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2.57361

Claim L1239350

Eby Township  
NTS - 42 A/1  
80°09'18"W 48°04'16"N

Fall 2016

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# Kirkland Lake Resident Geologists District

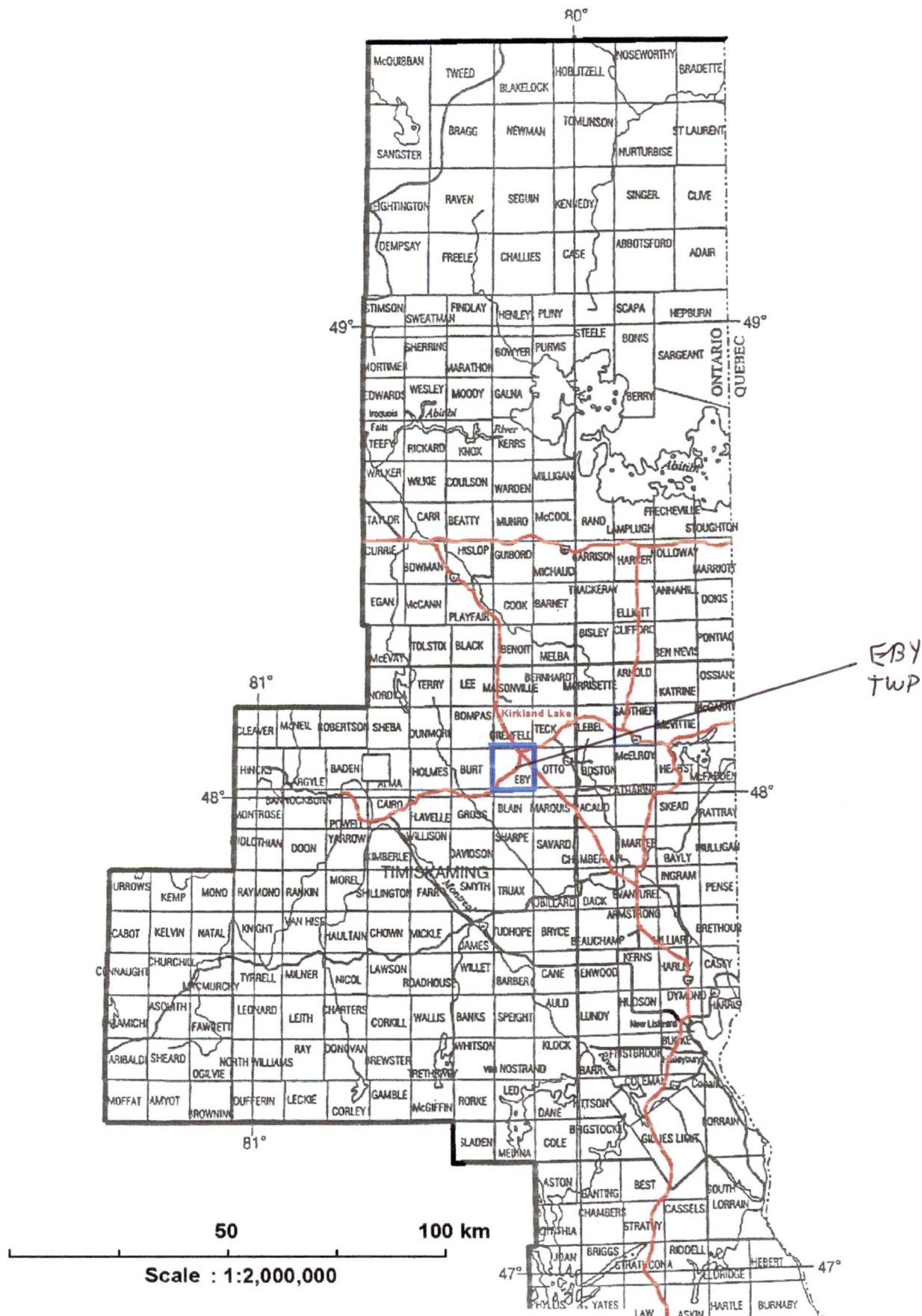
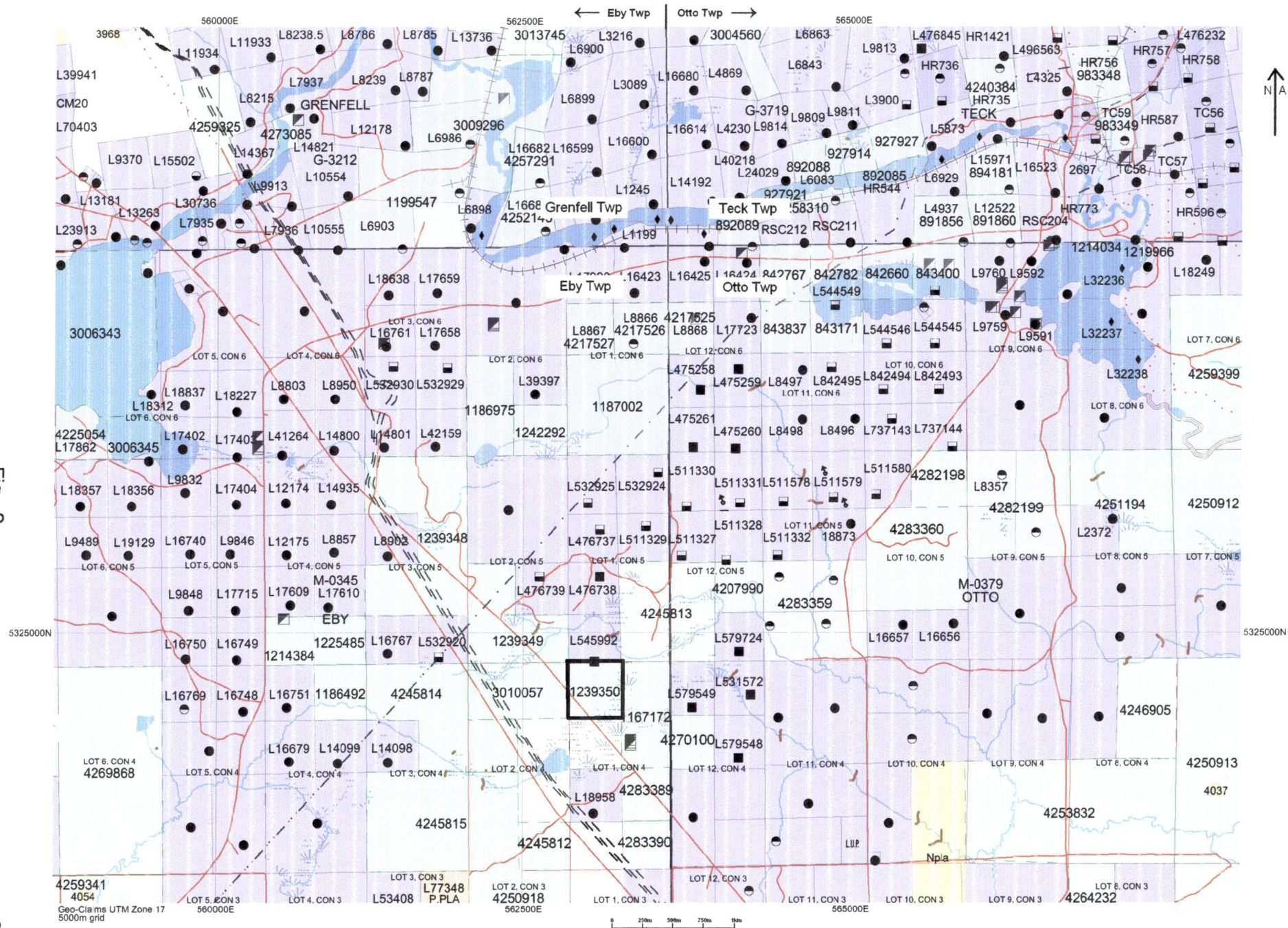


