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NRX-84-44

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ONITAP RESOURCES INC.

GEOLOGICAL SURVEYS

Jonson Lake Property

Churchill Township

LARDER LAKE MINING DIVISION

District of Sudbury

Ontario

December 1984

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Accompanying map

Map 5 - Geology Survey
Scale - 1 inch: 200 feet

JONSON LAKE PROPERTY

Churchill Township
Larder Lake Mining Division
District of Sudbury, Ontario

A) INTRODUCTION

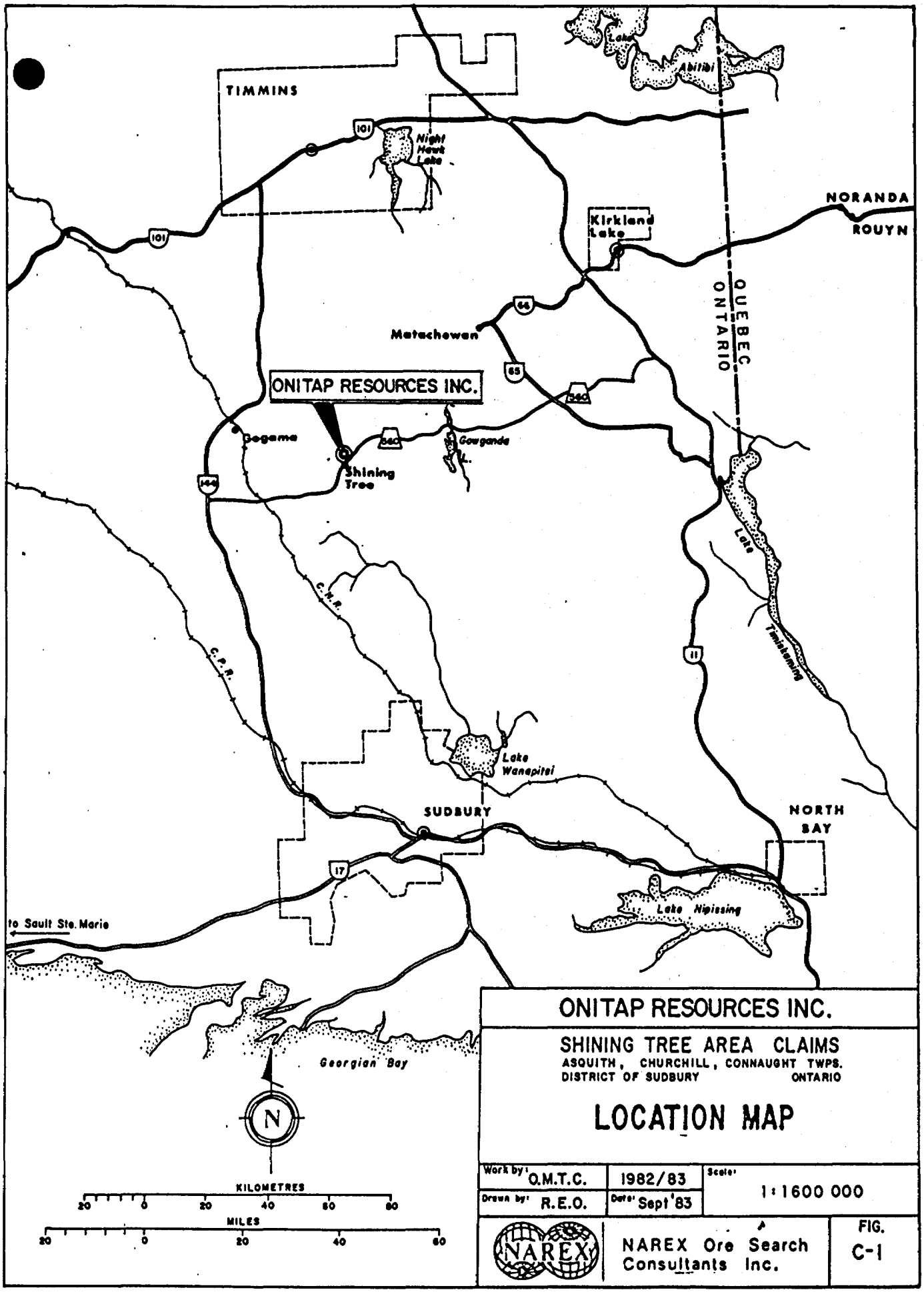
The Jonson Lake property consists of sixty-two (62) contiguous claims held by Onitap Resources Inc. in Churchill and Asquith Townships, Larder Lake Mining Division, District of Sudbury. This report covers only four (4) of these claims: L636595, 636596, 636597 and 636598.

During March 1984 a grid was cut over the property and subsequent VLF and magnetometer surveys were completed. During August 1984 geological and geochemical soil surveys were completed by Narex Ore Search Consultants Inc. The surveys were conducted over cut lines which were spaced at 400-foot intervals across the claims.

B) LOCATION AND ACCESS

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



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: 1:1600 000
Drawn by: R.E.O.	Date: Sept '83	

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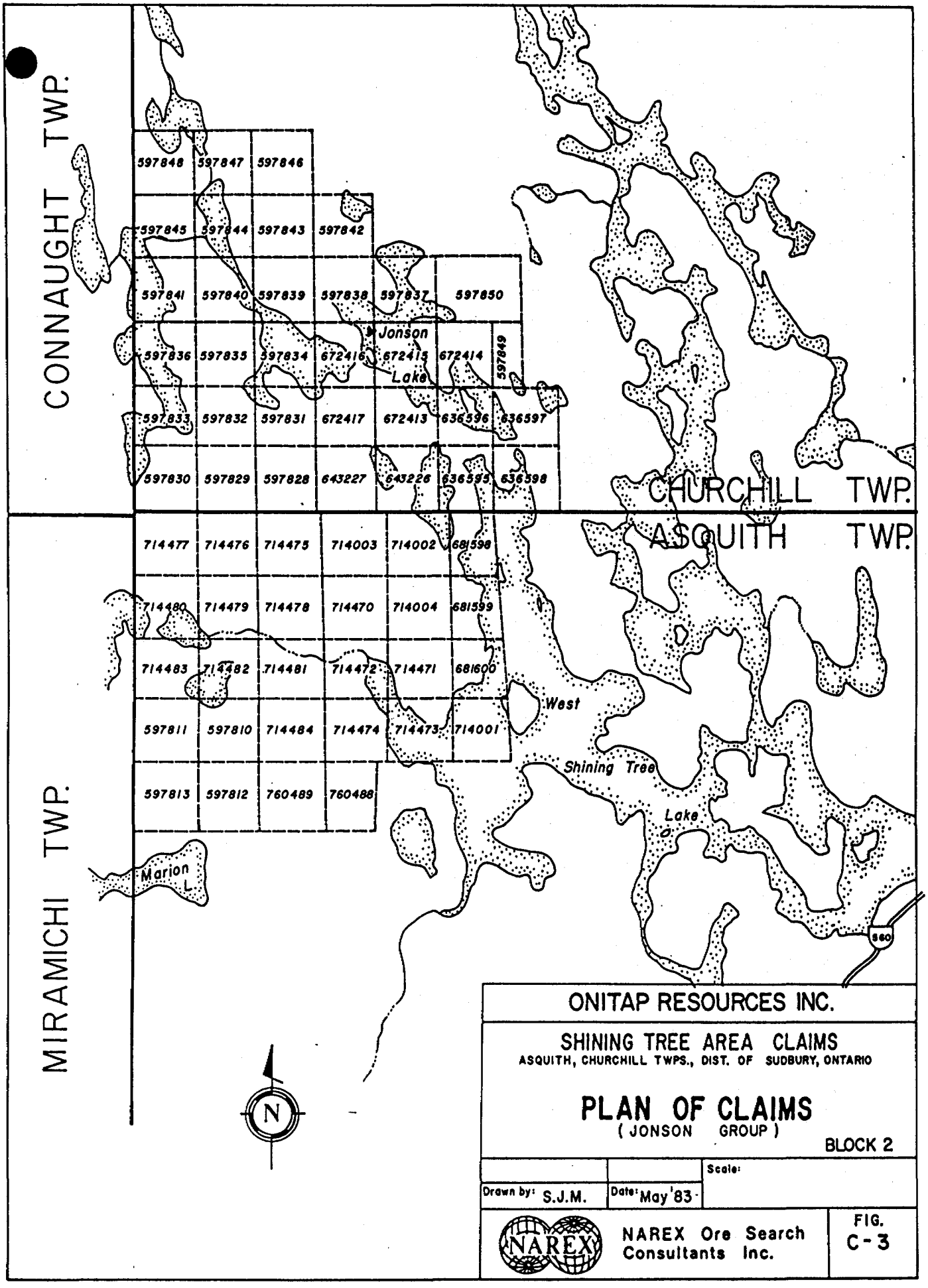
FIG. C-1



ONITAP RESOURCES INC.

