Summary of 1997 Summer Program

Cedartree Lake Property

Sioux Narrows, ON

Kenora Mining Division

Dogpaw Lake G-2613 NTS: 52 F/5

Latitude 49°20'25" Longitude 93°49'15"

Magnetic Declination 2°30'4[illegible]" East

Patrick Lengyel
Winnipeg, MB

2 April, 1998

Summary

The following report summarises the results of a magnetometer survey and follow up shoreline mapping, prospecting and MMI soil sampling program completed on the Cedartree Lake property (CLP), northwest Ontario.

The CLP is one of six individual, contiguous properties that were worked jointly during the spring, summer and fall of 1997. Mapping determined that the CLP contains several regional and second order deformation zones including the Pipestone-Cameron Deformation Zone (PCDZ) and the newly interpreted Flint Lake Prospect Fault Zone (FLPFZ) that host grassroots stage mesothermal gold occurrences.

The PCDZ hosts the Sewell occurrence immediately west of the CLP and the Meahan showing immediately to the south of the CLP. Prospecting during this program obtained values of up to 11.28 g/T Au from chlorite-sericite-ankerite schist with disseminated pyrite along the PCDZ-North shear zone, on the northeast shoreline of Flint Lake. Historic values from trenches immediately to the southeast suggest this shear zone contains potentially economic mesothermal gold mineralization in this area.

MMI soil sampling delineated a single line anomaly, open to the southeast, directly north of the historic Meahan showing. Mapping indicates that this anomaly coincides with a second order shear zone that was drill tested approximately 1.2 km to the northwest. MMI technology indicates that the anomaly may represent gold mineralization as deep as 700 m below surface and, therefore, may not have been detectable by earlier exploration activity.

The FLPFZ is the host of the Flint Lake prospect. The CLP completely surrounds the Flint Lake prospect and contains the northwest and southeast strike extension of the host structure. Mapping during this program determined that the structure extends northwest onto the CLP property, adding an additional 1 km of strike extension potential that requires follow up exploration.

Additional work, including induced polarization surveys, mapping, prospecting, MMI soil sampling is recommended as a result of this program.

TABLE OF CONTENTS

1.0 Introduction

The following report summarizes the results of a mapping, prospecting, and a ground magnetometer survey on the Cedartree Lake property between March and August 1997 completed by Avalon Ventures Ltd.

Shoreline mapping was completed throughout Flint Lake and selective grid mapping was completed elsewhere within the property. Specific deformation zones have been defined in detail and prioritized for future mesothermal gold exploration programs.

A ground magnetometer survey was implemented to augment the geological mapping phase of the program. The survey results significantly improved the overall understanding of the property geology and the geological controls of the gold mineralization..

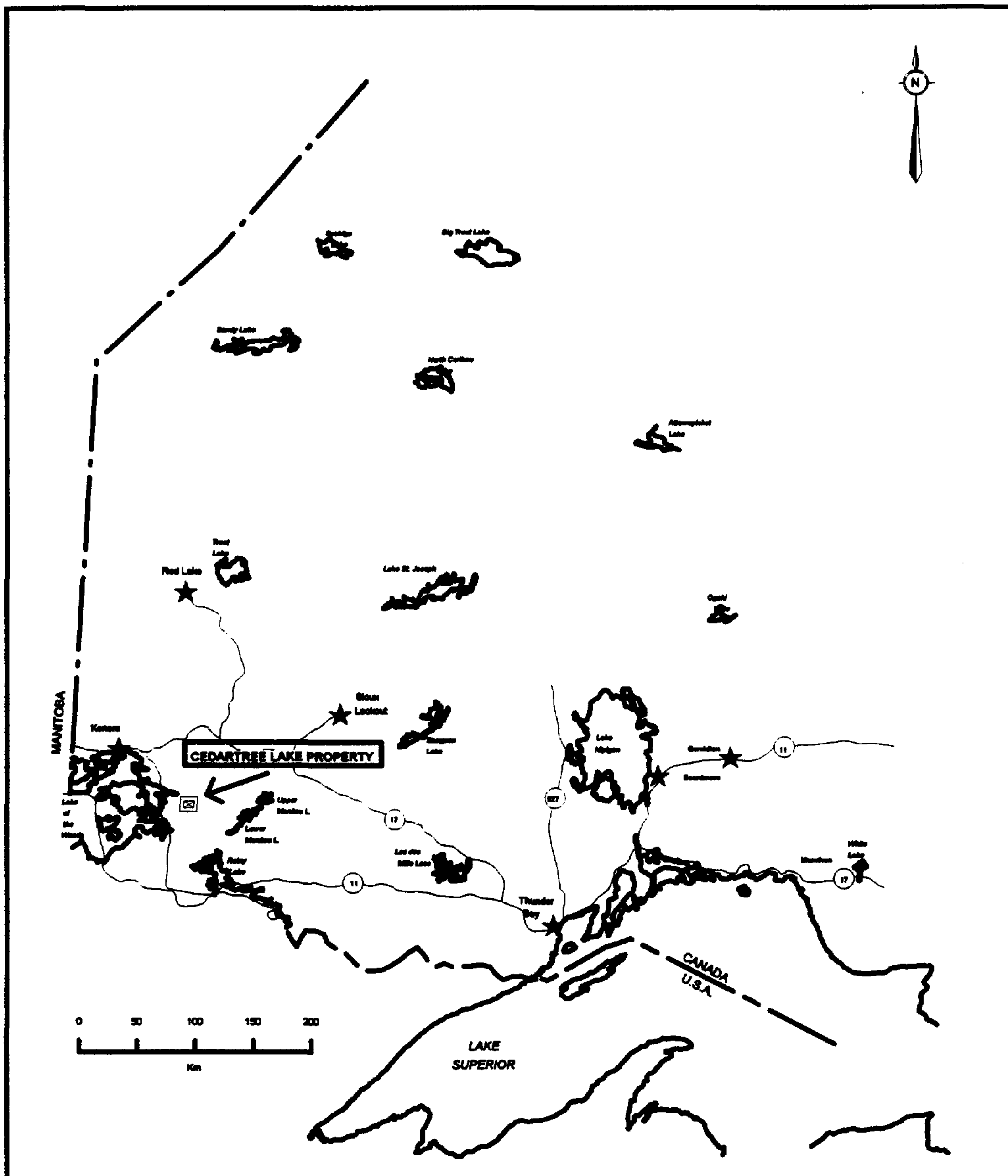
2.0 Location and Access

The Cedartree Lake property is located in the Kenora Mining Division of Northwestern Ontario, approximately 70 kilometres south-southeast of the town of Kenora (Figure 1). The town of Sioux Narrows, located on Highway 71 and on the eastern shore of Lake of the Woods, is 15 kilometres northwest of the property. NTS reference for the area is 52 F/5 SW.

The Cedartree Lake property occurs in the north central part of claim sheet Dogpaw Lake G-2613. The property is geographically centered over a portion of land between the northeast end of Flint Lake and Corbett Lake (Figure 2). The properties are geologically centered over the hanging wall to the Pipestone-Cameron Deformation Zone (PCDZ) in the Kakagi-Rowan Lake greenstone belt.

Access to the property is gained by travelling east along the Cameron Lake road that initiates east of Provincial Highway 71 approximately 10 kilometers south of Sioux Narrows. At mileage 11.0 (mileage marked on side of road) a bush road diverges east from the main road and extends to the shaft on the Dubenski property and past it to a landing on Flint Lake. Flint Lake is also accessed by the Cedartree River at mileage 10.0, and by a short portage immediately east of Cameron Creek near mileage 12.5 on the Cameron Lake road.

Wilderness outfitters on Caviar Lake maintain hunting and fishing facilities on Caviar Lake, Flint Lake, Cedartree Lake and Stephen Lake and provide access via boat from Sioux Narrows.

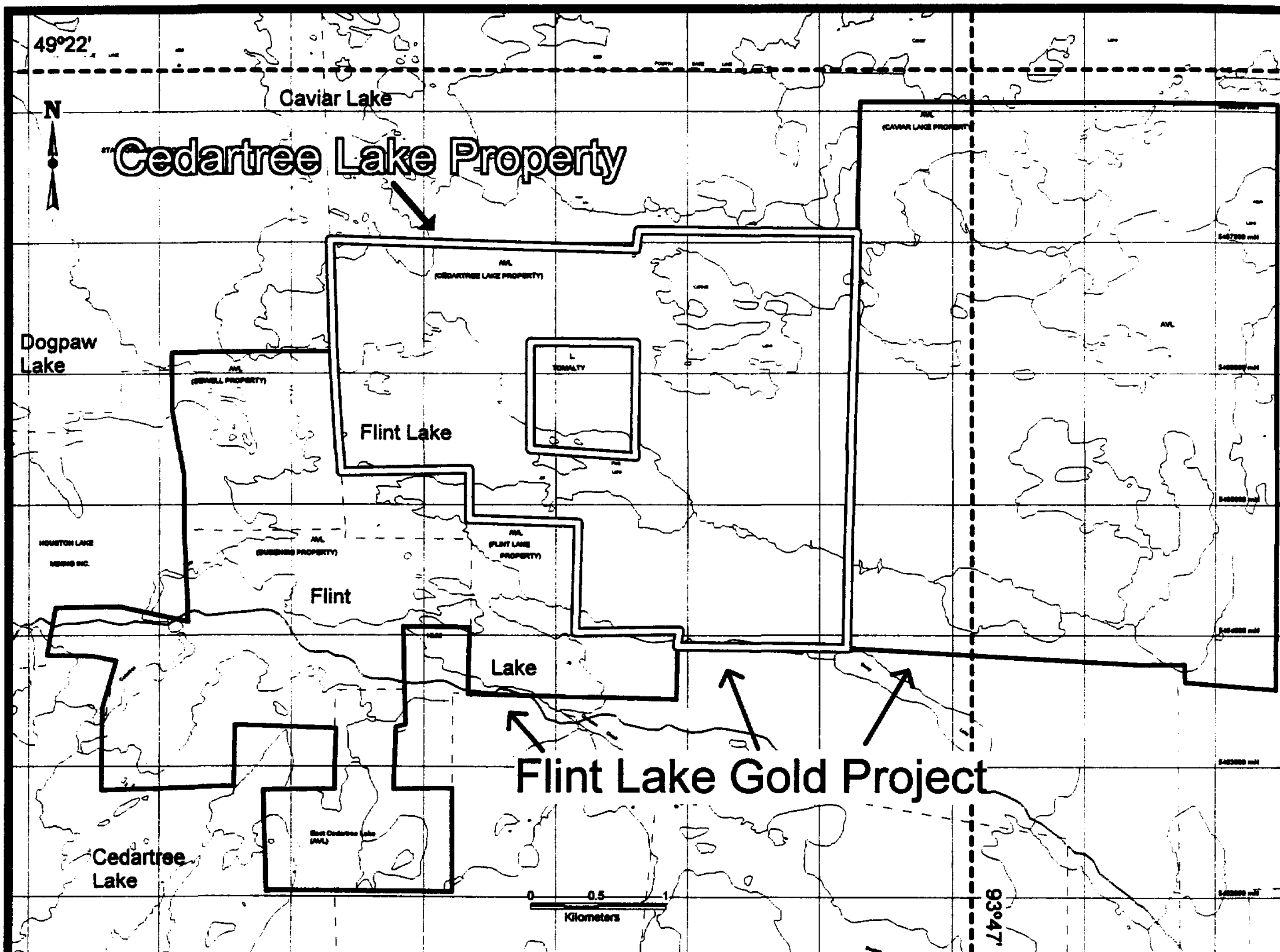


AVALON VENTURES LTD.

GENERAL LOCATION MAP

CEDARTREE LAKE PROPERTY

NTS 52F05/SW	Date: April 8/98
P. Lengyel	Figure 1



Avalon Ventures Ltd.

Figure 2
Cedartree Lake Property

Scale 1:50,000
NTS 52 F/05

P. Lengyel
April 9, 1998

3.0 Physiography and Vegetation

The terrain of the CLP area is typical of the Canadian Shield, scoured by glacial activity to produce a region of relatively low relief with numerous lakes, rivers and low-lying areas which outline faults and rocks less resistant to weathering.

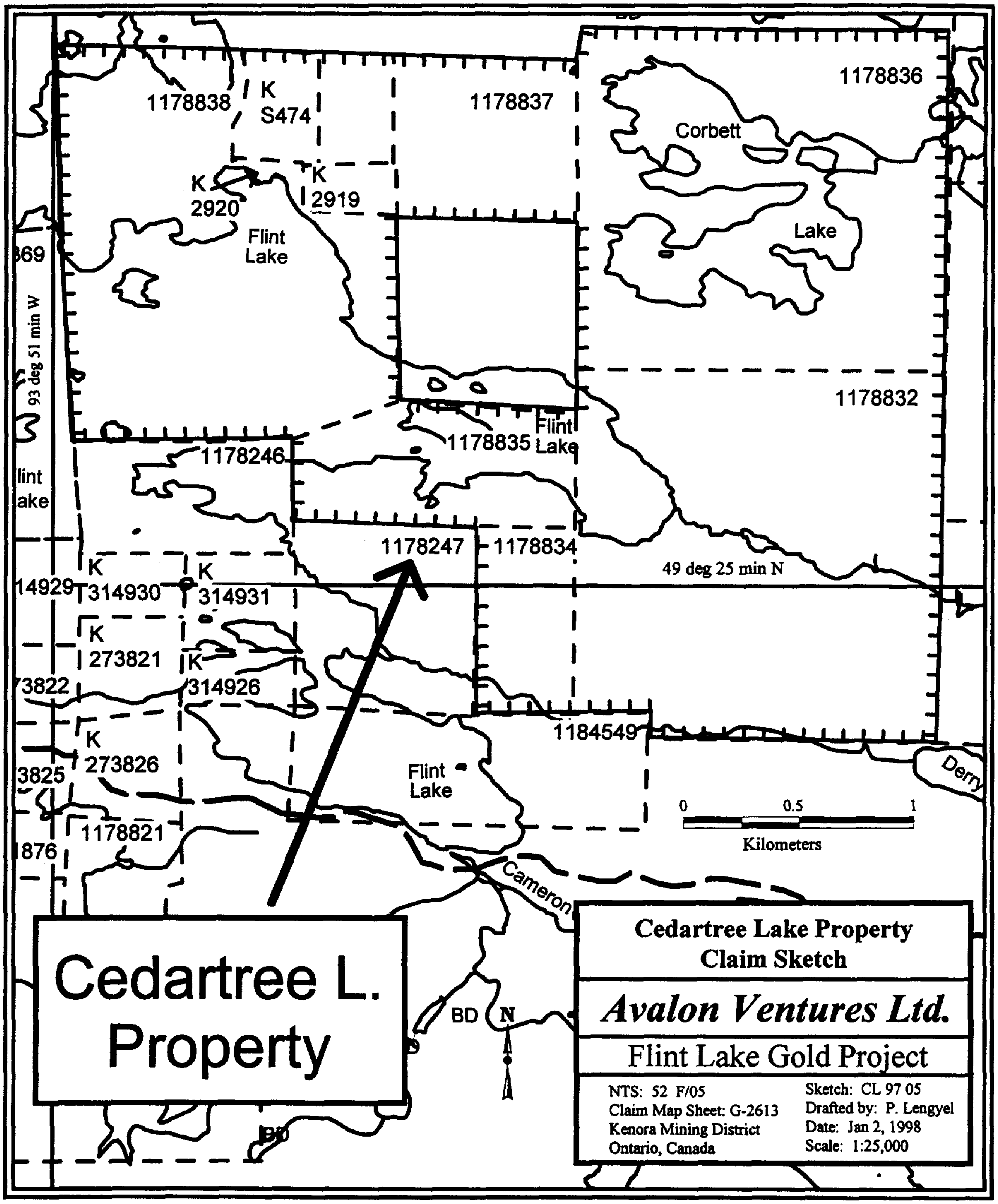
The area predominantly underlain by mafic metavolcanics is low and undulating with relief not exceeding 15 m. It is also characterized by few bedrock exposures. The rest of the map area is underlain by mafic to ultramafic sills, intermediate to felsic metavolcanics, and felsic intrusions, and is characterized by good bedrock exposure, with hills that are elongated parallel to the trend of the rock units, and relief that varies from 15 m to 125 m.

The region is well covered with spruce, pine, alder and birch trees. There is ample water from rivers and lakes in and around the property to support exploration and development work. Exploration can be carried out on a year-round basis. The property is snow-free from May to October for a six month summer exploration season. Diamond drilling and ground geophysics can be carried out on a year-round basis but may be more convenient in the winter when the ground and lakes are frozen.

4.0 Disposition

The Cedartree Lake property is comprised of six contiguous claims located north and east of the center of Flint Lake (Figure 3). The property has been optioned by Avalon Ventures Ltd. The CLP consists of six claims of 57 units for a land area totalling 2280 acres (Figure 6). The claims are recorded in the office of the Kenora Mining Recorder in the names of Ken Fenwick and James Bond II, c/o Ken Fenwick, 84 Velva Street, Thunder Bay, ON P7B 6N5. Pertinent claim information for the property is listed in Appendix 1.

In December 1996, Avalon Ventures Ltd. acquired the option to earn a 100% interest in the property from the Vendor. Avalon can exercise the option by issuing 100,000 shares and making $60,000 in cash payments and $300,000 in exploration expenditures in staged amounts over four years. The agreement is subject to a 2.5% Net Smelter Return (NSR), of which 1.5% NSR may be bought back for $1.5 million, or in increments of $500,000 per 0.5% NSR.