Fig - 1







## PROPERTY LOCATION

The claim is located in the Larder Lake mining division approximately 12 kilometers south-west of the town of Kirkland Lake. The claim sits 400 meters to the west of the north-south Eby-Otto Township boundary at about midway down the township. Highway 11 passes through the south west corner of the claim. This is in the Kirkland Lake Resident Geologists District and can be found on NTS map sheet 42 A/1 with the geographic center of the claim being at approximately 80°09'18"W and 48°04'16"N .

## ACCESS

Heading south on Hwy.#11 from the intersection of Hwy.#66 and trans-Canada Hwy.#11 at Kenogami for 3.4 kilometers will bring you onto the south west of the claim area. A recent clear-cut access road was driven across the claim area but the access off of the highway has now been removed. Replanting does not appear to be included in the silviculture plans. (It is noteworthy that that at a location about 1 kilometer north of this access, the culvert crossing to access patent lands off of the highway which for 15 years has been used to access crown lands for exploration purposes was removed by the same forestry company although it was not their crossing, it appears simply to invoice for the removal, leaving no safe off-highway landing area there either).

## CLAIMS

This is a staked mining claim unit totalling about 16 hectares in the subdivided Township of Eby, recorded on Plan M-0345 of Eby Township. The property is in Temiskaming District, about 14 kilometers south west of Kirkland Lake. The claim and descriptions are as follows:

CL# L1239350--Lot 1, Con.4, NW1/4 of the N1/2 - 1 unit

## GENERAL GEOLOGY

This claim area lays within the Abitibi Greenstone Belt of the Superior Province. This is a region of predominantly Archean mafic to felsic pillowed, massive and agglomeratic volcanics and granitic batholiths with attendant intrusions, with minor clastic interflow and fluvial sediments, at the south central region of the Superior Province. Archean volcanic rocks with inter-bedded slate and chert are the oldest rocks (2.747 Ga to 2.705 Ga) and range from komatiite to mostly iron and magnesium-rich tholeiites at the stratigraphical base to calc-alkaline volcanic rocks at the stratigraphical top. These rocks contain long narrow bodies of diorite and gabbro as well as coarse-grained flows. Timiskaming-type interbedded sedimentary and volcanic rocks, also Archean in age (2.680 Ga), unconformably, overlie the older volcanic rocks. They form a long, relatively narrow east-trending belt intruded by syenite (2.673 Ga). Lamprophyre dikes are widespread and most of the "diabase" is of the "Matachewan" swarm of north-striking dikes (2.485 Ga). Overlying all the above rocks with great unconformity are Proterozoic undeformed Huronian sediments of the Cobalt group intruded by Nipissing Diabase (2.200 Ga). The Temiskaming Rift is a regional graben feature striking at about 330° across this part of Ontario. This young rift system has a definite control association with diamond bearing intrusives such as kimberlites. Several NNW-SSE trending fault features passing through the area have been identified as probable Temiskaming Rift associated features. Jurassic age diamond-bearing kimberlite pipes are found east of Kirkland Lake and Matheson". \*(ref Lovel 1967) West of Lake Kenogami Lake in the west, and east of Kerr Addison in the east, relatively flat-lying Proterozoic sedimentary rocks cover the older folded formations. To the west of the claim group, the north-south finger of locally termed "Huronian" sediments appear to be filling a paleo depression of probable structural origin. Field work by the OGS has shown LCDZ strain and faulting affecting these much younger overlying sediments.

Several eras of intrusion and deformation have affected most of the lithologies present. Major structural deformation zones, (locally the Larder-Cadillac Deformation Zone or LCDZ), parallel each other west to east across the belt and have acted as a control on gold deposition.



