41P14SW0013 2 16319 BURROWS

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REPORT

on

Prospecting and Mapping

on

TITTLEY Property

and Surroundings

BURROWS Township

District of Sudbury

ONTARIO

(41P/14NW)

2.16319

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MINING LANDS BRANCH

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Oakville, Ontario
October 20, 1995

H. Z. Tittley P Eng.

Dual. #2-2-2/3.

41P14SW0013 2 16319 BURROWS

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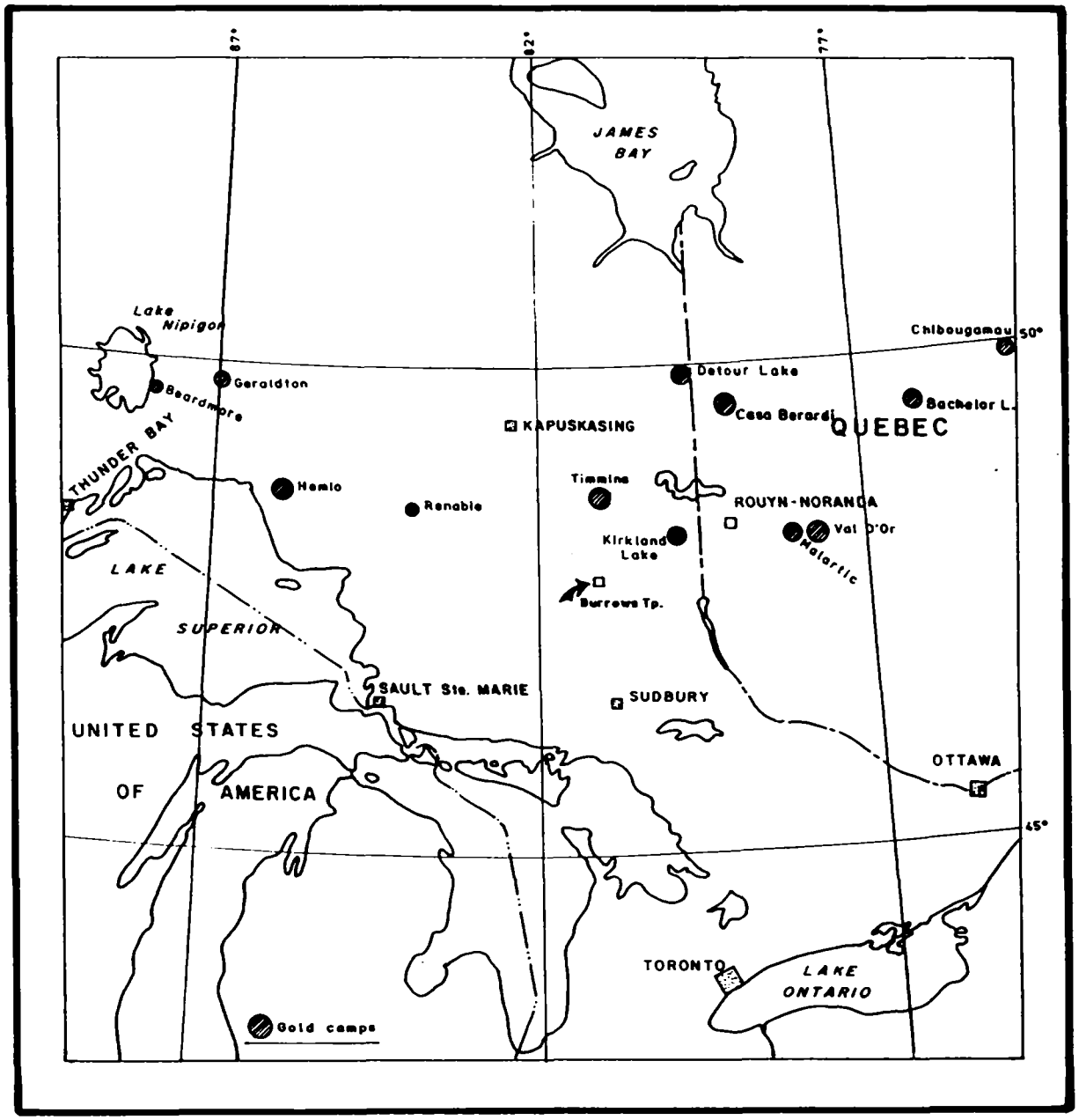
MAPS



KEY MAP

TITTLEY Property

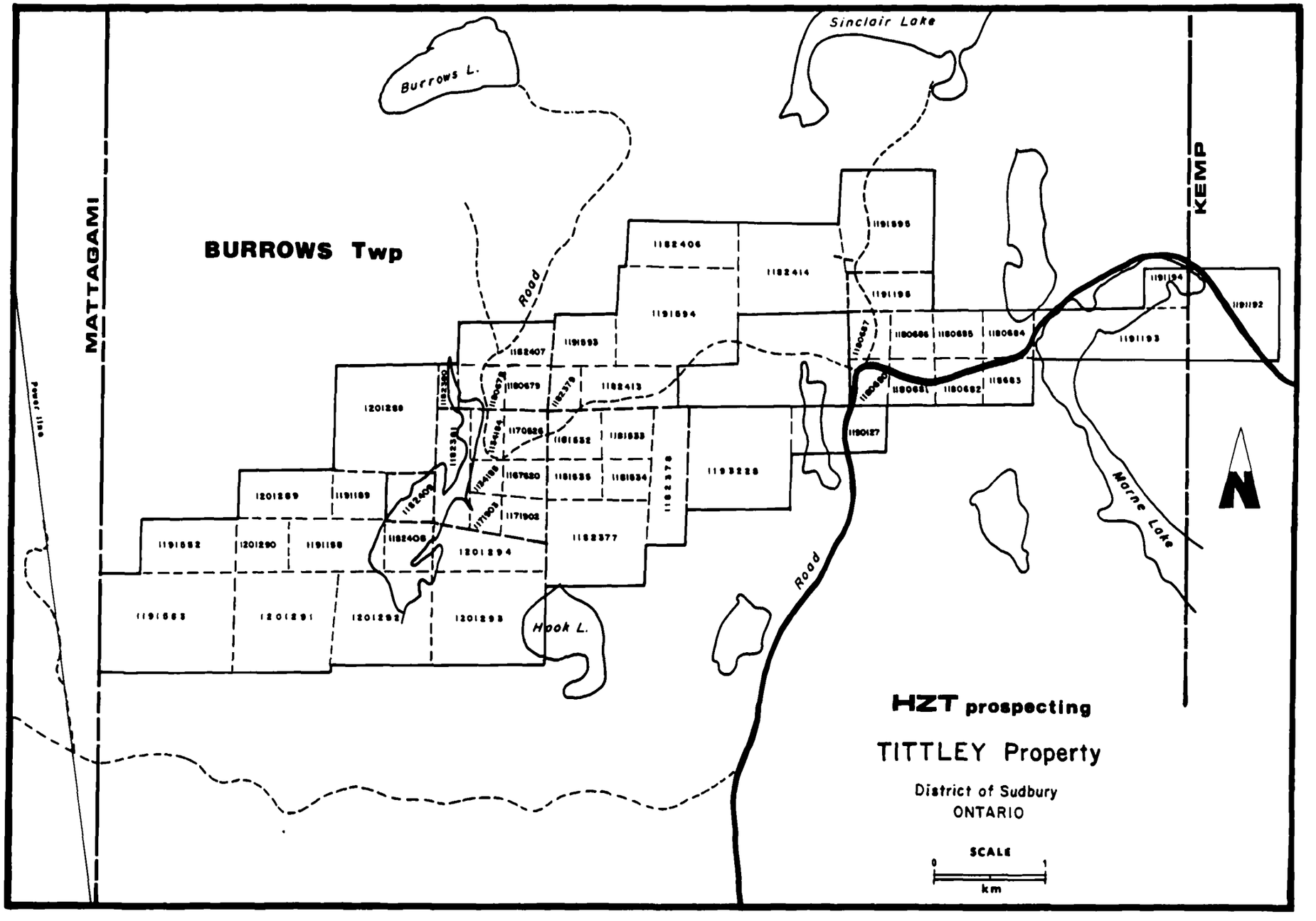
Burrows Township

Larder Lake Mining Division
ONTARIO

Scale

0 100 200 Mi

0 100 200 300 Km


Sinclair Lake
Burrows L.
MATTAGAMI
KEMP
BURROWS Twp
Road
Power line
Hook L.
Marne Lake
Road
HZT prospecting
TITTLEY Property
District of Sudbury
ONTARIO
SCALE
0
1
km

Prospecting and Mapping
TITTLEY Property
and Surroundings
BURROWS Township
ONTARIO

INTRODUCTION

The 1800 hectare Burrows Township property of H.Z. Tittley contains several gold occurrences and very rich gold-bearing floats. Previous mineral exploration on these claims ranges from limited to nil. Because of the paucity of outcrop, exposing, mapping, and sampling more of the bedrock is considered an essential and cost-effective initial phase of mineral exploration. With many low vegetated ridges, the area is particularly suited for this type of work.

The bedrock was exposed by stripping at 21 new locations and mapped and sampled at a total of some 80 sites. Around 85 kilometres of traverses were run with the help of all-terrain vehicles, boats, and snowmobiles. Stripping, drilling, blasting, mapping, and sampling were carried out between late 1993 and the summer, 1994.

Excluding one hole drilled under the North Pond, all remaining 3,300 m of diamond drilling, so far, was carried out within 700 m east of the north end of Jumping Moose Lake. Within this area, 70% of the drilling was done on only 2 hectares in attempts to locate the source of the rich gold floats.

PROPERTY, LOCATION and ACCESS

H. Z. Tittley of Oakville Ontario is the recorded holder of 51 contiguous claims, consisting of 105 units, located in Burrows and Kemp Townships in north-eastern Ontario. The area lies within the District of Sudbury, and the Larder Lake Mining Division. The property forms an irregular block that extends diagonally across the entire central part of Burrows and the adjoining Kemp Township to the east.

Burrows Township is located 24 km northeast of Gogama, 76 km south of Timmins and 150 km north of Sudbury. During most of the year the property can be reached by road from the Watershed on Highway 144, Elk Lake on Highway 560 or from Timmins via the Grassy Lake road. There is good winter access along a system of groomed snowmobile trails, but it is limited to light equipment, and requires crossing Mattagami Lake.

Fixed-wing aircraft, available for charter in Gogama and at Marquette Lake near Highway 144, can light on Jumping Moose Lake, in central Burrows.

PHYSIOGRAPHY

Central Burrows is nearly evenly divided between glacial debris, protruding rocky ridges, and wet lowlands and lakes. Glacial material is mostly sand and gravel in the form of eskers and outwash plains. Except for occasional bare spots, the rocky ridges are, in many places, covered by a veneer of roots and moss. Spruce-larch muskegs and alder-cedar swamps occupy the forested lowlands while the open section are mainly grass and alder meadows. Elevation attaining 65 m above the plain can be found along the rocky ridges as well as the esker ridges.

The area lies at the head of the James Bay watershed. The western part of the property drains north into Mattagami Lake and Mattagami River, while in the eastern part, the waters flow into the Grassy River before reaching the Mattagami, near Timmins.

Except for the open muskegs and grassy meadows, the surface is well forested with a 45 year growth. Good stands of jackpine, white pine, and rarer red pine dominate the sandy areas, while alder, cedar, ash and spruce are mainly confined to swamps.

HISTORY

Reconnaissance geological investigations were conducted by Parks in 1900 and Coleman in 1901. Systematic mapping of Burrows, Kemp, Mond, Cabot, Kelvin, and Natal townships was carried out by F.L. Finlay in 1925 and reported on by T.L. Gledhill in 1926. In 1975, N.W. Carter mapped in Cabot and Kelvin. A final geological report was published in 1986 by the Ontario Geological Survey. The data were later incorporated in a map of the Shining Tree Area at a scale of 1:50,000 and released by the OGS in 1987.

Most of Burrows township is covered by an extensive airborne aeromagnetic/electromagnetic survey flown for the Provincial Government in 1989, and published in the fall 1990.

After the discovery of gold in 1950, the northeast side of Jumping Moose Lake was staked. In 1951, the property was optioned to the Dominion Gulf Co. who carried out geophysical and geological surveys, followed by trenching and 4 diamond drilling holes. At the time of these operations, the property was visited by the Resident Geologist for Kirkland Lake.

In 1971, Canex Aerial Exploration optioned a property from B.D. Sirola. According to their report, they conducted ground magnetic surveys to outline ultramafic units associated with iron-formation.

In 1974, Hollinger Mines optioned certain claims and staked several, to form a rectangular block located northeast of Jumping Moose Lake. The area surrounding the rich gold-floats was geophysically surveyed, and the rest of property was prospected and mapped along widely spaced (518 m) lines. Four drill holes were sunk , in the detail area, in the fall of 1975.

In 1979, the Sirolas and Karvinen acquired 16 claims in the area of the rich floats. The following year, in the hope of locating the source, they carried out detail overburden and bedrock investigations.

Newmont optioned the property in 1981, and added some 125 claims to form a contiguous block extending from the southwest corner of Kemp Township, through central burrows, to the southwest township corner. The initial program of linecutting, ground geophysics, and basal till sampling was followed by a winter program that included lakes and ponds. The work which included I-P, resistivity, and H.E.M. surveys was completed the following summer. Diamond drilling of three holes on the present property was part of a larger program carried out at this time, and completed the next summer, in the southwest corner of the township. Approximately 240 km of grid lines were established of which 25% are on the present group of claims. The grid lines are 100, 200, and rarely 50 m apart.

By 1987, Argentex Resource held 127 claims that covered the northeast side of Jumping Moose Lake. Work, however, was limited to only 4 claims surrounding the main gold floats. It consisted of geological mapping, humus sampling, and the diamond drilling of 10 holes totalling 1227 metres.

In February 1988, an airborne magnetic/electromagnetic survey, covering the northeast part of the present property, was flown for Ingamar Exploration of Connaugt, Ontario.

Ground acquisition for the present property began in the fall 1990. A block of 4 claims was staked in the main gold-float area on the day following their expiry after 11 years of record. Additional claims were staked in late fall, and again in the spring and fall of 1991, and the summers of 1992 and 1993. The northeast part of the property, was staked upon expiry in March 1994. Two claims totalling eight units were also staked at the western end, to extend the property to the west township boundary.

HZT prospecting of Oakville, Ontario was responsible for all phases of exploration. Work has been concentrated mainly around Jumping Moose Lake. The area was photogrametrically mapped in the spring, of 1991, followed by detailed magnetic and geological surveys in the fall. A second grid of lines was established in 1992 and detailed magnetic and induced-polarization surveys were performed to examine the mineralized zones that lie up-ice from the rich gold-floats. These results were used to guide a diamond drill program carried out in the fall, 1993. After ten holes, exploration efforts were diverted to a high-grade quartz vein on the west side of Jumping Moose Lake. This showing, along with two other economic gold occurrences, was examined as part of the present project.

GEOLOGY

Burrows Township lies within the Archean Abitibi Greenstone Belt of the Superior Province of the Canadian Precambrian Shield. The area is at the north end of the Shining Tree Belt and immediately south and east of a 3514 km² granitoid terrain. Late Huronian Supergroup sediments cover the Early Archean rocks in the townships to the east. The supracrustal sequences of volcanic and intrusive rocks are cut by mafic dikes, and all formations are cut by northeast diabase dikes.

The following is a list of lithological units for central Burrows Township

LITHOLOGIES of CENTRAL BURROWS Twp.