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Claim Sketch
Avalon Ventures Ltd.
Flint Lake Gold Project
NTS: 52 F/05
Claim Map Sheet: G-2613
Kenora Mining District
Ontario, Canada
Sketch: CL 97 05
Drafted by: P. Lengyel
Date: Jan 2, 1998
Scale: 1:25,000

5.0 Previous Exploration

A review of assessment files for the area indicates that there has been some systematic exploration in CLP area. Prospecting across the region was followed up with exploratory shaft development on the Gold Panner Mine, Flint Lake Prospect, and Dubenski Gold Deposit (Caswell-Williams Prospect), followed by shallow exploratory drilling along the main mineralized trend in the Dubenski property, and limited shallow drilling on select occurrences elsewhere. A brief summary of the work is as follows:

Government Mapping

Lawson briefly explored the Cedartree part of the Rainy River region in the early 1880s for the Geological Survey of Canada. W. McInnes (1902) also worked in the area for the Geological Survey of Canada in 1902. No further government work was reported from the region until 1933 when E.M. Burwash produced a report for the Ontario Dept. of Mines (Burwash, 1933), with maps at a scale of 1"=1 mile. This work was used extensively by prospectors and mining companies in the area until the mid 1970s.

J.C. Davies and J.A. Morin conducted a regional mapping survey of the Cedartree Lake area for Ontario Division of Mines in 1976.

In 1980, the Ontario Geological Survey completed a compilation over the Dogpaw Lake area, reported by Rivett & MacTavish as Preliminary Map P2061.

Energy Mines and Resources Canada and Ontario ministry of Northern Development and Mines conducted an airborne magnetometer and electromagnetic survey over the Dogpaw Lake-Cameron Lake area in 1987.

S. Buck conducted a structural and metallogenetic study of the Pipestone-Cameron Deformation Zone in the Flint and Cameron Lakes area for the Ontario Geological Survey in 1988.

Production

The Rainy Lake region of northwestern Ontario has been prospected for gold since the late 1800s. Numerous showings were discovered and two gold mines went into production for a short time. The Gold Panner Mine operated in 1899 on Caviar Lake. The Flint Lake Mine (a.k.a.: Flint Lake Prospect) operated on the north shore of Flint Lake in 1901. All subsequent work has been gold exploration, except for a review of mafic/ultramafic sills and metavolcanics in the early 1970s for their base metal potential.

The Dubenski Gold Deposit (reported as the Caswell-Williams Prospect, O.G.S. Resident Geologist files, Kenora) was discovered by A. Gauthier while he was prospecting for J. Errington. Preliminary trenching and diamond drilling (1936) were carried out but the ground was allowed to lapse. The claims were subsequently staked by N. Caswell and P. Williams and optioned to Noranda Mines Limited in 1945. Noranda drilled approximately 2,000 m for a distance of 900 m along a shear zone. R. Thompson reported on the exploration work done on the property (1945) for the Ontario Dept. of Mines. In 1946, a shaft was sunk to -90 feet by Wampum Gold Mines Ltd. The shaft was later deepened to -132 feet by Dog Paw Gold Mines Limited and a 60 ft crosscut was extended north on the 125 foot level.

Exploration

General Area

In 1984, Dighem Ltd. completed an airborne magnetometer and electromagnetic survey across an area that extended northwest, north and east of Corbett Lake, Sault Meadows Energy Corporation. The survey results suggested the presence of highly magnetic stratigraphy that strikes in a northeast direction and contains several conductive electromagnetic anomalies.

Dubenski Gold Deposit

No further work is on file until 1969, when Gunnex completed a magnetometer and electromagnetic survey on the property. In 1971 the property was staked by P.J. Dubenski, Sr. and optioned to Noranda in 1973. In 1973 and 1974 Noranda carried out detailed geophysical surveys and geological mapping in conjunction with the drilling of 25 holes totaling 8,079 feet.

Pango Gold Mines Ltd. completed two diamond drill holes in the southeast bay of Flint Lake in 1973. The holes intersected sheared and altered tuff that contained anomalous values of up to 0.01 oz/ton Au over 3.0 ft.

Sherritt Gordon optioned the property in 1980 and completed 16 drill holes for a total of 3,992 feet. They also carried out a magnetometer survey, a geochemical survey, geological mapping and trench channel sampling.

Drilling completed by Sheritt Gordon at this time also included several holes within the southeast bay of Flint Lake, the eastern strike extension of the Dubenski Shear Zone. Several holes, testing electromagnetic conductors, intersected strongly sheared and altered tuff containing anomalous gold values.

From 1984 to 1988, Dubenski Gold Mines worked on the property. The programs consisted of linecutting, bulldozing, surface sampling, prospecting, shaft rehabilitation and diamond drilling. This work outlined the current reserves of 260,000 tons of gold ore grading 0.239 oz/ton.

Davies and Morin (1976) refer to a 1945 report by R. Thomson on the Sewell Occurrence that also discusses results from trenching on the southwest extension of the Dubenski Shear Zone.

Values of $2.22 Au per ton @$35.00/ounce Au (2.046 g/t Au @ 34.1 g = 1 oz) over 45 feet were obtained from a trench across a carbonatized shear zone on the east side of the Cedartree River at the first dam above Cedartree Lake. Syllvanite Mines completed x ray drilling on the east side of the river at this time, however the results are unknown.

Meahan Showing

The Meahan occurrence work is reported by Davies and Morin (1976) as originally discovered by J. B. Meahan, and reported by R. Thomson in 1944. The showing consists of a series of trenches that expose several pyrite-bearing shear zones and/or narrow (<0.5 m) quartz veins along a general east-west trend within a mafic-ultramafic intrusion. Gold values ranging up to 2 oz/ton Au were reported from one narrow (20 cm) pyrite-bearing quartz vein.

Several of the Sheritt Gordon diamond drill holes that were completed during the drilling campaign on the Dubenski Gold Deposit were drilled on the east shore of Flint Lake, due west of the main Meahan Showing. A drill fence, consisting of three diamond drill holes (FL-81-1, 2 and 3) were re-drilled in a second drilling campaign in 1987 by hole FL 86-2. No assays were reported from these holes, although assays were reported from other drill holes. The re-drilling and the absence of assays suggests the holes obtained anomalous gold values.

G. Martin conducted additional stripping and trenching around the old Meahan Showing trenches in the 1980's.

Recent sampling by Twomey (1997) confirmed the historical high grade gold values from the Meahan Showing trenches and added two coincident humus anomalies that suggest the mineralization continues along strike to the northwest.

The writer is not aware of any reports of drilling on the Meahan Showing.

Sewell Occurrence

The Sewell occurrence is discussed by Davies & Morin (1976), who refer to summary reports by Holbrooke (1945) and Thomson (1945 and 1945c). The reports summarize the results from trenching carried out on two separate discoveries within the property. The reports discuss pyrite-bearing shear-hosted gold mineralization within a package of strongly deformed mafic dike, tuff and quartz-feldspar porphyry lithologies immediately south and east of the southeast corner of Dogpaw Lake.

The trenching defined two zones. The No. 1 showing, located 50 ft south of the southeast bay of Dogpaw Lake, consists of four trenches across a 1-3 ft wide quartz-carbonate vein with a strike length of at least 200 ft. Negligible values were obtained from the surface sampling.

The No. 2 showing, located approximately 650 ft east of the same bay on Dogpaw Lake and approximately 620 ft east-northeast of the No. 1 showing, consists of 10 trenches across a 2-24 ft wide pyrite-bearing shear zone. Values of up to 0.12 oz/ton Au/20.5 ft were obtained during this program.

In 1961, Gateway Uranium Mines Ltd. completed eight diamond drill holes. Four holes were completed on the No. 2 showing, two holes were completed on the No. 1 showing, and an additional two holes were completed on a carbonatized shear zone in mafic volcanic flows on the north shore of the peninsula approximately 1660 m east-southeast of the Sewell Occurrence. No assays were reported from this drilling.

Cymbal Explorations Inc. completed a magnetometer and a VLF survey across the Sewell property in an attempt to delineate the strike extension of the No. 2 showing. No additional work was reported, although a follow up IP survey, trenching and diamond drilling was recommended.

Flint Lake Prospect (Flint Lake Mine)

Following the initial shaft work in 1901, some additional trenching was completed southwest of the shaft in 1931, near the shore of Flint Lake. Values of up to 0.51 oz/ton Au were obtained over 5 ft. No report is available, however, this is presumed to coincide with the location of trenches near the shore as reported by Rivett and MacTavish (1980).

In 1973, geological mapping and a magnetometer survey was reported by Kuryliw. Chip samples from the original shaft area obtained values of up to 0.32 oz/ton Au over 2 ft.

Simunovic (1984) reports that Noranda Mines Ltd. completed geological mapping and magnetometer and IP surveys on 10 claims surrounding the mine in 1980.

Micham Exploration Inc. completed geological mapping and prospecting across the Flint Lake Prospect extending west to Dogpaw Lake. Additional altered shear zones were observed in the immediate area and were recommended for follow up work. Follow up diamond drilling on the Flint Lake Prospect was completed in 1986 with negligible results from four holes beneath the No. 1 shaft and the west adit. Grab sampling completed at this time from the original 1902 stockpile obtained values of up to 7.66 oz/ton Au.

6.0 Regional Geology

The CLP occurs within the Kakagi-Rowan Lakes greenstone belt, located on the western end of the Wabigoon Subprovince within the Archean Superior Province of the Canadian Shield. The Wabigoon Subprovince is a granite-greenstone terrain separating the gneissic terrains of the Quetico Subprovince to the south and the Winnipeg River Subprovince to the north (Figure 4).

The stratigraphy of the Kakagi-Rowan Lakes greenstone belt consists of a lower and upper volcanic sequence. The lower sequence, the Rowan Lake Group, is comprised of submarine, ultramafic to mafic, komatiitic-tholeiitic volcanic flows and minor interflow sediments (2775-2745 Ma?). The upper sequence, the Kakagi Lake Group, is comprised of intermediate to felsic, tholeiitic to calc-alkaline, volcaniclastic tuffs and minor massive flows and/or shallow intrusive equivalents (2711 Ma). The upper volcaniclastic sequence has been intruded by the Kakagi sills, a series of syn- to post-volcanic ultramafic to mafic sills and dikes. Current work suggests some of the sills may be, in part, extrusive.

Geochemical results to date indicate that the majority of the lithologies present in the lower Rowan Lake Group were deposited in a simple, submarine volcanic arc environment (Blackburn, 1991, ref. Gill 1979, p. 310). Recent work suggests that portions of the belt may have formed on earlier continental crustal material (Blackburn, 1991, p. 371). Similar settings have been observed in Proterozoic volcanic belts in the Flin Flon-Snow Lake area of Canada (Syme, et. al, 1996), the Cambrian-Ordovician volcanic terrains within the Appalachian region of the eastern United States (Hatcher, 1989), and the Western Cordilleran (Burchfiel, et. al., 1992).

The upper Kakagi Lake Group sequence of tholeiitic, ultramafic to mafic sills intruding a volcaniclastic assemblage deposited above a submarine volcanic arc is similar to the White Lake ferrogabbro sills, the Two Portage Lake ferrobasalt and Two Portage Lake rhyolite crystal tuff, in the Flin Flon-Snow Lake volcanic belt (Bailes and Syme, 1989, pp. 37). The position of the bimodal assemblage high in the stratigraphy and the geochemical affinity are interpreted to represent a relatively late, arc rifting environment above the main volcanic arc.

Arc rifting develops above an existing, stable arc platform and involves complex structural deformation and renewed magma intrusion and extrusion in the form of silicic (often volcaniclastic) and mafic lava from a zoned, fractionated magma chamber. The arc/arc-rift setting suggest the volcanic belt has had a long-lived, structurally complex, geological history. According to Groves and Batt (1984), volcanic belts with a complex vertical development history ("rift phase greenstones") that contain bimodal rift assemblages within structurally complex arc-basins, should be more suitable for subsequent mesothermal gold deposition than a simple arc-derived belt.

The belt has been subjected to at least three main deformation events. D1 includes syndepositional, localized folding that was produced during arc development due to sediment loading and to diapiric emplacement of synvolcanic intrusions. D2 formed a series of recumbent east-west trending folds and thrust faults, potentially during arc consolidation or pre- to early accretion. A final deformation event, D3, occurred during the accretion of the volcanic arc with the older Archean proto-continent to the northwest.

The D3 deformation event produced predominantly northeast trending synformal folds and a series of regional transpressional deformation zones parallel to (Wabigoon Fault (WF)), and occasionally perpendicular to (Pipestone-Cameron Deformation Zone (PCDZ)), the fold axes of these major folds. The stratigraphy in the CLP area is oriented predominantly in a northeast direction, parallel with the D3 folds, except where it has been rotated into parallelism with the PCDZ.

The majority of the gold occurrences in the Wabigoon Subprovince occur within, or are spatially associated with, D3 fault structures which formed as a result of late pluton emplacement into the arc and deformation during arc-arc and arc-continent accretion (2711-2685 Ma). Mineralization emplacement within the Wabigoon Subprovince is broadly consistent with gold mineralization found across the Superior Province, roughly between 2675 and 2745 Ma.

Regional mapping has determined that the D3 deformation zones within the belt are either northeast oriented with a sinistral shear component, northwest oriented with a dextral shear component, or east-west oriented adjacent to the subprovince margins with a dextral shear component, all consistent with a north to northwest directed compressional stress.

The PCDZ occurs as a 1-4 km wide x 100 km long high strain zone defined by strongly schistose to phyllitic rocks that have been extensively carbonatized (calcite and ankerite), and locally sericitized, chloritized and silicified. Gold deposition occurs in structurally anomalous settings, typically associated with zones of silicification and/or quartz flooding/vein emplacement and sulphide (pyrite, pyrrhotite, arsenopyrite, chalcopyrite, galena) deposition. Important gold deposits associated with the PCDZ include the Nuinsco Cameron Lake deposit eight kilometers to the southeast (3.1 mt grading 0.18 opt gold), and the Royal Oak Shoal Lake deposit to the northwest (2.0 mt grading 0.35 opt gold).

The orientation of the PCDZ in the Flint Lake area changes from northwest to east-west, and then back to northwest. The PCDZ separates lower Rowan Group mafic volcanic rocks to the north of the PCDZ from upper Kakagi Lake Group volcaniclastic and intrusive rocks to the south. Regional mapping has shown that displacement along the PCDZ dextral, with some vertical component. The displacement has caused the north block to be uplifted relative to the south, thereby offsetting and eroding the complimentary upper Kakagi Lake Group stratigraphy on the north block in the Flint Lake area.

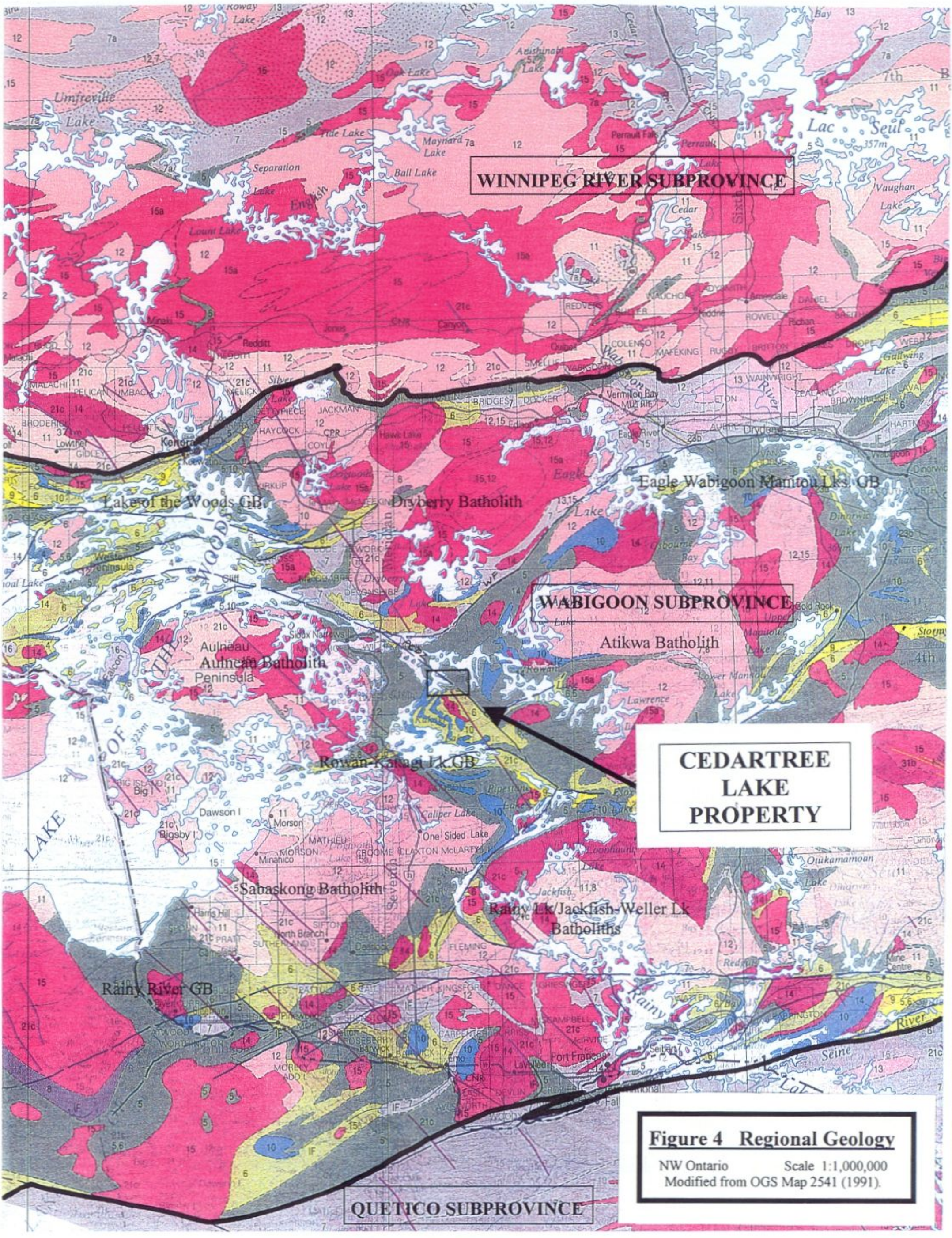

Figure 4 Regional Geology

NW Ontario Scale 1:1,000,000
Modified from OGS Map 2541 (1991).

