J.A. Gore Claims
Oxbow Lake, South Area

South Lorrain Township
District Timiskaming, NE Ontario

NTS 31M/4

A.W. Beecham
24th Oct. 2000

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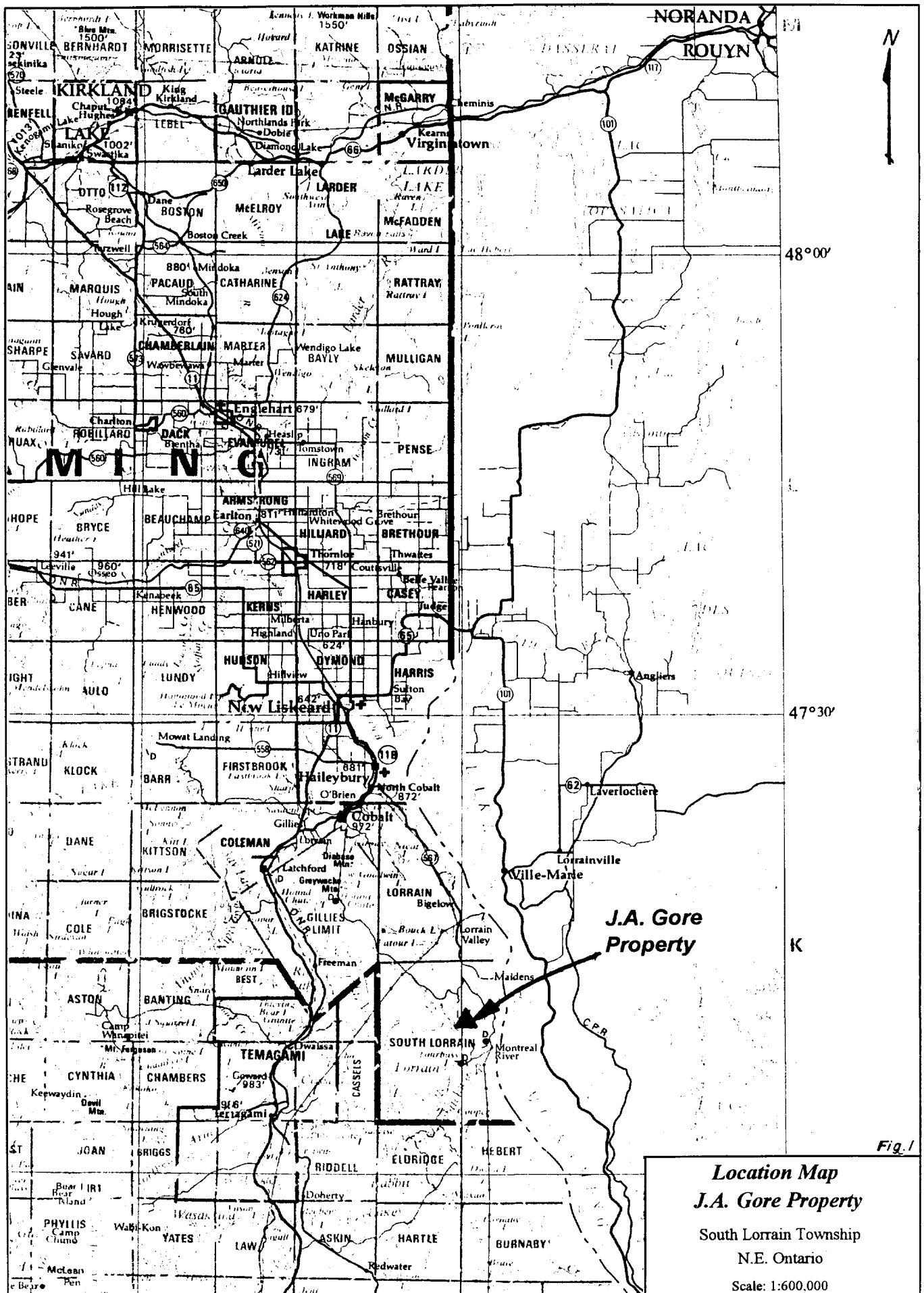
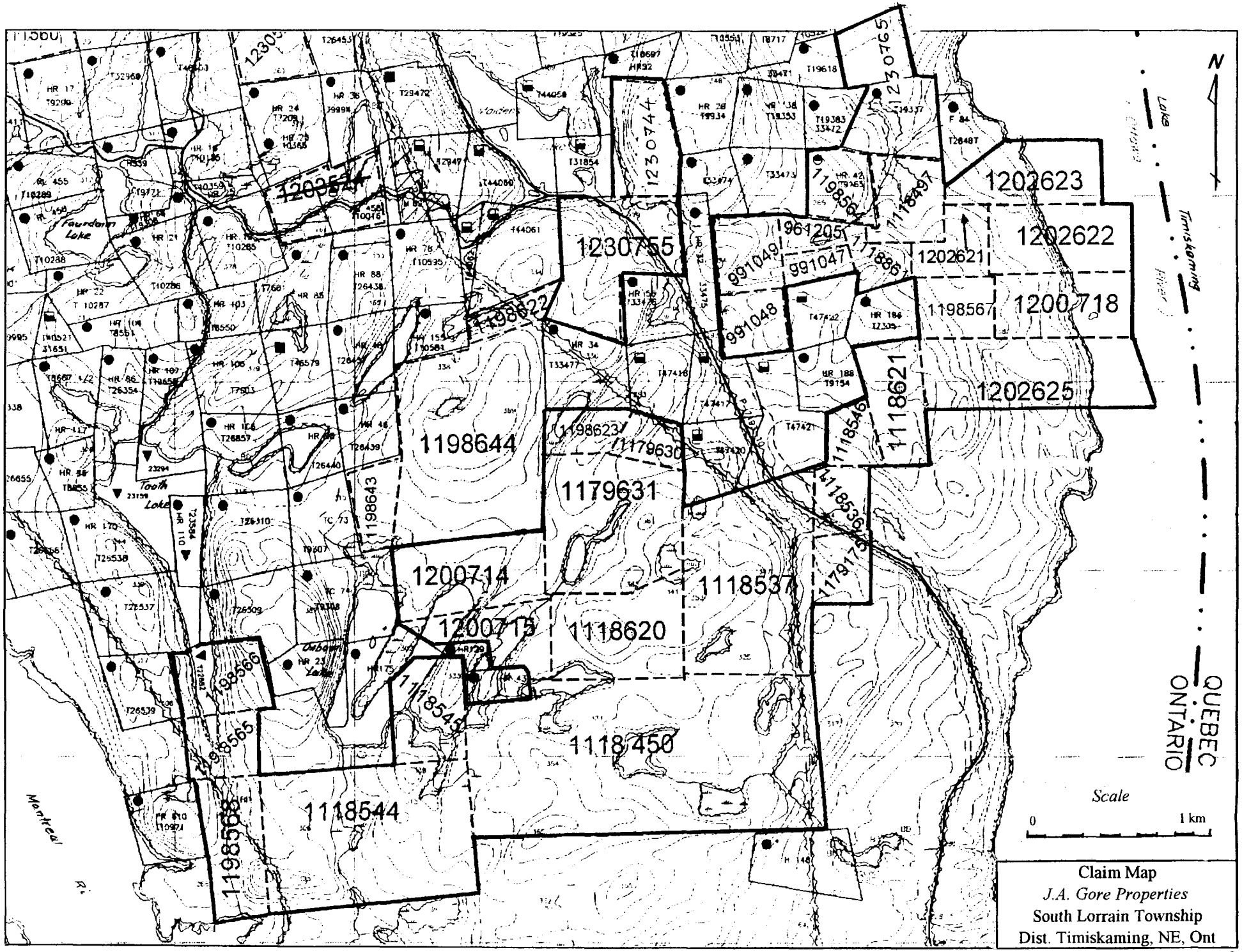