PALEOPROTEROZOIC

NIPISSING INTRUSIVE ROCKS
- Diabase

LATE PRECAMBRIAN

MAFIC INTRUSIVE ROCKS
- Diabase, mafic dikes

MIDDLE PRECAMBRIAN

MAFIC INTRUSIVE ROCKS
- Diabase, lamprophyre, mafic syenite

EARLY PRECAMBRIAN

FELSIC INTRUSIVE ROCKS
- Granite, aplite, felsite, and quartz
- Blue quartz-eye porphyry, syenite, lamprophyre

MAFIC INTRUSIVE ROCKS
- Aphanitic dike, with glassy shards
- Lamprophyre, carbonatized lamprophyre
- Gabbro (mainly interflow)

ULTRAMAFIC INTRUSIVE ROCKS
- Peridotite

CHEMICAL SEDIMENTARY ROCKS
- Silica-rich pyritic iron-formation
- Quartz-carbonate-magnetite iron-formation
- Sulphide iron-formation

FELSIC EXTRUSIVE ROCKS
- Massive rhyolite, felsic pyroclastic, pyroclastic tuff

INTERMEDIATE VOLCANIC ROCKS
- Lapilli tuff, dacite tuff
- Felsic to intermediated fragmental
- Massive amygdaloidal flow

MAFIC VOLCANIC ROCKS
- Mafic flows, pillow lava, mafic blue quartz-eye tuff
- Medium- to coarse-grained gabbroic flows (hypabyssal)
- Basalt

ULTRAMAFIC VOLCANIC ROCKS
- Peridotite, flow breccia
- Komatiite

The following is a summary of the rock formations encountered on the TITTLEY property and surrounding area.

ULTRAMAFIC VOLCANIC ROCKS

Komatiitic rocks are reported in diamond drill holes sunk by previous oprerators. There is surface evidence for such rocks in a trench behind the upper campsite on Jumping Moose Lake. The spinifex-textured talc-chlorite schist is thought to be an altered ultramafic flow.

In 1981 Newmont Exploration mapped "komatiitic metavolcanic rocks" across a width of 500 m and an open strike length of 1600 m, within 1500 m southeast of the present property. Because of the equivocalness shown by the widely conflicting strikes between the ultramafics and the volcanic stratigraphy, there is a strong possibility that the formation is an altered peridotite.

MAFIC VOLCANIC ROCKS

Though no basaltic rocks were recognized during the field work, Newmont identified calc-alkalic basalts through their 1982 analytical work.

Rocks of andesitic composition occur as massive, foliated, regionally altered, amphibolitized, and interflows, in central Burrows. The more massive and least altered of these rocks are mostly present inside the fold structure east of Jumping Mouse Lake. Green foliated rocks occur primarily between , and adjacent to, the bands of iron-formation. Somewhat paradoxically, the foliation is usually vertical and can be seen only in broken rock or on a cliff face. In contrast, the regionally altered basic rocks have strong surface lineations suggestive of interbedding. The composition appears more dacitic where consecutive paler beds have formed. These rocks are confined to the area immediately south of the east-west fault that separates the two major bands of iron-formation. Amphibolitized volcanics is just a term that identifies a group of coarse-textured rocks that are derived from mafic flows. Epidotitic sections are common. Where they are feldspathized, the colours vary from reddish-pink to deep bottle-green. Most of these rocks were found towards the granodiorite contact to the north, and may have been reworked by the effects of the intrusion. Hypabyssal flows are pervasive in central Burrows. These grey-green medium- to coarse-grained rock are identified as gabbros by many searchers. They are characteristically fresh in appearance, massive, non-magnetic, unmineralized, and only occur in non silicic volcanic rocks.

Mafic blue quartz-eye tuff

This is a hornblende-rich dark-green, weakly mineralized, and moderately magnetic band hat strikes 67 degrees along the central portion of a felsic pyroclastic unit. The band averages 6 m wide and has been drilled and traced for a distance of 380 m. The results of ground magnetic surveys indicate that it can be traced an additional two km east. In 1983, Argentex intersected the band in six diamond drill holes and reported gold values of .006, .007, .008, .01, .03, .05, .08, .14 and .20 ounces of gold per ton either from the dark band or within 7 m to the south. Argentex examined the unit because it was the postulated source of the rich gold-floats, owing to the presence of tiny opalescent blue quartz-eyes that occur in both, the mafic 'tuff' and the rich floats. The average width of the gold intersections is 1.5 m with the better grades located in the adjoining felsic pyroclastic rocks. Though the strike and dip of the Blue Quartz-eye Band are strataform, the writer feels that it may be intruded. In this context, considerable effort was devoted to stripping Site 16, to determine the relationship between the dark band and the iron-formation. Due to a heavy mound of dirt, the examination was not conclusive. Paradoxically, the iron-formation appears to have intruded the felsic volcanics.

INTERMEDIATE VOLCANIC ROCKS

The rocks that are mapped as dacites, on the property, are mostly identified as such because of a colour contrast. Mainly because of alteration, when a felsic rock darkens, it is usually labelled dacite, and conversely, when a mafic rock becomes paler, it is identified as dacite; yet there no relationship between the two. Most of the outcrops along the shores of Marne Lake, however, consist of fresh unaltered amygdaloidal dacite. This is in great contrast to the usually foliated rocks of central Burrows. There is a definite suggestion of a time difference. The compositional difference of the younger dacites is also expressed through their aeromagnetic signature, and the lack of magnetite within the iron-formations that were observed along the main road to Highway 560, to the south.

FELSIC VOLCANIC ROCKS

Two different felsic volcanic rocks were identified by the field work. The felsic band, which is located east of the mouth of Hook Creek is the most thoroughly tested formation on the property. It was intersected in 13 holes sunk in the search for the source of the rich floats, and to test the Blue Quartz-eye Band. The unit ranges from massive rhyolite to serecitic schist, and coarse fragmental and coarse lapilli, to siliceous siltstone. A similar rock, without the massive and the fragmental sections, occurs along a high steep face in the centre of claim 1191189 west of Jumping Moose Lake. The lapilli tuffs becomes progressively more infused with pyrite, magnetite, and garnet towards the iron-formation; to the point of becoming geophysically indistinguishable from the iron-formation.

Without the benefits of laboratory tests, the second unit of felsic volcanic rocks can be classified as either extrusive or intrusive. The freshly exposed rock is flesh-coloured, usually well foliated, fine-grained but occasionally mildly porphyritic. At Site 30, on the west side of the lake, the formation contains a strataform, finely tapered canoe-size band of a dark-green chloritic material that could be either an interflow or a fragment. At Site 5 , on the east side of the lake, a similar unit contains freezer-size fragments of highly magnetic iron-formation.

SEDIMENTARY ROCKS

Greywackes occur in a small outcrop situated on the southwest side of Ottereyes Lake, immediately east of the east property boundary. Hollinger (1975) reported a "graphitic tuff" associated with iron-formation from their first hole near the centre of claim1170526. Well laminated, carbonatized greywacke was exposed at Site 12. The rock is interbedded with coarser green and white sedimentary material. Site 12 is east of Jumping Mouse Creek, along the south boundary of the property.

CHEMICAL SEDIMENTARY ROCKS

The central part of Burrows Township is intersected by a 10 km band of iron-formations that is deflected 42 degrees through the Jumping Moose Lake area. The north arm strikes 23 degrees over a distance of 4 km., while the south arm strikes around 203 degrees for 6 km. The two arms are separated through a tightly folded area east of Jumping Mouse Lake. As this is where the large gold floats rest, it is also the area which has received the most attention.

Several facies of iron-formations are present. The following is a description of the more prominent types, based on field evidence and drill core, including core from previous operators, which is now available for inspection at regional government Core Libraries.

Sulphide iron-formation is easily recognized by a strong geophysical response, especially magnetism associated with conductivity and chargeability. It was intersected in every diamond drill hole directed at a geophysical conductor. The bands are often characterized by a central core of massive pyrrhotite with adjacent bands and seams of pyrite.

Carbonate facies iron-formation occurs in outcrop along the road, south of line 1300N. Brown weathering, probably due to ankerite, is evident as the bedrock was stripped and the rocks have been exposed for several years. The formation lies within the southeast-trending section of the north arm of iron-formations. It is at least 10 m wide and consists of minor random quartz/carbonate veins and wavy, but strataform , bands of magnetite, 1 cm thick.

Highly contorted rich silica beds are exposed on a 70 m^2 surface located between the two streams south of the 1000N baseline that was established in 1991. The site is referred to as the 'Island Showing' in earlier reports by this author. An early sample of weakly mineralized (chalcopyrite) secondary quartz, assayed 0.34 ounces of gold per ton. Seven metres south, there is flat rock with similar material plus a few bands of magnetite. Blasting clearly demonstrated that the rock was a glacial erratic. Subsequent geophysics do not support the presence of iron-formation in this area. It is concluded that the entire mass, equivalent to 1300 tons, was glacially transported 330 m, exactly down-ice (165° in this area), from the east side of a siliceous outcrop. Here, identical rocks are associated with a long band of drilled and geophysically interpreted I-F.

All magnetic anomalies exceeding 4000 gammas are interpreted as magnetite or oxide facies iron-formations. The strongest concentrations of magnetite appear to be along a ridge south of Jumping Moose lake. Newmont surveys recorded up to 35,000 gammas above level during a ground magnetic survey along the south arm of the main belt of iron-formation.

MAFIC INTRUSIVE ROCKS

Except for diabase, there is not much evidence for gabbros the property. Nearly all rocks that are mapped as gabbro are related to the supracrustal volcanics and appear as irregular masses and sills. The material is always characterized by a fresh appearance, lack of foliation, coarser granularity, and lack of mineralization and magnetism.

Gabbro was noted, however, in a short specimen of drill core at the Ministry of Northern Development and Mines Drill Core Library in Kirkland Lake. The sample is reportedly from a 27 m section described as "*meta-andesite tuff (chlorite schist)*" that was intersected in a Hollinger drill hole. The material that is mapped as gabbro at Site 4 is essentially a non-magnetic mineralized hornblendite, probably a product of metamorphism.

Two hundred and fifty metres southwest of Ottereyes Lake, Newmont mapped a complex outcrop with mafic flows, syenite, diabase and gabbro. The latter material is probably of volcanic affinity, but the generally high magnetic background may indicate a mafic intrusion.

A magnetic anomaly which is located beneath the pond in the central portion of claim 1171902 is thought to represent a mafic intrusion. The magnetic gradient data clearly outlines a body that is 120 m long and 35 m wide with a central plug that is 22 m in diameter.

Lamprophyre occurs in many guises on the property. It was intersect on 58 occasions in 17 of the 30 diamond drill holes sunk in the gold-float area. It averages 30 cm in width. Hollinger's second drill hole cut carbonatized biotite lamprophyre over a distance of 6 m. Similar material was exposed in outcrop, at Site 17, 1400 m to the northeast. Lamprophyric syenite was exposed at the latter stripping site as well as nearby Site 18.

ULTRAMAFIC INTRUSIVE ROCKS

Ultramafic rocks are exposed near the creek, in the southwest corner of claim 1171902. From the small exposure, the rock appears to be intrusive. It is fine-grained and moderately magnetic, with signs of brecciation visible on the weathered surface only. The combined total field and vertical gradient magnetic anomalies indicate that the intrusion is 15 m wide and extends 75 m north of the outcrop. It has not been traced south.

FELSIC INTRUSIVE ROCKS

The felsic intrusive rocks that extend into the northwest section of Burrows Township belong to the granodiorite phase of the Kenogamissi Batholith. Nowhere is the formation exposed on the property. The only available sample of granodiorite was obtained from a pile of large angular boulders located south of Burrows Creek, some 900 m, north of the property boundary. There is a fine grained granite that is in contact with relatively unaltered andesite, at the outlet of Jumping Moose Lake, and also 400 further south. The origin of these granites is probably the same as at Site 14, where a granite plug, 25 m in diameter, intrudes fresh pillow lavas.

Feldspar porphyry, quartz feldspar porphyry, and felsic dikes with an average width of 1 m were intersected on 11 occasions in diamond-drill holes. Grey feldspar porphyry with abundant 5 mm blue quartz-eyes was exposed by stripping behind the camp on Jumping Moose Lake. The contacts are not well exposed, but the intrusion appears to be 3 m wide and strike north-northeast.

The second type of felsic volcanic rock, mentioned above, may well be intrusive. The area Resident Geologist believes that the problem will best be solved through lab work. From certain reports, it would seem that a similar situation existed around Kirkland Lake. In any event, the pink-weathering mildly porphyritic rocks that occur on both sides of Jumping Moose Lake could be sheared feldspar porphyries

Syenite is widely dispersed in central Burrows. The largest exposure is near Ottereyes Lake. It was mapped by Newmont in the south part of a complex 75 m outcrop. Other formations are gabbro, volcanic flows and diabase. In the detailed area, near Jumping Moose Lake, syenite was encountered in four holes over lengths ranging from 75 to 400 cm. During the present program, syenite was exposed at Sites 1, 4 and 17. The search for syenitic rocks was intensified when a sample, of what eventually proved to be a small dike (Site 1) assayed 20.13 grams per tonne.

Mafic dikes of neither diabasic or lamprophyric composition were intersected on 33 occasions during diamond drilling on the property. The dikes average 40 cm in width. One such dike that is exposed on surface, is very glassy and contains tiny glass shards that make quite recognizable. It was cut in three drill-holes and traced for a distance of 150 m along a strike of 165 degrees, which is roughly the direction of many of the diabases.

Diabase dikes of Middle Precambrian age, that strike between 150 and 170 degrees, occur regularly at intervals of hundreds of metres across the property. These Matachewan dikes were intruded in two stages. Certain dikes, with a porphyritic texture due to up to egg-size saussuratized feldspar clots, are quite common in the Gogama Area. Other dikes have all the same characteristics except for the presence of green clots.

The most easterly claim consists of 4 claim units situated at the northeast end of Marne Lake, in Kemp Township. This claim is almost entire covered by conglomerates of the Coleman Member of the Cobalt Group of the Huronian Supergroup.

The diabase dike that strikes 50 degrees across the northwest corner of the township is probably the youngest formation in the area. It is one of two Nippissing dikes that have been traced some 300 km from the Matheson area to the north, to the Elliot Lake Area. Based on government compilation maps, the more southerly dike, which is through Burrows, has the greater sulphide association.

STUCTURE

The geology of central Burrows, in which the claims lie, is complicated by a system of parallel faults that truncate a variety of randomly oriented formations. The main stratigraphic trend is 65 degrees which is the direction of the major structure and the probable strike of the granite contact. This trend is also collinear with the Kirkland Lake Break. By intriguing coincidence, the Hollinger-McIntyre gold zone, to the north, and the long axis of the Sudbury Basin, to the south also strike 65 degrees. These three important mining camps are located 110, 76, and 130 km from Burrows Township, respectively..

MINERALIZATION

The property's greatest potential is for gold which occurs invisibly with silver-tellurium mineralization. Large glacial boulders that assay up to 37 ounces of gold, 22 ounces of silver and 0.22 percent tellurium contain the same type of alteration package as some widely scattered quartz veins that occur west of Jumping Moose Lake. The nearest vein is 700 metres west of the floats. Because of easy access, it has received the most attention. A sample from this vein gave 2.6 ounces Au per ton, 22 ounces Ag per ton, and .05 per cent Te. This type of mineralization is found in young epithermal deposits. The nearest relative in Archean rocks happens to be the Kirkland Lake Break which is on strike, to the northeast.