The reorientation of the PCDZ from northwest to east-west occurs where it intersects the contact between the lower mafic volcanic flows and the upper volcaniclastic flows and mafic-ultramafic intrusions. The change in orientation of the structure coinciding with a change from one lithologic package to the next suggests that the competency contrast/rock density played a role in the reorientation of the PCDZ. Regional data also suggests that the Stephen Lake Stock to the southeast may have had a buttress-effect at depth on the propagating structure, deflecting it to the east around the stock (Buck, 1988, fig. 3).

It is possible that the reorientation is also related to, or temporarily exploited, relict east-west trending D2 fabric. An existing east-west plane of weakness may have facilitated a diversion in the PCDZ as it propagated through the Flint Lake area. Discussions with Houston Lake Mining personnel on the property to the immediate west (Lanther, pers. comm., 1997), indicated that the main control on gold mineralization there is the intersection of Wabigoon Fault-parallel structures with more subtle east-west trending structures. The east-west structures may be related to earlier D2 fabric, they may be a distant, peripheral brittle fabric that formed adjacent to the PCDZ, or they could also be high angle extension veins within the Wabigoon Fault Zone-parallel structure.

Northeast fault zones, potentially related to the WF, occur along major lithological contacts outside of the main PCDZ, and appear to be rotated into the PCDZ in the Flint Lake area, where they change in attitude from northeast, to east-west, to southeast. Structures, such as the Dubenski Shear Zone (DSZ) on the south shore of Flint Lake, exhibit this change in orientation, as do smaller shear zones throughout the south half of Flint Lake and the north half of Cedartree Lake.

The WF proper, trends in a north-northeasterly direction towards Dryden and further northeast to Sioux Lookout. Ninety kilometers to the northeast at Dryden, joint venture partners Teck and Corona recently announced an underground exploration program on their Thunder Lake Property which hosts reported reserves of 850,000 ounces of gold. This zone is hosted within a second order structure off the WF.

Data available to date indicates that the northeast trending faults related to the WF, including possibly the DSZ; and east-northeast trending structures related to the PCDZ, all formed during the D3 deformation event and all have excellent potential to host economic gold mineralization.

A series of gold occurences are located on the north side of the PCDZ, including the Flint Lake Gold Prospect, the Gauthier occurrence (Dogpaw Lake), and the new discovered zone on the northeast shore of Flint Lake on the PCDZ-North structure (section 7.0). These various occurrences are located on second order shear zones located on the hanging wall of a major reverse fault. Such settings are considered to be high priority targets for gold mineralization due to the enhanced permeability that is associated with the vertical dilation on the hanging wall block of a reverse fault, similar to the Sigma Gold Mine in the Val d'Or area, Quebec (Robert and Brown, 1986).

7.0 Current Program and Results

7.1 Introduction

The 1997 field program included linecutting and a ground magnetometer survey in the March followed up in the summer with mapping, prospecting and localized MMI soil sampling completed in July and August.

The results of the two phases of the field program have been summarized as follows:

- 7.2 Property Geology
  - 7.2.1 Stratigraphy
  - 7.2.2 Structure
  - 7.2.3 Alteration
- 7.3 Geophysical Interpretation
- 7.4 Rock Geochemistry and Mineralization
- 7.5 Soil Geochemistry

7.2 Property Geology

7.2.1 Stratigraphy

The area mapped during this phase of the program was confined primarily to the shoreline and to part of the cut line grid east of Flint Lake. The results of the mapping have been plotted at a scale of 1:5,000 as Map 1.

The north half of the Flint Lake area is underlain by massive to pillowed mafic volcanic flows of the Rowan Lake Group. The south half of the lake is underlain by intermediate to felsic volcaniclastic flows and mafic dikes of the Kakagi Lake Group. The two groups have been structurally juxtataposed along the PCDZ. As discussed in section 6.0, movement along the PCDZ has been a combination of dextral and vertical displacement, resulting in relative uplift and preferential erosion along the north side of the PCDZ, exposing stratigraphically lower lithologies within the Rowan Lake Group.

<u>Rowan Lake Group</u>

The Rowan Lake Group in the property area is comprised of massive (V7) to pillowed (V7 plw), subaqueous, mafic volcanic flows. The pillowed varieties contain pillows ranging in diameter from 0.5 to 1.2 meters, with selvages typically <2 cm thick. Pillow textures on an outcrop at L 4600 E/ 2650 N indicate stratigraphic tops are to the south in this location.

Kakagi Lake Group

Kakagi Lake Group rocks are rare within the CLP. In the Flint Lake area, the Kakagi Lake Group is comprised of coarse to fine grained, intermediate to felsic volcaniclastic and minor rhyodacitic flows that have been intruded by a series of bedding-parallel ultramafic to mafic sills and dikes. The rhyodacitic flows are aerially and volumetrically minor components of the volcanic sequence.

Intermediate to Felsic Volcaniclastic Flows

Within the CLP, one outcrop of chlorite-sericite schist on the south side of an island at L 2400 E/3200 N may represent deformed Kakagi Lake Group rocks caught up in the PCDZ-South structure. It is possible that several of the mafic volcanic flow units east of L 4000 E/ north of 2200 N represent altered and deformed coarse volcaniclastic breccia units. No massive rhyodacite flows were observed within the CLP.

Kakagi Lake Sills

The volcaniclastic sequences and massive flows are intruded by mafic to ultramafic sills of the Kakagi Lake Group. The sills include gabbro, pyroxenite and serpentinite compositions, although gabbro appears to be the dominant lithology.

One of the largest sills occurs immediately west of the property (adjacent to the two zones of gold mineralization currently being worked by Houston Lake Mines Ltd.). The sill trends northeast up to the south shore of Dogpaw Lake where it is then rotated clockwise into the PCDZ west of the CLP. The recent ground magnetic survey (section 7.3 Geophysics), combined with local mapped gabbro occurrences on the east side of the grid suggests that the northeast extension of this sill has been offset along the PCDZ-South at least three kilometers to the southeast. The northeast extension is concealed primarily beneath a large swamp (L 4100 E/2300 N and L 4700 E/2300 N) and exposed in several outcrops east of L 4000 E / north of 2200 N.

Stephen Lake Intrusive Suite

The largest intrusion that was emplaced during this intrusive event occurs south of the map area at Stephen Lake. In the map area, only one intrusion of intermediate to felsic composition was identified. A feldspar porphyry unit observed at L 4050 E/2350 N may be related to this intrusive suite.

Kenora-Fort Frances Dike Swarm

Two occurrences of diabase dike on the main east-west peninsula in Flint Lake outside of the CLP are interpreted to be a single dike emplaced as part of the Archean aged Kenora-Fort Frances diabase dike swarm that extends through the project area. Davies and Morin (1976) delineated this dike as it extends through the peninsula on the east shore of Flint Lake just south of the CLP, parallel to the PCDZ. The dike changes orientation at the west end of the peninsula and extends north, through the CLP, towards Caviar Lake. This unit was not observed in outcrop within the CLP during this program.

7.2.2 Structure

The 1997 summer program focused on defining the structural elements of the Flint Lake area to guide subsequent exploration programs. The rocks in the CLP area have been exposed to at least three regional deformation events. The latest and most pervasive deformation event, D3, resulted in the development of a variety of structures in the CLP, including isoclinal folding and steeply dipping deformation zones which appear to have overprinted earlier D1 and D2 fabric.

The D3 event is tentatively subdivided into an early and a late phase. The early phase resulted in the formation of northeast oriented isoclinal folds within the Rowan Group and Kakagi Lake Group rocks. Foliation parallel deformation zones, including the Wabigoon Fault (WF) were formed at this time. As described in Section 6.0, the northeast trending, early D3 structures typically exhibit sinistral displacement.

The late phase, which is probably continuous with the early phase, resulted in the propagation of the regionally extensive Pipestone Cameron Deformation Zone (PCDZ) across early phase folded stratigraphy, in a northwest direction. PCDZ-parallel anticlinal folds were formed in Rowan Group volcanic stratigraphy immediately north of, and against, the PCDZ (Buck, 1988). Regional mapping has shown that northwest trending structures in the Wabigoon subprovince typically exhibit dextral displacement.

Structural hosts to mesothermal gold mineralization in the Flint Lake area are either early D3, northeast trending, foliation-parallel shear zones, or late D3 northwest trending structures subparallel to or within the PCDZ. The hydrothermal mineralizing fluids that produced the gold occurrences are thought to have been active from the development of the earliest, northeast trending foliation parallel structures to the termination of movement along the PCDZ.

The PCDZ is a reverse fault with a significant strike-slip component. Reverse fault settings are considered favourable structures for mesothermal gold deposition. According to Sibson and Poulson (1988), reverse fault activation requires supralithostatic fluid pressure from hydrothermal fluids in crustal reservoirs to overcome friction in a compressive stress environment. The hydrothermal fluids are self-sealing due to precipitation during pressure release and the sealing effect causes repeated fluid pressure build up and repeated failure.

Horizontal displacement on the PCDZ is in the order of 3000 meters in the Dogpaw Lake area. Vertical displacement is unknown, however, the corresponding block of upper Dogpaw Lake Group volcaniclastic and intrusive units is completely absent on the north block, suggesting vertical displacement in the same range. Reverse motion typically occurs with typical vertical slip increments of about 1 meter. If the PCDZ has experienced up to 3000 meters of displacement, the PCDZ may be been subjected to at least 3000 separate pulses of hydrothermal fluid and mineral precipitates, including gold.

Consequently, the PCDZ structure and any subparallel, second order PCDZ-parallel structures should all have excellent potential in the Dogpaw Lake area to host a mesothermal gold deposit. Any early D3, pre-PCDZ structures are also considered to have excellent potential due to the possibility of reactivatio during the propogation of the PCDZ through the belt and the associated vertical permeability generated within this late stress regime.

Early Phase D3 Structures

The majority of the fabric within the CLP area was produced by late phase D3 structures. There is little evidence of early, northeast trending structures within the CLP. Magnetic data, discussed further in section 7.3, suggests the presence of east-west to northeast trending magnetic features that might represent early, northeast trending foliation, or foliation-parallel structural features that have not been completely overprinted by PCDZ fabric.

Late Phase D3 Structures

The late D3 event is the propagation of the PCDZ along the northwest axis of the greenstone belt and the formation of subparallel structures and associated second order structures that formed within the transpressive structural setting. In the CLP area, the majority of the rocks have been overprinted with PCDZ-related fabric, grading from low strain weak foliation to high strain schistose to phyllitic foliation, the latter often coincident with strong hydrothermal alteration. Mapping during this program has delineated three individual shear zone structures, PCDZ-North, PCDZ-South and the Flint Lake Prospect Fault Zone (FLPFZ).

PCDZ

Regional mapping indicates that the PCDZ has experienced mainly dextral displacement, with the north block uplifted above the south block in a reverse sense of motion. A lack of complimentary upper Kakagi Lake Group volcaniclastic stratigraphy north of this main high strain zone within the CLP suggests a vertical displacement potentially in the order of kilometers.

Alternatively, a series of potentially complimentary lithologies located southeast of Flint Lake, the Cameron Lake Volcanics and the Nolan Lake Stock, may be lateral equivalents to the upper Kakagi Lake Group volcaniclastics and the Stephen Lake Stock. If these are equivalent strata, then there has been significantly more lateral displacement locally on the PCDZ in the order of 8-10 kilometers rather than the 3 km distance measured in the Flint Lake area. Regardless, the removed or reduced aerial extent of the Kakagi Lake Group lithologies north of the PCDZ still implies vertical displacement and erosion of the north block.

The PCDZ extends from Dogpaw Lake in the northwest corner of the map through the east and southeast shore of Flint Lake. The total width of the PCDZ, defined by a series of subparallel, high-strain shear zones that enclose weak to moderately deformed lithons, extends from Corbett Lake southwest to the area between Flint Lake and Cedartree Lake. The main high strain zone of the PCDZ splits northwest of Flint Lake, passes through Flint Lake as at least two discrete shear zones, and continues to the southeast.

The various shear zones are identified on Map 1. The PCDZ is divided into two separate zones in the Flint Lake area, PCDZ-North and PCDZ-South. The shear zones are characterized by moderate to well-developed C and S fabric observed in stretched pillows (>5:1 stretching), chlorite carbonate schist fabric in the Rowan Lake mafic volcanics, stretched fragments that grade into sericite-chlorite-carbonate schist in the Kakagi Lake Group volcaniclastics, and stretched/rotated pyroxenes and amphiboles that are gradational into chlorite-carbonate schist in the Kakagi Lake mafic to ultramafic sills. The CS fabric orientations indicate, consistently, a sense of dextral displacement along the PCDZ.

PCDZ - South is the widest and most deformed of all the structures on the property. It extends from the southeast end of Dogpaw Lake through the main east-west peninsula on Flint Lake. The deformation along PCDZ - South coincides with the earliest mapped locations of the PCDZ, and is assumed to have accommodated a considerable amount of the strain resulting in a significant offset of stratigraphy along strike (> 3 kilometer of offset gabbro dike within the CLP area) and an unknown, but presumed to be appreciable, vertical offset.

Geophysical data, discussed in section 7.3, offers additional supporting evidence that the PCDZ - South has experienced dextral displacement, internally in the form of simple shear with displacement of up to 1 kilometer. The same data shows a comparable sense of displacement along the north and south margin of the PCDZ - South, in the form of brittle fault failure with displacement of at least 3 kilometers on the south margin and an unknown, but presumed to be larger, displacement on the north margin.

The PCDZ - North extends from some point on the mainland east of Dogpaw Lake (where it is assumed to rejoin the PCDZ - South structure), through the channel separating Caviar Lake and Flint Lake, through the north shore of Flint Lake and then southeast through a bay on the east side of Flint Lake. Geophysical data indicates that the PCDZ - North separates two magnetically distinct mafic volcanic sequences suggesting that there has been considerable displacement on this structure over and above the displacement on the PCDZ - South (Section 7.3 Geophysical Interpretation).

The PCDZ - North structure may have been one of several structures that were active northeast and southeast of Flint Lake. PCDZ - South has measureable displacement, and there are several lithons of incorporated lower mafic Rowan Group volcanics within the deformation zone that all reflect kilometer-scale displacement. The simplest model would have a southernmost structure fail, displacement would result, and then either reactivation, or horizontal propagation of the structure would result in failure along a new structure north of the former position, resulting in the numerous shear zones observed along the PCDZ.

Regional geological features suggest that the PCDZ may have developed due to the relative movement of plutons within the Wabigoon Subprovince during D3 (Figure 4). The Dryberry and Atikwa Batholiths northeast of the PCDZ would have been compressed against the northern boundary of the subprovince within a northwest directed compressional environment. If the northwest directed stress continued after the collision of those batholiths the Rainy Lake, Sabaskong and Aulneau Batholiths to the southwest would still be 'in motion'. With one batholith complex anchored against the north boundary of the subprovince, and continued stress compressing the southern batholithic complexes, the strain would have to be taken up by displacement along the plane of weakness between the two complexes within the greenstone belt, resulting in the formation of the PCDZ (Figure 9).

FLPFZ

The FLPFZ structure has been observed at the Flint Lake Prospect, proper, and at its northeast strike extension where it extends through Caviar Lake. At both sites, there is evidence of moderate to strong shearing within the mafic volcanic flows. At the Flint Lake Prospect site, there mineralized quartz-ankerite vein stockwork is contained within a strongly sheared and ankerite carbonatized mafic volcanic flow. The shearing dissipates within meters of the shaft area, however, disseminated ankerite alteration beyond the core shear zone suggests that subtle shearing and/or related small scale shear zones and fault zones continue for some distance from the main structure.

Within the bay to the northwest at Caviar Lake, mafic volcanic rocks exhibited moderate to strong shearing, primarily on the north side of the bay north of L 2700 E. Moderate foliation parallel and crosscutting fractures observed on the south shore of the same bay, and variable shearing, suggest that the deformation observed on the north side of the bay continues into the bay.

The current program limits precluded the delineation of the structure via detailed mapping. However, topographic features also support the extension of a shear zone from the Flint Lake Prospect to the northwest.

7.2.3 Alteration

Several zones of extensive hydrothermal alteration were delineated during the 1997 summer program. All the high strain zones delineated during mapping contain weak to strong, structurally controlled carbonate +/- sericite +/- chlorite alteration within schistose to phyllitic rocks. Quartz and/or ankerite veins are also common within areas that are strongly altered. Identifying and delineating these often-zoned alteration assemblages proved to be a good tool to guide additional sampling. Overall, considerably more hydrothermal alteration was defined than was previously identified. The net result has been the extension of existing gold mineralized targets, or the identification of entirely new targets, or areas requiring follow-up work. The alteration is plotted at a scale of 1:5,000 on Map 1.

All rock types within the CLP area, with the exception of the late Archean diabase dikes, exhibit some degree of structurally controlled hydrothermal alteration. The tuffaceous sequences typically alter to sericite +/- carbonate +/- chlorite schist, except where adjacent to mafic-ultramafic sills, where there is significantly more pervasive chlorite alteration. The mafic-ultramafic sills typically alter to chlorite +/-carbonate schist. The mafic volcanic flows of the Rowan Lake Group typically alter to chlorite +/- carbonate +/- sericite schist.