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

PLAN OF CLAIMS
(JONSON GROUP)

BLOCK 2

		Scale:
Drawn by: S.J.M.	Date: May '83	

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FIG. C-3

Shining Tree is a community of some 50 residents, hosting a 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 northeast. The regional Ministry of Natural Resources offices and base are located at Gogama.

The claim group is located in the southwestern and northwestern corners of Churchill Township and Asquith Township respectively. The property is north of Highway 560 about three miles northwest of the village of Shining Tree, Ontario. Jonson Lake and parts of Oddur and West Shining Tree Lakes are major bodies of water encompassed by the claim block.

Access to the property is relatively easy via West Shining Tree Lake to the village of Shining Tree which is located on Highway 560. The distance is about 4 miles from the village via boat in the summer and by snowmobile in the winter.

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 the pond swamp, containing predominantly black spruce, balsam, some white pine and birch trees. There have been forest fires in the area some years ago as evidenced by the charcoal layers below the organic material near surface in several places.

Numerous lakes and creeks, such as Jonson, Oddur and part of Shining Tree lakes are located within the claim block.

D) PREVIOUS WORK AND HISTORY

The claim group in Asquith and Churchill Townships covers a gold showing on the south shore of Jonson Lake. The showing has been described as a quartz-carbonate-fuchsite, pyritiferous 30-foot wide shear zone adjacent to a lithic tuff and assaying 0.273 ounce gold per ton across a 15-

foot width chip sample. A sample taken by Narex in May 1984, across 4.5 feet in an old trench, assayed 0.40 ounce gold per ton. The showing was held by Pacesetter Mines Limited in 1974 and 1975. Pacesetter, on the strength of the assays and very limited trenching and prospecting, drilled 8 holes totalling 968 feet over a strike length of 500 feet. The locations of holes PA-1, PA-2, PA-3, PA-4, PA-5, PA-6, PA-7 and PA-8 are given on the geology map 5.

The drilling failed to trace out the shear zone, as only 4 holes intersected a weak shear zone with low values (0.045 ounce gold per ton over 30 feet). EM-16 and magnetometer surveys were run after the drilling. Three good conductors parallel to the shear zone were outlined but no further follow-up was reported. Prospecting by Narex Ore Search Consultants in the fall of 1982 and early spring of 1983 showed the presence of a sulphide iron formation parallelling the shear zone on the south and extensive quartz-carbonate alteration on strike of the shear zone. A grab sample from old trenches on the iron formation gave assay values of 0.01 ounce gold per ton, 0.03 ounce gold per ton and 0.18 percent zinc.

E) GENERAL GEOLOGY

Asquith Township is underlain by Early to Middle Precambrian rocks which are overlain by a thin veneer of Pleistocene and recent deposits.

The Early Precambrian rocks consist of felsic to mafic metavolcanic rocks, mafic to ultramafic intrusives, felsic intrusive rocks and diabase dykes. Mapping conducted by the author in the area has also shown that komatiitic sequences and various types of tuffaceous exhalite units do occur. Middle Precambrian rocks are represented by Nipissing diabase rocks.

F) GEOLOGY OF THE PROPERTY

The geology of the property mainly consists of east-west trending basalt flows intercalated with felsic pyroclastic and carbonate exhalite (iron formation) rocks throughout the map area. The entire sequence is cut by various gabbro and diabase-dolerite dykes and by a quartz-feldspar porphyry unit. (Map 5)

1) Basalts

The mafic metavolcanic rocks are characterized by medium to light brown coloured weathered surfaces and medium to dark green fresh surfaces. The basalts consist of massive to schistose fine-grained flows and pillowed sequences. Most of the basalts consist of chloritized fine-grained flows which are observed with pillows (1-foot size) which can be used for tops determinations. The flows are generally very carbonatized.

2) Exhalites

This exhalite unit consists mainly of carbonate exhalites (iron formation-carbonate facies), some chlorite schists and an alteration zone. This alteration zone consists of Fe-carbonate +/- sericite +/- silicified +/- epidote with pyrite-gossan present in many places. The rocks are generally a chocolate brown colour, gossaned and very weathered. This alteration zone is also a shear zone 30 to 100-foot wide with numerous quartz-carbonate veins (+/- gold mineralization). It also appears that some very carbonatized basalt flows may be intercalcited with carbonate exhalites +/- pyrite in the alteration zone - shear zone between L40E and L52E just along the south shore of Jonson Lake.

The carbonate exhalites which are along strike both to the west and east of the alteration zone are mainly made up of slightly laminated Fe carbonate exhalites with some fragmental material included or nearby. Typically they are fine-grained and exhibit a dun brown weathered surface with a light grey fresh surface. Minor traceable pyroclastic units are intercalated in the sequence as are chlorite schist, etc.

There are basically two main east-west trending bands of

exhalites. The main one cuts across the centre of the map area while the other cuts across the northeast corner (Map 5).

3) Quartz-feldspar porphyry

Typically, this rock type is massive and coarse-grained with 31% quartz eyes and feldspars. The weathered surface is white with a pinkish fresh surface. In the vicinity of the alteration zone-shear zone the QFP is often carbonatized with some quartz veining. The spatial and textural features tend to suggest that the quartz-feldspar porphyry is intrusive in nature and was altered by later shearing, etc. The porphyry is located near and interrelated with the main carbonate alteration zone and is somehow related to the gold mineralization.

4) Diabase dyke

Several northwest trending diabase dyke crosscut the metavolcanic rocks and range in approximate width from 20 to 100 feet (6 to 30 metres). The diabase weathers a red-brown colour and tends to form ridges parallel to the strike of the dyke. Texturally, the diabase is fine to medium-grained and exhibits sub-ophitic textures. The rocks consist of 30-50% sericitized-epidotized plagioclase and 50-70% chloritized pyroxene.

G) ECONOMIC GEOLOGY

The main area of interest is the alteration zone along the south shore of Jonson Lake between L40E and L52E (approximately 1,200 feet long). The area which has had some previous drilling and trenching is between L40E and L44E (Map 5).

The main trench is 15 feet west of the shore of Jonson Lake. The rocktypes are altered basalts with carbonate plus sericite alteration and gossan (pyrite plus arsenopyrite), and quartz porphyry. Numerous quartz stringers plus calcite occur in shear zone. The gossaned zone carried the highest gold values. Six chip samples were taken from the trench: 0.30 ounce, 0.26 ounce, 0.045 ounce and 0.005 ounce gold per ton; the best assays being a chip sample of 0.273 ounce gold per ton over 15 feet and 0.4 ounce gold per ton over 4.5 feet.

Diamond drilling under the trenches followed the mapping. Eight (8) holes totalling 968 feet over a strike length of 500 feet were drilled and failed to confirm good gold values found in trench. The most westerly four holes, PA-4, PA-3, PA-2, PA-1, intersected the shear plus carbonate zones but alteration was observed to be less intense and with considerably less sulphides than in the trenches. The

best assays from each hole starting with PA-4 to 1 were 0.02 ounce gold, over 1.5 feet; 0.01 ounce gold over 50 feet; 0.01 ounce gold over 1.5 feet; 0.045 ounce gold over 3.0 feet. The four easterly holes did not intersect the shear zone - offset by fault and/or diabase dyke. The values were only trace gold.

The alteration zone is bisected by the quartz feldspar porphyry and the portion of the zone east of this is essentially untested since no trenching or drilling appears to have been done in this area.

The nature of the gold mineralization may be a stratibound type related to shearing and alteration, not directly related to the numerous small quartz-carbonate veins within the alteration zone. The alteration zone in itself appears to be conformable to the straitgraphy and it dips 60° to north under Jonson Lake.

H) GEOPHYSICAL RESULTS

The main EM-16 conductor axis is traceable across the entire map area (3,000 feet) and coincides roughly with the southern shore of Jonson Lake. This is a fairly strong conductor with shoulder to shoulder crossover values of greater than 120 in several places.

The nature of the conductor in addition to its location suggests that it is due to surficial conductivity, such as lake bottom. However, since the conductor flanks the alteration zone and may represent the down-dip extension of the surface shear zone-alteration zone, it is an interesting geological drill target. This conductor has never been drilled and as such has potential for possible gold mineralization.

I) GEOCHEMICAL RESULTS

Gold values obtained from soil samples of the three claims ranged from less than 5 ppb to 88 ppb. Background gold content appears to be in the range of 5 ppb for both B_1 and A_1 horizons; comparing the two horizons in several localities indicates that the values of the B_1 horizon are approximately double that of the corresponding values in the A_1 horizon.