High geochem gold, ranging up to 6,800 parts per million occur in association with a dark mafic blue quartz-eye "tuff" that has been traced for 300 m near Jumping Moose Lake and another two kilometres east, from ground magnetic. Whether the feature compares with the gold-bearing tuffs of the Madsen and Strallatt-Olsen mines of the Red Lake Area remains to be determined.

Gold values of 0.56 and 0.10 oz/t Au were obtained from a narrow syenite dike and mineralized quartz respectively. In the latter case, no additional mineralized quartz was found and no additional significant gold assays were obtained.

SURFICIAL GEOLOGY

The central part of the property consists of glaciolacrustine and organic deposits with interspersed with bedrock-drift complexes and ridges of ice-contact statified drift. In the western part of the property, up to the township boundary, the Recent deposits form a till veneer of bedrock-drift. On the east side, the northwset side of Marne Lake is an outwash plain of sand and gravel.

In the Jumping Moose Lake Area, the glacial striations strike between 150 and 211 degrees with a strong preference for 165 to 180 degree strikes. Near the large floats, the 165° strike of some deep grooves need not necessary represent the last ice-advance. Deep striae were probably carved when there was pressure from one kilometre of ice. Most of the rich gold-floats are believed to have been derived from a single 400 T boulder that disintegrated as a result of the weathering sulphides. Large floats, exceeding 5 tonnes, that surround the main the gold-floats are found only in a small area east of Jumping Moose Lake. As mentioned above, concerning a band of iron-formation, most floats can be traced to a source on the property. The author calculated the average transport of these larger boulders to be around 250 m. After digging some 50 trenches, in 1981, Dr. Karvinen established the distance of transport at 400 to 500 m.

METHODS

HZT prospecting of Oakville Ontario is responsible for all phases exploration in central Burrows. This report is the result of field investigations carried out in 1993 and 1994, and their study and compilation in 1995.

Linecutting:

Most of the work around Jumping Moose Lake is tied to the principal grid that was established at 75° in 1991. It was extended easterly in 1993 and westerly across the ice on Jumping Moose Lake, in March of 1994. During the past summer, 2 km of grid lines were established on the west side of the lake and one kilometre was established on the east side, to provide control for the present mapping. Base lines and turn-offs were made with a transit. The main 1300N baseline was extended across a high outcrop ridge to 240W.

Mapping

The Burrows Township program of exploration carried out by HZT prospecting began in the spring of 1991 by mapping and plotting the geology on an enlarged air-photo base. Power stripping, blasting, and sampling were was carried out in the fall of the year. The west side of Jumping Moose Lake was reconnoitred during the summer, 1992 as were certain areas north, and south of Jumping Moose Lake.

The present project was carried out in three stages. The area from Jumping Moose Lake, westerly to the power line, was examined by running same-day traverses in the fall of 1993. Under favourable snowmobiling conditions, in March 1994, isolated rock exposures were visited, from Mattagami Lake to Sinclair Lake, including Nursey Township. The Burrows-Mattagami township boundary was established and the many steep outcrop faces were mapped and sampled. Traverses were run along the new claim lines and most ridges were checked for possible outcrops. The power line, which is a groomed snowmobile trail, was followed for a distance of 12 km into central Cabot Township. The return trip was down Mattagami Lake. Most of the rocks noted along the way were granites, related granitoids, and diabase. During the following summer, an intensive program of stripping, blasting, trenching, and sampling was carried out between 2300 m east of Jumping Moose Lake to 200 m west of the lake. These sites are numbered 1 to 36 on the accompanying maps. In mid-July, a boat was put on Marne Lake and all bedrock exposures along the shoreline were examined, and sampled where necessary. All the work was performed by D. Baird of Toronto, Ontario, and H.Z. Tittley of Oakville, Ontario.

Stripping

Potential stripping areas were first identified from local topography and vegetation. After encountering bedrock, by sounding with a grub hoe, the site was cleared. Bedrock was usually exposed by rolling back a carpet of interwoven moss and roots. Smaller trees were pulled out by hand while larger ones were uprooted with the help of a rope slung up the trunk. The outcrop was swept with corn broom s and, where necessary, it was washed using the water jet from a forestry back pump. It was then mapped and sampled. Some 48 locations at 36 site along 27 outcrop ridges were thus examined.

Where the rocks were either sulphide-stained, which made them interesting, or glacially polished which made sampling difficult, short holes were drilled with an Atlas Copco percussion drill and then loaded with dynamite. Twenty two blasts were set at 15 of the stripping sites. Because of the plugger's deteriorating performance, no holes were drilled on the west side of Jumping Moose Lake.

Trenching

Trenching was done at Site 33 only. After clearing the trees in an area of some 350 m^2, the gold-bearing vein was stripped of roots and soil. Approximately 2 m below the vein, on the north side of the ridge, a considerable amount of weakly mineralized quartz were seen. Several cubic metres of rubble had to be trenched before the in-situ nature of the quartz could be established. It was found a very irregular mass with occasional highly carbonatized wall rock sections.

RESULTS

The results of the present geological investigations in Central Burrows are plotted on accompanying plans **A** and **B**, entitled 'Stripping Sites' and 'Geology', respectively. Plan **A** is a collage of geological sketches map scales of 1:100, 1:200, 1:500 or 1:1000 for respective sites. The locations of the 36 stripping sites are shown on plan **B** at a scale of 1:10,000. Plan **C** shows the traverses on the same base as the geological map.

Much of the geological interpretation is based on geophysical data. Both total field and first vertical derivative of government aeromagnetic data were widely used. Posted Newmont magnetic, VLF electromagnetic, induced-polarization chargeability and resistivity as well as limited HEM electromagnetic data were taken from Assessment Files and imputed to a computer software program. From these, the Metal Factor for the I-P data, was calculated and plotted, and the Fraser Filter was applied to the VLF data before plotting. The plotted data was then contoured using computer software.

The nature of the carbonatization at Site 18 and the complexity of the syenite and carbonatized lamprophyric inclusions at Site 17 indicate an altered zone. Base on magnetic data, the altered stratum can be trace 4 km easterly. Combined with the mafic Blue Quartz-Eye horizon and the and the area of quartz veins west of the lake, the overall belt of gold mineralization and propitious rocks, is 7 km long. A second suitable environment for the emplacement of gold lies 900 m to the north. It is a parallel structure that extends over a distance of 5 km. The zone is probably composed of softer rocks because the area is mostly lower ground and the rocks are nowhere exposed.

Several quartz veins were found during the reconnaissance prospecting of the area between Jumping Moose Lake and the electric power transmission line in Mattagami Township. Of particular interest is a highly altered zone with multiple cross-cutting quartz veins. It is located one kilometre west of the lake and the characteristic pyritized and carbonatized wall rock alteration found in the ore-grade vein, near the lake, and the in the rich gold-floats. The ridge is referred to as the Gem Knoll.

No new quartz veins were found during these investigations. The most encouraging results are from a series of mineralized calcite veins uncovered at Site 9. They occur in a zone that is 1.2 m wide, strikes east and dips 45 degrees south. Anomalous gold values ranging up to 160 ppb were obtained from samples of heavier sulphides.

Felsic rocks found at Sites 3 and 5 are most interesting. They lie immediately south of a major ENE fault, as postulated from Ingamar Exploration's 1988 aeromagnetic survey. The presence of large iron-formation fragments, at Site 5, indicates late tectonic activity.

Highly carbonatized mafic volcanics were located at Site 15. At Site 18, there is a 12 m-wide band of rusty-weathering iron carbonates. Intense carbonatization at Site 17 is mostly confined to the lamprophyric units.

Several days of stripping around the high-grade vein, on the west side of the lake (Site 33), exposed the vein over a distance of 21 m. There is a couple of attendant veins, and the whole system is associated with combined magnetic, S-P and VLF anomalies that form a 140 m arcuate band. It describes an east-facing chevron fold.

RECOMMENDATIONS

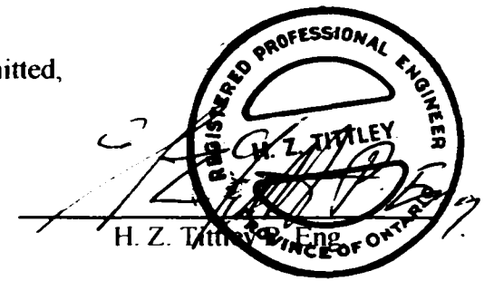
In order to pursue the evaluation of the entire property, a continued program of stripping and prospecting should be carried out between Jumping Moose Lake and the west township boundary.

The present grid should be extended to cover the entire 7 km of favourable host lithologies and structures with lines no more than 40 m apart. A detail magnetic survey should be conducted along the grid lines, followed by a self-potential survey which is cheap and rapid. Anomalous areas should the be examined by self potential methods.

The initial prospecting, linecutting, mapping and geophysics would cost around $150,000. It should be followed by a program of diamond drilling at a cost of $500,000.

* * * * *

Respectfully submitted,



H. Z. Tittley, P.Eng.

REFERENCES

Abraham, E.M.
1953 **GEOLOGY OF SOTHAM TOWNSHIP**
Ontario Department of Mines
Annual Report Vol 62, part 6

Alexander, D.R.
1975 **PROPOSED EXPLORATION ON BURROWS #1 GROUP**
Ontario Geological Survey
Assessment File 63.3377, Toronto

Bateman, P.
1975 Diamond Drill Logs (Hollinger 4)
Ontario Geological Survey
Assessment File Burrows # ?, Toronto

Bowen, R.P.
1982 **REPORT ON THE SIROLA-KARVINEN CLAIM GROUP**
Burrows Township, Ontario
Ontario Geological Survey
Assessment File 4.4647, Toronto

1982 **GEOLOGICAL REPORT ON THE SIROLA-KARVINEN CLAIM GROUP**
Burrows Township, Ontario
Ontario Geological Survey
Assessment File 2.5106, Toronto

1982 **REPORT ON INDUCED POLARIZATION SURVEY**
Burrows Township, Ontario
Ontario Geological Survey
Assessment File 2.5144, Toronto

1982 **REPORT ON RESISTIVITY SURVEY**
Burrows Township, Ontario
Ontario Geological Survey
Assessment File 5.5145, Toronto.

1982 **REPORT ON GEOLOGICAL SURVEY**
Burrows Township, Ontario
Ontario Geological Survey
Assessment File 2.5146, Toronto

1982 **REPORT ON MAGNETIC SURVEY**
Burrows Township, Ontario
Ontario Geological Survey
Assessment File 2.5147, Toronto.

Bowen, R.P.
1982 **REPORT ON MAXMIN HEM SURVEY**
Burrows Township, Ontario
Ontario Geological Survey
Assessment File 2.5150, Toronto.

1982 **REPORT ON ROCK GEOCHEMISTRY**
Burrows Township, Ontario
Ontario Geological Survey
Assessment File 2.5902, Toronto.

1982 Diamond Drill Logs (Newmont 2)
Ontario Geological Survey
Assessment File Burrows # ?, Toronto.

Boyle, R.W.
1979 **THE GEOCHEMISTRY OF GOLD AND ITS DEPOSITS**
Geological Survey of Canada, Bulletin 280

1976 **MINERALIZATION PROCESSES IN ARCHEAN GREENSTONE AND SEDIMENTARY BELTS**
Geological Survey of Canada, Paper 75-15

Carter, M.W.
1987 **GEOLOGY OF THE SHINNING TREE AREA**
Sudbury and Temiskaming Districts
Ontario Geological Survey, Report 240

1986 **GEOLOGY OF CABOT AND KELVIN TOWNSHIPS**
District of Sudbury
Ontario Geological Survey, Report 249

Coad, P.R.
1979 **Nickel Sulphide Deposits.....**
Ontario Geological Survey, Study 20

Gledhill, T.L.
1926 **GRASSY RIVER AREA**
Ontario Department of Mines
Annual Report, Vol. 35, part 6

Hurd, G.T.
1951 Diamond Drill Logs (Dominion Gulf 4)
Ontario Geological Survey
Cobalt files.

Karvinen, W.O.
1981 **GEOLOGY REPORT ON THE SIROLA-KARVINEN PROPERTY**
Burrows Township, Ontario
Ontario Geological Survey
Assessment File 2.3773, Toronto

Karvinen, W.O.
1982 **REPORT ON BASAL TILL SAMPLING AND SURFICIAL GEOLOGY**
Burrows Township, Ontario
Ontario Geological Survey
Assessment File 2.5138, Toronto

Pyke,D.R
1978 **GEOLOGY OF THE PETERLONG LAKE AREA**
Districts of Temiskaming and Sudbury
Ontario Geological Survey, Report 71

Rickaby,H.C.
1932 **BANNOCKBURN GOLD AREA**
Ontario Department of Mines
Annual Report, Vol 41, Pt 2

Rock, D.I. et al
1989 **Gold, Lamprophyres and Porphyries: What Does This Association Mean ?**
Economic Geology, Monograph 6, p. 605-625

Savage, W.S.
1952 **DOMINION GULF OPTION**
Ontario Geological Survey
Cobalt files.

Wyman, D. and Kerrich, R.
1989 **Archean Shoshonic Lamprophyres Associated With Superior Province Gold Deposits**
Economic Geology, Monograph 6, p. 651-667

MAPS

1991 **BEDROCK GEOLOGY OF ONTARIO**
East-Central Sheet
Ontario Geological Survey
Map 2543, Scale 1:1,000,000

1990 **SHINING TREE AREA**
Airborne Electromagnetic/Total Intensity Magnetic Survey
Ontario Geological Survey
Map 8141, Scale 1:20,000
Geoterrex

1987 **SHINING TREE AREA**
Precambrian Geology, Districts of Sudbury and Temiskaming
Ontario Geological Survey
Map 2510, Scale 1:50,000, M.W. Carter

1986 **CABOT AND KELVIN TOWNSHIPS**
District of Sudbury
Ontario Geological Survey
Map 2470. Scale 1:31,680, M.V. Carter

1983 **ABITIBI SUBPROVINCE**
Lithostratigraphic Map
Ont. Geol. Survey / Minis. Energie Ress., Quebec
Map 2484 (Ont), DV 83-16 (Que), Scale 1:500,000
P.C. Thurston / A. Franconi

1978 **GEOLOGY OF THE PETERLONG LAKE AREA**
Ontario Geological Survey
Map 2375, Scale 1:50,000, D.R. Pyke

1977 **BURROWS TOWNSHIP**
Ontario Geological Survey, Preliminary Series
Map P-1218, Scale 1:15,840, H.L Lovell et al.

1973 **TIMMINS-KIRKLAND LAKE**
Ontario Division of Mines
Map 2205, Scale 1:253,440
D.R. Pyke et al.