There is a distinct carbonate zonation to the alteration assemblages. Most structures contain a peripheral 'halo' of calcite-carbonate alteration. The carbonate alteration occurs as < 2 cm thick veins in conjugate sets within moderate to strongly fractured host rock (outer brittle fabric associated with brittle-ductile environments). The calcite veins grade inwards toward the core of the alteration into pervasive calcite alteration then pervasive ankerite alteration, generally accompanied by an increase from weak to strong pervasive sericitization and/or chloritization. Ankerite alteration, in the core of the alteration assemblages, occurs as pervasive replacement, as stringer veins typically <2 cm thick, and as rhombohedral porphyroblasts.

PCDZ

The PCDZ contains the strongest alteration assemblages observed during the current program. The PCDZ - South propagates along a major lithological contact, and has incorporated lithologies from both blocks (Rowan Lake Group and Kakagi Lake Group) and pervasively altered them locally into sericite-ankerite-chlorite schist. The alteration along this structure, particularly in the Sewell property area in the northwest, is so extensive that the original rock type can be difficult to identify.

The mapped exposures of the PCDZ - South on the west and east shores of Flint Lake contain significant ankerite +/- sericite alteration across widths ranging from 200 to 400 metres, respectively. Within this structure, there are zones of disseminated pyrite (<1%), and quartz +/- ankerite veins.

Limited shoreline mapping along the PCDZ - North structure located zones of strong ankerite-chlorite alteration that locally contain strong pervasive sericite alteration (L 1900 E/4200 N + L 3500 E/3800 N), suggesting the original mafic volcanic flows have been strongly altered resulting in a net gain of potassium in the form of sericite. Similar alteration was observed within less well defined high strain zones between PCDZ - North and PCDZ - South within the Sewell property, and along the main peninsula on the east side of Flint Lake (L 1700 E/3800 N, L 1900 E/3800 N, L 3200 E/3100 N).

The widespread alteration throughout the PCDZ –related structures indicates that this area of the volcanic belt has been subjected to complex structural deformation over an extended period of time. Multiple generation vein sets and pre-deformation alteration indicates that the structures have been subjected to multiple pulses of hydrothermal fluid. The structural complexity and hydrothermal history suggest that the Flint Lake area, within the widest part of the greenstone belt, may have been situated above a well-developed, long lived, potentially large crustal hydrothermal reservoir. A large crustal reservoir capable of producing extensive alteration should be capable of producing large, economic gold deposits.

7.3 Geophysical Interpretation

A ground magnetometer survey was completed over a large part of the west half of the CLP area in 1997. The magnetometer survey was completed by Vytyl Exploration Services Ltd. of Thunder Bay, ON on behalf of Avalon Ventures Ltd. A total of 1291.9 line kilometers of magnetometer surveying was completed throughout the Flint Lake area on 100 meter spaced lines at 12.5 meter stations, with some 5 meter station readings taken around the shaft on the Dubenski property. A total of 38.8 km of magnetometer surveying was completed on the CLP.

Poor ice conditions resulted in minor gaps in the survey in some bays and across rivers. The surveying instrument used was a magnetometer GSM-19; instrument specifications can be found in Appendix 2. Readings were corrected for diurnal variation. The corrected total field magnetic data has been plotted for this report at a scale of 1:5,000, using MapInfo and Vertical Mapper software (Maps 3 and 4).

The magnetometer survey data provided useful information by identifying overburden covered lithologies as well as linear structures and potential fold structures. The most prominent feature in the data is the crosscutting PCDZ. The PCDZ high strain zones mapped on surface coincide with several magnetic breaks in high and low magnetically signatured stratigraphy. Well-defined dextral fabric is indicated by the consistent right lateral offset of stratigraphy and by its rotation and incorporation into the PCDZ.

PCDZ-North

As discussed in section 7.2.3, the PCDZ is divided into two distinct high strain zones that appear to have accommodated most of the displacement in the Flint Lake area (PCDZ - North and PCDZ - South). Mapping also delineated several medium to high strain zones subparallel to, and peripheral to those high strain zones.

The PCDZ - North structure is well defined magnetically on the north edge of the mapped area, coinciding with several outcrop exposures on the shoreline. The mapped structure crosscuts Rowan Lake Group mafic volcanic flows. Surface mapping of the sequence did not detect any distinguishable features that suggest significant displacement across the shear zone. However, the magnetic data suggests that the PCDZ-North structure offsets a lithon located between PCDZ - South and PCDZ - North from a magnetically distinct block to the north. The block to the north of PCDZ - North appears to consist of folded stratigraphy that is comprised of alternating moderately and highly magnetic lithologies, while the stratigraphy within the lithon to the south has lower magnetic relief.

The highly magnetic, folded stratigraphy north of PCDZ-North is interpreted to represent a series of basalt flows intruded by synvolcanic gabbro sills or dikes, or possibly, komatiitic flows. Regional mapping has indicated that komatiitic flows do occur within the Rowan Lake Group, typically towards the base (Blackburn, et. al. 1991). The difference in magnetic signature implies that PCDZ-North juxtaposes two potentially unrelated stratigraphic sequences within the Rowan Lake Group. The apparent juxtaposition of potential komatiite flows against presumably tholeiitic or calc-alkaline flows suggests that this structure has had significant horizontal displacement.

The attitude of the subdued magnetic signatures in the lithon between PCDZ-North and PCDZ-South verge to the southeast, which is consistent with a dextral sense of displacement.

FLPFZ

North of the PCDZ - North structure, there is a separate, subparallel structure along a series of subparallel magnetic breaks in the folded high magnetic stratigraphy (e.g. through L 4200 E/3900 N.) There is an apparent decrease in the displacement of the magnetic features from east to west. The variable lateral displacement suggests that there may be a horizontal and vertical component to the displacement on this structure. The Flint Lake Prospect roughly coincides with this structure, as does a zone of ankerite alteration and moderate to strong shearing along strike to the northwest.

In addition to northwest trending breaks, there are also northeast trending magnetic breaks. The northeast trending breaks may reflect early D3 foliation and/or foliation parallel faults and are overprinted closer to the PCDZ. The magnetic signature of the rocks in this northeast corner of the map areas is higher than from the lithon south of PCDZ-North. A series of potential magnetic axes have been interpreted and plotted on Map 4. These magnetic axes are interpreted to represent early D3 foliation. The overall alignment of these axes is consistent with northeast directed folding. A tentative northeast oriented fold axis is plotted on Map 4 showing the approximate location of the fold axes. The Flint Lake Prospect occurs at the intersection of this fold axis with the northwest trending FLPFZ.

PCDZ-South

The PCDZ - South structure is also well defined in the magnetic data. The interpreted northeast extension of the large sill on the west edge of the map area (Houston Sill) has a distinct highly magnetic signature centered approximately at L 4200 E/ 2300 N. The coarse grained tuff sequences on either side of it have distinct low magnetic signatures.

The attitude of the magnetic axes within the sill is east-west consistent with dextral displacement within the PCDZ. The magnetic signature of the sill also shows distinct internal breaks. The internal breaks may represent magnetite destruction due to hydrothermal alteration within the sill as it was deformed within the PCDZ.

North of the gabbro unit the rocks have a distinctive subdued magnetic signature, typical of the mafic volcanic flows of the Rowan Lake Group, consistent with the surface mapping results. Consequently, the north edge of the gabbro unit is interpreted to represent the north edge of the PCDZ-South structure, and it also interpreted to have accommodated a considerable amount of displacement. It is this structural contact that juxtaposes upthrown lower Rowan Lake stratigraphy above the upper Kakagi Lake Group stratigraphy along the south side of Flint Lake.

7.4 Rock Geochemistry and Mineralization

A total of 23 rock samples were collected from the CLP and analyzed for Au at Chemex Labs Ltd. of Mississauga, ON. The samples were analyzed for gold by fire assay/atomic absorption with a gravimetric finish. Despite the presence of several known gold occurrences a new, previously unreported occurrence on the northeast shore of Flint Lake was delineated by sampling completed in this program. The 1997 program did not include any whole rock or multielement analysis.

Sampling was carried out during mapping within the grid, and by prospecting on the periphery of the mapped areas. The sample locations have been plotted at a scale of 1:5,000 (Map 2). The sample description sheets can be found in Appendix 3 and the assay certificates can be found in Appendix 4.

Samples were taken from any site with strong alteration or sulphides. Anomalous values were obtained from the PCDZ - North structure on the north shore of Flint Lake. The results to date have extended the effective exploration length of the PCDZ-South and North structures, and the FLPFZ structure within the CLP.

PCDZ - North

Limited mapping and prospecting along the PCDZ - North trend obtained anomalous values from grab samples taken within a 100 meter wide zone of moderate to strong ankerite-chlorite +/- sericite alteration contained within a strongly sheared mafic volcanic sequence. Boudinaged quartz veins up to 10 cm wide, and irregularly disseminated pyrite were also observed at this location. Sample results include values of 11.28 g/T Au from bedrock and 6,780 ppb Au from similar float on shore (sample #'s 239200 and 239201).

Ontario Geological Survey Map #P2061 identifies three trenches inland and along strike from the 11.28 g/T Au zone on the shoreline. Discussions with one of the current registered owners of the property, Mr. J. Bond II, indicated that he was not aware of any values reported from these trenches, but he had verbal reports that they are supposed to be equal or better to the current values obtained on shore over significant widths.

An initial search of the assessment files in Kenora did not locate any direct reports of work on this occurrence. However, an assessment report filed by Micham Exploration Inc. (Simunovic, 1984) refers to "*1931 - mine* (…Flint Lake Prospect) *changed hands, more trenching was done on the lakeshore to the southwest of the mine - assay values from two of these trenches were reported as $10.56 and $8.00 over five feet (0.51 oz/ton Au and 0.38 oz/ton Au).*" These values are consistent with those obtained on the shoreline during the current program.

Flint Lake Prospect

Though not part of the CLP, a brief visit was made to the historic Flint Lake Prospect to observe the alteration and mineralization style. At the site, there are two trenches and an adit developed on an average three meter wide zone of quartz-ankerite veins within a pervasively ankerite carbonatized, sheared mafic volcanic flow. There are varying concentrations of disseminated and locally stringer pyrite, and local disseminated flakes of fuchsite. Limited sampling from this occurrence obtained values up to 785 ppb Au (239221). Simunovic (1984), reporting for Micham Exploration Inc., refers to historic values ranging up to 0.40 oz/ton Au from the Flint Lake Prospect (Assessment file F/5 SW YY-2), and follow-up sampling by Micham Exploration Inc. includes values of up to 7.66 oz/ton Au from 'cobbed ore' in the high grade dump adjacent to the shafts (Assessment file F/5 SW YY-4). Unfortunately, shallow drilling completed by Micham beneath the adit did not obtain any significant gold values.

The prospect pinches out to the southeast and trends beneath a swamp to the northwest. Additional, subparallel mineralized zones are indicated by mapping and sampling completed by Micham on the west shore of Corbett Lake. Mapping by Avalon Ventures Ltd. during the current program delineated strongly sheared and ankerite carbonatized mafic volcanic flows within a bay on the other side of the swamp that covers the northwest extension of the Flint Lake Prospect. It is possible that additional exploration potential exists along strike from the Flint Lake Prospect, and along the subparallel zones to the north within the CLP.

7.5 Soil Geochemistry

Background - MMI Technology

A total of 427 soil samples were taken in the Flint Lake area, of which 24 came from the CLP area north of the Meahan showing. All samples were analyzed using Mobile Metal Ion technology at XRAL Laboratories, Don Mills, ON. The sampling that was completed within the CLP was designed to test the periphery of the swamp area within the PCDZ-South structure for previously undetected gold mineralization.

MMI technology differs from traditional soil geochemistry. MMI technology utilizes a proprietary selective leach process designed to scavenge mobile metal ions from the surface of soil particles. Traditional soil geochemistry methods analyze samples using a complete digest, attempting to detect traces of residual mineralization, or a remobilized and precipitated extension of it. MMI technology, by scavenging only mobile metal ion particles from the surface of clay particles, leaves behind the actual soil particles.

Mobile metal ion particles mobilize from bedrock mineralization sources, via groundwater, and adhere to the surface of clay particles in the soil, rather than precipitate out as oxide minerals. The relatively low concentrations of mobile metal ions present in the soil combined with the mechanism of metal ion transfer, and the mechanism of adhesion on clay particle surfaces precludes the detection of extensive dispersal trains. Consequently, MMI soil anomalies either occur immediately above a deposit, where the ions have exploited fracture permeability from the source at depth to the surface, or, in the case of inclined strata, they may also occur on the up dip exposure of that strata, having exploited stratigraphic permeability as well as structural permeability.

MMI technology results to date indicate that it is capable of detecting mineralization from sources as deep as 700 meters below surface, theoretically beyond the detection range of surface sampling, conventional surface geophysics, and well beyond the typical shallow exploratory drilling depths.

Data Manipulation

Typical soil profiles undergo regular mechanical erosion, volume reduction by conversion from bedrock to soil, and chemical weathering. All three processes have a tendency to disseminate mineralization away from the original bedrock source, although typically these dispersed zones are volumetrically smaller than the original source. Conventional sampling, using partial or complete digestion analysis, obtains values from these dispersed zones that can range as high as ore grade, bedrock mineralization. Additionally, these dispersed zones can also produce soil sample anomalies and stream sediment anomalies in the same range as those that would be detected adjacent to a bedrock sourced anomaly.

The limited spatial distribution of mobile metal ions precludes the dispersion any considerable distance from source. In addition, significant accumulations of mineralization are required to generate measureable MMI anomalies. Consequently, the MMI soil data tends to have a very low signal-to-noise ratio.

Response ratios (RR), used as a practical means of eliminating background noise, define anomalies from a standard MMI soil analysis database. Subsequent interpretation relies on the values representing the relative difference between background noise and real anomalies, rather than interpreting absolute values as is typically done in conventional geochemical surveys. To calculate the response ratio, the average value of the lowest quartile is divided into the database and all results are rounded to a value greater or equal to 1. The raw analysis certificates and the calculated response ratio data can be found in Appendix 5.

MMI results, to date, indicate that a response ratio over 5 is considered significant. All values obtained from the MMI soil sample survey have been statistically manipulated as described above and plotted at a scale of 1:5,000 (Map 5). A large number of samples contained anomalous response ratios above 5. Many of the anomalies coincide with known areas of mineralization.

The higher the number of samples that area combined in the background calculation, the more accurate the correction. Therefore, the background calculated for the CLP area is the same as was used for the entire survey area from all the samples collected in the Flint Lake area in 1997.

One, single-line anomaly was defined within the CLP. A response ration of 9 was obtained at 48+00E 24+50N. The potential of this specific area is undetermined at this time. The general location of the anomaly is within, or immediately adjacent to the interpreted location of PCDZ – South. The anomaly is also close to a major lithological contact between mafic volcanic flows from the lower Rowan Group mafic volcanic flows and the potential extension of a sill from within the upper Kakagi Lake Group volcaniclastic units.

A strongly sheared and altered zone observed along the shoreline at L 3400 E/ 3225 N is considered to be the northwest strike extension from a quartz vein occurrence that was drilled by Gateway Uranium in 1961 near L 3600 E/2800 N. It is possible that this same structure, a potential second order structure located immediately north of PCDZ-South, extends southeast into the area covered by MMI soil samples. This same structure may host the gold mineralization that caused the single line anomaly.

8.0 Conclusions

The 1997 program combined a detailed ground magnetometer survey, property scale mapping, prospecting, and new MMI soil sample analysis technology. Anomalous results were obtained from each survey. The results of the various surveys, completed across an area of significant size, successfully upgraded known exploration targets and added several new and potentially more attractive exploration targets.

Limited mapping to the north, on the north shore of Flint Lake, successfully delineated the northern extension of the PCDZ, and obtained previously unreported gold values of up to 11.28 g/T Au and 6,780 ppb Au from deformed and altered mafic volcanic flows on the shoreline. Better grades and widths may have been obtained in historic trenches approximately 200 meters along strike to the southeast, reported to contain values of up to 0.51 oz/ton Au over 5 ft.

A property visit to the Flint Lake Prospect (not in the Flint Lake Gold Project area), combined with mapping to the northeast, suggests that the host structure, a subparallel shear zone north of, and related to, the PCDZ, has significant exploration potential along strike within the CLP. Alteration observed along strike to the northwest combined with magnetic interpretations indicates that the structure is continuos to the northwest beneath an area of widespread overburden.

Limited mapping, prospecting and MMI soil sampling was completed north of the Meahan Showing area within the CLP. A single line MMI soil anomaly, open along strike to the east, suggests that there is a gold mineralization immediately north of the PCDZ-South structure, north of the historic Meahan showing. Mapping to date suggests that the gold mineralization may be within a second order, subparallel structure immediately north of the PCDZ-South structure that extends from the shoreline at Flint Lake southeast outside the grid area.

9.0 Recommendations

Based on the results of the 1997 field program, follow-up exploration programs are recommended across the entire Flint Lake Gold Project area.

It is recommended that thorough grid mapping and prospecting be completed across the existing grid within the CLP area. Attempts should be made to locate the structures observed north of the Flint Lake Prospect by Micham Exploration Ltd. in 1984. Attempts should also be made to locate the reportedly high grade trenches along the northeast shore of Flint Lake along strike from the 11.3 g/T Au sample obtained during this program. If possible, the trenches should be cleaned and resampled.

MMI soil sampling should be completed along the strike extension of the FLPFZ and along both the PCDZ-North and South structures. The grid should be extended east of L 4800 E to allow for MMI soil sampling east of the one anomaly detected during the 1997 program.

