Consultants Inc.

CHURCHILL TOWNSHIP
ASQUITH TOWNSHIP