1926 **GRASSY RIVER AREA**
Ontario Department of Mines / Report Vol. 35, part 6
Map 35j, Scale, 1:31,680, Gledhill, T.L

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No	91 Grid East	North	DESCRIPTION	Au ppb
93-A	—	—	126m NNW of #4 1191188 Wkly schistose intermed intrusive rock which in hand sample, J Ireland compares to the metamorphosed volcanics of the Champagne/ Bennewiss area. Should be compared to the diorites S of Sinclair L.	
93-B	—	—	30m N of #3 1191188 Dk to blk wkly shr'd mafic volcanic. Non-mag no visible sulphides. Second specimen is more massive	
93-1	245	1367	Same location as 92-57(N TP qv) Weathered sample /9mm qv in bluish-grey float-like schist. Mass sulp one end, mainly py cubes	89318
93-2	245	1367	Same location as 92-57 & 93-1 above. Boudinaged qv with float-like pinkish inclusions & occ sulp, mainly as fine cubes. One minor cp splash. Wallrock is float-like grey- bluish-grey schist with fine py cubes. Enveloping characteristics also present	
93-3	245	1367	Same location as above 2 samples. 35mm qv with 15mm of grey- bluish-grey wallrock. Fine py cubes in wlrck, larger larger cubes, splashes '& other sulp in qtz.	
93-4	1640	1500	Massive f.g. mafic vol. Clinkstone outcrop contains some schistose material, poss pillow selvages. Non mag	
93-5	1970	1500	Dk-grey mafic vol with shiny-grey schistose biotite face, not too unlike main gold-floats. 1 1cm seam with scattered sulphides, but no cubes. Non-mag	
93-6	245	1367	Twin Peaks, N vein Qtz/carb vein with well carbonatized walrock. Good bluish-grey hematite slips.	
93-7	245	1367	Twin Peaks, N vein Highly carbontz'd grey-grn chloritic walrock material with irregular qtz/carb vein. 1% sulp mainly in grn schist.	
93-8	245	1367	Twin Peaks, N vein - Mixture of qtz vein, actino rosette imparting greenish tinge to much of rock with tiny py cubes throughout. with 1 bleb of more triangular sulphide min 7 mm of grey wall with fine py and a 1.5 mm	120

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No.	91 Grid East	North	DESCRIPTION	Au ppb
			bleb of bronzy-brn sulphide.	
93-9	245	1367	Twin Peaks, N vein	56202
93-10	245	1367	Twin Peaks, N vein	
93-11	-18	1160	Twin Peaks, 70m W of 1191189 #2. Same area as 92-55 above.	
93-12	-18	1160	Twin Peaks, 70m W of 1191189 #2. Same area as 92-55 above. Fair carbonatization.	
93-14	245	1367	Twin Peaks, N vein. Highly carbonatized typicall walrock material 1% pyrite cubes.	
93-15	—	—	Clm 1201289, 260m W of 1191188 #3 & 60m N of clm line. F.g. foliated granitoid with section with good evenly distrib fine py cubes. Weakly carbonatized.	47,000
93-16	—	—	Gem Knoll SW F.g. granitoid with minor sulp. Poss wkly foliated aplite dike.	7
93-17	—	—	Gem Knoll NW NW corner of knoll facing wet lowland. Vein extends over 25m across o/c. To SW it is only 1 cm wide in 20cm alteration package. At NE end, alteration is at least 2m wide and the veins, though mineralz'd are more randomly oriented.	
93-17a	—	—	Gem Knoll SW NE pt of vein which occurs as laminations in a wkly mineralz'd zone. Un float-like wallrock.	6
93-17b	—	—	Gem Knoll SW NW pt of vein - dl-grey wallrock with 2% 1mm py cubes.	6
93-18	—	—	Gem Knoll centre Broad undefined area of altr'd (occ pinkish) rock with profusion of random qtz veins of varying dimensions. Most carry <1% py cubes & very finely diss py. SAMPLE is qtz with 1% py as 1-2mm cubes & very fine disseminations.	57
93-19	—	—	Gem Knoll SW App 20m W of 93-16. Hematiz'n & epidotiz'n present in this outcrop.	

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No.	91 Grid East	North	DESCRIPTION	Au ppb
93-19a	—	—	Gem Knoll SW Qtz vein with minor carbonates from 15X20cm boudinage. Rare sulp except near thin layer of biot/chlor wallrock. Vein is vuggy with pinkish splashes.	
93-19b	—	—	Gem Knoll SW Contaminated qtz/carb vein with 3 good sulp splashes. Distinct amphibole xtals in poorly mineralized wallrock.	
93-19c	—	—	Gem Knoll SW Bluish-grey wallrock, 15% sulp & 1 cm qtz vein. SAMPLE, weathered surface, no witness.	
93-19d	—	—	Gem Knoll SW Well mineralz'd (20%) creamy-beige altered wallrock. Mineral'n occurs as fine dissemint'd SAMPLE, no witness.	14
93-19e			Gem Knoll SW Sugary qtz/carb vein with thin chloritic slips & good sulphide bled associated with one slip. Heavily mineralz'd wallrock with 1mm py cubes. Highly carbonatized wallrock.	6
93-20	—	—	Twin Peaks - Cliff Qtz vein at top of cliff face. Strike 80° (?) Good boudinaged qtz up to 15x30cm in weakly sericitized tuff (or sediment ?). Very rare sulp in qtz. Up to 1% in very shiny chlorite/sericite wallrock.	
93-20a	—	—	Twin Peaks - cliff Massive 6x15cm boudinaged qtz in thin shiny chlorite/sericite matrix. No visible sulp.	<5
93-20b	—	—	Twin Peaks - cliff Felsic tuffaceous wallrock with 1-2% finely diss py as tiny cubes. Qtz inclusions. Shiny chloritic slip faces.	95
93-21	—	—	Esker road, N bdy claim 1182407 Very competent dk f g. rock along S margin of broad o/c consist mainly of amphibolz'd mafic lavas. Considerable epid. SAMPLE contains finely diss sulp & is spottily mag (see 92-62)	
93-22	—	—	Cruise 1 - 700m E @ 70 deg from power line	6

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No	91 Grid East	North	DESCRIPTION	Au ppb
			Qtz boulder resembling Twin Peak S vein but poss more sulp in qtz. Some limonite-stained qtz. Boulder in gully between steep o/c of very dk mafi9cia lava to the N and a broad exposure area of greener mafic lavas to the S. 4m S of float bedrock is well mineralz'd with poss diverse sulphide. (Next sample)	
93-23	—	—	Cruise 1 - 700m E @ 70 deg Mafic vol with considerable py cubes & poss other sulph. Probably vein wallrock material Poss faint BQE	<5
93-24	—	—	Cruise 1 - 450m E Intermediate porphyry in contact amphibolz'd & epidotz'd mafic volcanics. Contact @ 38° No mineralization.	
93-25	—	—	Esker road to Jumping Moose Creek. Granite, c.g., granulated	
94-1	—	—	Mattagami Lake App 600m S of trail to power line. Steep rock ridge with red pine - Granite, massive evid of jointing in overall o/c	
94-2	—	—	Jumping Moose Lake N end of open meadow S of JML. Distinct red-weathering m.g. to c.g., magnetic. Young intrusion, poss Nipissing	
94-3	—	—	Site 12 - Island along Jumping Mouse Creek Felsic to intermediate frag tuff with up to 12x3cm elongated fragmts. Py to 3% in 2cm bands next to 5cm bands of 1% py. Strike to NE as per Newmont	8
94-4	—	—	Site 11 - windfall ridge, 40m S of #2 121021 Windfall o/c ridge, 50x10m, 40m S of 121021 #2, W of ck. - Massive to wkly fol gm mafic flow with blue quartz-eyes. Weakly foliated section towards hornblende/epidote.	
94-5	600	1010	Felsic tuff. 2mm py cube molds in one sample	
94-6	600	1010	Massive carbonatized dk-gm mafic volcanic, wkly sheared, highly mag	
94-7	—	—	Twp line - 225m E of twp line, S end 20m o/c Small chip. Pink-weathering rock.	

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No.	91 Grid East	North	DESCRIPTION	Au ppb
94-8	—	—	Twp line - 270m N of rd, 10m W of twp line Nipissing diabase ?	
94-9	—	—	Twp line - 3123m N of rd, 5m E of Twp line Mafic volcanic sheared @ 34 degrees. Calcite veinlets, moderately carbonatized	
94-10	—	—	Twp line - 485m N of rd, 6m W of twp lime Edge of long slough @ 34 deg Syenite in mixture of granitoids & mafic volcanics.	
94-11	—	—	Twp line 650m N of Rd. Dk-gm, mafic to ultramafic. Kkly carbonatized	
94-12	—	—	200m S of 1191582 #1 Lunch area - large bald o/c - M.g. hornblnd	
94-13	—	—	505m S of 1191582 #1 Diabasic rocks.	
94-14	—	—	1040m W of 1191582 #2 Sheared felsic to intermediate BQE porphyry.	
94-15	—	—	1120m W of 1191582 #2 O/c ridge @ 33° - hornblnd to hornblnd	
94-16	—	—	65m NW of 1191583 #3 Felsic granitic rock.	
94-17	—	—	48m E of power line Along trail from N end of small bend in power line road.	
94-20	255	1368	Site 33 Loose - mafic volcanic to HF with 1.5cm massive sulp as bleb or seam. Highly mag 1cm rusty qtz vein.	<5
94-21	247	1382	Site 33 10m N of vein - F.g. to m.g. granitoid towards rhyolite. Pale weathered surface as 10m NW of 1182409 #3. No witness	<5
94-22	260	1390	Site 33 36m NE of vein - Stripped 4x6m dome of massive homogeneous mafic rock of unknown origin. Greenish, as wkly epidoz'd. Poss alteration product.	
94-24	200	1300	Qtz vein ranging from 8 to 25cm - No altered	65

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No	91 Grid East	North	DESCRIPTION	Au ppb
			wallrk. Occ sulp stains - SAMPLE is limonite	
			-stained with sulp mostly in gangue, some	
			grn copper stain. No witness.	
94-26	—	—	320m E of 1191594 #4	
			N side of o/c - Granite porphyry with sharp	
			irreg contact /soft green mafic vol to S.	
94-27	—	—	320m E of 1191594 #4	<5
			Irregular mostly barren qtz vein. SAMPLE	
			contains good py blebs. No witness	
94-28	824	1104	Site 2	6
			2cm to 14 cm qtz vein along contact between	
			BQE & silicified rhyolite to S. Glassy wht	
			qtz with some sulp (py ?) in qtz	
94-29	819	1104	Site 2	
			Limonite-stained qtz with mass py bleb,	
			poss disintegrated 3cm py cube	
94-30	1850	1973	Site 3	
			HF, blk sooty rock with up to 55% sulp,	
			mainly py. Poss po, magnetic. Diabase to W.	
94-32	1853	1970	Site 3	
			Qtz vein in syenitic rock within complex of	
			4cm saussuritized diabase dikelets. X-cutting	
			orangy-pnk veinlets. No sulp	
94-33	1851	1871	Site 3	
			Saussuritized diabase at contact with	
			syenite & immediately above HF. Magnetic	
			susceptibility of diabase	
94-34	1848	1892	Site 4	<5
			Hornblnd/epid with scattered pnk feldspar	
			giving mafic syenite appearance. M.g., grey-	
			grn, 1/2% evenly diss sulp (py ?). Non-mag	
			Heavy epidote slips.	
94-35	1835	1899	Site 4	<5
			Mass pnk syenite or felsite. F.g., epidoz'd,	
			minor diss py, non-mag, poss sillim laths.	
94-36	1843	1890	Site 4	6
			HF with 3cm barren qtz vein and 3mm seams	
			of mass magnetite on both walls.	
94-37	1087	1075	Site 1	
			Upper central pt of stripping. - Gabbroic	

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No.	91 Grid East	North	DESCRIPTION	Au ppb
			hypabyssal flow as N of Isld Showing.	
94-38	1083	1078	Site 1 Below syenite dike. Qtz/carb complex with many alterat'n colours as per main float wallrock, except BQE & py cubes. SAMPLE is 20% qtz without veining & up to 5% sulp as elongated whisps in darker wallrock. Minor sulp in the qtz including poss V.G.	<5
94-39	1083	1078	Site 1 Dk shiny deep-grn with central 6cm band carrying 5% roundish & oval sulphide blebs. 2cm pnk calc vein with very fine diss sulp.	<5
94-40	1083	1078	Site 1 Syenite, grey-purple . towards lamprophyre. Fine diss sulp Glaucophane, carbonatized & wkly magnetic as per sample 94-79 below.	
94-41	1851	1973	Site 3 Syenite, finely diss sulp, pale-grn Epidotized sections, moderatly carbonatized.	<5
94-42	1852	1973	Site 3 Qtz/carb rock with x-cutting 1mm veinlets. Very minor small py splashes.	7
94-43	1850	1973	Site 3 HF, up to 1.5cm py band in dk to blk f.g. magnetic rock.	18
94-44	2317	2137	Site 5 Well bedded @ 60°, melange of mainly felsic rocks with up to 40cm fragments of pale grn material of poss vol origin. Similar-size fragments of magnetic garnetiferous HF as in DDH & HF floats. Also blk highly mag fragments. Carbonatized sections.	<5
94-45	2306	2087	Site 6 Gabbro, massive m.g. coarse-textured with many pinkish inclusions & frag including 200x50cm blocks of well mineralized highly magnetic HF. The blocks appear strataform ? Carbonatized	
94-46	2302	2091	Site 6 Highly mag HF with 30% silica & 4% sulp from 200x50cm fragment within a 65 sq m exposure of massive differentially weathered	

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No.	91 Grid East	North	DESCRIPTION	Au ppb
			gabbro	
94-47	1557	1394	Site 9 Limonite-stained qtz vein in qtz/carb vein complex. Good sulp specks & splashes. some as cubes & dodecahedrons.	<5
94-48	1559	1394	Site 9 Lower qtz mass with major sulp splash in main qtz/calc vein complex.	15
94-49	1557	1394	Site 9 Spectacular display of bronzy & shiny silvery sulp in carbonatized grn schistose wallrock next 1cm vein of bluish-grey qtz no unlike Lorr's Cree L. Fair cp splashes.	160
94-50	1557	1394	Site 9 Highly carbonatized mafic volcanic with good sulp splashes in 4mm calcite vein that dips 25 degrees N.	23
95-51	1557	1394	Site 9 Moderatly carbonatized country rock with 1x2cm sulp splash.	<5
95-52	1557	1394	Site 9 Example of calcite veining in centre of main calcite vein.	
94-53	722	2128	Site 13 S pt along steeper o/c face. - Wkly foliated andesite, 4cm qtz/carb vein /respectable sulp splashes & occ cube within qtz. Minor cp.	<5
94-54	1934	1637	Site 7 Qtz/calc vein with very minor sulp & occ tiny bead of unidentified sulp. Much of qtz has greenish tinge. Occ typical reddish feldspathic splashes also cp.	<5
94-55	1934	1637	Site 7 Well foliated rock, probably sheared Wallrock to vein above.	<5
94-56	1972	1499	Site 8 Wkly granitized mafic vol with 1cm wide seam of 60% py	6
94-57	1559	1119	Site 10 Highly carbonatized pink-purple with 1/2%	<5

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No.	91 Grid East	North	DESCRIPTION	Au ppb
			py cubes (?). Foliated, non-magnetic.	
94-58	1560	1119	Site 10 Similar 94-57 above but less sulp. Highly contorted & poss crenulated. Also, more pinkish minerals. SAMPLE is from a 25 cm band cutting the mafic volcanics near barren qtz boss. Higly carbonatized	
94-59	1560	1120	Site 10 Qtz & wallrock, considerable hem slips. Occ sulp blebs including in qtz. Pinkish qtz & minor carbonate. No witness	<5
94-60	1345	1000	Site 14-e Flat-lying randomly-oriented qtz vein with occ sulp flakes. 2% sulp in surround'g rocks	35
94-61	1330	995	Site 14-c Dk-grn to blk, chloritic, poss wkly sheared	
94-62	1330	1010	Site 14 Granite, graphic display of small hornblnd x-xtals. Very minor sulp, some epidote	<5
94-63	1210	990	Site 15 4cm boudinaged qtz vein in sericite/chlorite shear (alteration) all without sulp. Similar main float.	<5
94-64	1210	990	Site 15 Highly carbonatized dk greyish-blue & serecitic. Shear with minor diss sulp increasing to 2% at one end	
94-65	1210	990	Site 15 Highly carbntz'd grey wkly serecitic, weathering to very flaky dk-brn. Poss part of shear zone.	
94-66	1129	1134	Site 12 Felsic to intermediate tuff, lapilli tuff, with 1% sulp as blebs & 1mm cubes. Highly carbonatized	<5
94-67	1132	1142	Site 16 - Pop 1 HF, dk-grn well folit'd garnet schist with 1cm band of 100% sulp as assrt'd py crystals	
94-68	1129	1134	Site 16 - Pop 2 Garnetiferous felsic tuff with minor calcite,	<5