# General Geology of the Kirkland Lake Area

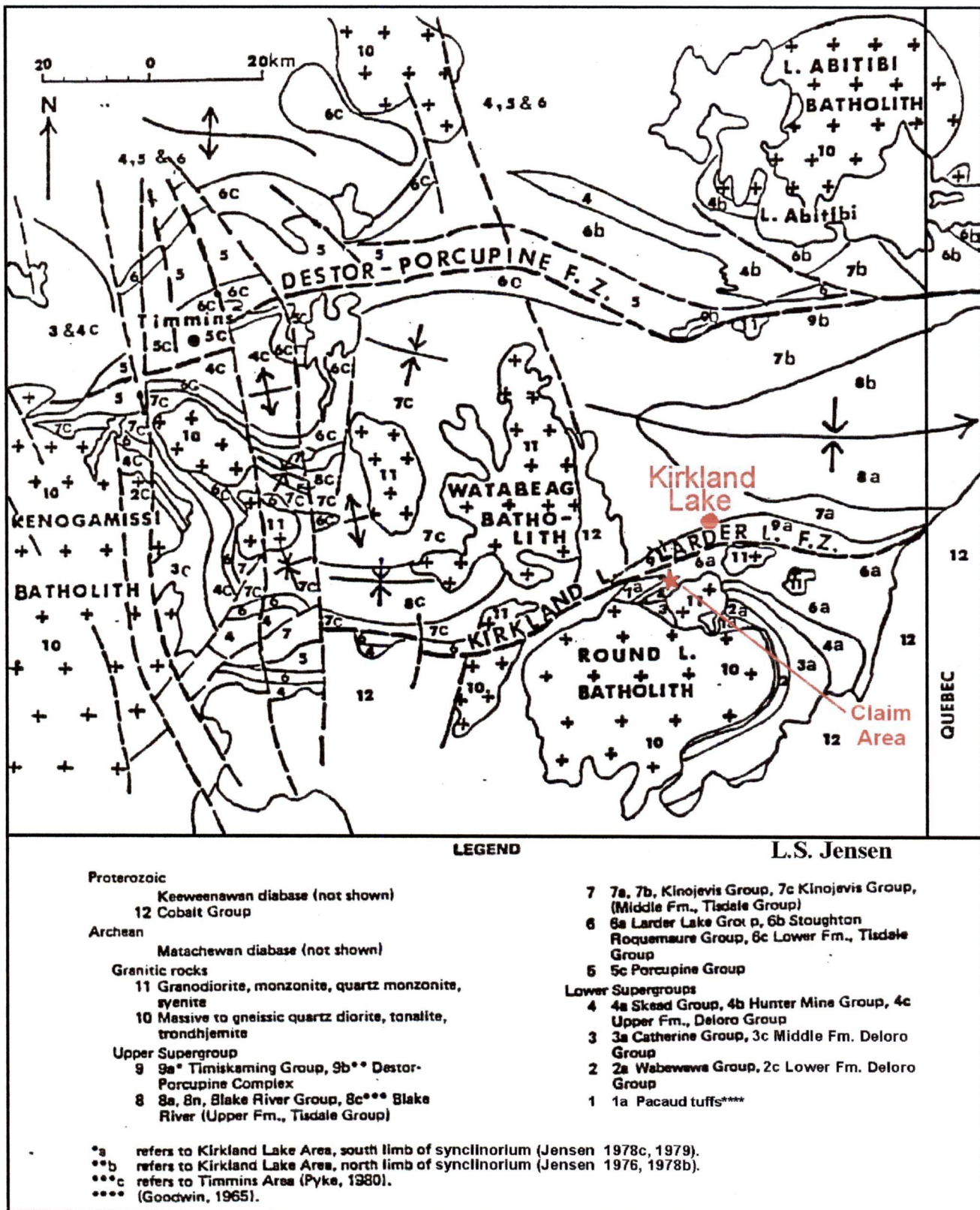


Fig - 3



The Abitibi Belt is host to many large gold and base metal deposits on both sides of the Ontario-Quebec border along these structural trends and has an exploration history going back well into the 1800's. A band of altered mainly fluvial and volcanic sediments of Temiskaming age, folded and upturned to a near vertical position, coincide with the main structural trend of the LCDZ about 2200 meters to the north of the claim group. Previous work by Meyer et al has indicated a direct relationship with the regional structural conduits and this band of sediments. Practically all of the Kirkland - Larder gold has come from within 3 kilometers of the Larder-Cadillac break and within or adjacent to the metasedimentary rocks. The round Lake batholith, a large Archaean aged granitic intrusive occurs about 6 kilometers to the south-south-west. Less than 200 meters south of the claim group is the "Otto Stock", an almost circular, somewhat zoned mafic(sanukitoid?) intrusive of some 10 kilometer diameter. Thin bands of clastic sediments and iron formation belonging to the older Skead group trend east-west through the map area locally south of the LCDZ and wrap around the Otto Stock. The number 2 post area of L4245813 is within this band of sediments. The Amikougami cross-fault, about 5000 meters west of the claims, is shown to cut the mapped exposure of the Otto stock in half from north to south. Mapped displacement is about 1800 meters with the east side moving north relative to the west side. No reliable data documents the vertical or rotational component of displacement. Data from 3 sites, the north boundary of Teck Twp area, proximal to the the KL main break systems, and at the Otto stock indicates incompatible displacements which rotational or vertical aspects can not resolve.

The Kirkland Lake Break is located about 6000 meters north east of this claim area, laying on the east side of the off-setting Amikougami Creek cross-fault. The Macassa Mine, the last operating producer of the historic Kirkland Lake camp which has produced in excess of 28 million ounces of gold, has its #3 shaft at this area. Gold mineralization at the Kirkland Lake camp occurs in epigenetic structurally controlled deposits localized along "breaks", in veins as quartz-filled fractures and breccias. Gold mineralization is located along the breaks and subordinate splays as fracture fill quartz veins several inches to 5 ft thick. Veins may be single, sheeted or stacked morphology. Gold is usually accompanied by 1% to 3% pyrite. Epithermal veining and alteration contain elevated gold, silver and molybdenum and variously tellurium, copper, antimony, uranium with minor lead also occurring. Wallrock alteration is commonly hematization or bleaching with carbonitization, silicification and locally sericitization.