All MMI soil anomaly trends should be further tested by an induced polarization (IP) survey and any significant MMI anomalies and IP anomalies should be drill tested. Drill patterns should attempt to address the MMI soil sample depth limits. Downhole IP surveys should be considered to extend the effective range of the drill holes.

Respectfully Submitted,

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Statement of Qualifications

I, J. W. Patrick Lengyel, of the CITY of WINNIPEG, in the PROVINCE of MANITOBA, hereby certify:

I am a geologist, operating as a geological consultant and reside in the City of Winnipeg, Manitoba

I graduated from the University of Manitoba in Winnipeg, Manitoba, and received my Bachelor of Science Degree, 4 YR Major Program in Geological Sciences in 1988.

I have practiced continuously as an exploration or mine geologist from that time until present.

I am currently employed as a geological consultant by Avalon Ventures Ltd.

This report is based on a study of all information made available to me, both published and unpublished, and on information collected in the field by me, or provided to me.

Dated in Winnipeg, Manitoba this 8th day of April, 1998.

Patrick Lengyel, B.Sc.

Appendix 1

Claim Information

Claim Information

Cedartree Lake Property

Claim	Units	Acres	Recorded	Due	Holder
K 1178832	16	640	31 Dec 1996	31 Dec 1998	Bond/Fenwick
K 1178834	2	80	31 Dec 1996	31 Dec 1998	Bond/Fenwick
K 1178835	3	120	31 Dec 1996	31 Dec 1998	Bond/Fenwick
K 1178836	16	640	31 Dec 1996	31 Dec 1998	Bond/Fenwick
K 1178837	4	160	31 Dec 1996	31 Dec 1998	Bond/Fenwick
K 1178838	16	640	31 Dec 1996	31 Dec 1998	Bond/Fenwick
	57	2280			

Appendix 2

Magnetometer Instrument Specifications

Instrument Description and Specifications

Magnetometer/Gradiometer GSM-19

Resolution:	0.01 nT (gamma), magnetic field and gradient.
Accuracy:	0.2 nT over operating range.
Range:	20,000 to 120,000 nT, automatic tuning requiring initial set-up.
Gradient Tolerance:	Over 10,000 nT/m.
Operating Interval:	3 seconds minimum, faster optional. Readings initiated from keyboard, external trigger, or carriage return via RS-232-C.
Input/Output:	6 pin weatherproof connector, RS-232C, and (optional) analog output.
Power Requirements:	12V, 200mA peak (during polarization), 30 mA standby. 300mA peak in gradiometer mode.
Power Source:	Internal 12 V, 1.9 Ah sealed lead-acid battery standard, others optional. An External 12V power source can also be used.
Battery Charger:	Input: 110/220 VAC, 50/60 Hz and/or 12 VDC (optional). Output: 12V dual level charging.
Operating Ranges:	Temperature: -40°C to +60°C. Battery Voltage: 10.0V minimum to 15V maximum. Humidity: up to 90% relative, non condensing.
Storage Temperature:	-50°C to +65°C
Dimensions:	Console: 223 x 69 x 240 mm. Sensor Staff: 4 x 450 mm sections. Sensor: 170 x 71 mm dia. Weight: Console 2.1 kg, Staff 0.9 kg, Sensors 1.1 kg each.

Physical Overview

The parts of the GSM-19 magnetometer/gradiometer are as follows:

- The sensor is a dual coil type designed to reduce noise and improve gradient tolerance. The coils are electrostaticaly shielded and contain a proton rich liquid in a pyrex bottle, which also acts as an RF resonator.
- The sensor is coaxial, typically RG-58/U, up to 100 m long.
- The staff is made of strong aluminum tubing sections (plastic staff optional). This construction allows for a selection of sensor elevations above ground during surveys. For best precision the full staff length should be used. Recommended sensor separation in gradiometer mode is one staff section (56 cm from sensor axis to sensor axis), although two or more sections are sometimes used for maximum sensitivity.
- The console contains all the electronic circuitry. It has a 16 key keyboard, a 4 x 20 character alphanumeric display, and sensor and power/input/output connectors. The keyboard also serves as an ON-OFF switch.
- The power/input/output connector also serves as RS232C input/output and optionally as analog output and/or contact closure triggering input.
- The keyboard, front panel, and connectors are sealed i.e. the instrument can operate under rainy conditions.
- The charger has 2 levels of charging, full and trickle, switching automatically from one to another, input is normally 110V 50/60 Hz. Optionally, 12 VDC input can be provided.
- The all-metal housing of the console guarantees excellent EMI protection.

Software Version 4.0

There are several major versions of software for the GSM-19. As of August 92, GEM Systems added a major software upgrade to its GSM-19 family, enhancing its capabilities. This new generation of software (version 4.0) has the following advantages:

1. Diurnal correction (reduction) with interpolation can be used in conjunction with other GSM-19 models with software version 4.0. This allows the base mag to run with longer cycle time. Previous software could do interpolation only with fast GSM-19 types.
2. Memory filing system. Now 50 files can be stored in a directory, and mode of operation can be changed without erasing memory. With the software previous to version 4.0, only 1 file could be retained in memory, and this would be lost when modes of operation were switched.
3. Line and station numbers have been enlarged. Lines can now be 5 digits as opposed to 4 digits in previous software. Station numbers are now 7 digits as opposed to 6 in the previous software.
4. Transmission time has been significantly shortened.

Appendix 3

Rock Sample Description Sheets

SAMPLE FILE

Project: Sewell, Cedartree, Flint, Dubenski **Collected By:** P. Lengyel **Page** ____ **of** ____

Date Sent for Assay: Aug 15/97 **Assay Lab:** Chemex **Job #:** ____

Sample	Easting	Northing	Description	Alteration	Sulphides	Au
239167			Meahen Showing - main Trench, Qtz Vein, 20cm thick. 5% dis py, TR cpy, poss V.G.	Sil (qv)	py, cpy	
168			Meahen Showing - East Trench Gabbro, mod sheared, 2% dis ≤ 2mm py	chl	py	
169			Qtz Vein ≤ 15 cm thick, ‖ - foln	Ca-cbt, chl		
170			Qtz-Ank vein in Chl-ank schist	sil, ank	py	
171			Pyroxenite, strongly sheared		py	
172			Sericite-Ankerite-Chlorite Schist very sheared, crenulated cleavage	ser, chl, ank		
173			Qtz vein, 30 cm thick, white quartz 30% chl		py	
174			Ankerite-Chlorite Schist	ank, chl	py	
175			Qtz Vein 20cm thick in 174		TR ≤ 3mm py	
176			Mafic volc	Ca-cbt, Chl	TR py	
177	24+00E	31+90 N	Sericite-Chlorite-ankerite Schist	ser, chl ank		
178			Sericite-ankerite schist	ser, ank	py	
179			Mafic Volc (sheared 36?) - boulder, angular 10cm qtz-ank vein		1% dis py	
180			" "		"	
181			Gabbro	Ca-cbt bleach	TR py	

SAMPLE FILE

Project: 523 Collected By: P. LENGYEL Page 1 of 2

Date Sent for Assay: AUG 20/97 Assay Lab: CHEMEX Job #:

Sample	Easting	Northing	Description	Alteration	Sulphides	Au
239212	34+25E	30+40N	523 Mafic Volc, mod. sheared, perv. ank	ank	TR py	
213	"	"	523 " " "	"	"	
214	L 29E	50+50N	523 Chl-ank schist (15-20m wide shear zone) 10% white qtz veins, TR py	chl ank	TR py	
215	"	"	523 " "	"	"	
216	L 29+25E	50+40N	523 Sheared mafic volcanic, mod perv. ank, local ser'n.	chl ser ank	—	
217	L 27+00E	48+00N	523 15cm cross shear (250°) Chl-ser-ank shear zone, 40% qtz-ank veins	chl ser ank qv	TR cpy, py, v.G.?	
218	"	"	523 20 cm shear zone (302°) Chl-ser-ank 20% qtz-ank veins	chl ser ank qv	TR cpy, py	
219			523 Mafic Volc, mod shear, local ser'n, sil'n, TR py, mod perv. ank	ser, chl ank	TR py	
220			523 " " " 5% qtz stringers	ser chl ank qv	TR py	
221	L 43E	40+50N	SHAFT AREA - F.L.P. TRENCH-EAST Sheared, ser'd, sil'd mafic volc., mod perv. ank	ser, sil ank	TR fg. py	
222	"	"	SHAFT - EAST Ankerite-Quartz Vein (<10% qtz) + ser/fuch/chl wallrock	ser, chl, fuch, ank, qv	TR py	
223	"	"	SHAFT - EAST " " "	"	TR py	
224	"	"	SHAFT - WEST Quartz-Ankerite Vein (main vein) + ser'd, chl'd, fuchsite wallrock	QV, ank	TR py	
225	"	"	Quartz Vein, minor ankerite	QV	TR py	

Flynt Lake

SAMPLE FILE

Project: [redacted] **Collected By:** J. G. W[illegible] **Page** 1 **of** 1

Date Sent for Assay: Aug 1st 97 **Assay Lab:** Chemex **Job #:** [redacted] 522

Sample	Easting	Northing	Description	Alteration	Sulphides	Au
610803			Ash tuff no shear	—	trace	
610802			Porphyroblastic Gabbro no shear	—	1% pyrite	
610801			Gabbro no shear	Sereacite chlorite	1% pyrite	
610804			Fine grained ash tuff lightly sheared 119°	ankerite	1-2% pyrite	
610760 [redacted]			Ash tuff. (fine grained) silicious Sheared 099°	Serecite ankerite	trace pyrite	
610806			lapilli tuff (massive) no shear	moderate calcite	trace pyrite	
610807	L 43E	22+25N	ash tuff [redacted] Sheared 099°	—	1-2% pyrite	
610808	L 43E	19+50N	fine grained ash - sheared [redacted] 088°	Slight Sericite Strong Calcite ankerite	5-10% pyrite/chalcopyrite	
610809			Severely Sheared / Slightly folded (post shear) fine grained ash 119° shear	Strong sericite moderate Calcite	—	

SAMPLE FILE

Project: ~~B~~ Flint Lake   Collected By: Richard H Brett   Page 1 of 2

Date Sent for Assay: August 1st 97   Assay Lab: Chemex   Job #: 522

Sample	Easting	Northing	Description	Alteration	Sulphides	Au
M610751						
M610752						
753			½" to 1" Quatz Vein, Ankorite			
754			Alteration of Gabbro Ankorite			
755			Soritized Aleration Pyrite Trace			
756			Cacite Aleration in Fine Graind Tuff. Trace Pyrite			
757			Cloritized Selicified 5 to 10% Pyrite.			
758			Sheared ~~Se~~ Trace Pyrite ~~Sili~~	Selicified. Clorite.		
759			Q90° ~~Lineation~~ Foliation Trace Pyrite	Selicicfied. Ankorite		
760			shearing	Serite		
761			Pyrite in Gabbro.			
762	L40E	22+25N	Fine graind Ash Trace Pyrite	selicified.		
763	41E	22+25N	Shear Trace Pyrite	Selicified.		
764	42+50E	22+00N	Shear	Selicified		
765	42E	22+00N	Fine grain Ash Shear Trace Pyrite ~~Lineation~~ 80° foliation			

Appendix 4

Assay Certificates – Rock Samples

FROM : CHEMEX LABS INC., MISSISSAUGA PHONE: 905-624-2806

TO : AVALON VENTURES LTD.
ATTENTION :
ATTN: IAN CAMPBELL CC: DON BUBAR FAX: PAT LENGYEL
WORKORDER : A9737276 PROJECT : 522

->
->
->
->
->
->

P R E L I M I N A R Y   D A T A   O N L Y !!

*** Samples are being analyzed for: Au ppb FA+AA

SAMPLE DESCRIPTION	100 Au ppb
M610751	
M610752	
M610753	
M610754	
M610755	
M610756	
M610757	
M610758	
M610759	
M610760	
M610761	
M610762	<5
M610763	<5
M610764	<5
M610765	30
M610766	
M610767	
M610768	
M610769	
M610770	
M610801	
M610802	
M610803	
M610804	
M610805	
M610806	<5
M610807	<5
M610808	1320
M610809	<5

END OF DATA

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga
Ontario, Canada L4W 2S3
PHONE: 905-624-2806 FAX: 905-624-6163

To: AVALON VENTURES LTD.

777 RED RIVER RD.
THUNDER BAY, ON
P7B 1J9

Project : 522,526,519
Comments: ATTN: IAN CAMPBELL CC: DON BUBAR

Certificate Date: 26-AUG-97
Invoice No. : I9738256
P.O. Number :
Account :OPJ

CERTIFICATE OF ANALYSIS A9738256

SAMPLE	PREP CODE		Au ppb FA+AA
239169	205	226	
239170	205	226	
239171	205	226	
239172	205	226	
239173	205	226	
239174	205	226	
239175	205	226	
239176	205	226	
239177	205	226	< 5
239178	205	226	
239179	205	226	
239180	205	226	
239181	205	226	
239182	205	226	
239183	205	226	
239184	205	226	
239185	205	226	
239186	205	226	
239187	205	226	
239188	205	226	
239189	205	226	
239190	205	226	
239191	205	226	
239192	205	226	
239193	205	226	
239194	205	226	
239195	205	226	
239196	205	226	
610794	205	226	
610795	205	226	
610796	205	226	
610797	205	226	
610798	205	226	
610799	205	226	
610800	205	226	
610825	205	226	
610826	205	226	
610827	205	226	
610828	205	226	
610829	205	226	

CERTIFICATION: ____________

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga
Ontario, Canada L4W 2S3
PHONE: 905-624-2806 FAX: 905-624-6163

To: AVALON VENTURES LTD.

777 RED RIVER RD.
THUNDER BAY, ON
P7B 1J9

Project : 519,522,523,526
Comments: ATTN: IAN CAMPBELL CC: DON BUBAR

Certificate Date: 05-SEP-97
Invoice No. : I9739420
P.O. Number :
Account :OPJ

CERTIFICATE OF ANALYSIS A9739420

SAMPLE	PREP CODE		Au ppb FA+AA	Au FA g/t								
239197	205	226		------								
239198	205	226		------								
239199	205	226		------								
239200	205	226	>10000	11.28								
239201	205	226	6780	------								
239202	205	226		------								
239203	205	226		------								
239204	205	226		------								
239205	205	226		------								
239206	205	226		------								
239207	205	226		------								
239208	205	226		------								
239209	205	226		------								
239210	205	226		------								
239211	205	226		------								
239212	205	226	< 5	------								
239213	205	226	< 5	------								
239214	205	226	< 5	------								
239215	205	226	< 5	------								
239216	205	226	< 5	------								
239217	205	226	< 5	------								
239218	205	226	< 5	------								
239219	205	226	< 5	------								
239220	205	226	< 5	------								
239221	205	294	785	------								
239222	205	226	710	------								
239223	205	226	225	------								
239224	205	226	< 5	------								
239225	205	226	< 5	------								
610931	205	226		------								
610932	205	226		------								
610933	205	226		------								
610934	205	226		------								
610935	205	226		------								
610936	205	226		------								
610937	205	226		------								
610938	205	226		------								
610939	205	226		------								
610940	205	226		------								
610941	205	226		------								

CERTIFICATION: [signature]

Appendix 5

Assay Certificates – MMI Soil Sample Analysis and Calculated Response Ratio Data

XRAL

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ontario
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS

Work Order: 017777

To: Avalon Ventures Ltd
Attn: Ian Campbell
777 Red River Road
Lower Level
THUNDER BAY
ONTARIO P7B 1J9

Date : 13/01/98

Copy 1 to :

Copy 2 to :

P.O. No. :
Project No. : 519
No. of Samples : 183 SOIL
Date Submitted : 09/10/97
Report Comprises : Cover Sheet plus
Pages 1 to 5

Distribution of unused material:
Pulps: No instructions.
Rejects: No instructions.

Certified By :

Dr. Hugh de Souza, General Manager
XRAL Laboratories

Report Footer:

L.N.R.	= Listed not received	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= No result
*INF	= Composition of this sample makes detection impossible by this method		

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

XRAL XRAL Laboratories
A Division of SGS Canada Inc.

Work Order: 017778 **Date:** 13/01/98 **FINAL**

Element.	Au	Co	Ni	Pd	Ag
Method.	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	0.25	1	5	0.25	0.25
Units.	ppb	ppb	ppb	ppb	ppb
47+00E 16+75N		15	26	<0.25	7.67
47+00E 17+29N		5	46	<0.25	4.12
47+00E 18+25N		6	36	<0.25	13.7
47+00E 18+75N		5	51	<0.25	9.77
47+00E 22+75N	<0.25	8	59	<0.25	6.34
47+00E 23+25N	<0.25	8	61	<0.25	7.59
47+00E 23+95N	<0.25	7	161	0.27	9.87
47+00E 24+75N	<0.25	13	64	0.54	11.4
48+00E 15+01N		9	838	<0.25	15.1
48+00E 16+35N		7	380	<0.25	7.97
48+00E 17+60N		3	160	<0.25	6.40
48+00E 18+00N		16	180	<0.25	12.4
48+00E 18+50N		6	178	<0.25	5.03
48+00E 19+01N		2	154	<0.25	0.90
48+00E 22+00N	<0.25	44	120	<0.25	30.2
47+95E 23+00N	<0.25	13	79	0.26	12.1
47+95E 24+00E	<0.25	4	152	<0.25	2.37
48+01E 16+00N		8	614	0.40	20.0
48+05E 17+18N		7	296	<0.25	8.23
48+00E 24+50N	1.15	30	164	0.49	36.8
*Dup 23+00E 17+70N		3	36	<0.25	0.88
*Dup 24+00E 20+25N		3	467	<0.25	11.7
*Dup 25+95E 16+00N		2	21	<0.25	<0.25
*Dup 26+00E 19+75N		5	93	<0.25	5.25
*Dup 27+00E 17+75N		1	17	<0.25	0.46
*Dup 27+00E 20+75N		14	23	<0.25	1.34
*Dup 31+00E 20+75N		6	37	<0.25	1.44
*Dup 32+00E 21+50N		4	14	<0.25	<0.25
*Dup 43+00E 15+75N		2	543	<0.25	21.4
*Dup 44+10E 17+50N		1	129	<0.25	1.94
*Dup 45+00E 24+75N	<0.25	10	291	0.29	10.1
*Dup 47+00E 15+50N		31	191	<0.25	5.86
*Dup 48+00E 16+35N		7	361	<0.25	7.88

XRAL XRAL Laboratories
A Division of SGS Canada Inc.