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No.	91 Grid East	North	DESCRIPTION	Au ppb
			qtz & sulp splashes. Recall pop near DDH 51-2	
94-69	1129	1133	Site 16 - Pop 3 Darker phase of the felsic tuff with considerable stringers and disseminations of py in up to 3mm cubes.	9
94-70	2573	1510	Site 17 - Pop 1 Near centre of syenitic inclusion. Dark brick -red, highly carb, non-mag. Some sections display considerable x-cutting calc veining over 10cm². Occ py cubes.	6
94-71	2573	1510	Site 17 - Pop 1 Non-carb biotite lamprophyre. Hematite slip on one face. Rock borders the syenite and appears invaded by it. Elsewhere, it appears to intrude the syenite.	
94-72	2573	1510	Site 17 - Pop 1 SAMPLE shows relationship between syenite & lamp; both intruding pillow lava.	
94-73	2572	1505	Site 17 - Pop 2 Foliated mafic volcanic with minor syenitic inclusions. Rare sulphides. Modl'y carbntz'd	
94-74	2574	1508	Site 17 - Pop 3 Syenite wallrock material consisting of of foliated mafic vol, qtz/calcite with many sulp blebs & cubes.	8
94-75	2574	1508	Site 17 - Pop 3 Highly carbonatized lamprophyric syenite with 1/4% diss 1mm py cubes. Dense, massive and non-magnetic.	12
94-76	2574	1508	Site 17 - Pop 3 Phase of lamprophyric syenite showing degree of calcite veining.	
94-77	2574	1511	Site 17 - Pop 4 Med-grnd vol with numerous, mainly strataform up to 1 cm pinkish veinlets due to syenite proximity. Occ cubes & sulp blebs, includg cp	<5
94-78	2168	1228	Site 18 - 2nd stripping area Greenish-pnk massive syenitic rock / fine 1/2 mm py cubes. Actino rossette, carbnonatized	<5
94-79	2147	1239	Site 18	<5

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No.	91 Grid East	North	DESCRIPTION	Au ppb
			Appearance of lamp syenite probably due to undeveloped biotite or glaucophane. Pinkish, diss small py cubes. Well carbonated & wkly magnetic as 94-40 above.	
94-80	2152	1253	Site 18 Highly carbonatized, well folit'd, pale-grn. Occ finely diss sulp, poss cp.	13
94-81	2151	1249	Site 18 Well laminated pale-grn to yellowish, wkly carb & not too unlike 94-80 above. 2 finely diss sulp specks. Good cleavage & alternate dk band produce distinct sedimentary appearance, but its emplacement with pillw'd flows preclude such origin.	34
94-82	1023	1081	DDH 51-2 & 4 Highly carbntz'd m.g. to f.g. dk-grey / pinkish tinge. Massive, but weathers to schist. Unfamiliar rock, poss related to lamprophyre	
94-83	1023	1081	DDH 51-2 & 4 Qtz vein or flooding in rhyolite tuff. No mineralization	14
94-84	1023	1081	DDH 51-2 & 4 Meat-red felsic tuff with diss 1mm py cubes	6
94-85	1023	1081	DDH 51-2 & 4 Highly weathered brn rhyolite tuff, no remaining sulp. Browning from unknown source	6
94-86	719	2145	Site 13 N side o/c - Qtz flooding with rare sulphide specks & one 2cm bleb. From narrow vein.	13
94-87	1253	1310	Site 19 Diabase, grn-grey, m.g. to f.g., magnetic.	
94-88	1136	1328	Site 20 Carbonatized mafic dike, towards lamprophyre	
94-89	1136	1328	Site 20 Qtz from margin between pillow lava & carb lamprophyre.	
94-90	1144	1257	Foliated carbntz'd mafic vol with BQE (hard to detect)	
94-91	1119	1207	Site 23	

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No	91 Grid East	North	DESCRIPTION	Au ppb
			Massive grey-grn m g. hypabyssal flow. Non-carbonatized, non-magnetic.	
94-92	1119	1213	Site 23 Wkly schistose, deep-grn, slightly amphibole & towards main float wallrock. SAMPLE, part contains qtz/calc which gives N part o/c a gouged appearance.	
94-93	1148	1196	Site 24 Laminated I-F band occurring across 12cm in melange of gabbroic, hypabyssal & mafic flows. Non-mag. Pinkish bands comparable Site 28.	<5
94-94	1167	1200	Site 25 I-F, siliceous portion with poss hydrothermal qtz vein with py cubes & blebs. Limonite-stained quartz.	<5
94-95	1167	1198	Site 25 Wht & grn cherty section of I-F. 15% sulp, mainly py. No witness.	14
94-96	1161	1193	Site 26 Diabase from a dike with intruded by 12cm non-mag wkly lineated.	
94-97	1161	1195	Site 26 Diabase, magnetic	
94-98	1161	1195	Site 26 Diabase dike. Chill margin with sulp blebs. Stronger mag.	
94-99	1162	1195	Site 26 Wkly folit'd mafic volcanic with evenly distributed tiny BQE.	
94-100	1275	1237	Sute 22a Diabase, olivine diabase. Mag, 8cm swing.	
94-101	1141	1180	Dense deep-grn wkly folit'd, non-mag, non-carb with BQE	
94-102	—	—	Site 12 - Station 2 Foliated & contorted grey mafic vol with qtz & sulp blebs up to 11cm. Carbonatized sections	
94-103	—	—	Site 12 - Station 2	

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No	91 Grid East	North	DESCRIPTION	Au ppb
			Well bedded felsic fragmental with 20% sulp,	
			some as tiny cubes.	
94-104	—	—	Site 12 - Station 3	6
			Greywacke with <1/2% diss sulp. Carbontz'd	
94-105	1148	1195	Site 24 - Station 1	<5
			Bedded magnetic chemical sed rock consisiting	
			of blk & silica beds with app 2% sulphides.	
94-106	1148	1195	Site 24 - Station 2	
			Massive gabbroic to hypabyssal flow with	
			large sulp clots.	
94-106 b	1148	1195	Site 24 - Station 3	
			Massive highly amphibolz'd non-magnetic	
			/rare sulp. Progressively more foliated on 3	
			axes. BQE & minor cp. Carbontz'd sections	
94-107	—	—	Site 12 - Station 4	<5
			Station 4 - Feldspar porphyry, non-folit'd	
			occ sulp speck. Wkly carbonatized.	
94-108	—	—	Site 12 - Station 5	<5
			Carbontz'd blk slaty sed with 20% shiny py	
			Large witness not rep.	
94-109	720	2129	Site 13 - Station A	<5
			BQE feldspar porphyry (intrusive)	
			with occ sulp speck.	
94-110	731	2152	Site 13 - Station B	<5
			Barren qtz/carb vein with greenish tinge.	
			No wallrock alteration.	
94-111	719	2132	Site 13 - Station C	
			F g granitoid, poss aplite. Occ BQE, minor	
			carb. Evenly distrib uted fine sulphides.	
94-112	719	2132	Site 13 - Station D	<5
94-113	-13	1158	Site 28	11
			Massive, granitoid, magnetic with 1% evenly	
			distributed sulphides Qtz/carb /cp specks.	
94-116	714	2132	Site 13	
			Rusty weatherd well laminated rock from	
			contact between BQE porphyry & mafic vol.	
94-117	-18	1160	Site 28	
			From contorted top part of siliceous	

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No.	91 Grid East	North	DESCRIPTION	Au ppb
			carbonatized vein-like material. Source of orginal but with mopre sulphides	
94-118	-19	1165	Site 28 Fresh green mafic volcanic rock with 2cm qtz vein. Hairline carb veinlets and epidote	
94-119	-7	1173	Site 30 Large bold knoll of pnk-weather'g felsic or silicified well lineated rock. Lineation in o/c not visible in sample. Wkly mnrlz'd / fine diss py & py cubes. Formation contains 20cm-wide finely tapered unit of dk-grn vol rock.	
94-120	-3	1190	Site 31 Carbonatized pink felsic porphyry of possible intrusive origin. <1mm pale-grey qtz-eyes	
94-121	-32	1214	Site 32 Loose, buried under moss but on top bedrock. Rusty appearance of HF but non-mag, poss skarn. 2% sulphides.	
94-122	42	1333	Reworked, contorted, well foliated intermed volcanic rock. Weakly carbonatized.	
94-122a	-31	1215	Site 32 Pnk-weathering wkly foliated felsic to interm volcanic rock.	
94-123	241	1380	Site 33 Pink-weathr'd felsic rock of probable volcanic origin. Tapered inclusion of mafic lava appears more the result of interbedding than xenolith. Rocck is hard and mineralz'd /fine sulp includ'g py cubes. Minor carb seams.	
94-124	300	1483	Site 33 Pink-weathering well foliated grey felsic rock with occasional opalescent BQE but no sulp. Softer than Sample 123 above, poss sericitz'd	
94-125	-4	1187	Site 31 Granitoid breccia as small mass within mafic & felsic flows in a structural setting near felsic porphyry. Highly carbonatized	
94-126	220	1352	Site 33 M.g. to c.g. mottled interflow gabbroic rock.	
94-127	249	1346	Site 33	

LIST of SAMPLES
TITTLEY Property - BURROWS Township

No.	91 Grid East	North	DESCRIPTION	Au ppb
			Qtz calc vein material hosted in mafic flow with shiny chlorite/sericite face, not unlike main floats. Sulp including blebs and cubes throughout, but <1%. Magnetic.	
94-128	1135	1332	Dk f-g. schistose. Minor parallel sulphide laminations.	

Bondar Clegg
Inchcape Testing Services

Geochemical
Lab
Report

DATE PRINTED: 25-APR-94

REPORT: 094-41875.0 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB
92-33		>10000
93-12		3487
93-21B		398

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Bondar Clegg
Inchcape Testing Services

Certificate of Analysis

DATE PRINTED: 6-MAY-94

REPORT: 094-41876.4 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Te PCT
90-D		36.613	0.22
93-9		1.653	0.03
93-1		2.627	

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Lab Supervisor

Bondar Clegg
Inchcape Testing Services

Certificate of Analysis

DATE PRINTED: 12-MAY-94

REPORT: 094-41875.5 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au G/T
92-33		20.13

9/21.

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Lab Supervisor

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Inchcape Testing Services

Geochemical
Lab
Report

DATE PRINTED: 30-MAY-94

REPORT: 094-41970.0 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB
94-3		8
BU-62		8
93-8		120

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Geochemical
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Report

DATE PRINTED: 6-JUL-94

REPORT: 094-42059.0 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Ag PPM
94-20		<5	
94-21		<5	
94-24		65	
94-27		<5	
94-28		6	
94-34		<5	
94-35		<5	
94-36		6	
94-38		<5	
94-40		<5	
94-41		<5	
94-42		7	
94-43		18	
94-44		<5	
94-47		<5	
94-48		15	
94-49		160	0.4
94-50		23	0.2
94-51		<5	
94-53		<5	
94-54		<5	
94-55		<5	
94-56		6	
94-57		<5	
94-59		<5	
94-60		35	
94-62		<5	
94-63		<5	
94-66		<5	

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Geochemical
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Report

DATE PRINTED: 12-JUL-94

REPORT: 094-42080.0 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB
94-68		<5
94-69		9
94-70		6
94-74		8
94-75		12
94-77		<5
94-78		<5
94-79		<5
94-80		13
94-81		34
94-83		14
94-84		6
94-85		6
94-86		13

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Geochemical
Lab
Report

DATE PRINTED: 20-JUL-94

REPORT: 094-42126.0 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB
94-93		<5
94-94		<5
94-95		14
94-104		6
94-105		<5
94-107		<5
94-108		<5
94-109		<5
94-110		<5
94-112		<5
94-113		11
94-114		<5
94-115		78

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Certificate of Analysis

Inchcape Testing Services

DATE PRINTED: 1-NOV-93

REPORT: 093-42483.4 (COMPLETE) PROJECT: JMG PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Ag OPT	Te PCT
#93-1		23.13	0.06

41P14SW0013 2 16319 BURROWS

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2.16319

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Lab Supervisor

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Geochemical Lab Report

Inchcape Testing Services

DATE PRINTED: 15-OCT-93

REPORT: 093-42483.0 (COMPLETE)

PROJECT: JMG

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
93-1		>10000 (196 500 PPB) est.
93-2		7189
93-3		9821

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Inchcape Testing Services

Certificate of Analysis

DATE PRINTED: 6-MAY-94

REPORT: 094-41876.4 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Te PCT
90-D		36.613	0.22
93-9		1.653	0.03
93-1		2.627	

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Inchcape Testing Services

Geochemical
Lab
Report

DATE PRINTED: 30-MAY-94

REPORT: 094-41970.0 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB
94-3		8
BU-62		8
93-8		120

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Geochemical Lab Report

Inchcape Testing Services

DATE PRINTED: 11-NOV-93

REPORT: 093-42593.0 (COMPLETE) PROJECT: T.P. PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
93-15		47
93-16		7
93-17A		6
93-17B		6
93-18		57
93-19A		7
93-19B		<5
93-19C		25
93-19D		14
93-19E		6
93-20A		<5
93-20B		95
93-22		6
93-23		<5

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Geochemical
Lab
Report

DATE PRINTED: 25-APR-94

REPORT: 094-41875.0 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB
92-33		>10000
93-12		3487
93-218		398

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Geochemical
Lab
Report

DATE PRINTED: 20-JUL-94

REPORT: 094-42126.0 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB
94-93		<5
94-94		<5
94-95		14
94-104		6
94-105		<5
94-107		<5
94-108		<5
94-109		<5
94-110		<5
94-112		<5
94-113		11
94-114		<5
94-115		78

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Geochemical
Lab
Report

DATE PRINTED: 12-JUL-94
REPORT: 094-42080.0 (COMPLETE) PROJECT: NONE PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB
94-68		<5
94-69		9
94-70		6
94-74		8
94-75		12
94-77		<5
94-78		<5
94-79		<5
94-80		13
94-81		34
94-83		14
94-84		6
94-85		6
94-86		13

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Geochemical
Lab
Report

DATE PRINTED: 6-JUL-94

REPORT: 094-42059.0 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Ag PPM
94-20		<5	
94-21		<5	
94-24		65	
94-27		<5	
94-28		6	
94-34		<5	
94-35		<5	
94-36		6	
94-38		<5	
94-40		<5	
94-41		<5	
94-42		7	
94-43		18	
94-44		<5	
94-47		<5	
94-48		15	
94-49		160	0.4
94-50		23	0.2
94-51		<5	
94-53		<5	
94-54		<5	
94-55		<5	
94-56		6	
94-57		<5	
94-59		<5	
94-60		35	
94-62		<5	
94-63		<5	
94-66		<5	

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Report

DATE PRINTED: 12-JUL-94

REPORT: 094-42080.0 (COMPLETE)

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB
94-68		<5
94-69		9
94-70		6
94-74		8
94-75		12
94-77		<5
94-78		<5
94-79		<5
94-80		13
94-81		34
94-83		14
94-84		6
94-85		6
94-86		13

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MINED

Ministry of Northern Development and Mines
Ontario

Report of Work Conducted After Recording Claim

Transaction No. W 9580.00708

Mining Act

Personal information collected on this form is obtained under the authority of the Mining Act. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

41P14SW0013 2 16319 BURROWS

900

2.16319

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s): HERMANN Z. TITTLEY		Client No. 202200
Address: 273 SNOWDEN ROAD OAKVILLE ONTARIO		Telephone No. 905 847-3141
Mining Division: LARDER LAKE	Township/Area: BURROWS TWP.	M or G Plan No. G-959
Work Performed: From: NOVEMBER 10, 1993	To: NOVEMBER 2, 1995	

Work Performed (Check One Work Group Only)

	Work Group	Type
	Geotechnical Survey	
	Physical Work, Including Drilling	STRIPPING, BOASTING, WASHING & ASSAYING
	Rehabilitation	
	Other Authorized Work	These changes are approved 96/01/04
	Assays	
	Assignment from Reserve	HZT

Total Assessment Work Claimed on the Attached Statement of Costs $ ~~15660~~ 14506.