At the new South Mine complex, which lays about 300 to 600 meters south of the Main Breaks, an entirely new mineralized system in the Kirkland Lake mining camp is being mined. It is characterized by generally shallowly dipping (25°-50°) structurally controlled zones of finely disseminated pyrite, visible gold and tellurides. This is in contrast to the steeply dipping (70°-80°) quartz vein hosted gold of the Main and '04 Break that put Kirkland Lake on the map. Most of the new discoveries are sulphide zones rather than the quartz-vein hosted gold found historically, and comprise silicified pyritic tuff or porphyry with visible gold and tellurides. Gold mineralization in the SMC area occurs in a complex interconnected network of narrow, east to northeast trending shallow south dipping shear zones and auriferous alteration. It consists of wide, gold-bearing alteration and mineralization halos, in contrast to the narrow quartz vein systems associated with the Main and '04 Breaks. A distinct buff colored albitic? alteration is evident in many zones. The SMC represents. These much flatter zones are interpreted to be a "cross over" type faulting passing between the Main break series of faults and a as of yet unknown southernly fault system, possibly directly related to the LCDZ which does also occur to the south.

Although there have been several postulated correlations of the economic faults to fault or vein features to the west of this north south Amikougami fault, no economically encouraging "ore blocks" have been defined to the west of the Amikougami Fault which can be mineralogically or structurally correlated to the main Kirkland Lake breaks. Available geologic reports and publications appear to have differing information and estimation of the amount of and direction of off-set by the Amikougami Fault. The east-north east trending Kirkland Lake Break is mapped as merging with the Larder Cadillac break about 3200 meters directly north of L1239350.

It is important to note that even in a mining camp such as Kirkland Lake that has been the subject to a tremendous amount of exploration work, that as recently as the mid 1990's and 2005, new gold bearing structures are being found. The claim area lies literally in the shadow of a world class camp and has seen little comprehensive exploratory study.



## LOCAL GEOLOGY

O.D.M. Map M-2239 of Eby Twp. shows the claims to be underlain by mafic volcanic rocks of basaltic to andesitic composition. A band of clastic sediments and iron formation belonging to the older Skead group projects into the claim from the south east and is associated with several airborne conductive anomalies due to the numerous interlayers of pyrite. A narrow gabbroic dike is mapped as cutting east west across the north of the claim block. Geophysical interpretation and outcrop indicate a diabase dyke along the west boundary of the claim.

Several occurrences of gold are mapped in the immediate area around the claim. Most notably of the gold occurrences in the area is the workings of the Gateford Mine about 5 kilometers north east of this claim, on the west shore of Otto Lake. These holdings include the workings of the Swastika Mine which is the site of the first discovery west of Larder Lake in 1906, three years before the major discoveries 4½ north east in what was to become the historic Kirkland Lake gold camp. The property is underlain by volcanic rock cut by syenite dikes. Gold occurs in very rich thin flat laying quartz veins associated with galena and molybdenite. Initial production at the Swastika Mine began in 1911 and was sporadic until about 1950. About 1 million dollars of gold from about 100,000 tons of ore were produced from the combined Gateford holdings.

In 1919 Eby Township was included in mapping by H. C. Cooke of the Geological Survey of Canada while mapping the Kenogami, Round, and Larder Lakes areas.

In 1935, W. S. Dyer of the Ontario Department of Mines mapped Eby Township as part of the Geology and ore deposits of the Matachewan-Kenogami area.

In 1967 Eby Township was mapped by H. L. Lovell of the Ontario Department of Mines. A report summarizing of historical exploration work and showings in the township and colored geology map M-2239 (1 inch to ½ mile) was released in 1972 as Geological Report 99.

This area south west of Kirkland Lake has historically yielded Pt/Pd values along with gold and copper. Past work by the OGS has documented Pt/Pd/Au/Cu values in an amphibolite rock on a rock cut on hwy 11 just south of the claim. Previous work by Butte Canyon in the late 80's also showed elevated Pt on the claims in five sample areas associated with mafic intrusive phase they referred to as norite. Recent re-interpretation of some of the lithologies in the map area as komatiitic in origin has also revived the possibility of magmatic sulphide deposits particularly along interaction with the underlying iron formation of the area.

*"All of the komatiites in the Abitibi greenstone belt (AGB), regardless of petrogenetic affinity (Al-undepleted, Al-depleted, Ti-enriched), appear to have been undersaturated in sulfide prior to emplacement and therefore capable of forming mineralization. Only the two youngest of the four komatiite-bearing assemblages (2719-2711 Ma Kidd-Munro and 2710-2704 Ma Tisdale) are known to host economic nickel deposits, which are also the only assemblages that contain both abundant magma/lava pathways (magma conduits, feeder sills, lava channels, and channelized sheet flows) and external sources of S. Although most of the komatiites in the AGB have been previously considered to be extrusive, an increasing number of units have been shown to be intrusive and it now appears that komatiite-associated Ni-Cu-(PGE) mineralization in the AGB occurs within a spectrum of environments ranging from intrusive (Dumont, Sothman) through subvolcanic (Dundee-Dundonald South-Kelex, Galata-McWatters) to extrusive (Alexo, C Zone-Thalweg, Hart-Langmuir-Redstone, Mickel, Marbridge, Texmont). The stratigraphy of some assemblages is now known to be more complex than was previously understood. Thus, komatiite-associated Ni-Cu-(PGE) mineralization is not restricted to specific stratigraphic contacts as previously believed, but may occur in any environment (intrusive, subvolcanic, or volcanic) throughout the stratigraphy where lava pathways have had access to external S."*