Work Order: 017778 **Date:** 13/01/98 **FINAL**

Element.	Au	Co	Ni	Pd	Ag
Method.	MMI-B	MMI-B	MMI-B	MMI-B	MMI-B
Det.Lim.	0.25	1	5	0.25	0.25
Units.	ppb	ppb	ppb	ppb	ppb
41+00E 19+75N		6	498	0.31	9.06
42+00E 17+00N		20	150	0.31	14.2
42+00E 17+50N		2	76	<0.25	6.67
42+00E 19+50N		3	98	<0.25	7.71
42+00E BL 20+00N	0.36	2	521	<0.25	11.8
43+00E 15+25N		2	337	<0.25	0.76
43+00E 15+75N		3	539	<0.25	20.3
43+00E 16+40N		1	139	<0.25	2.67
43+00E 16+75N		<1	40	<0.25	13.5
43+00E 17+25N		2	60	<0.25	0.62
43+00E 17+76N		42	74	<0.25	7.75
43+00E 19+75N		2	266	<0.25	24.3
43+00E 23+00N	<0.25	13	158	<0.25	14.5
43+00E 23+50N	<0.25	2	102	<0.25	3.76
43+00E 24+00N	<0.25	3	102	<0.25	7.44
43+00E 24+50N	<0.25	29	174	0.39	22.7
43+90E 16+50N		<1	27	<0.25	1.19
44+00E 17+00N		1	89	<0.25	0.70
44+10E 17+50N		1	148	<0.25	1.62
43+90E 18+00N		21	50	<0.25	0.71
44+00E 18+50N		4	130	<0.25	40.4
44+00E 19+25N		2	93	<0.25	0.99
44+00E 23+00E	<0.25	1	84	<0.25	0.26
44+00E 23+30N	<0.25	5	322	<0.25	7.59
44+00E 24+00N	<0.25	2	1211	<0.25	9.93
45+00E 16+60N		<1	33	<0.25	0.55
45+00E 17+22N		2	47	<0.25	1.12
45+00E 17+71N		5	69	<0.25	6.33
45+00E 18+25N		2	387	<0.25	5.23
45+00E 24+25N	<0.25	16	120	<0.25	7.58
45+00E 24+75N	<0.25	11	317	0.27	11.3
46+00E 17+00N		8	34	<0.25	2.20
46+00E 17+55N		2	36	<0.25	4.27
45+70E 18+00N		7	30	0.26	5.57
46+00E 18+37N		36	53	<0.25	3.94
46+00E 22+85N	<0.25	30	200	0.27	9.67
46+00E 23+00N	<0.25	8	431	<0.25	9.03
46+00E 23+22N	<0.25	11	241	0.33	6.48
46+00E 23+50N	<0.25	6	533	<0.25	11.6
46+00E 24+00N	<0.25	8	201	0.32	10.7
46+00E 24+48N	<0.25	3	155	<0.25	15.1
47+00E 15+25N		5	358	<0.25	1.25
47+00E 15+50N		34	191	<0.25	5.69
47+00E 15+75N		1	264	0.29	13.0
47+00E 16+25N		5	62	<0.25	0.44

	A	B	C	D
1	SAMPLE ID	Au	avg25%tl	au/corr
2		0.125	0.125	1
3		0.125	0.125	1
4		0.125	0.125	1
5		0.125	0.125	1
6		0.41	0.125	3.28
7		1.42	0.125	11.36
8		0.86	0.125	6.88
9		0.53	0.125	4.24
10		0.5	0.125	4
11		0.125	0.125	1
12		0.125	0.125	1
13		0.125	0.125	1
14		0.36	0.125	2.88
15		0.125	0.125	1
16		0.125	0.125	1
17		0.125	0.125	1
18		0.36	0.125	2.88
19		0.36	0.125	2.88
20		0.125	0.125	1
21		0.54	0.125	4.32
22		0.37	0.125	2.96
23		0.43	0.125	3.44
24		0.29	0.125	2.32
25		0.31	0.125	2.48
26		0.125	0.125	1
27		0.47	0.125	3.76
28		0.32	0.125	2.56
29		0.125	0.125	1
30		0.31	0.125	2.48
31		0.125	0.125	1
32		0.43	0.125	3.44
33		0.27	0.125	2.16
34		0.31	0.125	2.48
35		0.46	0.125	3.68
36		0.71	0.125	5.68
37		0.46	0.125	3.68
38		0.61	0.125	4.88
39		0.88	0.125	7.04
40		0.125	0.125	1
41		0.125	0.125	1
42		0.125	0.125	1
43		0.51	0.125	4.08
44		0.26	0.125	2.08
45		0.125	0.125	1
46		0.125	0.125	1
47		0.125	0.125	1
48		0.28	0.125	2.24
49		0.32	0.125	2.56
50		0.53	0.125	4.24
51		0.125	0.125	1

	A	B	C	D
52		0.125	0.125	1
53		0.125	0.125	1
54		0.44	0.125	3.52
55		0.71	0.125	5.68
56		0.125	0.125	1
57		0.125	0.125	1
58		0.29	0.125	2.32
59		0.4	0.125	3.2
60		0.38	0.125	3.04
61		0.34	0.125	2.72
62		0.28	0.125	2.24
63		1.4	0.125	11.2
64	48+00E 24+50N	1.15	0.125	9.2
65	48+00E 22+00N	0.125	0.125	1
66		0.125	0.125	1
67		0.125	0.125	1
68		0.125	0.125	1
69		5.23	0.125	41.84
70		0.56	0.125	4.48
71		0.31	0.125	2.48
72	47+95E 24+00E	0.125	0.125	1
73	47+95E 23+00N	0.125	0.125	1
74	47+00E 24+75N	0.125	0.125	1
75	47+00E 23+95N	0.125	0.125	1
76	47+00E 23+25N	0.125	0.125	1
77	47+00E 22+75N	0.125	0.125	1
78		0.125	0.125	1
79		0.125	0.125	1
80		0.125	0.125	1
81		0.125	0.125	1
82		0.125	0.125	1
83		0.55	0.125	4.4
84		0.125	0.125	1
85		0.125	0.125	1
86	46+00E 24+48N	0.125	0.125	1
87	46+00E 24+00N	0.125	0.125	1
88	46+00E 23+50N	0.125	0.125	1
89	46+00E 23+22N	0.125	0.125	1
90	46+00E 23+00N	0.125	0.125	1
91	46+00E 22+85N	0.125	0.125	1
92		0.125	0.125	1
93		0.62	0.125	4.96
94		0.125	0.125	1
95		0.125	0.125	1
96	45+00E 24+75N	0.125	0.125	1
97	45+00E 24+25N	0.125	0.125	1
98		0.32	0.125	2.56
99		0.44	0.125	3.52
100		0.125	0.125	1
101		0.125	0.125	1
102		0.37	0.125	2.96

	A	B	C	D
103	44+00E 24+00N	0.125	0.125	1
104	44+00E 23+30N	0.125	0.125	1
105	44+00E 23+00E	0.125	0.125	1
106		0.125	0.125	1
107		0.125	0.125	1
108		0.125	0.125	1
109		0.125	0.125	1
110		0.125	0.125	1
111	43+00E 24+50N	0.125	0.125	1
112	43+00E 24+00N	0.125	0.125	1
113	43+00E 23+50N	0.125	0.125	1
114	43+00E 23+00N	0.125	0.125	1
115		0.125	0.125	1
116		0.125	0.125	1
117		0.125	0.125	1
118		0.125	0.125	1
119		0.125	0.125	1
120		0.3	0.125	2.4
121		0.125	0.125	1
122	42+00E 20+00N	0.36	0.125	2.88
123		0.125	0.125	1
124		0.125	0.125	1
125		0.125	0.125	1
126		0.125	0.125	1
127		0.125	0.125	1
128		0.125	0.125	1
129		0.79	0.125	6.32
130		0.125	0.125	1
131		0.125	0.125	1
132		0.125	0.125	1
133		0.125	0.125	1
134		0.125	0.125	1
135		0.125	0.125	1
136		0.125	0.125	1
137		0.125	0.125	1
138		0.28	0.125	2.24
139		0.125	0.125	1
140		0.125	0.125	1
141		0.26	0.125	2.08
142		0.125	0.125	1
143		0.125	0.125	1
144		0.29	0.125	2.32
145		0.125	0.125	1
146		0.125	0.125	1
147		0.125	0.125	1
148		3.63	0.125	29.04
149		0.125	0.125	1
150		0.125	0.125	1
151		0.125	0.125	1
152		0.125	0.125	1
153		0.125	0.125	1

	A	B	C	D
154		0.86	0.125	6.88
155		0.125	0.125	1
156		0.125	0.125	1
157		0.125	0.125	1
158		0.125	0.125	1
159		0.125	0.125	1
160		0.125	0.125	1
161		0.125	0.125	1
162		0.125	0.125	1
163		0.125	0.125	1
164		0.125	0.125	1
165		0.125	0.125	1
166		0.125	0.125	1
167		0.125	0.125	1
168		0.125	0.125	1
169		0.125	0.125	1
170		0.125	0.125	1
171		0.125	0.125	1
172		0.125	0.125	1
173		0.125	0.125	1
174		0.125	0.125	1
175		7.42	0.125	59.36
176		0.95	0.125	7.6
177		0.125	0.125	1
178		2.17	0.125	17.36
179		0.125	0.125	1
180		0.4	0.125	3.2
181		0.37	0.125	2.96
182		0.88	0.125	7.04
183		0.125	0.125	1
184		0.125	0.125	1
185		0.125	0.125	1
186		0.125	0.125	1
187		0.125	0.125	1
188		0.125	0.125	1
189		0.125	0.125	1
190		0.125	0.125	1
191		0.125	0.125	1
192		0.125	0.125	1
193		0.5	0.125	4
194		0.3	0.125	2.4
195		1.33	0.125	10.64
196		0.125	0.125	1
197		0.31	0.125	2.48
198		0.5	0.125	4
199		0.125	0.125	1
200		0.125	0.125	1
201		0.4	0.125	3.2
202		0.125	0.125	1
203		0.63	0.125	5.04
204		0.52	0.125	4.16

	A	B	C	D
205		0.26	0.125	2.08
206		0.34	0.125	2.72
207		2.55	0.125	20.4
208		0.25	0.125	2
209		0.32	0.125	2.56
210		0.31	0.125	2.48
211		0.125	0.125	1
212		0.125	0.125	1
213		2.45	0.125	19.6
214		0.125	0.125	1
215		0.125	0.125	1
216		0.125	0.125	1
217		0.125	0.125	1
218		0.125	0.125	1
219		0.125	0.125	1
220		0.125	0.125	1
221		0.125	0.125	1
222		0.63	0.125	5.04
223		0.71	0.125	5.68
224		1.03	0.125	8.24
225		0.51	0.125	4.08
226		2.55	0.125	20.4
227		0.125	0.125	1
228		0.125	0.125	1
229		1.08	0.125	8.64
230		1.81	0.125	14.48
231		0.125	0.125	1
232		0.125	0.125	1
233		0.125	0.125	1
234		0.125	0.125	1
235		0.45	0.125	3.6
236		19.4	0.125	155.2
237		2.57	0.125	20.56
238		5.12	0.125	40.96
239		1.64	0.125	13.12
240		0.125	0.125	1
241		0.125	0.125	1
242		0.125	0.125	1
243		0.125	0.125	1
244		0.125	0.125	1
245		16.2	0.125	129.6
246		0.42	0.125	3.36
247		0.26	0.125	2.08
248		0.125	0.125	1
249		0.125	0.125	1
250		0.125	0.125	1
251		0.5	0.125	4
252		0.125	0.125	1
253		0.125	0.125	1
254		0.29	0.125	2.32
255		5.27	0.125	42.16

	A	B	C	D
256		0.27	0.125	2.16
257		0.33	0.125	2.64
258		0.125	0.125	1
259		0.125	0.125	1
260		0.5	0.125	4
261		0.125	0.125	1
262		0.125	0.125	1
263		0.125	0.125	1
264		0.125	0.125	1
265		0.125	0.125	1
266		0.125	0.125	1
267		0.125	0.125	1
268		0.125	0.125	1
269		0.52	0.125	4.16
270		0.125	0.125	1
271		0.125	0.125	1
272		0.34	0.125	2.72
273		0.125	0.125	1
274		0.125	0.125	1
275		0.125	0.125	1
276		0.125	0.125	1
277		0.125	0.125	1
278		1.03	0.125	8.24
279		0.125	0.125	1
280		0.125	0.125	1
281		0.125	0.125	1
282		0.125	0.125	1
283		0.125	0.125	1
284		0.125	0.125	1
285		0.125	0.125	1
286		0.125	0.125	1
287		0.125	0.125	1
288		0.125	0.125	1
289		0.125	0.125	1
290		0.125	0.125	1
291		4.69	0.125	37.52
292		0.125	0.125	1
293		0.125	0.125	1
294		0.28	0.125	2.24
295		2.1	0.125	16.8
296		0.125	0.125	1
297		0.125	0.125	1
298		0.125	0.125	1
299		0.125	0.125	1
300		0.125	0.125	1
301		0.125	0.125	1
302		0.125	0.125	1
303		0.125	0.125	1
304		0.125	0.125	1
305		0.125	0.125	1
306		0.125	0.125	1

	A	B	C	D
307		0.125	0.125	1
308		0.125	0.125	1
309		0.125	0.125	1
310		0.125	0.125	1
311		0.125	0.125	1
312		0.125	0.125	1
313		0.125	0.125	1
314		0.125	0.125	1
315		0.125	0.125	1
316		0.125	0.125	1
317		0.125	0.125	1
318		0.125	0.125	1
319		0.125	0.125	1
320		0.125	0.125	1
321		0.125	0.125	1
322		0.125	0.125	1
323		0.125	0.125	1
324		0.125	0.125	1
325		0.125	0.125	1
326		0.125	0.125	1
327		0.125	0.125	1
328		0.125	0.125	1
329		0.125	0.125	1
330		0.125	0.125	1
331		0.125	0.125	1
332		0.125	0.125	1
333		0.125	0.125	1
334		0.125	0.125	1
335		0.125	0.125	1
336		0.125	0.125	1
337		0.125	0.125	1
338		0.125	0.125	1
339		4.64	0.125	37.12
340		0.125	0.125	1
341		0.125	0.125	1
342		0.125	0.125	1
343		0.125	0.125	1
344		0.125	0.125	1
345		0.125	0.125	1
346		0.125	0.125	1
347		0.125	0.125	1
348		0.125	0.125	1
349		0.125	0.125	1
350		0.125	0.125	1
351		0.125	0.125	1
352		0.125	0.125	1
353		0.125	0.125	1
354		0.125	0.125	1
355		0.125	0.125	1
356		0.125	0.125	1
357		0.125	0.125	1

	A	B	C	D
358		0.125	0.125	1
359		0.125	0.125	1
360		0.125	0.125	1
361		0.125	0.125	1
362		0.125	0.125	1
363		0.125	0.125	1
364		0.125	0.125	1
365		0.125	0.125	1
366		0.125	0.125	1
367		0.125	0.125	1
368		0.125	0.125	1
369		0.45	0.125	3.6
370		0.125	0.125	1
371		0.125	0.125	1
372		0.125	0.125	1
373		0.125	0.125	1
374		0.125	0.125	1
375		0.35	0.125	2.8
376		0.28	0.125	2.24
377		0.125	0.125	1
378		0.125	0.125	1
379		0.125	0.125	1
380		0.125	0.125	1
381		0.125	0.125	1
382		0.125	0.125	1
383		0.125	0.125	1
384		0.125	0.125	1
385		0.125	0.125	1
386		0.125	0.125	1
387		0.125	0.125	1
388		0.125	0.125	1
389		0.125	0.125	1
390		0.125	0.125	1
391		0.125	0.125	1
392		0.125	0.125	1
393		0.125	0.125	1
394		0.125	0.125	1
395		0.125	0.125	1
396		0.125	0.125	1
397		0.67	0.125	5.36
398		0.125	0.125	1
399		0.125	0.125	1
400		0.125	0.125	1
401		0.125	0.125	1
402		0.125	0.125	1
403		0.125	0.125	1
404		0.125	0.125	1
405		0.125	0.125	1
406		0.125	0.125	1
407		0.125	0.125	1
408		0.4	0.125	3.2

	A	B	C	D
409		0.125	0.125	1
410		0.125	0.125	1
411		0.125	0.125	1
412		0.125	0.125	1
413		1.3	0.125	10.4
414		0.125	0.125	1
415		0.125	0.125	1
416		0.125	0.125	1
417		0.125	0.125	1
418		0.125	0.125	1
419		0.125	0.125	1
420		0.125	0.125	1
421		0.125	0.125	1
422		0.125	0.125	1
423		0.77	0.125	6.16
424		0.125	0.125	1
425		0.125	0.125	1
426		0.125	0.125	1
427		0.125	0.125	1

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Transaction Number (office use): W9810.00087
Assessment Files Research Imaging

...section 65(2) and 66(3), R.S.O. 1990

52F05SW2001 2.18414 DOGPAW LAKE 900

...ty of subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the ... to review the assessment work and correspond with the mining land holder. ...ng Recorder, Ministry of Northern Development and Mines, 6th Floor, ...