The geochemical survey outlined several small anomalies. Of the 141 samples, 25 had values of greater than 10 ppb gold; of these 3 were greater than 40 ppb gold with the highest being 88 ppb gold.

The main region of anomalous gold values that was outlined by the soil survey corresponds to the area immediately to

the south of the alteration zone at approximately 3+00N between L40E and L52E (claim 636596). This is also in close proximity to some quartz-feldspar porphyry rocks. Several other anomalous zones occur in claim 636597 just north of the carbonate exhalites on L56E near 20+00N and in claim 636598 underlain by carbonate exhalites on L72E at 3+00S. Thus all three anomalous areas are generally adjacent to the carbonate exhalites or within this unit.

J) CONCLUSIONS AND RECOMMENDATIONS

Several general observations can be made with respect to the distribution of gold in soil over the property. It seems that there are several small pockets of high gold values. In the area of greatest interest (claim L636596 and 672413) there are several trenches with gold values of 0.27 ounce gold per ton over 15 feet and 0.40 ounce gold per ton over 4.5 feet. The soil anomalies are just to the south of the alteration zone which hosts the gold mineralization. The area is underlain by carbonatized basalts and quartz-feldspar porphyry to the south of the alteration zone.

Several other small gold anomalies occur and are underlain with the carbonate exhalites (iron formation-carbonate facies). Diamond drilling consisting of 8 holes totalling

968 feet by Pacesetter Mines in 1974 failed to fully trace out the shear zone and only intersected low values of 0.045 ounce gold per ton over 30 feet. The drilling was done in the western part of the alteration-shear zone. The alteration zone (30-100 feet wide) consists of altered carbonate exhalites plus pyrite with sericite +/- silification +/- Fe carbonate +/- epidote. This is largely a gossaned shear/alteration zone with numerous quartz-carbonate veins. A quartz-feldspar porphyry bisects the alteration zone and is probably one of the main controls on the gold mineralization.

The alteration zone continues to the east of L44E to L52E and appears to widen and corresponds to a deeply weathered, gossaned sheared carbonate exhalite. This occurs mainly as sub-outcrop rubble, etc. This part of the alteration is essentially untested with no previous drill holes or trenching, assaying, etc.

A fairly strong EM-16 conductor also corresponds to the alteration zone and/or the contact with overlying pillow basalts. This conductor has never been drilled and as such may show some potential for possible gold mineralization. It is recommended that a diamond drill program be utilized in order to best evaluate the potential gold mineralization associated with the main alteration zone and surface gold showings.

Diamond drilling is recommended to test the eastern part of the alteration zone (between L44E and L52E) by proposed hole #1, location L52E at 6+80N, -45°, azimuth = 210° 200 feet. This hole would intersect both the VLF conductor on L52 and the alteration zone. Proposed hole #2 would be located on L48E at 5+00N, azimuth = 210°, -45°, 200 feet. This would test the alteration zone just to the east of the quartz-feldspar porphyry zone.

If these results are encouraging then a second tier of holes at -60° should be drilled beneath the initial holes. In addition the western part of the alteration zone (previously drilled by Pacesetter Mines) should probably be drilled to intersect the alteration zone at a greater depth with inclined holes at -60°. The initial phase of the drill program would consist of 400 to 500 feet of drilling, while the second phase would consist of five holes totalling an additional 2,000 feet.

PETER BORN, M.Sc.
Project Geologist

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All Authors

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ONITAP RESOURCES INC.

GEOCHEMICAL SURVEYS

Jonson Lake Property

Churchill Township

LARDER LAKE MINING DIVISION

District of Sudbury

Ontario

December 1984

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Accompanying map

Map #6 - Soil Geochemical Survey
Scale - 1 inch: 200 feet

JONSON LAKE PROPERTY

Churchill Township
Larder Lake Mining Division
District of Sudbury, Ontario

A) INTRODUCTION

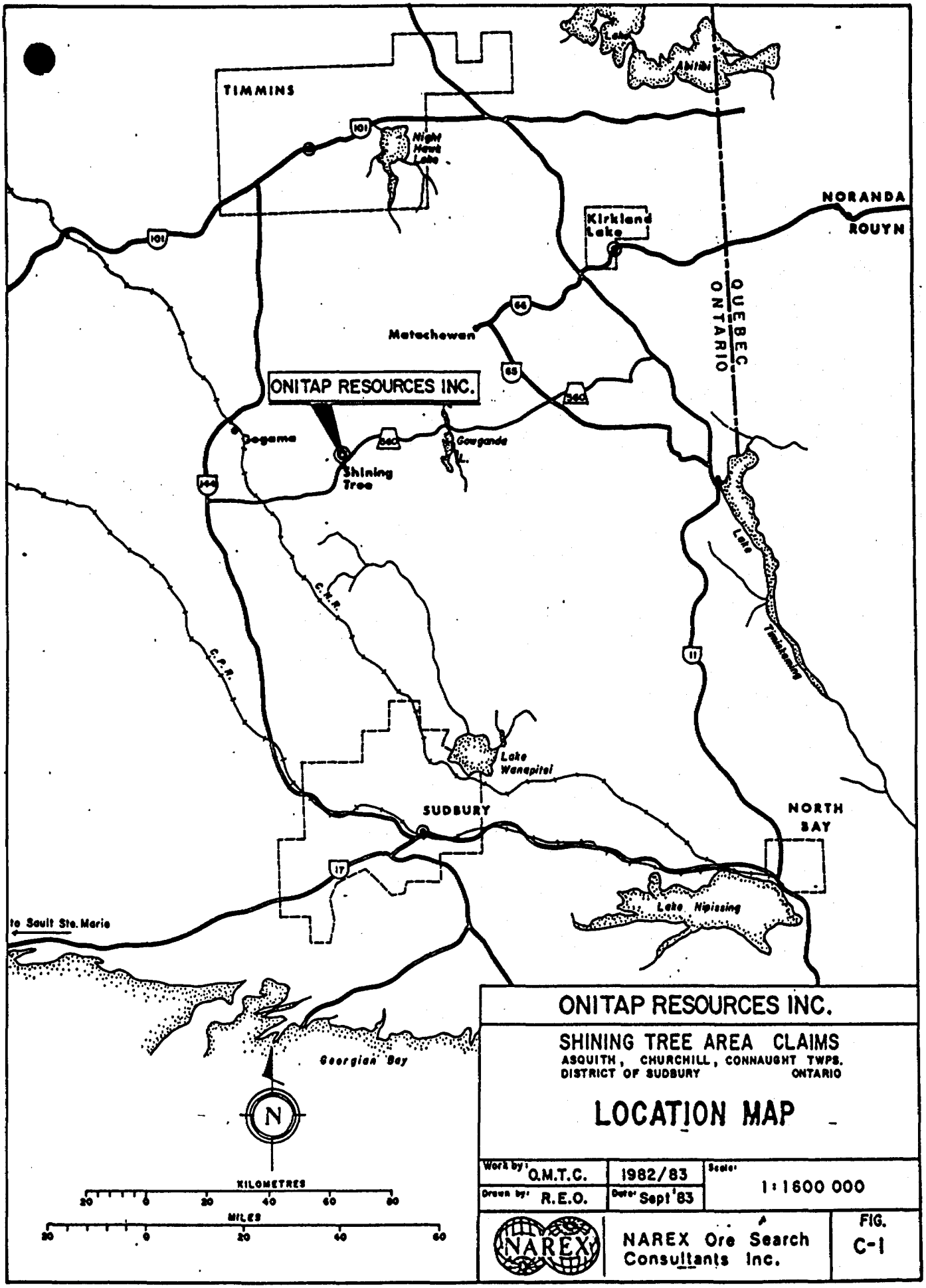
The Jonson Lake property consists of sixty-two (62) contiguous claims held by Onitap Resources Inc. in Churchill and Asquith Townships, Larder Lake Mining Division, District of Sudbury. This report covers only four (4) of these claims: L636595, 636596, 636597 and 636598.

During March 1984 a grid was cut over the property and subsequent VLF and magnetometer surveys were completed. During August 1984 geological and geochemical soil surveys were completed by Narex Ore Search Consultants Inc. The surveys were conducted over cut lines which were spaced at 400-foot intervals across the claims.

B) LOCATION AND ACCESS

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



ONITAP RESOURCES INC.