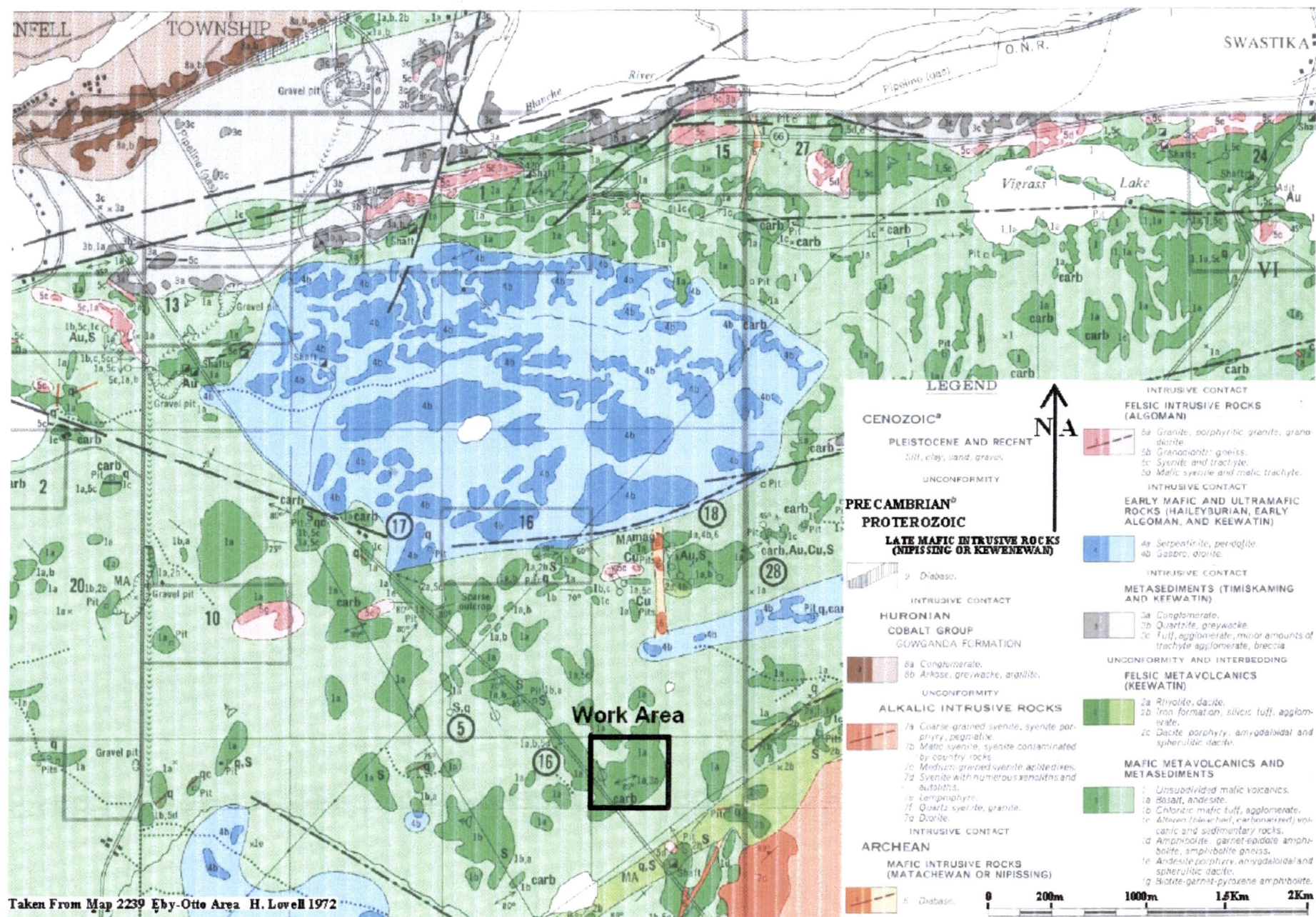
*from : Geology and Ore Genesis in the Abitibi Subprovince 2008*

## PREVIOUS AREA WORK

In 1911 gold was discovered on the "Baldwin" property 2500 meters north of the L1239350. Underground work was first done in 1917 to 1918, when a two-compartment shaft was sunk to 200 feet. The property was eventually developed with the 2 compartment shaft to 420 feet with levels established at 100 foot intervals, 920 feet of crosscutting and 1,120 feet of drifting. Fine grained native gold associated with molybdenite and chalcopyrite occurs in several east-west oriented quartz stringers within a carbonate schist. Shoots also occur in red syenite porphyry



Fig - 4





dykes and light pink fine grain syenite. The shaft and workings are located on the north half of lot 2, concession VI, Eby Township in the Temiskaming aged sediments. The earlier developments on the property have been described by Burrows and Hopkins(1923, p.52) and Dyer (1935, p.52-53). There are two different ages of vein material in the mine workings. The earlier consists of numerous irregular quartz-carbonate veinlets in a sheared zone. The later veins occur as a system of narrow quartz veins trending about N65°E. and dipping about 70° S. The only gold values of economic importance found on the property to date occur where a set of N.20°E. faults cut the vein system. In addition, there is a set of small, poorly developed cross-veins that show a general north-south trend.

In 1939 gold was discovered 3500 meters north -west of this claim on the Rogick-Elliott-Clark claims. Extensive trenching and drilling showed gold values up to about ½ ounce per ton in gold bearing zones up to 20 feet wide, associated with sheared contacts of red syenitic dykes and carbonate rock. In the late 60's early 70's much of the surface exposures have been removed by open cutting. No report of recovered gold was disclosed.

In around 1944, Sylvanite Mines reported gold values across 2 to 4 feet in a quartz veined zone in schist. about 100 meters west of this claim. No follow up work was reported by Sylvanite. Subsequent work by several holders has not pinpointed the location of the work nor duplicated the assays. Comparison of the submitted mapping as well as the past and current highway location may indicate the possibility that when the highway was moved in the late 50's it was built over top of the showings.