Fig. 1

Location Map
J.A. Gore Property

South Lorrain Township
N.E. Ontario

Scale: 1:600.000



Claim Map
J.A. Gore Properties
South Lorrain Township
Dist. Timiskaming, NE, Ont

Fig. 2

Introduction

The J.A. Gore, Oxbow Lake south claims cover an inlier of Archean felsic and mafic volcanics located 2 to 3 km. south of the now abandoned South Lorrain (or Silver Centre) silver-cobalt mining camp. Two sulphide-bearing 'horizons' with minor base metals are recognized which appear to be favourable for volcanic hosted base metal deposits. Although the claims have in the past been extensively explored for silver and cobalt, the recent exploration has been for base metals.

The claims lie 30 km. SSE of the town of Cobalt and 3.5 km west of the Ontario-Quebec boundary. The property is accessible by way of a well maintained track which leads southwest from a point on Highway 567 located about 1.2 km southeast of the south end of Maidens Lake. The distance is about 3.5 km and the track is negotiable by ATV or tracked vehicle. Access to the eastern part is improved by using a canoe across a beaver pond referred to a pond #2.

The work was carried out at the request of the owner J.A. Gore of Haileybury, Ontario. Field work was done in mid to late May 2000.

Topography and Surficial Deposits: The topography is rugged with the Nipissing gabbro and Gowganda conglomerates and in places mafic volcanics forming resistant ridges. Although the relief in the general area is about 250m, the maximum relief on the claims examined is about 50m. Bedrock exposure is moderate with most of the overburden consisting of till.