SHINING TREE AREA CLAIMS

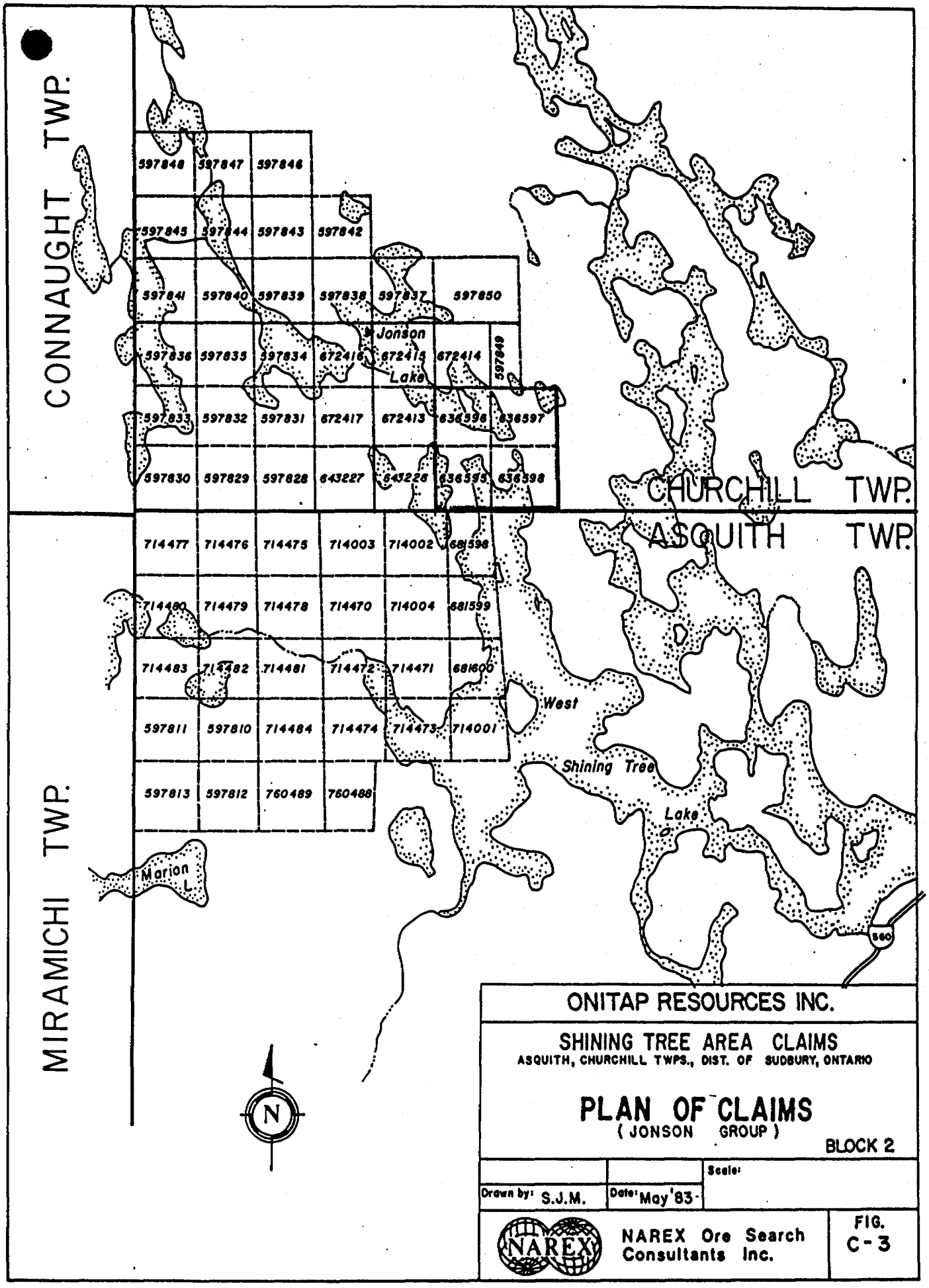
ASQUITH, CHURCHILL, CONNAUGHT TWPS.
DISTRICT OF SUDBURY ONTARIO

LOCATION MAP

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

NAREX Ore Search Consultants Inc.

FIG. C-1



ONITAP RESOURCES INC.

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

PLAN OF CLAIMS
(JONSON GROUP)
BLOCK 2

Drawn by: S.J.M.	Date: May '83	Scale:

NAREX Ore Search Consultants Inc.

FIG. C-3

Shining Tree is a community of some 50 residents, hosting a 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 northeast. The regional Ministry of Natural Resources offices and base are located at Gogama.

The claim group is located in the southwestern and northwestern corners of Churchill Township and Asquith Township respectively. The property is north of Highway 560 about three miles northwest of the village of Shining Tree, Ontario. Jonson Lake and parts of Oddur and West Shining Tree Lakes are major bodies of water encompassed by the claim block.

Access to the property is relatively easy via West Shining Tree Lake to the village of Shining Tree which is located on Highway 560. The distance is about 4 miles from the village via boat in the summer and by snowmobile in the winter.

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 the pond swamp, containing predominantly black spruce, balsam, some white pine and birch trees. There have been forest fires in the area some years ago as evidenced by the charcoal layers below the organic material near surface in several places.

Numerous lakes and creeks, such as Jonson, Oddur and part of Shining Tree lakes are located within the claim block.

D) PREVIOUS WORK AND HISTORY

The claim group in Asquith and Churchill Townships covers a gold showing on the south shore of Jonson Lake. The showing has been described as a quartz-carbonate-fuchsite, pyritiferous 30-foot wide shear zone adjacent to a-lithic tuff and assaying 0.273 ounce gold per ton across a 15-

foot width chip sample. A sample taken by Narex in May 1984, across 4.5 feet in an old trench, assayed 0.40 ounce gold per ton. The showing was held by Pacesetter Mines Limited in 1974 and 1975. Pacesetter, on the strength of the assays and very limited trenching and prospecting, drilled 8 holes totalling 968 feet over a strike length of 500 feet. The locations of holes PA-1, PA-2, PA-3, PA-4, PA-5, PA-6, PA-7 and PA-8 are given on the geology map 5.

The drilling failed to trace out the shear zone, as only 4 holes intersected a weak shear zone with low values (0.045 ounce gold per ton over 30 feet). EM-16 and magnetometer surveys were run after the drilling. Three good conductors parallel to the shear zone were outlined but no further follow-up was reported. Prospecting by Narex Ore Search Consultants in the fall of 1982 and early spring of 1983 showed the presence of a sulphide iron formation parallelling the shear zone on the south and extensive quartz-carbonate alteration on strike of the shear zone. A grab sample from old trenches on the iron formation gave assay values of 0.01 ounce gold per ton, 0.03 ounce gold per ton and 0.18 percent zinc.

E) GENERAL GEOLOGY

Asquith Township is underlain by Early to Middle Precambrian rocks which are overlain by a thin veneer of Pleistocene and recent deposits.

The Early Precambrian rocks consist of felsic to mafic metavolcanic rocks, mafic to ultramafic intrusives, felsic intrusive rocks and diabase dykes. Mapping conducted by the author in the area has also shown that komatiitic sequences and various types of tuffaceous exhalite units do occur. Middle Precambrian rocks are representented by Nipissing diabase rocks.

F) GEOLOGY OF THE PROPERTY

The geology of the property mainly consists of east-west trending basalt flows intercalated with felsic pyroclastic and cagbonate exhalite (iron formation) rocks throughout the map area. The entire sequence is cut by various gabbro and diabase-dolerite dykes and by a quartz-feldspar porphyry unit.

G) ECONOMIC GEOLOGY

The main area of interest is the alteration zone along the south shore of Jonson Lake between L40E and L52E (approximately 1,200 feet long). The area which has had some previous drilling and trenching is between L40E and L44E

The main trench is 15 feet west of the shore of Jonson Lake. The rocktypes are altered basalts with carbonate plus sericite alteration and gossan (pyrite plus arsenopyrite), and quartz porphyry. Numerous quartz stringers plus calcite occur in shear zone. The gossaned zone carried the highest gold values. Six chip samples were taken from the trench: 0.30 ounce, 0.26 ounce, 0.045 ounce and 0.005 ounce gold per ton; the best assays being a chip sample of 0.273 ounce gold per ton over 15 feet and 0.4 ounce gold per ton over 4.5 feet.

Diamond drilling under the trenches followed the mapping. Eight (8) holes totalling 968 feet over a strike length of 500 feet were drilled and failed to confirm good gold values found in trench. The most westerly four holes, PA-4, PA-3, PA-2, PA-1, intersected the shear plus carbonate zones but alteration was observed to be less intense and with considerably less sulphides than in the trenches. The best assays from each hole starting with PA-4 to 1 were 0.02 ounce gold, over 1.5 feet; 0.01 ounce gold over 50 feet; 0.01 ounce gold over 1.5 feet; 0.045 ounce gold over 3.0 feet. The four easterly holes did not intersect the shear zone - offset by fault and/or diabase dyke. The values were only trace gold.