In around 1948, diamond drilling about 900 meters north on the adjacent claim on the "Todora" claims encountered molybdenite and chalcopyrite with gold in quartz stringers and quartz porphyry in sheared volcanic rocks and iron formation. About 600 meters east of this the 112 foot "Cheltonia" shaft was sunk south of the zone but crosscutting did not go far enough to encounter the shearing. Grab samples from pits showing much pyrite and chalcopyrite in the shaft area reported up to 13% copper.

In 1957, a report by George H. Salton summarized work done on the SW1/4 of the N1/2 of Lot 1, Con 3, from 1955 to 57 by a Finnish group holding the claims of Lot 1 Con 3, headed up by a Mr Ahola. Two pits had been sunk to depths of 22 and 25 feet on the same rock structure about 200 feet apart with one of the workings being 18 feet long. This would be about 250 meters south of L1239350 on the south side of the swamp. The main showing on which these two shafts were put down, consists of a 15 to 20 foot wide band of quartz filled and pyritized tuffs. The owners reported gold sampling up to \$7.00/ton ( at \$34.95/oz). The sample taken by Salton gave .01 oz/ton. (ref :KL files)

In 1980, Noranda Exploration drilled three core holes totalling 1243 feet, about 1700 meters north-east of L1239350 on the then called Allsopp property being the owner of the Todora-Cheltonia claims. (ref : AFRI - 42A01SE0146) The ground located targets were conductors shown on a recently conducted regional electromagnetic survey. Hole 80-3 was about 600 meters north and holes 80-1 & 80-2 were about 600 meters north-north east of L4245813. All holes cut highly graphitic laminated to brecciated tuffs and argillites. Wide intervals of 50% to 60% graphite are logged. Several layers up to 10 feet of 90% graphite cut only by thin qz-carb stringers are also logged. Wide areas of green carbonate alteration showing fuchsite or mariposite is also logged as occurring seemingly in the more silicious very low graphite tuffaceous layers. Although mostly thought of and referred to as a "carbonate" facies of the local sequence of iron-formation by most previous published material, this alteration may also indicate an plumbing system tapping LCDZ type associated fluids which produce similar indication elsewhere along the LCDZ and its various splays. Such a feature would fit well and further substantiate earlier works indicating a deep alteration system passing across the area.

At various times through the 1980's James Reed performed sampling, stripping and geophysics on the area of adjacent claim L3010057. No anomolous gold values were reported. No follow up drilling performed. (ref:KL 2349).

In 1992, Nick Rigas worked part of an OPAP grant on a group of 5 claims of which the area of adjacent claim 3010057 was included. Limited samples were taken from a cherty horizon which has been injected with several narrow quartz stringers and containing an appreciable amount of pyrite but showed very low values. (ref : KL 3454)



In 1994-96, Doug Robinson conducted linecutting, magnetometer, max-min surveys, geological mapping, hand stripping, and sampling on the area of adjacent claim L3010057 as part of a program on a larger claim group. The program defined an east-west zone of carbonate alteration. Reported gold values were low. Numerous drill targets were defined by the program but no drill program was conducted. (ref : KL 3773)

From about 1988 to present, overburden stripping work by Allsopp et.al. in the Todora and Cheltonia area exposed a chalcopyrite vein system up to 1 m wide. At the southern contact of this vein system, chalcopyrite is locally concentrated in a band up to 10 cm wide that grades up to 12.13% Cu. The mineralized zone strikes 060°, has a near vertical dip and is hosted within carbonatized mafic volcanic rock that is exposed over a 25 m width. Chalcopyrite is also exposed in another overburden-stripped area to the east. A syenite intrusion is exposed at the northern side of both stripped areas. Drilling of several holes has had limited success in gold values but has established an extensive fault related alteration system. The potential that may exist along strike and at depth of a major alteration zone with associated IP anomalies along the Eby-Otto fault, both on the property and to the west of it on . This fault zone is located 1.5 km south of the auriferous Cadillac-Larder Lake deformation zone, and about 900 meters north of L1239350. Sharpley (1999) describes the mineral and alteration on the Allsopp property as follows:

*A major zone consisting of iron carbonate, silicification and pyritization occurs over a strike length of 1000 m and a width of 200 m on the Allsopp-Huston Property along the Eby-Otto fault, which is a subsidiary of the Cadillac-Larder Lake Break within the Larder Lake Group of tholeiitic volcanics. A zone of silicified breccia occurs within the envelop of alteration with disseminated pyrite over a strike length of 600 m and over a width of 50 m. Geochemically anomalous values occur in and around the alteration zone ranging up to 1851 ppb (Au). Moderate to strong induced polarization (chargeability) anomalies occur within the alteration zone over a strike length of 800m and a width of 100m.*

In 2005, the Resident Geologist staff visited the area of the Cheltonia shaft now held by and referred to as the Allsopp property. *"Silicified, carbonatized and chloritized rock, probably altered mafic volcanic rock, occurs on the access road to the overburden stripped areas at NAD83 Zone 17 562856E / 5325623N. The rock has undergone micro-fracturing with specularite? fracture filling and contains up to 15% pyrite. This rock unit is perhaps similar to the silicified breccia described by Sharpley (1999). A similar rock also occurs, probably on strike, 1.45 km to the west-northwest in an outcrop on the western side of Hwy 11 at approximately NAD83 Zone 17 561455E / 5325782N. If the mineralized and hydrothermally altered sites are part of a continuous zone then the strike length could exceed more than 2.0 km. Although the gold content associated with this large mineralized alteration zone is generally low, sporadic gold values ranging up to 1851 ppb make it a very attractive target for further exploration. A number of gold deposits in the Kirkland Lake Resident Geologist District such as the Lightning Zone at the Holloway Mine, "flow ore" at the Kerr Mine and the "D" zone at the Cheminis Mine do not come to surface. In the plane and above these orebodies/deposits there is ample evidence at surface for their existence in the form of carbonatization, silicification, pyrite mineralization and minor, sporadic gold mineralization. The best potential for mineralization along this alteration zone should be determined by an IP survey measuring to a depth of 400 m as suggested by Sharpley (1999). Deep drilling should then follow up on the most favourable IP defined targets to ultimately test to a depth of 400 m below surface and possibly beyond". (Meyer et al 2005)*