2.18414

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.
- Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

RECEIVED MAY - 7 1998 GEOSCIENCE ASSESSMENT OFFICE

Name: Kenneth Fenwick	Client Number: 300118
Address: 84 Velva Street	Telephone Number: 807-344-6568
Thunder Bay, ON	Fax Number: 807-345-0916
Name: James Bond II	Client Number: 109716
Address: P.O. Box 948	Telephone Number: 304-436-6444
Welch, West Virginia 24801	Fax Number: 304-436-3902

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

[✓] Geotechnical: prospecting, surveys, assays and work under section 18 (regs) [ ] Physical: drilling, stripping, trenching and associated assays [ ] Rehabilitation

		Office Use	
Work Type: Linecutting, magnetometer survey, geology, rock sampling, soil sampling		Commodity	
		Total $ Value of Work Claimed	23,951
Dates Work Performed From 01 03 97 (Day Month Year) To 31 08 97 (Day Month Year)		NTS Reference	
Global Positioning System Data (if available)	Township/Area: Dogpaw Lake Area	Mining Division	~~Thunder Bay~~ Kenora
	M or G-Plan Number: G-2613	Resident Geologist District	~~Thunder Bay~~ Kenora

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

RECORDED MAY - 7 1998

Name: Patrick Lengyel, Geological Consultant	Telephone Number
Address: for Avalon Ventures Ltd.	Fax Number
Name: 851 Field Street	Telephone Number: 807-346-0404
Address: Thunder Bay, ON P7B 6B6	Fax Number: 807-346-4233
Name	Telephone Number
Address	Fax Number

4. Certification by Recorded Holder or Agent

I, Karen Rees (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: Karen J Rees Avalon Ventures Ltd.	Date: 01 May 1998

Agent's Address: 851 Field Street Thunder Bay, ON	Telephone Number: 807-346-0404	Fax Number: 807-346-4233

5. **Work to be recorded and distributed.** Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W-9810.00081

2.18414

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
eg	TB 7827	16 ha	$26, 825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8, 892	$ 4,000	0	$4,892
1	K 1178832	16	3,380	6,400	0	0
2	K 1178834	2	3,745	800	2,670	275
3	K 1178835	3	3,445	1,200	2,000	245
4	K 1178836	16	1,750	6,400	0	0
5	K 1178837	4	3,920	1,600	2,000	320
6	K 1178838	16	7,711	6,400	1,000	311
7						
8						
9						
10						
11						
12						
13						
14						
15						
		Column Totals	23,951	22,800	7,670	1,151

RECEIVED
MAY - 7 1998
3:30
GEOSCIENCE ASSESSMENT OFFICE

I, Karen Rees (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

RECORDED
MAY - 7 1998

Signature of Recorded Holder or Agent Authorized in Writing	Date
Karen Rees	01 May 1998

6. **Instructions for cutting back credits that are not approved.**

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☐ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

Ontario | Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use): W9810.00087

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

2.18414

Work Type	Units of Work (Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.)	Cost Per Unit of work	Total Cost
Linecutting	38.8 km	$290/km	11,252
Mag survey	38.8 km	$80/km	3,104
Geology	5 days	$350/day	1,750
Soil sample collection	3 days	$200/day	600
Rock assays	23 samples	$15/S	345
Soil assays	24 samples	$25/S	600
Supervision and Report	14 days	$350/day	4,900
Associated Costs (e.g. supplies, mobilization and demobilization).			
Supplies and equipment rental			125
Mob/demob time		$350/day $200/day	550
Transportation Costs			
Boat & Vehicle rental/gas			375
Food and Lodging Costs		$35/mday	350
		Total Value of Assessment Work	$23,951

RECEIVED MAY - 7 1998 3:30 GEOSCIENCE ASSESSMENT OFFICE

RECORDED MAY - 7 1998

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK × 0.50 = Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, Karen Rees (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as agent (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature	Date
Karen Rees	01 May 1998

0212 (02/96)

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

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

Telephone: (888) 415-9846
Fax: (705) 670-5881

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

July 23, 1998

KENNETH GEORGE FENWICK
84 VELVA AVENUE
THUNDER BAY, ONTARIO
P7A-6N5

Submission Number: 2.18414

Dear Sir or Madam:

		Status
Subject: Transaction Number(s):	W9810.00087	Deemed Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Lucille Jerome by e-mail at jeromel2@epo.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 12574

Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.18414

Date Correspondence Sent: July 23, 1998 **Assessor:** Lucille Jerome

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9810.00087	1178832	DOGPAW LAKE	Deemed Approval	July 22, 1998

Section:

17 Assays ASSAY
12 Geological GEOL
14 Geophysical MAG

Correspondence to:

Resident Geologist
Kenora, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

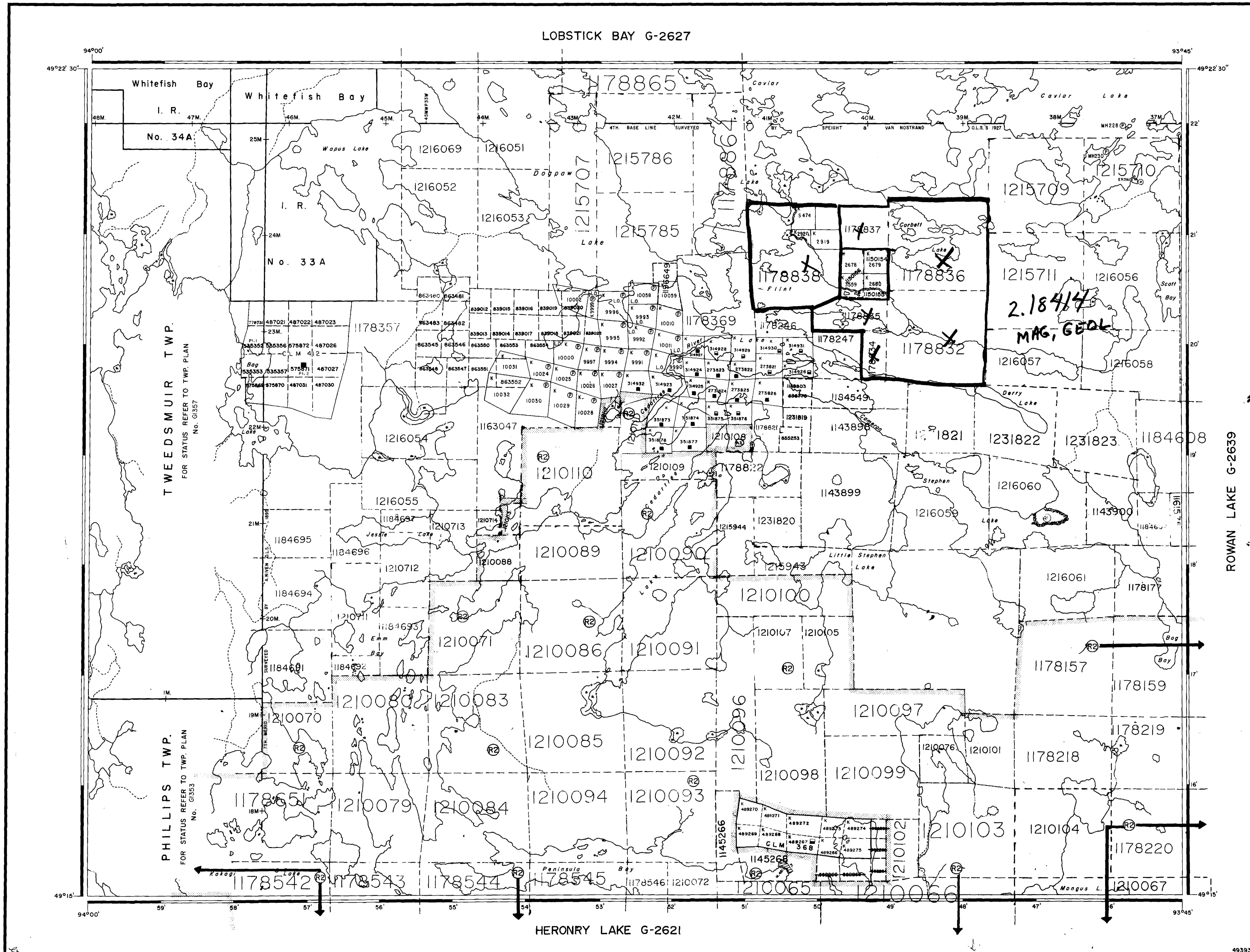
Karen Rees
THUNDER BAY, ONTARIO, CANADA

KENNETH GEORGE FENWICK
THUNDER BAY, ONTARIO

JAMES EDWARD II BOND
WELCH, WEST VIRGI

Correspondence ID: 12574

G-2613



LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES:
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT — SYMBOL

PATENT, SURFACE & MINING RIGHTS
" , SURFACE RIGHTS ONLY
" , MINING RIGHTS ONLY
LEASE, SURFACE & MINING RIGHTS
" , SURFACE RIGHTS ONLY
" , MINING RIGHTS ONLY
LICENCE OF OCCUPATION
ORDER-IN-COUNCIL — OC
RESERVATION
CANCELLED
SAND & GRAVEL

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
	W20/82	mar 1/72	m & s	162473
R2 SEC.35	W-K-25/98	30/06/98	M&S	195150

DATE OF ISSUE

JUL 0 6 1998

PROVINCIAL RECORDING OFFICE - SUDBURY

SCALE: 1 INCH = 40 CHAINS

AREA

DOGPAW LAKE

M.N.R. ADMINISTRATIVE DISTRICT

KENORA

MINING DIVISION

KENORA

LAND TITLES / REGISTRY DIVISION

KENORA

Ministry of Natural Resources — Land Management Branch — Ontario

Date JANUARY, 1984 — Number G-2613

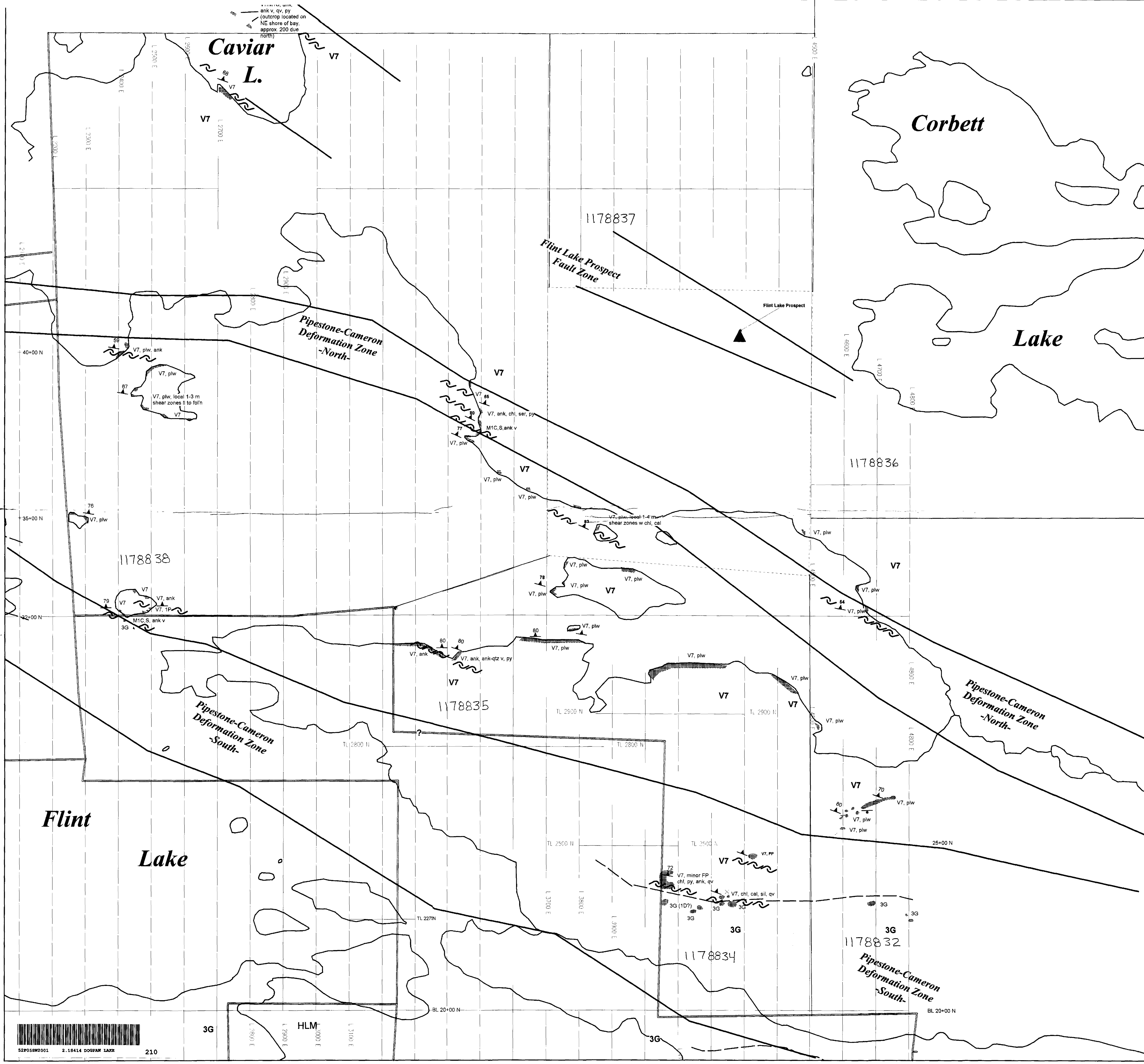
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

KENORA MINING DIV. RECEIVED EFFECTIVE JUL 1 1 1994

493934

52F05SW2001 2.18414 DOGPAW LAKE 200

TRIM LINE



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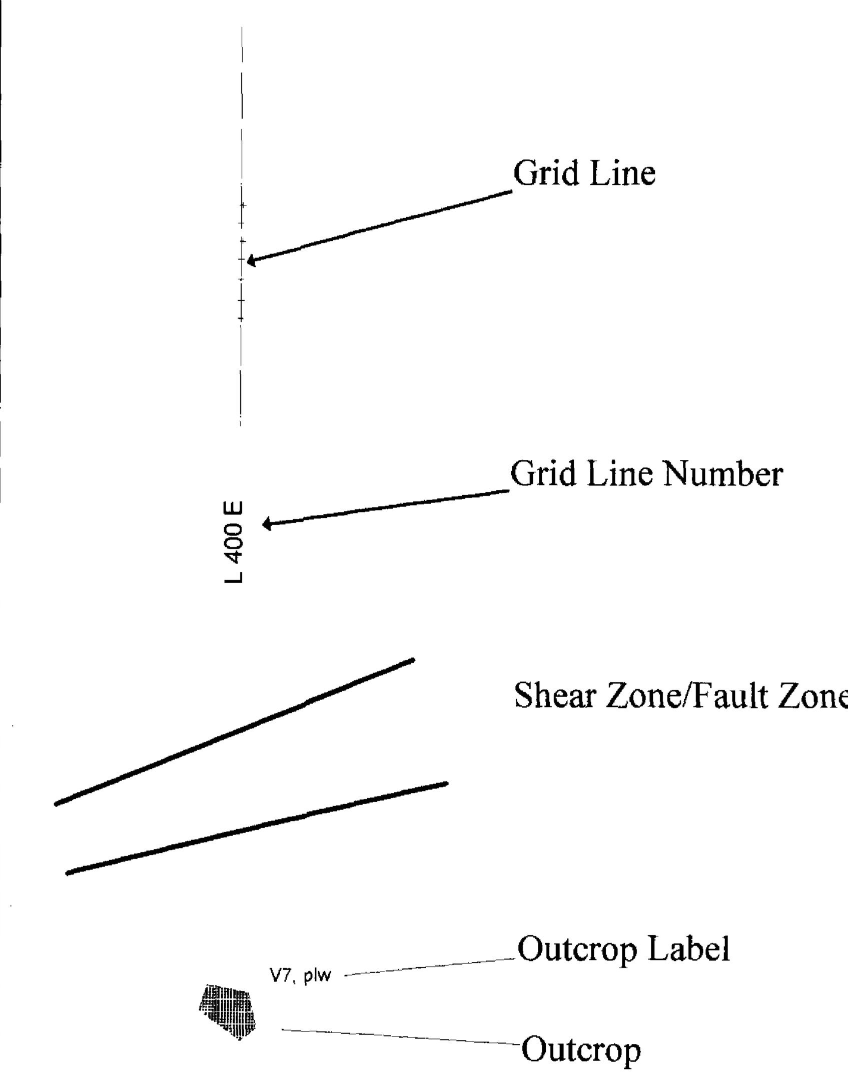


Lithologies

STEPHEN LAKE INTRUSIVE SUITE (2699 Ma)

FP	Feldspar Porphyry Dike

KAKAGI LAKE GROUP (2725 Ma)

3G	Gabbro sill (Kakagi Lake Sill)

ROWAN LAKE VOLCANIC FLOWS (2831 Ma?)

V7, plw	Mafic Volcanic Flow: massive, pillowed
IP	Peridotite dike
M1C	Chlorite Schist
M1S	Sericite Schist

Miscellaneous

chl	chlorite
ser	sericite (sericiticization)
ank	ankerite (carbonatization)
sil	silica (silicification)
cal	calcite (carbonatization)
py	pyrite
qv	quartz vein
ma	

Symbols

contact

shearing

foliation: dipping, vertical

Avalon Ventures Ltd.