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
H.Z. TITTLEY	273 SNOWDEN ROAD OAKVILLE ONTARIO
D. BAIRD	145 DUNN AVENUE TORONTO ONTARIO

(Attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date: NOV 2, '95	Recorded Holder or Agent (Signature): [signature]

Certification of Work Report

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

Name and Address of Person Certifying: H. Z. TITTLEY 273 SNOWDEN ROAD OAKVILLE ONTARIO

Telephone No. 905 847-3141	Date: NOVEMBER 2, 1995	Certified By (Signature): [signature]

For Office Use Only

ACTING MINING RECORDER

Total Value Of Assessment Work: Applied 15969 Reserve 106	Date Recorded: 95 Nov 6	Mining Recorder: [signature]	RECEIVED LARDER LAKE MINING DIVISION NOV 6 1995
	Deemed Approved Date: 96 Feb 04	Date Approved:	
	Date Notice Sent:		

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value Applied to this Claim	Value of Assessment Work Done on this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	1167620	1	0	1393	1393	0
	1171902	1	0	1160	1160	0
	1171903	1	0	232	232	0
	1181532	1	0	581	581	0
	1181533	1	0	349	349	0
	1181535	1	0	232	232	0
	1182378	3	0	581	581	0
	1182380	1	0	1160	1160	0
#4	1182407	2	0	581	581	0
	1182409	1	0	1973	#1 1215 #4 758	#1 758
	1182413	2	0	116	0	116
#4	1201292	4	0	1045	0	1045
	1911189	1	0	1744	0	1744
	1915783	6	2400	0	0	0
	1261289	2	800	0	0	0
	1201290	1	400	0	0	0

Total Number of Claims

Total Value Work Done

Total Value Work Applied

Total Assigned From

Total Reserve

11 CONTINUED

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

1. ☐ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☐ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature	Date

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on This Claim	Value Applied to This Claim	Value Assigned from this Claim	Reserve Work to be Obtained at a Future Date
	1201291	4	0	1600	0	0
	1201293	4	0	1600	0	0
	1201294	2	0	800	0	0
Total Number of Claims: 10			Total Value Work Done: 11,260	Total Value Work Applied: 7600	Total Assigned From: 7600	Total Reserve: 3660

AGREED
Nov 1, 1996

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

1. ☐ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☐ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature	Date

AMENDED

Ministry of Northern Development and Mines / Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction: W 00708

W 9580.00708

sonal information collected on this form is obtained under the authority he Mining Act. This information will be used to maintain a record and going status of the mining claim(s). Questions about this collection should directed to the Provincial Manager, Mining Lands, Ministry of Northern elopment and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario E 8A5, telephone (705) 670-7264.

Les renseignements personnel recueillis en vertu de la Loi sur l des concessions minières. Adr renseignements au chef provi Développement du Nord et des (Ontario) P3E 6A5, téléphone (7

sont pière ces du bury

Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
ages ntenus	Labour Main-d'oeuvre	1338	
	Field Supervision Supervision sur le terrain	2813	4151
ontractor's d Consultant's ees oûts de ntrepreneur de l'expert-nseil	Type DRAFTING	2328	
	INTERPRETATION	2134	
	REPORT	1164	5626
pplies Used urnitures ilisées	Type ASSAYS	852	
	DRAFTING/OFFICE	470	
			1322
uipment ntal ation de tériel	Type ATV	485	
	SNOBILE	504	
			989
	Total Direct Costs Total des coûts directs		12089

2. Indirect Costs/Coûts indirects

** Note; When claiming Rehabilitation work Indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type GASOLINE	650	
	WAGES/TRAVEL	846	
	TRAVEL/OFFICE	184	
	RENTALS	97	
			1777
Food and Lodging Nourriture et hébergement	GROCERIES & FUELS	427	427
Mobilization and Demobilization Mobilisation et démobilisation	WAGES	262	262
	Sub Total of Indirect Costs Total partiel des coûts indirects		2466
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			2418
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs)	Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)		14,506

e: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

ng Discounts

Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.

Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

al Value of Assessment Credit	Total Assessment Claimed
× 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.

2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
× 0,50 =	

rtification Verifying Statement of Costs

reby certify:
the amounts shown are as accurate as possible and these costs e incurred while conducting assessment work on the lands shown the accompanying Report of Work form.

I as RECORDED HOLDER I am authorized
(Recorded Holder, Agent, Position in Company)

nake this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature: [signature] Date: Dec 22 95

AMENDED

Ministry of Northern Development and Mines

Ontario

Report of Work Conducted After Recording Claim

Mining Act

Transaction No. W 9580 • 00708

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 199 Larch Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

2.16319

Recorded Holder(s): HERMANN Z. TITTLEY — Client No. 292240

Address: 273 SNOWDEN ROAD OAKVILLE ONTARIO — Telephone No. 905 847-3141

Mining Division: LARDER LAKE — Township/Area: BURROWS TWP. — M or G Plan No.: G-959

Date Work Performed: From: NOVEMBER 10, 1993 To: NOVEMBER 2, 1995

Work Performed (Check One Work Group Only)

	Work Group	Type
	Geotechnical Survey	~~PROSPECTING, BRUSHING, TRAVELLING & CAMPING~~
	Physical Work, Including Drilling	
	Rehabilitation	
	Other Authorized Work	These changes are approved 96/01/04
	Assays	
	Assignment from Reserve	HZT

Total Assessment Work Claimed on the Attached Statement of Costs $ ~~14460~~ 14506.

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
H.Z. TITTLEY	273 SNOWDEN ROAD OAKVILLE ONTARIO
D. BALDO	145 DUNN AVENUE TORONTO ONTARIO

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.

Date: NOV 2, '95 — Recorded Holder or Agent (Signature): H.Z. Tittley

Certification of Work Report

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

Name and Address of Person Certifying: H. Z. TITTLEY 273 SNOWDEN ROAD OAKVILLE ONTARIO

Telephone No. 905 847-3141 — Date: NOVEMBER 2, 1995 — Certified By (Signature): H.Z. Tittley

For Office Use Only

ACTING MINING RECORDER

Total Value Cr. Recorded: Applied 15959 Reserve 106

Date Recorded: 95. Nov 6 — Mining Recorder: Kenneth Stahl

Deemed Approval Date: 96 Feb 04 — Date Approved:

Date Notice Sent to Applicant:

RECEIVED
LARDER LAKE
MINING DIVISION
NOV 6 1995

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	1167620	1	1393	0	1393	0
	1171902	1	1160	0	1160	0
	1171903	1	232	0	232	0
	1181532	1	581	0	581	0
	1181533	1	349	0	349	0
	1181535	1	232	0	232	0
	1182378	3	581	0	581	0
	1182379	1	1160	0	1160	0
	1182380	1	581	0	581	0
	1182407	2	116	0	116	0
	1182409	1	1973	0	1215	758
	1182413	2	116	0	0	116
	1191189	1	1744	0	0	1744
	1201192	4	1045	0	0	1045
	1191583	6	0	2400	0	0
	1201289	2	0	800	0	0
	1201290	1	0	400	0	0

Total Number of Claims (see back)

Total Value Work Done

Total Value Work Applied

CONTINUED

Total Assigned From

Total Reserve

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

1. ☐ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☐ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature	Date

AMENDED

Ministry of Northern Development and Mines
Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction: W 00708

W 9580-00708

sonal information collected on this form is obtained under the authority he Mining Act. This information will be used to maintain a record and going status of the mining claim(s). Questions about this collection should directed to the Provincial Manager, Mining Lands, Ministry of Northern velopment and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario E 6A5, telephone (705) 670-7264.

Les renseignements personnel recueillis en vertu de la Loi sur le des concessions minières. Adr renseignements au chef provi Développement du Nord et des (Ontario) P3E 6A5, téléphone (7 *sont pière ces du bury*

Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
ages aires	Labour Main-d'oeuvre	1338	
	Field Supervision Supervision sur le terrain	2813	4151
ontractor's d Consultant's es oûts de ntrepreneur de l'expert- nseil	Type DRAFTING	2328	
	INTERPRETATION	2134	
	REPORT	1164	5626
pplies Used urnitures ilisées	Type ASSAYS	852	
	DRAFTING/OFFICE	470	
			1322
uipment ntal cation de atériel	Type ATV	485	
	SNOBILE	504	
			989
	Total Direct Costs Total des coûts directs		12089

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type GASOLINE	650	
	WAGES/TRAVEL	846	
	TRAVEL/OFFICE	184	
	RENTALS	97	
			1777
Food and Lodging Nourriture et hébergement	GROCERIES & FUELS	427	427
Mobilization and Demobilization Mobilisation et démobilisation	WAGES	262	262
	Sub Total of Indirect Costs Total partiel des coûts indirects		2466
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			2418
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			14,506

te: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

ng Discounts

JAN 5 1996

Remises pour dépôt

Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.

Work filed three, four or five years after completion is claimed at 50% *of the above Total Value of* Assessment Credit. See calculations below:

2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

al Value of Assessment Credit	Total Assessment Claimed
	× 0.50 =

Valeur totale du crédit d'évaluation	Évaluation totale demandée
	× 0,50 =

rtification Verifying Statement of Costs

Attestation de l'état des coûts

reby certify:
t the amounts shown are as accurate as possible and these costs e incurred while conducting assessment work on the lands shown the accompanying Report of Work form.

I as RECORDED HOLDER *I am authorized*
(Recorded Holder, Agent, Position in Company)

make this certification

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature: [signature] Date: Dec 22 95

AMENDED

HERMANN TITTLEY 416 847 3141 P.02

Report of Work Conducted After Recording Claim

Mining Act

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, P3E 6A5, telephone (705) 670-7264.

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

2.16319

Prospector (Name) HERMANN Z. TITTLEY		Client No. 202200
Address 273 SNOWDEN ROAD OAKVILLE ONTARIO		Telephone No. 905 847-3141
Mining Division LARDER LAKE	Township/Area BURROWS TWP.	Mining Claim No. or Lease No. 6-959
Work Dates (Recorded) From: NOVEMBER 10, 1993	To: NOVEMBER 2, 1995	

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	~~[illegible]~~
Physical Work, Including Drilling	Stripping & Trenching
Rehabilitation	
Other Authorized Work	
Assays	CORRECTIONS APPROVED 96/01/04
Assignment from Reserve	$24,954

Total Assessment Work Claimed on the Attached Statement of Costs $ [illegible]

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
H. Z. TITTLEY	273 SNOWDEN ROAD OAKVILLE ONTARIO
D. BAIRD	145 DUNN AVENUE TORONTO ONTARIO

(Attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date NOV 2, 95	Recorded Holder or Agent (Signature) [illegible]

Certification of Work Report

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

Name and Address of Person Certifying HERMANN Z. TITTLEY 273 SNOWDEN ROAD OAKVILLE ONTARIO		
Phone No. 905 847-3141	Date NOVEMBER 2, 95	Certified By (Signature) [illegible]

For Office Use Only

Total Value Of Assessment Work: Applied 15999 Reserve 4955	Date Recorded 95 Nov 6	Mining Recorder [illegible]	RECEIVED ACTING MINING RECORDER KIRKLAND LAKE MINING DIVISION NOV 6 1995
	Deemed Approval Date 96 Feb 4	Date Approved	
	Date Notice Sent		

AMENDED

DOCUMENT No. W9580.00709

Correction approved 96/01/04

✓	1167620	1	3685	399	0	2676
✓	1171902	1	2571	0	2571	0
✓	1171903	1	514	0	514 495	0
✓	1181532	1	1295	800	0	0
✓	1181533	1	771	800	0	0
✓	1181535	1	514	800	0	0
✓	1182378	3	1285	2400	0	0
✓	1182379	1	2571	800	1771	0
✓	1182380	1	1285	800	485	0
✓	1182407	2	257	1600	0	0
✓	1182409	1	4370	800	3770	[illegible]
✓	1182413	2	257	1600	0	0
✓	1191189	1	3856	400	197	3259
✓	1201292	4	2313	1600	713	0
✓	1182377	4	0	1600	0	0
✓	1191582	2	0	1600	0	0
	16		24984	15999	7316	8955

24954 ✓ 15999 ✓ 8955 ✓

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (✓) one of the following:

1. ☐ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☐ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as priorized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature	Date

AMENDED

Ministry of Northern Development and Mines
Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Transaction Number (W.N.) / Numéro de transaction (N.T.)
W9580.00708

W9580.00709

Mining Act/Loi sur les mines

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels recueillis en vertu de la Loi sur les mines sont versés au registre des concessions minières. Pour de plus amples renseignements au chef de cette question, s'adresser au chef du Développement du Nord et des Mines, 4e étage, Sudbury (Ontario) P3E 6A5, (téléphone (705) 670-7264.

Direct Costs/Coûts directs

Type	Description	Amount / Montant	Totals / Total global
Wages / Salaires	Labour / Main-d'oeuvre	2678	
	Field Supervision / Supervision sur le terrain	5630	8309
Contractor's and Consultant's fees / Frais de l'entrepreneur et de l'expert-conseil	Type: DRAFTING	4465	
	INTERPRETATION	398	
	REPORT	2330	7184
Supplies Used / Fournitures utilisées	Type: FIELD & FUELS	771	
	EXPLOSIVES	408	
	DRAFTING/OFFICE	472	
			1650
Equipment Rental / Location de matériel	Type: ATV	1498	
	TRUCK, BOAT SAWS, ETC	2155	
			3653
	Total Direct Costs / Total des coûts directs		20,795

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount / Montant	Totals / Total global
Transportation / Transport	Type: GASOLINE	1578	
	WAGES/TRAVEL	1976	
	TRAVEL/OFFICE	426	
	RENTALS	243	
			4164
Food and Lodging / Nourriture et hébergement	GROCERIES & FUELS	1010	1010
Mobilization and Demobilization / Mobilisation et démobilisation	WAGES	595	595
	Sub Total of Indirect Costs / Total partiel des coûts indirects		5768
Amount Allowable (not greater than 20% of Direct Costs) / Montant admissible (n'excédant pas 20 % des coûts directs)			4159
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) / Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			24,954

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

...ling Discounts

Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.

Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit		Total Assessment Claimed
	x 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.

2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation		Évaluation totale demandée
	x 0,50 =	

...ertification Verifying Statement of Costs

...hereby certify:
...at the amounts shown are as accurate as possible and these costs ...ere incurred while conducting assessment work on the lands shown ...n the accompanying Report of Work form.

...at as RECORDED HOLDER I am authorized
(Recorded Holder, Agent, Position in Company)

...make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature: [signature] Date: Dec. 22 95

AMENDED

Report of Work Conducted After Recording Claim

W4836.00301

Mining Act

Personal information collected on this form is collected under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 199 Larch Street, Sudbury, P3E 5A5, telephone (705) 670-7264.

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

2.16319

Recorded Holder(s) HERMANN L. TITTLEY		Client No. 202200
Address 273 SNOWDEN ROAD OAKVILLE ONTARIO		Telephone No. 905 847-3141
Mining Division LARDER LAKE	Township(s) Area BURROWS TWP.	M or G Plan No. G-959
Work Performed From: NOVEMBER 10, 1993	To: NOVEMBER 2, 1995	

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	[redacted]
Physical Work, Including Drilling	Stripping & Trenching
Rehabilitation	
Other Authorized Work	
Assays	CORRECTIONS APPROVED 96/01/04
Assignment from Reserve	$24,954

Total Assessment Work Claimed on the Attached Statement of Costs $ [redacted]

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
H. L. TITTLEY	273 SNOWDEN ROAD OAKVILLE ONTARIO
D. BAIRD	145 DUNN AVENUE TORONTO ONTARIO

(Attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest of the current recorded holder.	Date	Recorded Holder or Agent (Signature)
	NOV 2, 95	[signature]

Certification of Work Report

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

Name and Address of Person Certifying		
HERMANN L. TITTLEY 273 SNOWDEN ROAD OAKVILLE ONTARIO		
Telephone No. 905 847-3141	Date NOVEMBER 2, 95	Certified By (Signature) [signature]

For Office Use Only

Total Value Of Assessment Work Applied 15999 Reserve 955	Date Recorded 95 Nov 6	Mining Recorder [signature] ACTING MINING RECORDER	Received RECEIVED KENORA RESIDENT GEOLOGIST MINING DIVISION NOV 6 1995
	Deemed Approval Date 96 Feb 4	Date Approved	
	Date Notice Sent		

AMENDED

Ministry of Northern Development and Mines
Ministère du Développement du Nord et des mines
Ontario

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Transaction No./N° de transaction: W9530.00708

W9580.00709

Mining Act/Loi sur les mines

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels recueillis en vertu de la Loi sur les concessions minières. Pour tout renseignements au chef du Développement du Nord et des Mines, 4e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	2678	
	Field Supervision Supervision sur le terrain	5630	8309
Contractor's and Consultant's Fees Frais de l'entrepreneur et de l'expert-conseil	Type DRAFTING	4465	
	INTERPRETATION	389	
	REPORT	2330	7184
Supplies Used Fournitures utilisées	Type FIELD & FUELS	771	
	EXPLOSIVES	408	
	DRAFTING/OFFICE	472	
			1650
Equipment Rental Location de matériel	Type ATV	1498	
	SLUICER, BOAT SAWS, ETC	2155	
			3653
	Total Direct Costs Total des coûts directs		20,795

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type GASOLINE	1578	
	WAGES/TRAVEL	1976	
	TRAVEL/OFFICE	426	
	RENTALS	243	
			4164
Food and Lodging Nourriture et hébergement	GROCERIES & FUELS	1010	1010
Mobilization and Demobilization Mobilisation et démobilisation	WAGES	595	595
	Sub Total of Indirect Costs Total partiel des coûts indirects		5768
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédent pas 20 % des coûts directs)			4159
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs)	Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)		24,954

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.

Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
x 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.

2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
x 0,50 =	

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

And that as RECORDED HOLDER (Recorded Holder, Agent, Position in Company) I am authorized to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ (titulaire enregistré, représentant, poste occupé dans la compagnie) je suis autorisé à faire cette attestation.

Signature: [signature] Date: Dec 22 95

Ontario

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

July 19, 1996

Our File: 2.16319
Transaction #: W9580.00708

Mining Recorder
Ministry of Northern Development & Mines
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Mr. Spooner:

SUBJECT: APPROVAL OF ASSESSMENT WORK CREDIT ON MINING LAND, CLAIM(S) 1167620 (ET AL.) IN BURROWS TOWNSHIP (AREA)

Assessment work credit has been approved as outlined on the amended report of work form. The credit has been approved under Section 12 Geology, of the Assessment Work Regulation.

The approval date is July 18, 1996. Please indicate this approval on the claim record.

If you have any questions regarding this correspondence, please contact Steven Beneteau at (705) 670-5861.

Yours Sincerely,
ORIGINAL SIGNED BY:

Ron C. Gashinski
Senior Manager, Mining Lands Section
Mines and Minerals Division

SBB/jf

cc: Resident Geologist
Cobalt, Ontario

Assessment Files Library
Sudbury, Ontario

Ontario

Ministry of Northern Development and Mines
Ministère du Développement du Nord et des Mines

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

June 14, 1996

Our File: 2.16319
Transaction #: W9580.00709

Mining Recorder
Ministry of Northern Development & Mines
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Mr. Spooner:

SUBJECT: APPROVAL OF ASSESSMENT WORK CREDIT ON MINING LAND, CLAIM(S) 1167620 et al. IN BURROWS TOWNSHIP

All deficiencies associated with this work report have been corrected. Accordingly, assessment work credit has been approved as outlined on the Report of Work Form. The credit has been approved under Section 10 (Physical Work) of the Assessment Work Regulation.

The approval date is March 11, 1996. Please indicate this approval on the claim record.

If you have any questions regarding this correspondence, please contact Steven Beneteau at (705) 670-5861.

Yours sincerely,
ORIGINAL SIGNED BY:

Ron C. Gashinski
Senior Manager, Mining Lands Section
Mines and Minerals Division

SBB/cc

cc: Resident Geologist
Cobalt, Ontario

Assessment Files Library
Sudbury, Ontario

geology reference - COBALT RESIDENT GEO.

NURSEY TWP

MATTAGAMI TWP.

KEMP TWP.

CABOT TWP.

2.16319 (GEOL)

Burrows L.

Burrows Cr.

Sinclair L.

Marne L.

L.O. 7199

Public Reserve S.R.O. File 163003

4M + 4.00ch

1M - 2.20ch

1M + 4.50ch

2M - 1ch

5M 4M 3M 2M 1M

901483 901484 901485 901482 901481 1201774 1191595 1201776 1182406 1182414 1201771 1191594 1191195 1191193 1182407 1191593 1182410 1203937 1182413 1182412 1203936 1201288 1190127 1205941 1193228 1182378 1182380 1203935 1201289 1191189 1182409 1182377 1211550 1193363 1191582 1201290 1191188 1182408 1201294 1189929 1193362 1191583 1201291 1201292 1201293 1189930 1203933 1211551 1189991 1211544 1223334 1223332 1223331

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

COPY OF THIS MYLAR ARCHIVED OCT. 17, 1991

ARCHIVED OCT.19,1995

CIRCULATED MARCH 13th 1990

THE TOWNSHIP OF

BURROWS

DISTRICT OF SUDBURY

LARDER LAKE MINING DIVISION

SCALE: 1-INCH 40 CHAINS

RECEIVED DEC 22 1995 MINING LANDS BRANCH

LEGEND

PATENTED LAND	P
CROWN LAND SALE	C S
LEASES	L
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O
MINING RIGHTS ONLY	M.R.O
SURFACE RIGHTS ONLY	S.R.O
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C

NOTES

400' surface rights reservation around all lakes and rivers.

Flooding rights to elev. 113' on Sinclaire Lake to H.E.P.C. L.O. 7191. File 1162 vol 4.

Flooding rights between elev. 1070' and the high water mark on Burrows Creek to H.E.P.C. L.O. 7199. File 36881.

SAND and GRAVEL

(R1) MNR GRAVEL RESERVE 3C21
Areas withdrawn from staking under Section 43 of the Mining Act, R.S.O. 1970.

Order No.	File	Date	Disposition
(R1) W 66/76	188517	19/11/76	S R O
(R2) PUBLIC RESERVE	163003		S.R.O

△ TRAPLINE CABIN

DATE OF ISSUE NOV 7 1995 LARDER LAKE MINING DIVISION RECORDER'S OFFICE

PLAN NO. G-959

DEPARTMENT OF MINES

— ONTARIO —

41P14SW0013 2.16319 BURROWS

1182407

1182380

1180678

1180679

1201288

1182381

1134284

1170526

1181532

1182409

1171903

1171902

1182377

1201294

1182408

1134285

1167692

1181535

Jumping Moose Lake

Road

Steep esker

1300N B.L.

1700N

1600N

1500N B.L.

1400N

1300N

1200N

900S B.L.

800S B.L.

400E

1000E

1100E

1200E

1400E

1600E

Hub 277.90E

Hub 281.27E

Hub 121.92W

Open muskeg

Jackpine

Mixed forest

Forest swamp

Open spruce muskeg

Cedar, spruce swamp

Forest muskeg

Spruce muskeg

Tall spruce

Larch, spruce

Alder

Large alder

Alder, fir

Open meadow

Poplar

Birch

Alder, birch, spruce

Birch, alder

Alder, ash

Fir, spruce

Giant pine

Comp

Kettle

Drow

Ash, alder swamp

Grassy meadow

Open grass meadow

Jackpine ridge

Slough

Swamp

Silt

Tr

L-80E

L-140E

L-220E

L-240E

L-260E

L-280E

L-600W

1994 grid lines

New

Re-cut

SCALE

0 m 100

prospecting

Linecutting

BURROWS Township
District of SUDBURY
LARDER LAKE Mining Division
ONTARIO

Date:

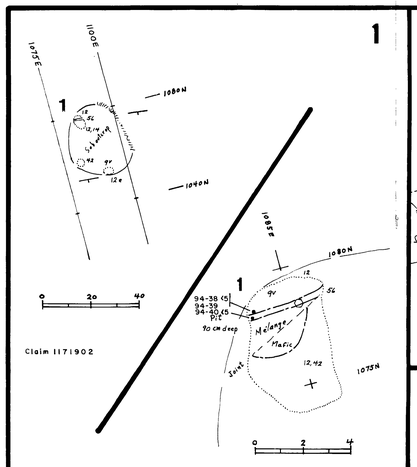
By:

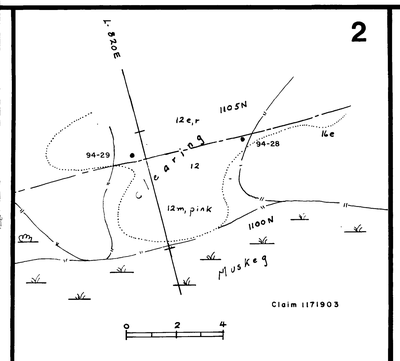
Scale

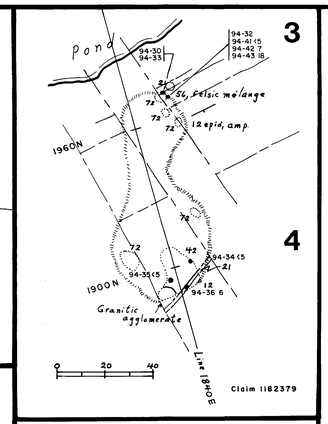
2.16319

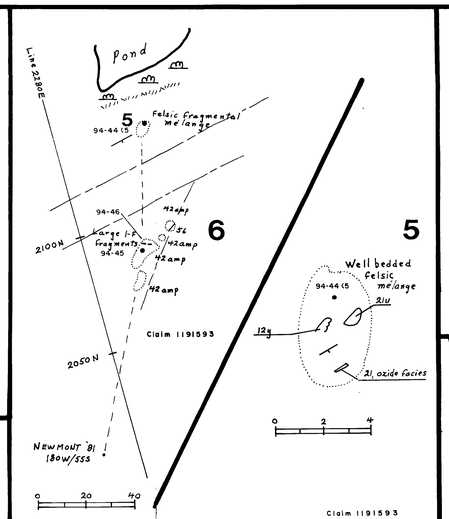
41P14SW0013 2.16319 BURROWS

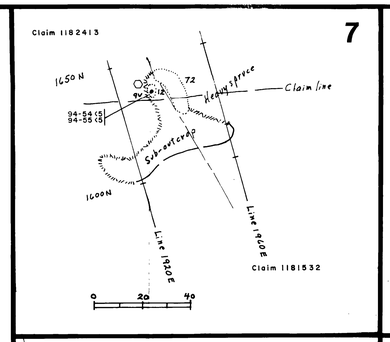
210

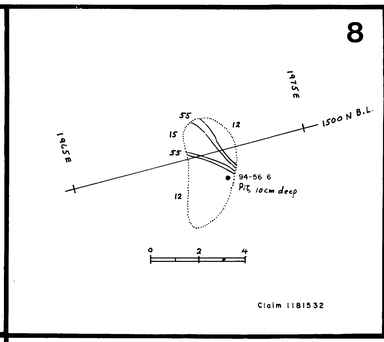


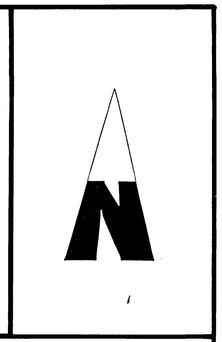


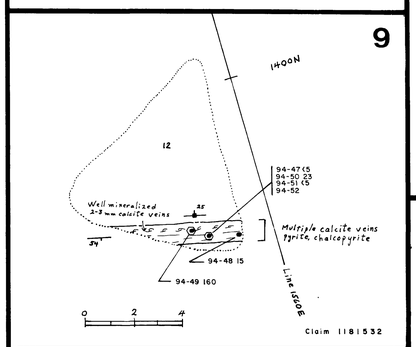


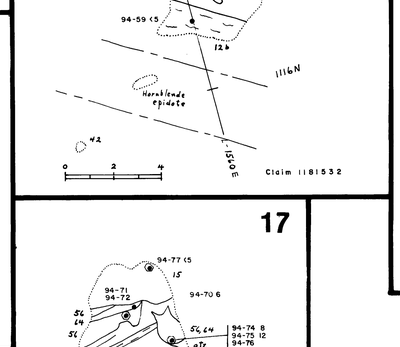


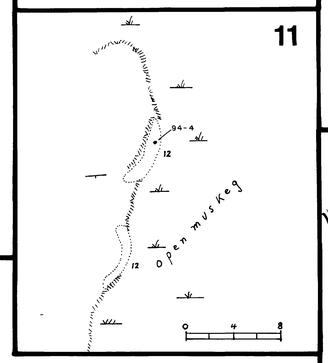


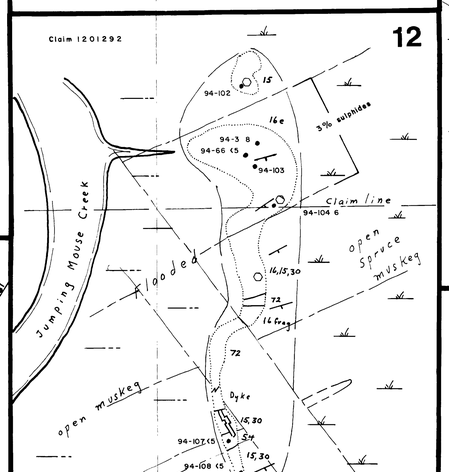


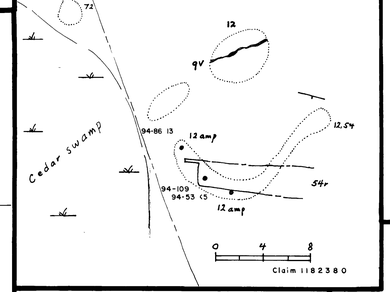


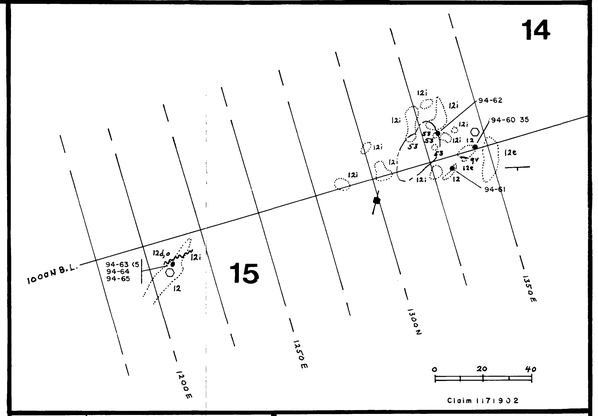


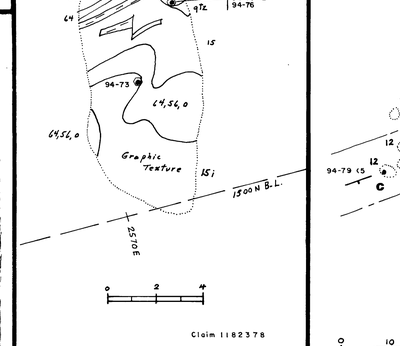


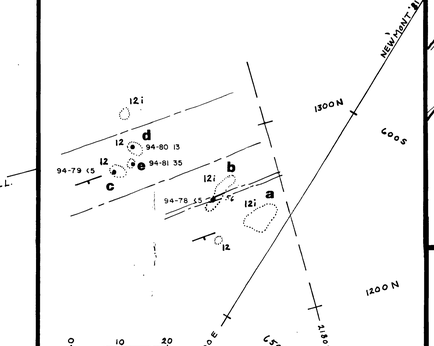


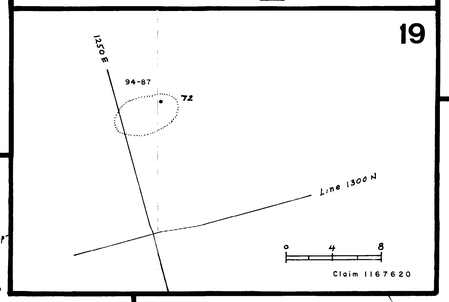


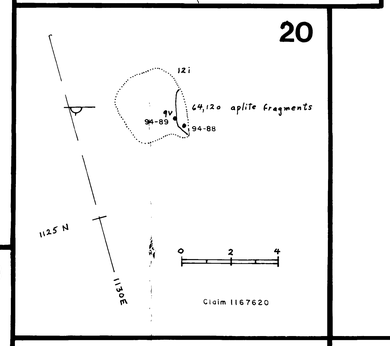


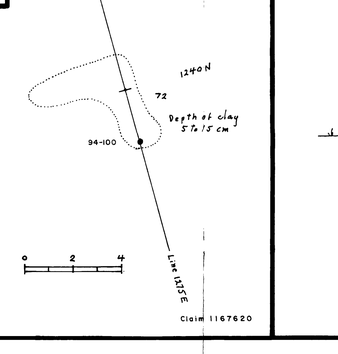


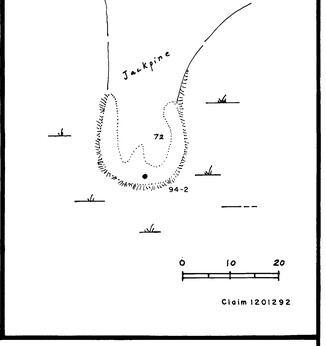


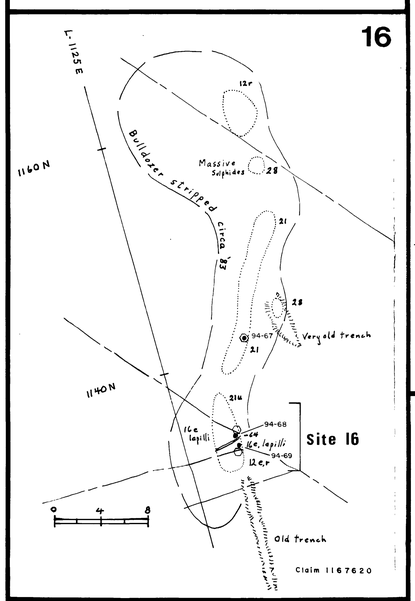


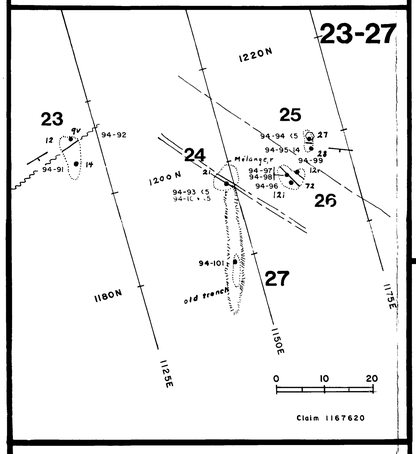


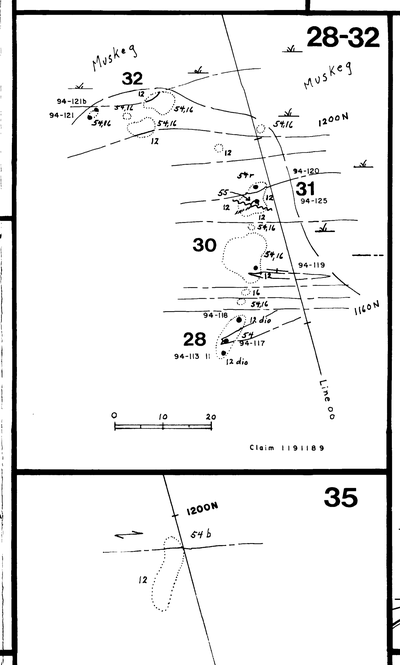


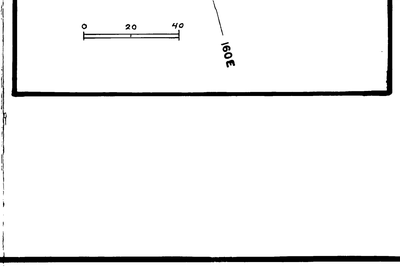


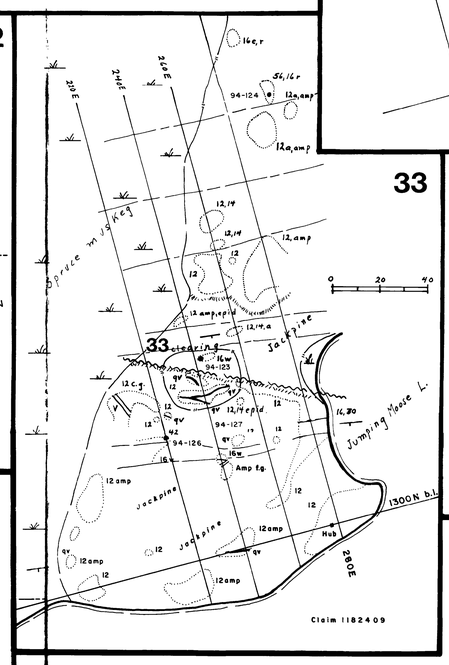


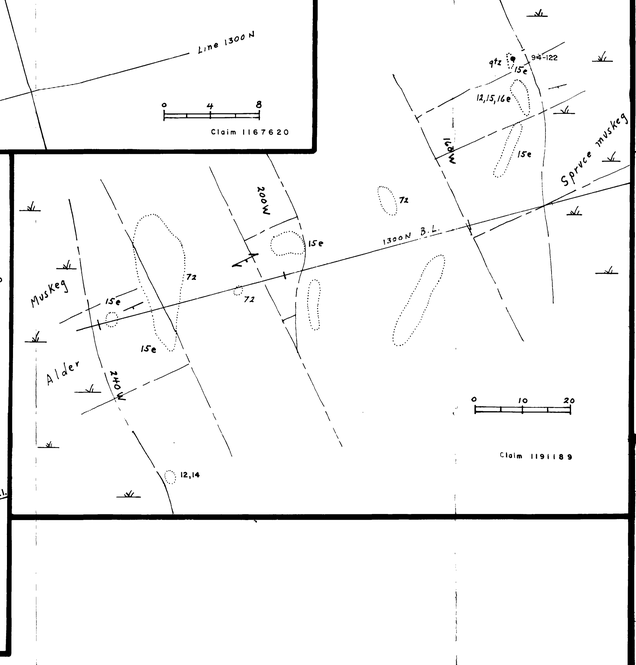


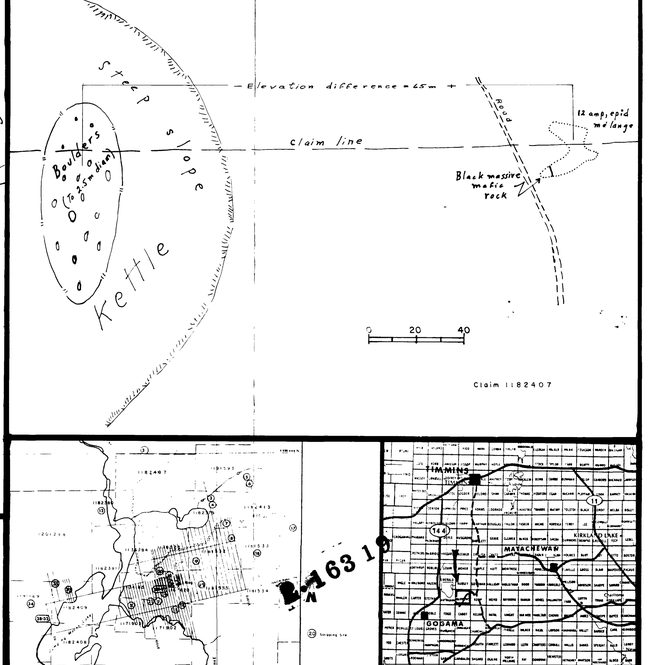


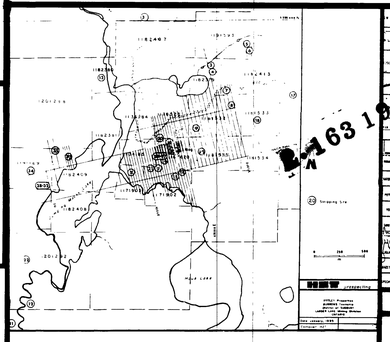


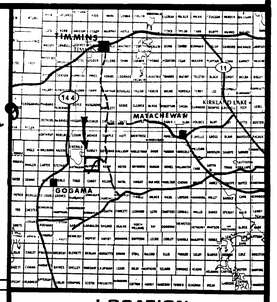












LEGEND

LATE MAFIC INTRUSIVE ROCKS
72 Nipissing
72 Diabase dyke

MAFIC INTRUSIVE ROCKS
65 Mafic dyke
64 Lamprophyre

FELSIC INTRUSIVE ROCKS
56 Syenite
55 Felsite
54 Feldspar porphyry
53 Granite

MAFIC INTRUSIVE ROCKS
42 Gabbro
41 Peridotite

SEDIMENTS
31 Bedded tuff, silt
30 Silt, greywacke

CHEMICAL SEDIMENTARY ROCKS
28 Sulphide iron-formation
27 Silica-rich iron-formation
21 Iron-formation
20 Geophysically interpreted I-F

FELSIC VOLCANIC ROCKS
16 Rhyolite

INTERMEDIATE VOLCANIC ROCKS
15 Dacite

MAFIC VOLCANIC ROCKS
14 Hyalotuffaceous flow, dioritic
13 Ultramafic flow
12 Andesite
11 Basalt

SYMBOLS

a Massive
b Foliated
c Schistose
d Sheared
e Tuffaceous
f Lapilli
g Fragmental
h Agglomeritic
i Pillowed
j Amygdaloidal
k Vesicular
l Altered
m Silicified
n Sericitized
o Carbonatized
p Lineated
q Albitized

r Blue quartz eyes
s Saussuritized
t Brecciated
u Garnetiferous
v Hornblend rich
w Porphyritic
x Aphanitic
y Chloritized

amp Amphibolitized
epid Epidotized

Blast site
94-12 7 Sample No. & assay ppb Au
Sample location
Exposed bedrock

RECEIVED
DEC 22 1995
MINING LANDS BRANCH

HBT prospecting

Stripping Sites
TITTLEY Properties
BURROWS Township
District of SUDBURY
LARDER LAKE Mining Division
ONTARIO

Date: October, 1995	Mapped: June-July, 1994
Compiled: HZT	Scale:

41P14SW0013 2 16316 BURROWS

KEMP Tp
BURROWS Tp

BURROWS Tp
KEMP Tp.

Burrows Lake
Mattagami Lake
Sinclair Lake
Fault Lake
Caribou Lake
Hook Lake
Kwiatosse Lake
Comp Lake
Orteges Lake
Morne Lake

HURONIAN (conglomerate)

GEOLOGY

LEGEND		SYMBOLS	
LATE MAFIC INTRUSIVE ROCKS		a	Massive
73	Nipissing	b	Foliated
72	Diabase dyke	c	Schistose
		d	Sheared
MAFIC INTRUSIVE ROCKS		e	Tuffaceous
65	Mafic dyke	f	Lapilli
64	Lamprophyre	g	Fragmental
		h	Agglomeritic
FELSIC INTRUSIVE ROCKS		i	Pillowed
56	Syenite	j	Amygdaloidal
55	Felsite	k	Vesicular
54	Feldspar porphyry	l	Altered
53	Granite	m	Silicified
		n	Sericitized
MAFIC INTRUSIVE ROCKS		o	Carbonatized
42	Gabbro	p	Limeated
41	Peridotite	q	Albatized
		r	Blue quartz eyes
SEDIMENTS		s	Sussuritized
31	Bedded tuff, silt	t	Brecciated
30	Silt, greywacke	u	Garnetiferous
		v	Hornblend rich
CHEMICAL SEDIMENTARY ROCKS		w	Porphyritic
28	Sulphide iron-formation	x	Aphanitic
27	Silica-rich iron-formation	y	Chloritized
21	Iron-formation		
20	Geophysically interpreted I-F	amp	Amphibolitized
		epid	Epidotized
FELSIC VOLCANIC ROCKS			
16	Rhyolite		AEM anomaly
			Magnetic anomaly
INTERMEDIATE VOLCANIC ROCKS			Magnetic low
15	Dacite		I-P zone
			Diamond drill-hole
MAFIC VOLCANIC ROCKS			
14	Hypabyssal flow, diorite		
13	Ultramafic flow		
12	Andesite		
11	Basalt		

SCALE
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m

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MINING LANDS BRANCH

PLAN B

HZT prospecting

TITTLEY Properties
BURROWS Township
District of SUDBURY
LARDER LAKE Mining Division
ONTARIO

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Compiled: HZT	Scale:

41P14SW0013 2.16319 BURROWS
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