In 2001 B. R. Berger, Geologist in the Precambrian Geological Section O.G.S., D. Guindon, District Geologist Kirkland Lake Region O.G.S. and G. Grabowski, District Geologist Kirkland Lake Region O.G.S. reported in Open File Report 6070 (Summary of Field Work and Other Activities 2001, Project Unit 10), that a Geological Reconnaissance along Highway 66, from Matachewan to Swastika had begun. The purpose of this multi-year project is to re-map and improve the geological database. B. R. Berger reports that the Otto Stock, in Otto and Eby townships is characterized by nepheline-bearing syenite, quartz syenite and includes previously unrecognized mafic and ultramafic alkalic gabbro, hornblendite and lamprophyre phases. Berger continues that in the southern part of the map area, calc-alkaline felsic intrusions (gneiss, tonalite, quartz







monzonite and granodiorite) are found. The mafic and ultramafic phases of the alkalic intrusions are commonly enriched in platinum group elements (PGE) and the hornblendite, alkalic gabbro and lamprophyre of the Otto Stock are potential host rocks of this type of mineralization. Sample 01-BRB-019 was taken on an occurrence of "hornblendite" on the highway 11 rock cut about 300 meters south of L1239350 and showed values at 169.8 ppb Au, 164.16 ppb Pd, 54.68 ppb Pt and 6830 ppm Cu. In 2002, the claim holders of the OGS sample location took their own samples on each side of Highway 11 at the site of the OGS sampling. Best assays from this follow up program were 0.024 oz/ton Au, 5380 ppm Cu and 219 ppb Pd.

In 2003-04, Serge Nadeau, under hire to GLR Resources, conducted soil and tree geochemical sampling on the claim L1167172 (Lot 1 Con 4 W1/2 of the N1/2) contiguous to the east side of L1239350. The south half of L1167172 claim covers the area of the "Ahola" shafts. This sampling was done along two 800 meter north-south lines coinciding with the claim lines of L1167172. The west line of sampling, designated Line -400, was along the east claim line of L1239350 for 400M. from station 400N to 800N. The geochemistry is summarized as follows:

*"On line -400 between stations 400N and 65 ON both soil and tree samples present elevated values in Au, Ag, As, Mo, Se and Zn. This grouping of elements is typical of gold mineralization elsewhere in the Kirkland Lake Mining Camp. Background values for Au in trees by INAA are generally 5 ppb Au or lower thus values reaching 200 to 300 ppb Au range are statistically considered anomalous. Tree samples with similar Au contents in the 200-350 ppb range were reported in trees collected over Au deposits (see case studies in Nadeau, 2003)."and further "On line O between stations 650N and 750N similar variations in Au, Ag, As, Mo, Se and of Zn, Cu and Pb are seen although with much smaller enrichments than at line -400. This grouping of elements may be reflecting the extension to the East of the signature of gold mineralization? from line -400 or may be characterizing a different style of mineralization."*

In 2004 -05, GLR Resources and RJK Minerals drilled a couple of deep south facing drill holes about 50 meters east of the claim line about mid way between the #1 post and the #2 post on adjacent claim L1167192. Hole 04-01 was drilled to investigate an airborne electromagnetic anomaly with associated soil and tree geochemical anomalies near the Eby - Otto Township boundary. The diamond drill hole intersected silicified felsic tuffaceous fragmental volcanics north of the Otto Stock to a depth of 272 metres. Strong disseminated stringers of pyrite, pyrrhotite and locally weak disseminations of sphalerite over a core length of 225.94 metres are logged. The upper and lower formations were logged as graphitic. The upper section from 54.0m to 60.0m assayed 0.36% Zn and 0.06% Cu over a core length of 6.0 metres at a vertical depth of 40 m below surface. The lower section from 177.27m to 186.00m assayed 0.05 % Zn and 0.01% Cu over a core length of 8.73 meters at a vertical depth of 135 meters below surface. Eby-05-01 was drilled to 502 meters total. The hole was set at -45° dip with an azimuth of 155°. Distributions of semi-massive zinc or copper were encountered, but combined Cu-Zn-Pb metal content of these is once again low. Less than 0.7% individually and less than 0.8% in combination were encountered. The best intersection obtained was at a vertical depth of around 250 m. An interval-weighted average of 0.2% zinc, 0.03% copper, 0.02% lead, 0.6 g/t silver and trace (5 ppb) gold was cut over a true-width of 2.7 m (8.6 m apparent drill interval). Locally, it was interpreted that a roughly north-south oriented south plunging synclinal fold was cut in the holes which would explain the opposing facing directions in the upper and lower drill cores. In summarizing it was noted that there are many characteristics associated with volcanic-associated, copper-zinc type deposits and further study was warranted. (ref : AFRI - 20001757) It is noted that a series of workings on surface directly to the south of the drilling which are locally referred to the Ahola property showed gold values in pits and shallow shaft work. Submitted reports do not comment on any correlation between features in the drill holes and the surface geology in the area of the Ahola workings.