The alteration zone is bisected by the quartz feldspar porphyry and the portion of the zone east of this is essentially untested since no trenching or drilling appears to have been done in this area.

The nature of the gold mineralization may be a stratibound type related to shearing and alteration, not directly related to the numerous small quartz-carbonate veins within the alteration zone. The alteration zone in itself appears to be conformable to the straitgraphy and it dips 60° to north under Jonson Lake.

H) 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 A_1- horizon (humus) underlies the A_o layer and is characterized by a dark 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 A_1, is not directly underlain by bedrock, it grades into a light coloured A_2- horizon of fine silty material and sand. This represents the leached soil zone and is generally widespread and 2 - 4 inches thick.

The A_2 horizon is underlainly the B_1 horizon and is well developed throughout the proeprty area except in swampy areas where it may lie below a thick A - horizon. The progression shows a B_1-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" to about 4" 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 B_1-horizon grades into the B_2-horizon which has a lighter brown colour. The B_2-horizon is generally more sandy than the B -horizon. In areas of impeded sub-surface drainage, both the B_1- and B_2-horizons are poorly developed and tend to have mottled colours. The thickness of the B_2-horizon ranges from about 2" to over 10".

The C-horizon underlies the B_2-horizon. It consists mainly of glacial till which has been only slightly affected by soil forming processes. The horizon has a very light brown to earthy colour and its main constituents are uncolidated 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.

I) PRESENT SURVEY

The survey completed by NAREX Ore Search Consultants was carried out in June, 1984. The survey entailed sampling of the B_1-horizon where it was present and elsewhere the A_1-horizon. The B horizon is well developed throughout most of the property except in to very low swampy areas where A_1 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 #6. Samples were collected at 100-foot intervals along the grid and base lines. The lines are generally oriented north-south and are spaced at 400-foot intervals across the property.

A total of 141 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 in Appendix A and are also presented on contour maps #6 accompanying this report. The survey and analytical methods are described in Appendix B for the sampling program.

J) DISCUSSION OF RESULTS

Gold values obtained from soil samples of the three claims ranged from less than 5 ppb to 88 ppb. Background gold content appears to be in the range of 5 ppb for both B_1 and A_1 horizons; comparing the two horizons in several localities indicates that the values of the B_1 horizon are approximately double that of the corresponding values in the A_1 horizon.

The geochemical survey outlined several small anomalies. Of the 141 samples, 25 had values of greater than 10 ppb gold; of these 3 were greater than 40 ppb gold with the highest being 88 ppb gold.

The main region of anomalous gold values that was outlined by the soil survey corresponds to the area immediately to the south of the alteration zone at approximately 3+00N between L40E and L52E (claim 636596). This is also in close proximity to some quartz-feldspar porphyry rocks. Several other anomalous zones occur in claim 636597 just north of the carbonate exhalites on L56E near 20+00N and in claim 636598 underlain by carbonate exhalites on L72E at 3+00S. Thus all three anomalous areas are generally adjacent to the carbonate exhalites or within this unit.

K) CONCLUSIONS AND RECOMMENDATIONS

Several general observations can be made with respect to the distribution of gold in soil over the property. It seems that there are several small pockets of high gold values. In the area of greatest interest (claim L636596 and 672413) there are several trenches with gold values of 0.27 ounce gold per ton over 15 feet and 0.40 ounce gold per ton over 4.5 feet. The soil anomalies are just to the south of the alteration zone which hosts the gold mineralization. The area is underlain by carbonatized basalts and quartz-feldspar porphyry to the south of the alteration zone.

Several other small gold anomalies occur and are underlain with the carbonate exhalites (iron formation-carbonate facies). Diamond drilling consisting of 8 holes totalling

968 feet by Pacesetter Mines in 1974 failed to fully trace out the shear zone and only intersected low values of 0.045 ounce gold per ton over 30 feet. The drilling was done in the western part of the alteration-shear zone. The alteration zone (30-100 feet wide) consists of altered carbonate exhalites plus pyrite with sericite +/- silification +/- Fe carbonate +/- epidote. This is largely a gossaned shear/alteration zone with numerous quartz-carbonate veins. A quartz-feldspar porphyry bisects the alteratibn zone and is probably one of the main controls on the gold mineralization.

The alteration zone continues to the east of L44E to L52E and appears to widen and corresponds to a deeply weathered, gossaned sheared carbonate exhalite. This occurs mainly as sub-outcrop rubble, etc. This part of the alteration is essentially untested with no previous drill holes or trenching, assaying, etc.

A fairly strong EM-16 conductor also corresponds to the alteration zone and/or the contact with overlying pillow basalts. This conductor has never been drilled and as such may show some potential for possible gold mineralization. It is recommended that a diamond drill program be utilized in order to best evaluate the potential gold mineralization associated with the main alteration zone and surface gold showings.

Diamond drilling is recommended to test the eastern part of the alteration zone (between L44E and L52E) by proposed hole #1, location L52E at 6+80N, -45°, azimuth = 210° 200 feet. This hole would intersect both the VLF conductor on L52 and the alteration zone. Proposed hole #2 would be located on L48E at 5+00N, azimuth = 210°, -45°, 200 feet. This would test the alteration zone just to the east of the quartz-feldspar porphyry zone.

If these results are encouraging then a second tier of holes at -60° should be drilled beneath the initial holes. In addition the western part of the alteration zone (previously drilled by Pacesetter Mines) should probably be drilled to intersect the alteration zone at a greater depth with inclined holes at -60°. The initial phase of the drill program would consist of 400 to 500 feet of drilling, while the second phase would consist of five holes totalling an additional 2,000 feet.

PETER BORN, M.Sc.
Project Geologist

REFERENCES

Carter, M. W.

1980: Geology of Connaught and Churchill Townships, District of Sudbury; Ontario Geological Survey Report 190, 81 p. 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 Geology 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.

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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.

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

AUG 3 1 1984

Certificate of Analysis

Certificate No. NX-12/07/ #3363 Date: August 27, 1984

Received August 20/84 394 Samples of Soils

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

(142)

Sample No.	Au ppb	Sample No.	Au ppb	Sample No	Au ppb
ST L4W 16S B	<5	ST L4W 10N B	<5	ST L8W 19S B	<5
17S A	<5	ST L4W 11N B	52	20S A	17
18S A	<5	ST L8W 1S A	<5	21S B	<5
19S A	<5	2S A	<5	22S	No Sample
20S B	<5	3S B	37	23S B	<5
21S B	48	4S A	19	24S A	<5
22S A	19	5S A	<5	25S A	<5
23S A	22	6S B	7	26S A	<5
24S A	18	7S B	27	ST L8W 27S	No Sample
25S	No Sample	8S B	<5	ST L8W 1N A	<5
26S	No Sample	9S B	<5	2N	No Sample
ST L4W 27S	No Sample	10S B	17	4N A	<5
ST L4W 1N B	<5	11S B	<5	5N B	25
2N B	<5	12S B	20	6N A	<5
3N B	19	13S B	14	7N B	13
5N B	<5	14S B	<5	ST L8W 8N B	<5
6N B	<5	15S A	12	JO L40E BLO B	<5
7N B	<5	16S A	<5	1N A	18
8N B	14	17S A	<5	2N A	21
ST L4W 9N B	10	ST L8W 18S A	<5	JO L40E 3N A	16

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AUG 31 1984

Certificate of Analysis

Certificate No. NX-12/10/ #3363 Date: August 27, 1984

Received Aug 20/84 394 Samples of Soils

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

Sample No.	Au ppb	Sample No.	Au ppb	Sample No.	Au ppb
JO L40E 4N A	18	JO L44E 14N	L:No Sample	JO L48E 6N	L:No Sample
9N B	<5	15N	L:No Sample	7N	L:No Sample
10N B	<5	JO L44E 16N	L:No Sample	8N	L:" "
11N B	7	JO L45E BLO B	<5	9N	L:" "
12N B	27	JO L46E BLO B	<5	10N	L:" "
13N B	<5	JO L47E BLO B	13	11N	L:" "
JO L40E 14N B	<5	JO L48E BLO B	24	12N	L:" "
JO L44E 0 A	<5	JO L48E 1S B	12	13N	L:" "
1N B	<5	2S B	<5	14N	L:" "
2N B	20	3S B	<5	15N	L:" "
3N B	6	4S	L:No Sample	16N	L:" "
4N B	<5	5S	L:No Sample	17N	L:" "
6N	L:No Sample	6S	L:No Sample	18N	L:" "
7N	L:No Sample	7S	L:No Sample	JO L48E 19N	L:" "
8N	L:No Sample	8S	L:No Sample	JO L49E BLO B	6
9N	L:No Sample	1N B	<5	JO L50E BLO B	<5
10N	L:No Sample	2N B	<5	JO L51E BLO B	<5
11N	L:No Sample	3N A	55	JO L52E 0 B	5
12N	L:No Sample	JO L48E 4N B*	<5	1S A	<5
JO L44E 13N	L:No Sample	JO L48E 4+50N*	<5	JO L52E 2S B	<5