Geology Map
1997 Summer Program

Cedartree Lake Property

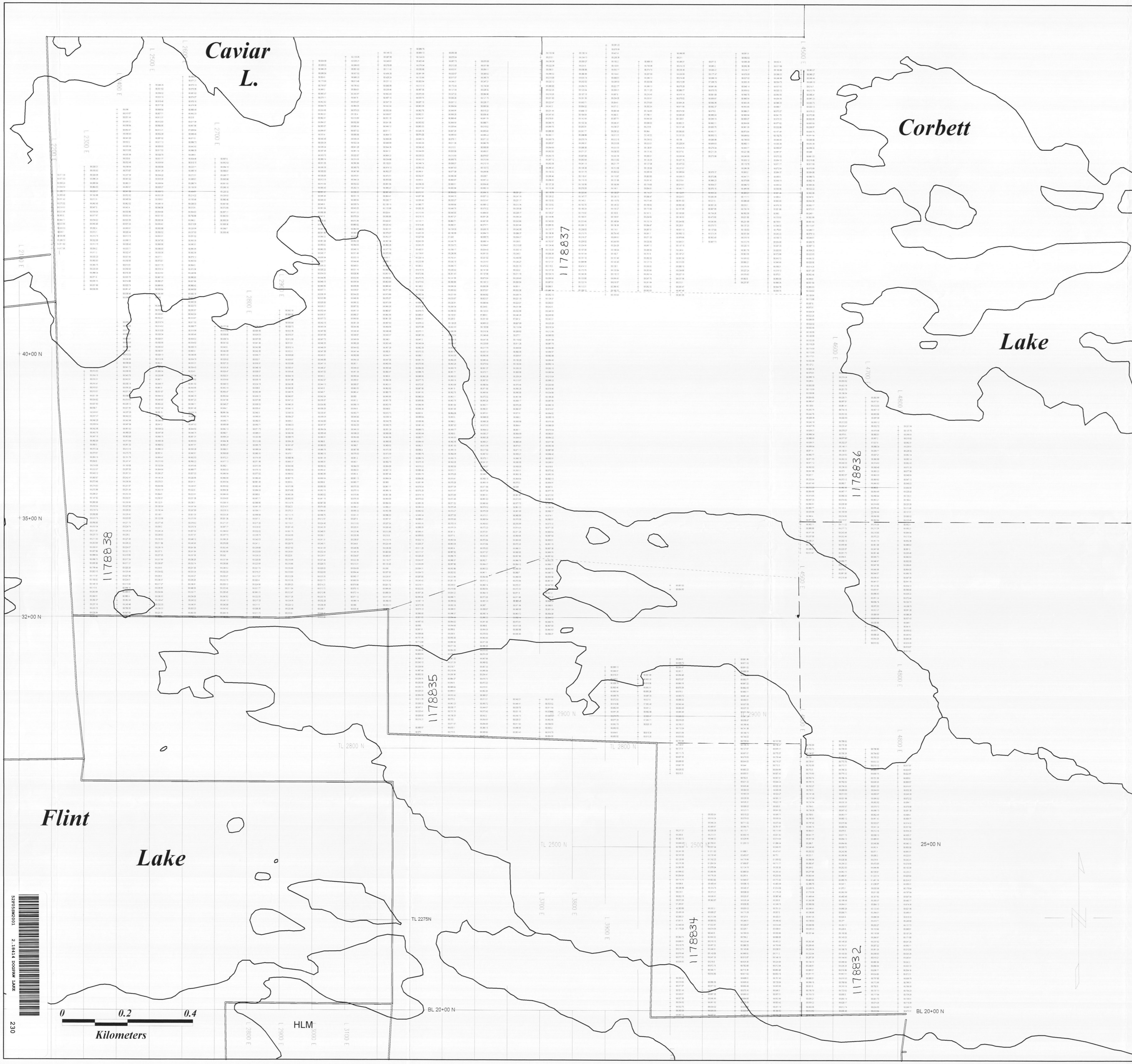
Scale 1:5,000 | Date April 1, 1998

Base: P. Nielson | NTS 52 F/5

Interpretation: P. Lengyel | Map No. 1

2.18414

note: 239214-216 are located 200 meters due north
239214
239215
239216
Caviar L.
239219
239220
239217
239218
Corbett
Lake
1178837
Flint Lake Prospect Fault Zone
239225
239224
239223
239222
239221
Pipestone-Cameron Deformation Zone -North-
239201
239200
1178836
1178838
239177
239212
1178835
Pipestone-Cameron Deformation Zone -South-
Pipestone-Cameron Deformation Zone -North-
Flint
Lake
610807
610806
610762
610763
610765
610764
610807
1178832
1178834
Pipestone-Cameron Deformation Zone -South-
610964
HLM
Legend
Grid Line
Grid Line Number
L 400 E
Shear Zone/Fault Zone
Sample Number
239168
Outcrop
Avalon Ventures Ltd.
Sample Location Map
1997 Summer Program
Cedartree Lake Property
Scale 1:5,000
Base: P. Nielson
Interpretation: P. Lengyel
Date April 1998
NTS 52 F/5
Map No. 2
2.18414
RECEIVED
MAY - 7 1998
GEOSCIENCE ASSESSMENT OFFICE
52F05SW2001 2.18414 DOGPAW LAKE 220



Legend

Grid Line
Station
Magnetometer Reading (Corrected)
Grid Line Number
L 400 E

Avalon Ventures Ltd.

Magnetometer Survey Corrected Data Map

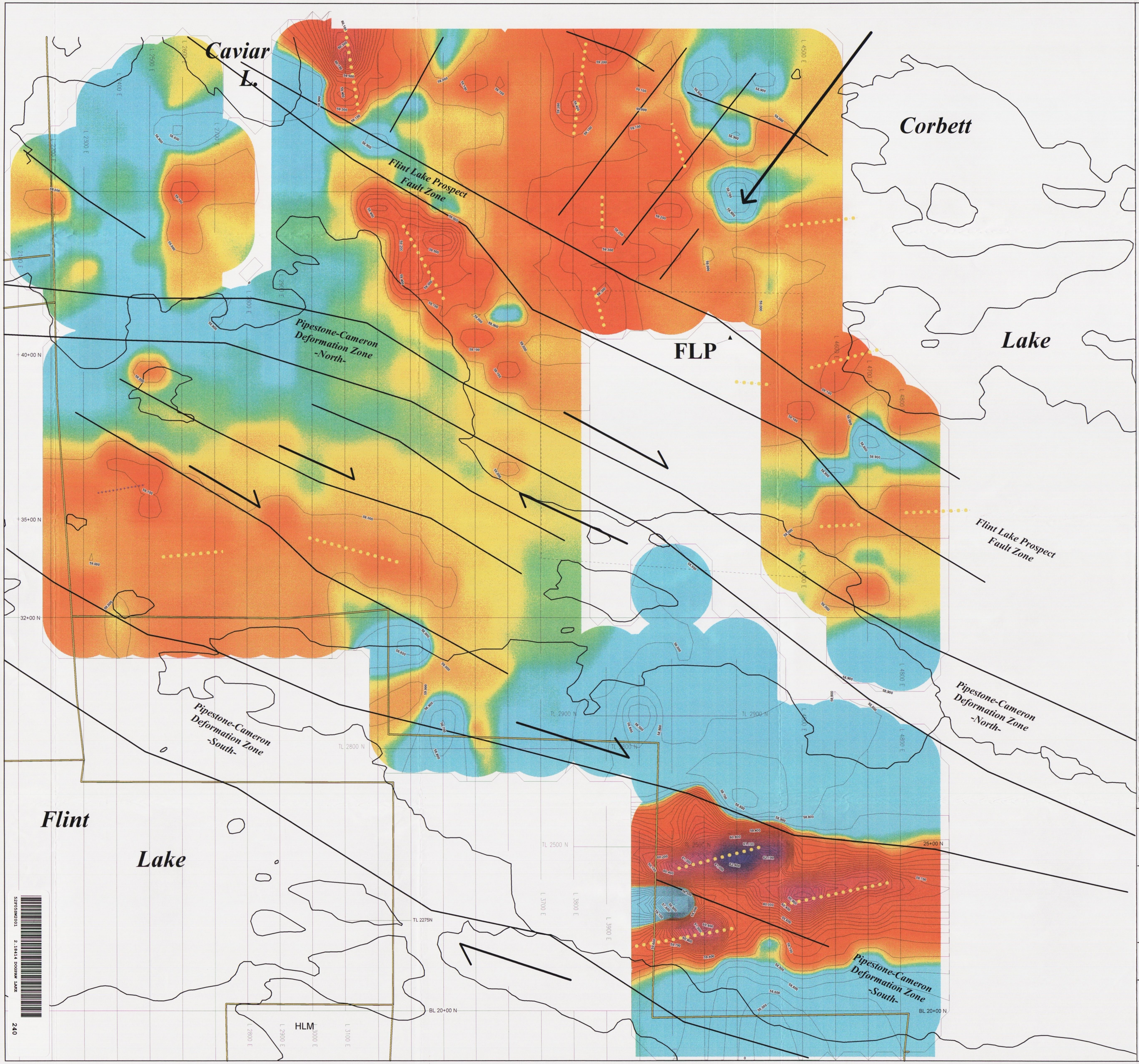
Cedartree Lake Property

Scale 1:5,000 | Date April 1, 1998

Base: P. Nielson | NTS 52 F/5

Interpretation: P. Lengyel | Map No. 3

2.18414



Legend

Total Field Mag (color)

Total Field Mag (contour)

Grid Line Number

L 400 E

Shear Zone/Fault Zone

Sense of Displacement

Magnetic Axis/Lithological Trend

Interpreted Fold Axis (plunge unknown)

Avalon Ventures Ltd.

Magnetometer Survey Geophysical Interpretation Map

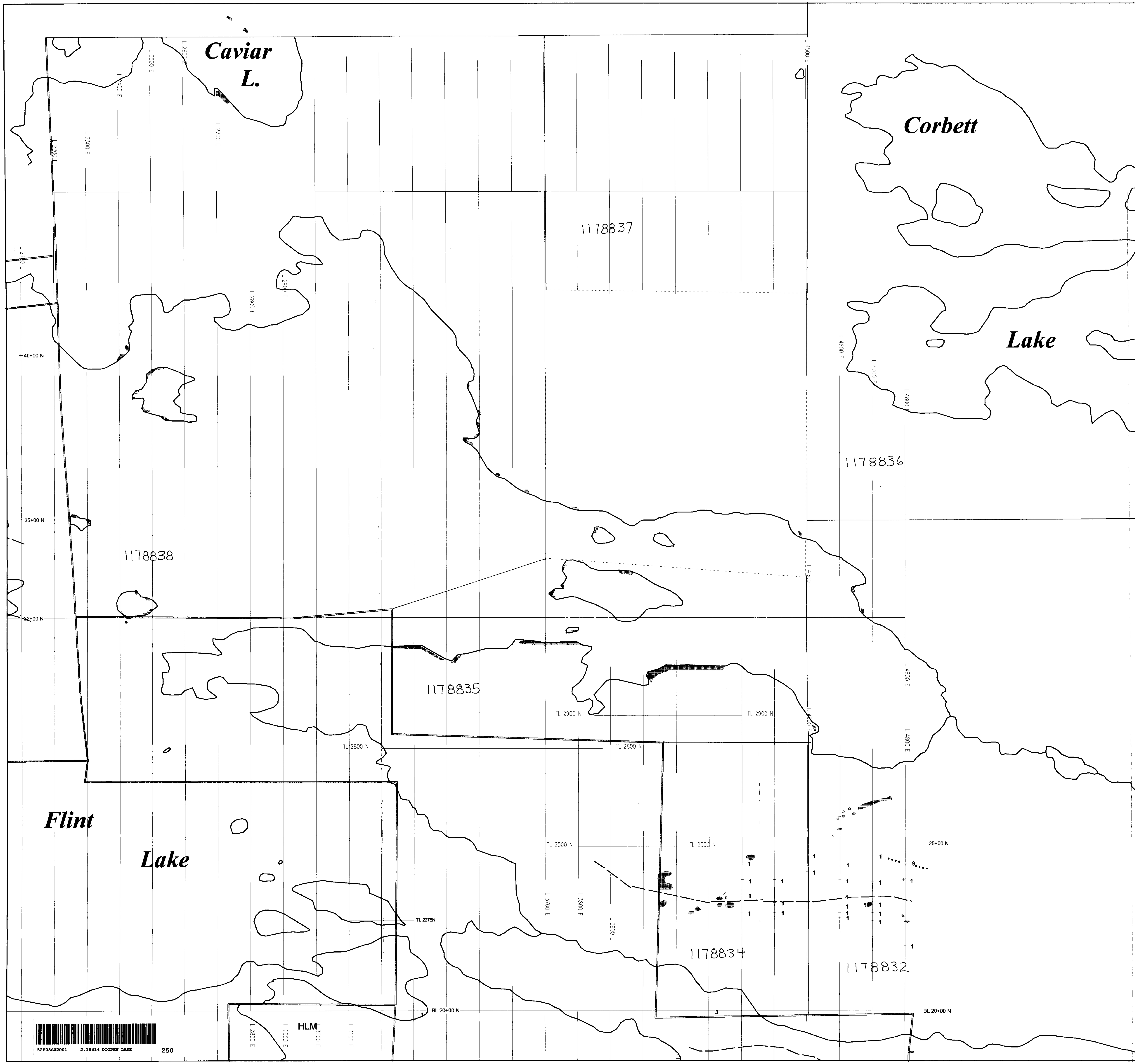
Cedartree Lake Property

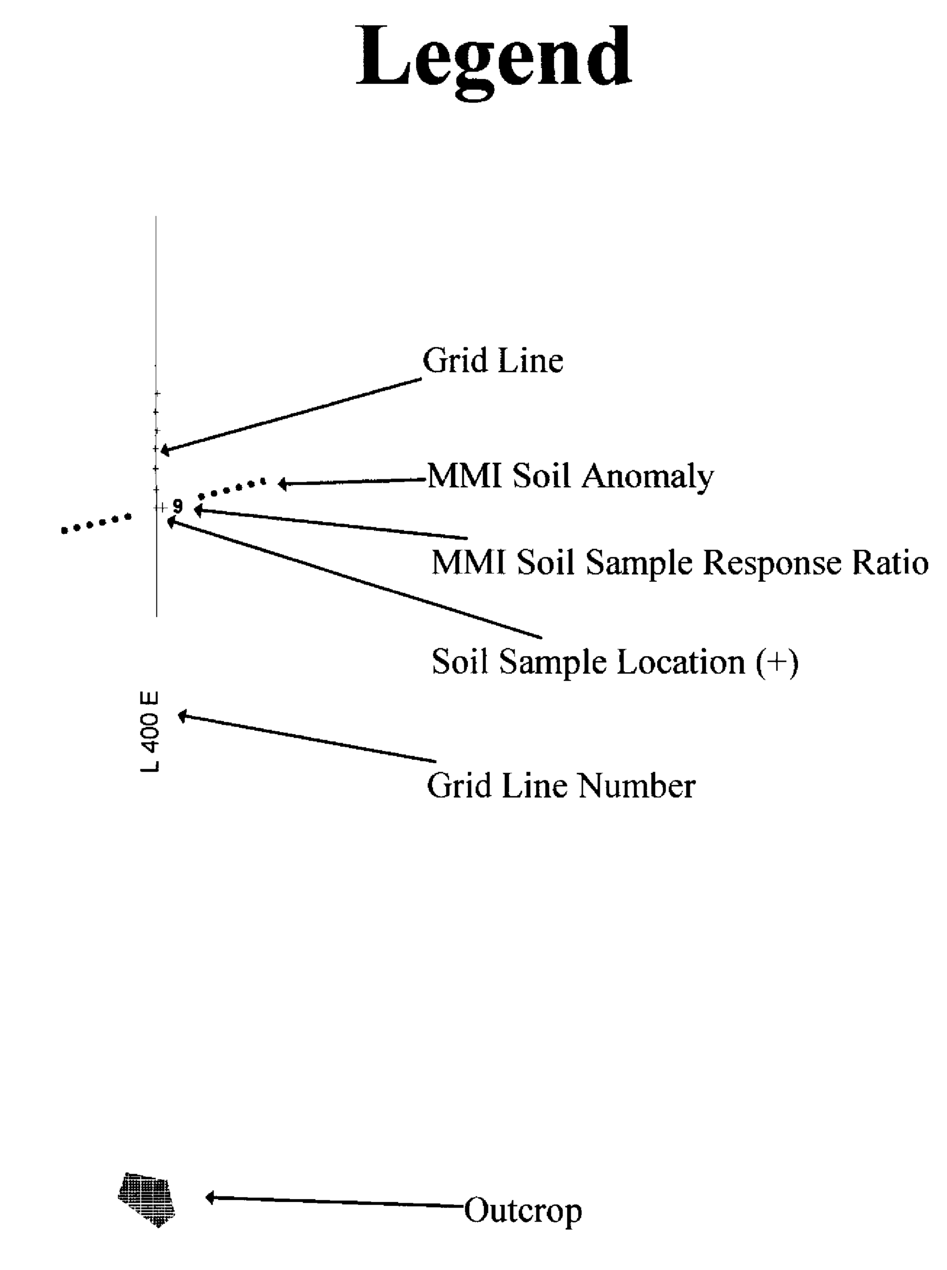
Scale 1:5,000 | Date April 1, 1998

Base: P. Nielson | NTS 52 F/5

Interpretation: P. Lengyel | Map No. 4

2.18414





Avalon Ventures Ltd.

Response Ratio Map
MMI Soil Sample Analysis
1997 Summer Program

Cedartree Lake Property

Scale 1:5,000 | Date April 199

Base: P. Nielson | NTS 52 F/5

Interpretation: P. Lengyel | Map No. 5