In the summer and fall of 2015, work was again performed on the Allsopp group leases and staked claims on to the north and north east of L1239350. Magnetometer and induced polarization surveys were done on about 11 kilometers of n -s grid. Several generally north east to north west trending anomalies were interpreted, some likely by graphitic sediments known to exist on the survey area. Follow up drilling of two ~600 meter holes was performed about 1300 meters north east on strike from L1239350. The drill holes were drilled steeply on a northern azimuth implying



southern dips to expected features. No formal drill logs or assay reports have been released, however, in a regulatory filing (FORM 8-K Filed 09/07/16 for the Period Ending 07/11/16 at page 3, Item 8.01 – Other Events), the exploration company performing the work stated :

*"On July 11, 2016, the Company engaged Frank Ploeger of (a local contractor) as a consulting geologist to analyze core samples obtained from drilling projects conducted by the Company. Mr. Ploeger wrote two reports regarding the contents of three mining properties owned by the Company, located in Kirkland Lake, Ontario. The reports indicate that it is probable that these properties contain a significant concentration of high grade gold, and recommend further exploration to map out areas with the highest likelihood of gold concentration."*  
(<http://www.otcmarts.com/edgar/GetFilingPdf?FilingID=11582555>)

In a subsequent report prepared and released by F.R. Ploeger on August 22 2016 summarizing the geological and mining context of the Allsopp property, Ploeger states that :

*"Previous mapping and the current drilling program have identified that a major alteration zone consisting of silicification and weak albitization accompanied by pyrite, occurs over a strike length of 1,000m and a width of 200m along the Eby-Otto fault which is a subsidiary of the Larder Lake Break. This style of alteration is similar to that of the Upper Canada mine. Also, green carbonate, a style of alteration (fuchsitic) present in the Kerr Addison and McBean mines, was noted in some logs. The presence of mineralized graphitic and cherty interflow horizons within the mafic volcanic flow package is interesting because it suggests proximity to an Archean exhalative basinal environment that may potentially host VMS (volcanogenic massive sulphide) style mineralization."*

The proposed probability that the adjacent properties contain a significant concentration of high grade gold, together with the style of alteration being similar to that of the Upper Canada mine, Kerr Addison and McBean mines does enhance the potential of the area.

## PREVIOUS WORK

Undoubtably the area was looked at by many prospectors in the early part of the 1900's as the Swastika Camp and then the Kirkland Lake Camp were being opened up and gold discoveries were drawing many to the area. As for submitted assessment work on file for the area, several work programs have been conducted on various parts of the claim area over the last half century century.

In 1988, Butte Canyon Resources held the area of L1239350, in part of a larger holding. J. R. Lawton and I. D. Trinder carried out mapping, sampling, geochemical assessment, magnetometer and electromagnetic surveys. The surveys outlined the generally east/west to north-east/south-west striking trend of the geology. Of note is the results of two samples taken from the highway rock cut about 1100 meters north west of L1239350. Sample #4928 and #4929 returned values of 387ppb platinum and 390 ppb platinum respectively. Sample #4935 taken about 150 meters SW of the above samples returned 1,500 ppm Cr, 534 ppm Ni and 63 ppb Au. About 90% of the 35 - 45 scattered outcrops mapped on the two claims are pervasively carbonitized or chloritic. No follow up work on these areas has been reported. (ref : KL 309). The potential of PGE enriched magmatic sulphides existing in the area has been discussed by Berger et.al in 2003 when previously mapped mafic volcanics were found to trend into the komatiitic suite.

In about 2003 the author of this report sampled from along the highway through the claim as part of a larger claim group. Structurally deformed rock is exposed on the east side of the highway at the south boundary of the claim. Gold values were generally low.

In the winter of 2010-11 a grid work was done on the area of the claim as well as the eastern half of L3010057. In April of 2011 a magnetometer survey was performed and interpreted by Larder Geophysics. A highly magnetic unit in the north-east corner of L1239350 was mapped which may represent a gabbroic intrusion. Two potential offsets were seen in the dataset that may represent east-west structural features.

## PRESENT WORK

During the spring of 2016 and the mid summer, mapping, light hand stripping and sampling was done on the claim area by the claim holder, looking for pyrite or quartz mineralization along the prior mapped mafic volcanic rock which was recently clear cut allong a logging access trail.



## RESULTS

All rock seen was generally medium to medium dark green, less than 1mm grained mafic volcanic rock. On average the rocks show less than 1% brassy or whitish fine to 1mm pyrite. Quartz was limited to veinlets less than 1/2cm but mostly as wisps and thin stringers. No pervasive carbonate alteration was indicated by dilute HCL. Hardness was generally greater than a knife blade but less than a file. No appreciable alteration of pyrite mineral was observed in the outcropping visited, however not all the property was traversed. Several samples were originally taken for reference purposes but none were submitted for assay. Attention was given to the areas of the claim where previous geophysical readings indicate possible structural or dyke features. No strain or scalable shear feature was noted in the rock however it is expected that if the features are fault related that they will be recessively eroded thus likely overburden covered. Soil or similar geochemical means may be helpful in outlining any metal anomalies associated with the above noted potential structures. The east quarter side of the claim drops in elevation towards the boundary. The claim line follows a mostly boggy, wet and flat topographic low for its length. Previous drilling by GLR Resources immediately to the east of the claim had casings installed of up to 50 meters deep indicating a fairly deep overburden trough. These may indicate a prominent north - south fault along the east boundary. Attention was given along this flank to a possible outcropping in the region of the GLR high Au, Ag, As, Mo, Se and Zn anomaly from the 2003-04 Serge Nadeau geochemical study which coincided with the common claim boundary. The only outcropping noted to the east side was again fairly fresh appearing basalt to andesitic rock with little significant mineral. It may be possible that the geochemical anomaly is associated with a north-south feature and as such would likely not outcrop at all in the area.



Fig - 6 Brecciated Gabbro 0563047E 5324699N (axe is 70cm long)

In the northeast area of the claim, several outcroppings show a more gabbroic texture. The up to 2mm grained textured rock here is medium green coloured and slightly variably magnetic in patches. Dark greenish black hornblende? varies in amount and grain size with some aggregates up to about 3mm. Some of the fine black mineral dispersed randomly throughout is likely magnetite. A brecciated area within the area adjacent to the coarsely grained volcanics just to the south may be the contact area. Fragments of cobbles and blocks up to 30cm of the above described rock are healed in a predominantly more feldspathic and calcitic? matrix. More work should be done here to define contacts and to assess mineral potential. Further mapping and geochemical study may indicate whether this rock unit contributed to the soil geochemical anomaly directly down ice.



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