* Crushed sample, rock-included

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AUG [illegible]

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Certificate of Analysis

Certificate No. NX-12/13/ #3363 Date: August 27, 1984

Received Aug 20/84 394 Samples of Soils

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

Sample No.	Au ppb	Sample No.	Au ppb	Sample No.	Au ppb
JO L52E 3S B	<5	JO L52E 10N	L:No Sample	JO L56E 9S B	<5
4S B	<5	11N	L: " "	10S B	<5
5S B	<5	12N	L: " "	11S B	5
6S B	10	13N	L: " "	12S B	<5
8S	L:No Sample	14N	L: " "	1N B	10
9S	L: " "	15N B	<5	2N A	15
10S	L: " "	16N B	<5	3N B	<5
11S	L: " "	17N B	20	4N A	<5
12S	L: " "	18N B	<5	5N B	<5
13S	L: " "	JO L52E 19N B	<5	6N B	<5
JO L52E14S B	" "	JO L53E BLO B	<5	7N A	<5
**JO L52E 2N B	<5	JO L56E 1S	L:No Sample	8N	L: No Sample
3N B	20	2S	L: " "	9N	L: " "
4N B	27	3S	L: " "	10N	L: " "
5N B	17	4S	L:No Sample	11N A	<5
5+85N A	<5	5S B	<5	12N B	<5
6N	L:No Sample	6SA B	<5	13N B	<5
7N	L: " "	6S B	17	14N B	<5
8N	L: " "	7S B	<5	15N B	<5
JO L52 E9N	L: " "	JO L56E 8S B	<5	JO L56E 16N B	<5
**JO L52E 1N	<5				

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AUG 31 1984

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Certificate of Analysis

Certificate No. NX-12/16/ #3363 Date: August 27, 1984

Received Aug 20/84 394 Samples of Soils

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

Sample No.	Au ppb	Sample No.	Au ppb	Sample No.	Au ppb
JO L56E 17N	L:No Sample	JO L60E 1N B	<5	JO L60E 21N B	<5
18N	L:No Sample	2N B	<5	JO L60E 22N A	<5
19N A	<5	3N B	<5	JO L64E 0 B	<5
20N B	68	4N B	5	1S B	<5
20N B	<5	5N B	<5	2S B	<5
21N A	<5	5+50N A	<5	3S B	6
21N B	17	7N	No Sample	4S B	No Sample L
22N A	<5	8N	L:No Sample	5S B	No Sample L
22N B	<5	9N	10	6S B	No Sample L
23N B	<5	10N B	<5	1N B	10
JO L56E 23N B	No Sample	11N B	<5	2N B	<5
JO L60E 0 B	<5	12N B	<5	3N B	<5
1S B	<5	13N A	<5	4N B	<5
2S	L:No Sample	14N B	<5	5N B	<5
3S	L:" "	15N B	17	6N A	5
4S	L:" "	16N B	<5	7N B	6
5S	L:" "	17N B	<5	8N B	<5
		18N B	<5	9N B	20
7S B	<5	19N	No Sample	10N B	<5
8S B	<5	JO L60E 20N	No Sample	JO L64E 11N B	<5
JO L60E 9S B	<5				

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AUG

V.

Certificate of Analysis

Certificate No. NX-12/19/ #3363 Date: August 27, 1984

Received Aug 20/84 394 Samples of Soils

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

Sample No.	Au ppb	Sample No.	Au ppb
JO L64E 12N A	<5	JO L68E 8N B	<5
13N B	5	9N A	<5
14N	No Sample	10N B	12
15N	No Sample	JO L68E11N B	<5
16N	" "	JO L72E 0 B	5
17N	L:" "	1S B	<5
JO L64E 18N	L:" "	2S B	13
JO L68E BLO	L:" "	3S A	88
1S	L:" "	1N B	<5
2S	L:" "	2N B	25
3S	L:" "	3N B	18
4S	L:" "	4N B	<5
5S	L:" "	5N B	<5
1N B	<5	JO L72E 6N B	<5
2N B	<5		
3N B	<5		
4N B	<5		
5N B	<5		
6N B	<5		
JO L68E 7N B	<5		

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3363

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SOLD TO

Narex Ore Search Consultants Inc.,
Attention: Mr. Peter Born,
208, 4900 Sheppard Ave. East,
SCARBOROUGH, Ontario
M1S 4A7

SHIP TO

DATE	SHIPPED VIA	FED. LICENCE NO.	PROV. LICENCE NO.	YOUR ORDER NO.	OUR ORDER NO.	TERMS	SALES REP.
Aug 27/84						Net 30	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	394 Soils Received		
	109 No Sample		
285	Assays Au	$ 8.50	$ 2,422.50
285	Sample Handling	1.30	370.50
	Cert. No. NX-12 August 27, 1984		
			$ 2,793.00

141 samples for Jonson Lake property

141 @ 9.80 = $1382.00 ÷ 15 = 92 days expenditure credit

VI.

APPENDIX B

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 A_1 horizon and consisted of black inhomogeneous mixture of completely decomposed plant debris. In total 141 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 A_1 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 $HClO_4$ 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 matric 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 standsrs 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.

Land

Ministry of Natural Resources

Ontario

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900

Please type or print. #521
If number of mining claims traversed exceeds space on this form, attach a list. Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns. Do not use shaded areas below.

Cycle L 636

Type of Survey(s): Geological and Geochemical

Township or Area: Churchill Twp.

Claim Holder(s): Onitap Resources Inc.

Prospector's Licence No.: T1532

Address: Suite 208-4900 Sheppard Ave. E. Scarborough Ontario M1S 4A7

Survey Company: NAREX ORE SEARCH CONSULTANTS INC.

Date of Survey (from & to): 25 07 84 (Day Mo. Yr.) 19 08 84 (Day Mo. Yr.)

Total Miles of line Cut: 4.0

Name and Address of Author (of Geo-Technical report): Peter Born, 165 Frederick St. Bradford, Ontario L3Z 1K1

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	20
	Geochemical	20
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	636595	30
	636596	30
	636597	16
	636598	16

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
DEC 13 1984
MINING LANDS SECTION

LARDER LAKE MINING DIV
RECEIVED
NOV 2 1984
AM 7 8 9 10 11 12 1 2 3 4 5 PM

Expenditures (excludes power stripping)

Type of Work Performed: Assaying-geochem.soil sample

Performed on Claim(s): 636595, 636596,636597, 636598

Calculation of Expenditure Days Credits

Total Expenditures: $ 1382 ÷ 15 = Total Days Credits: 92

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work.: 4

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
252	NOV 20 1984	
	Date Approved as Recorded: See Revised Statement	Branch Director

Date: Nov.19/84

Recorded Holder or Agent (Signature):

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: Peter Born, 165 Frederick St. Bradford Ont. L3Z 1K1

Date Certified: Nov.19/84

Certified by (Signature):

1362 (81/9)

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geological

Township or Area Churchill Twp.

Claim Holder(s) Onitap Resources Inc.
Suite208-4900 Sheppard Ave.E.Scarb.

Survey Company NAREX ORE SEARCH CONSULTANTS INC.

Author of Report Peter Born

Address of Author 165 Frederick St. Bradford, Ontario

Covering Dates of Survey Aug. 13 - Dec. 3, 1984
(linecutting to office)

Total Miles of Line Cut _____

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	
–Magnetometer	
–Radiometric	
–Other	
Geological	20
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Dec. 3, 1984 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L	636595
	636596
	636597
	636598

If space insufficient, attach list

TOTAL CLAIMS 4

OFFICE USE ONLY

837 (6/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken_____

_____

_____

Total Number of Samples_____

Type of Sample_____
(Nature of Material)

Average Sample Weight_____

Method of Collection_____

_____

Soil Horizon Sampled_____

Horizon Development_____

Sample Depth_____

Terrain_____

_____

Drainage Development_____

Estimated Range of Overburden Thickness_____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis_____

_____

_____

_____

General_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others_____

Field Analysis (_____tests)

Extraction Method_____

Analytical Method_____

Reagents Used_____

Field Laboratory Analysis

No. (_____tests)

Extraction Method_____

Analytical Method_____

Reagents Used_____

Commercial Laboratory (_____tests)

Name of Laboratory_____

Extraction Method_____

Analytical Method_____

Reagents Used_____

General_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geochemical

Township or Area Churchill Twp.

Claim Holder(s) Onitap Resources Inc.
208-4900 Sheppard Ave.E.Scarborough

Survey Company NAREX ORE SEARCH CONSULTANTS INC.

Author of Report Peter Born

Address of Author 165 Frederick St.Bradford,Ontario

Covering Dates of Survey Aug. 13 - Dec. 3, 1984
(linecutting to office)

Total Miles of Line Cut _____

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	
–Magnetometer	
–Radiometric	
–Other	
Geological	
Geochemical	20

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Dec.3, 1984 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L	636595
	636596
	636597
	636598

TOTAL CLAIMS 4

If space insufficient, attach list

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken L 636595, 636596, 636597, 636598,

Total Number of Samples 141

Type of Sample B horizon
(Nature of Material)

Average Sample Weight 200 grams

Method of Collection

Soil Horizon Sampled B

Horizon Development good

Sample Depth 4"

Terrain undulating - outcrop areas

Drainage Development

Estimated Range of Overburden Thickness 1-6 feet

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis -60 mesh

General See appendix B

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☒

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others Au,

Field Analysis (_____ tests)
Extraction Method
Analytical Method
Reagents Used

Field Laboratory Analysis
No. (_____ tests)
Extraction Method
Analytical Method
Reagents Used

Commercial Laboratory (AA tests)
Name of Laboratory Assayers Ontario Ltd.
Extraction Method See Appendix B
Analytical Method In report
Reagents Used

General

NAREX Ore Search Consultants Inc.

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

BY COURIER

December 3, 1984

Re: 215

Ministry of Natural Resources
Land Management Branch
Room 6643
Whitney Block
Toronto Ontario
M7A 1W3

Dear Sir,

Please find enclosed the following items:

1) Maps and Report in duplicate of Geochemical Surveys claims L 636595 et al, Churchill Twp.

2) Maps and Report in duplicate of Geological survey, Churchill Twp. claims L 636595 et al, for Onitap Resources Inc.

Yours truly,

Peter Born
Project Geologist

PB/cb
Encl.

2.7507

NAREX Ore Search Consultants Inc.

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

BY COURIER

January 7, 1985

Re:85/02

Ministry of Natural Resources
Land Management Branch
Room 6643
Whitney Block
Toronto Ontario
M7A 1W3

Dear Sir,

Please find enclosed the following items:

1) A signed receipt for $1,392. in duplicate for assaying for Geochemical Surveys claims L 636602 et al, Asquith Twp. for Onitap Resources Inc. file no: 2.7569.

2) A signed receipt in duplicate for assaying for Geochemical survey, Churchill Twp. claim L-636595 et al, for Onitap Resources Inc. file no: 2.7507.

Yours truly,

Peter Born
Project geologist

PB/cb
Encl.

ANALYTICAL CHEMISTS · ASSAYING · CONSULTING · ORE DRESSING · REPRESENTATION

3363

ASSAYERS (ONTARIO) LIMITED

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

SOLD TO: Narex Ore Search Consultants Inc.,
Attention: Mr. Peter Born,
208, 4900 Sheppard Ave. East,
SCARBOROUGH, Ontario
M1S 4A7

SHIP TO: SAME

DATE	SHIPPED VIA	FED. LICENCE NO.	PROV. LICENCE NO.	YOUR ORDER NO.	OUR ORDER NO.	TERMS	SALES REP.
Aug 27/84						Net 30	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	394 Soils Received		
	109 No Sample		
285	Assays Au	$ 8.50	$ 2,422.50
285	Sample Handling	1.30	370.50
	Cert. No. NX-12 August 27, 1984		
			$ 2,793.00
	21-14-109		
	yearly total accumulative volume	Discount 10 %	279.30
		TOTAL	$ 2,513.70

PAID

MOORE BUSINESS FORMS - 3 - MOORESLEANPRINT PATENTED 1963-1966 7060E

INVOICE

The amount of $1382 is the portion of the above total for this geochemical report file no. 2.7507

December 21, 1984 File: 2.7507

Onitap Resources Inc
Suite 208
4900 Sheppard Avenue East
Scarborough, Ontario
M1S 4A7

Attention: Peter Born

Dear Sir:

RE: Geological & Geochemical Survey add Data for Assaying submitted on Mining Claims L 636595 to 98 inclusive in the Township of Churchill

---

In order to complete your submission, please provide cancelled cheques or receipts for $1382.00 as proof of expenditures.

When forwarding this material, please quote file 2.7507.

For further information, please contact Dennis Kinvig at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

D. Kinvig:mc

cc: Mining Recorder
Kirkland Lake, Ontario
File:#521

Narex Ore Search Consultants Inc
4900 Sheppard Avenue East
Suite 208
Scarborough, Ontario
M1S 4A7
Attn: Peter Born

1984 12 13

Your File:
Our File: 2.7507

Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We received reports and mapeson December 4, 1984 for a Geological & Geochemical Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 636595 et al in the Township of Churchill.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-6918

A. Barr:sc

cc: Onitap Resources
Suite 207
4900 Sheppard Ave E.
Scarborough, Ontario
M1S 4A7

cc: Peter Born
c/o Narex Ore Search
Consultants Inc
4900 Sheppard AVe E
Suite 208
Scarborough, Ontario
,M1S 4A7

Ministry of Natural Resources
Ontario

Technical Assessment Work Credits

File 2.7507

Date 1985 01 21

Mining Recorder's Report of Work No. 521

Recorded Holder
ONITAP RESOURCES INC

Township or Area
CHURCHILL TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ days Man days ☐ Airborne ☐ Special provision ☐ Ground ☐ ☐ Credits have been reduced because of partial coverage of claims. ☐ Credits have been reduced because of corrections to work dates and figures of applicant.	$1382.00 SPENT ON ASSAYING SAMPLES TAKEN FROM MINING CLAIMS: L 636595 to 598 inclusive 92 DAYS CREDIT ALLOWED WHICH MAY BE GROUPED IN ACCORDANCE WITH SECTION 76(6) OF THE MINING ACT R.S.O. 1980.

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ Insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77(19)—60:

828 (83/6)

Ministry of Natural Resources
Ontario

Technical Assessment Work Credits

File 2.7507

Date 1985 01 21

Mining Recorder's Report of Work No. 521

Recorded Holder: ONITAP RESOURCES INC

Township or Area: CHURCHILL TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological 15 days	
Geochemical 14 days	L 636595 to 598 inclusive
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☒ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ Insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77 (19) — 60:

828 (83/6)

Ministry of
Natural
Resources

Ontario

Feb. 5/85

1985 01 21

Your File: 521
Our File: 2.7507

Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.J. Pichette at 416/965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3

R.J. S. Hurst:mc

Encls.

cc: Onitap Resources Inc
Suite 208
4900 Sheppard Avenue East
Scarborough, Ontario
M1S 4A7

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Ministry of Natural Resources

Ontario

Notice of Intent

for Technical Reports

1985 01 21

2.7507/521

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

1985 02 07

Your File: 521
Our File: 2.7507

Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

RE: Notice of Intent dated January 21, 1985
Geological & Geochemical Surveys and Data
for Assaying on Mining Claims L636595 et al
in the Township of Churchill.

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-6918

S. Hurst:sc

cc: Onitap Resources Inc
Suite 208
4900 Sheppard Avenue East
Scarborough, Ontario
M1S 4A7

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

cc: Resident Geologist
Kirkland Lake, Ontario

Mining Lands Section

File No 27507

Control Sheet

TYPE OF SURVEY

___ GEOPHYSICAL

__✓__ GEOLOGICAL

__✓__ GEOCHEMICAL

__✓__ EXPENDITURE

MINING LANDS COMMENTS:

L.D.

J. Hurst

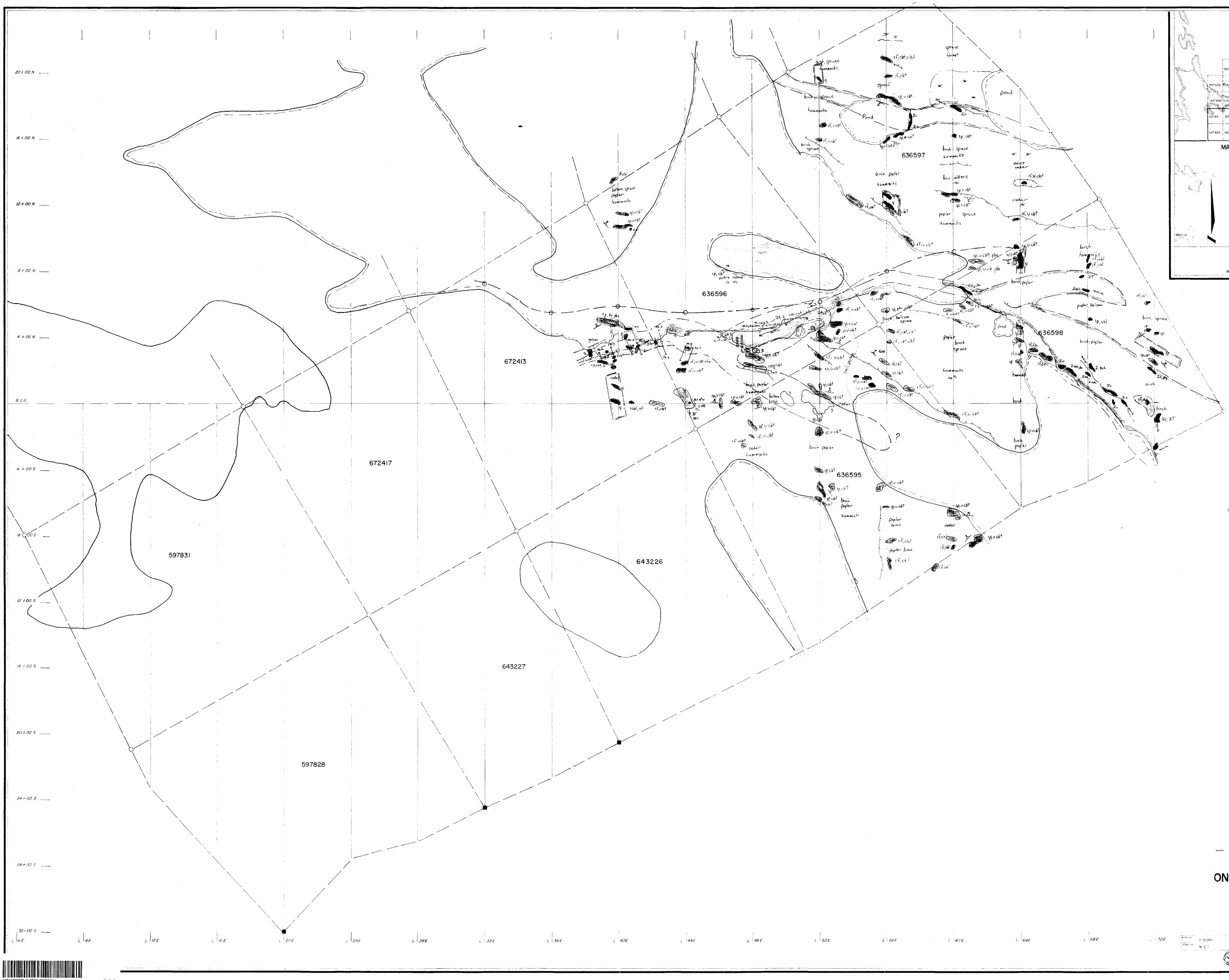
Signature of Assessor

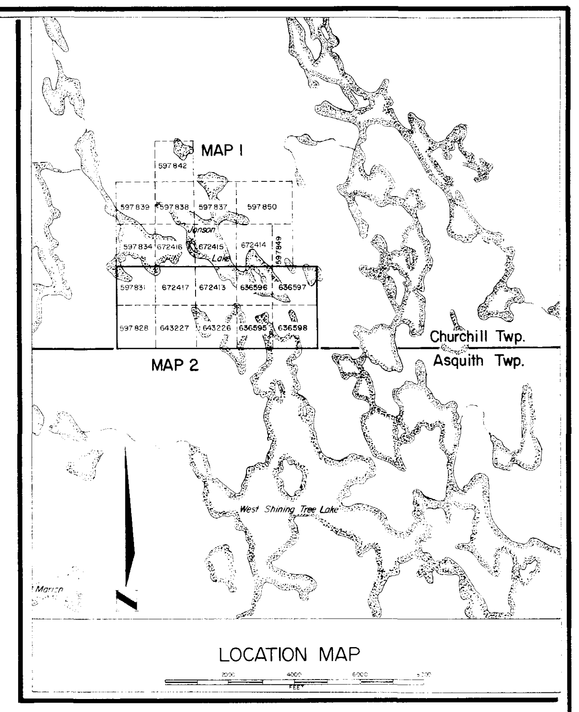
85-01-08

Date

	GL	GC										
								2.7507				
6365	1/2	1/2										
96	1/2	3/4										
97	1/4	1/4										
98	1/4	1/4										
	1 1/2	1 3/4										
4×20=80				4×20=80								
80÷5 1/2=14.5				80÷5 3/4=13.9								
=15'				=14								

5





LEGEND

EARLY TO LATE PRECAMBRIAN

- Diabase Dyke — mafic gabbro - dolerite composition
- 3 — Quartz Feldspar Porphyry
- Exhalites
  - 2A alteration zone - carbonate ± sericite ± silica ± epidote ± gossan
  - 2C carbonate facies "Iron Formation"
  - 2T tuffs
  - 2sch chlorite schists
- Basalt
  - 1f, chl fine grained flows, chloritized
  - 1p, cbt pillowed flows, carbonatized

- QV — Quartz vien
- Extent of outcrop area
- Extent of swamp area
- Extent of glacial hummocks
- Trench, pit
- Claim post, known, inferred location
- EM-16 conductor axis
- Geological contacts, known, assumed
- Pillowed flows, tops
- Foliation, vertical, dipping
- Diamond drill hole

2.7507

ONITAP RESOURCES INC

SHINING TREE AREA

LARDER LAKE MINING DIVISION DISTRICT OF SUDBURY, ONTARIO

JONSON GROUP

GEOLOGY

MAP 2

DRAWN BY	P.BOWL	DATE	Dec. 1984
DRAWING NO.	M.E.C.	DATE	Feb. 1984

NAREX Ore Search Consultants Inc.

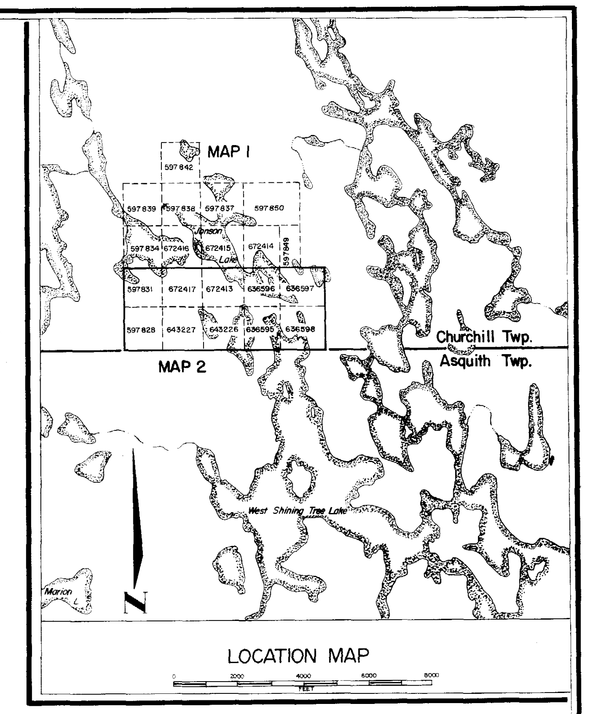
DRAWING NO. 5

20+00 N
16+00 N
12+00 N
8+00 N
4+00 N
BLO
4+00 S
8+00 S
12+00 S
16+00 S
20+00 S
24+00 S
28+00 S
32+00 S

L 8E
L 12E
L 16E
L 20E
L 24E
L 28E
L 32E
L 36E
L 40E
L 44E
L 48E
L 52E
L 56E
L 60E
L 64E
L 68E
L 72E

597831
672417
672413
636596
636597
636598
636595
643226
643227
597828

Pond
Pond



27507

A - A horizon sample ; all others are B horizon samples CR = crushed rock
N.S. no sample

ONITAP RESOURCES INC.

SHINING TREE AREA
CHURCHILL TOWNSHIP, DISTRICT OF SUDBURY, ONTARIO
JONSON GROUP

SOIL GEOCHEMICAL SURVEY
Au in p.p.b.

MAP 2

WORK BY P. BORN	DATE Dec. / 84	SCALE 1:2400 or 1"=200'
DRAWN BY M.E.C.	DATE Feb. 1985	
NAREX Ore Search Consultants Inc.		DRAWING NO. 6