Property Description:

This report deals with work on 4 claims which form the southwest part of the J.A. Gore South Lorrain properties. These properties consist of a total of 68 claim units. Most of the work was done on the western part of claim 1118450 and the eastern part of claim 1118544. However, the mapping touched the south parts of claims 1118620 and 1200715. Details of these 4 claims are listed below:

Table I: List of Claims

Claim #	Units	Staking Date	Due Date	Recorded owner
1118450	10	19 Feb. 1992	19 Feb. 2003	J.A. Gore, Cobalt, Ontario
1118544	6	20 Sept. 1993	20 Sept. 2004	J.A. Gore, Cobalt, Ontario
1118620	2	27 Sept. 1993	27 Sept. 2003	J.A. Gore, Cobalt, Ontario
1200715	1	8 Nov. 1993	8 Nov. 2002	J.A. Gore, Cobalt, Ontario

Previous Work:

The claims lie a short distance south of the productive Silver Centre, silver-cobalt camp and have been intensively explored by trenching and prospecting as evidenced by numerous earth trenches, deep rock pits and 3 exploration shafts. There is, however, only a poor record of most of this work.

The account of exploration activities on the property from the early days up until 1995 is summarized from Zalnieriunas. Later work has been compiled by the author from files of J.A. Gore.

-date unknown: A.H. Sequin Estate held 2 patented claims SW of Oxbow Lake;

-date unknown: Bulldog shaft on east half of present claim 1118450 put down in early days; also considerable trenching NW of shaft;

-1906: claim HS 46 (west of Bulldog shaft); a 1906 survey map shows the discovery post of this claim located approximately 200m SW of the Bulldog shaft;

-c1922: 38 ft. deep shaft on claim HS 500, in NE corner of present claim 1118544, put down by unknown company or person; ground later held by Oxbow Lake Silver ML. This shaft referred to Gore as the Oslund Shaft;

-c1925: Clifton Consol. ML(later Oxbow Lake property); stripping, sinking of 9 pits; shaft to 30 FT, 980 ft. of diamond drilling;

-1946-1967: Ox-Bow Lake Mines Ltd.: 14 diamond drill holes, with Co mineralization in 7 holes;

-c1949: Oslund-Hermiston claim group (later Silver Tower ML) covers approximately the area of claim 1118450 west of Bulldog Lake. R. Thomson noted galena in chlorite schist in a pit in south central part of present Gore property; also 80 Ft to west some galena and minor Co bloom;

-1956: elite Cobalt ML. (later Silver Tower ML.) 4 diamond drill holes; galena, pyrite, chalcopyrite & pyrrhotite mineralization encountered;

-1965-1966: Silver Tower ML. 4 diamond drill holes with only minor silver values, report by L.J. Cunningham;

-c1970: Ox-Bow Silver ML property: McIlwaine shows a shaft with a quartz vein; pit in NW quarter of claim T26517; (location referred to as the 'southwest shaft' in Fig. 3.; age of the shaft is not known;

-c1992 Albert Chitaroni, Elite Cobalt Base Metal Project financed by OPAP: airborne magnetic and VLF-EM survey by Ferderber Geophysics of Val d'Or covered claims 1118450 and 1179175 & surrounding area; prospecting sampling, 5 short diamond drill holes for geological information; 3 of these holes near present grid; Compilation and geological modelling review done by D. Robinson of Swastika;

-1995 Claims were acquired by present holder, J.A. Gore and associates; This was an add-on to claims already held by Gore to the NE. who cut a picket line grid re-located old trenches and pits and prospected and stripped; VLF survey was done by J.A. Gore and the magnetometer survey by D. Lalonde & both described in Lalande's report of Dec. 1995; 300 m long weak VLF-EM conductor defined corresponding to disseminated sulphides located over the Galena pit; Geological mapping by R.V. Zalnieriunas of grid from line 7W to line 4E (did not include north part of lines in area of #3 Pond). Zalnieriunas' work included full review, and 12 samples of volcanics were analyzed for whole rock geochemistry;

-1996-1999 Property optioned to a J.R. Moses company, 1190901 Ontario Limited in 1996, and option terminated early in 2000; During this period, exploration was done by 1190901 Ontario Limited and 3 other associate companies, Isometric Mineral Corp., Ridgepoint Mineral Corporation and Medici Minerals. Work consisted of expanding picket line grid, mainly to the west, and work by Quantec including ground magnetics over the whole grid, Real-Section (gradient array) IP from line 100E to 600W. A similar program was done to the northeast on adjoining Gore claims; On the northeast adjoining Gore claims 2 drill holes tested targets in the Nipissing Diabase and one drill hole (approximately 45°) was drilled south from a point near the base line and about 425W. This hole, although somewhat too far north seems to have been drilled to test a strong part of a chargeability anomaly within volcanics, from Quantec's Real-section IP survey; drilling results not reviewed by the author;

-2000 Additional stripping and prospecting by J.A. Gore (on the Oxbow Lake South Area) done mainly in area west of #3 Pond;

Regional Geology and Mineral Deposits:

Silver Centre lies in the Southern Province of the Canadian Shield. Basement rocks consist mainly of the mafic volcanics intruded by a large granite batholith, the Lorrain Granite.. The area is within mafic volcanics, a short distance south of the Lorrain granite. Around the actual silver-cobalt productive area, the Archean mafic flows strike ENE to NE and face north. The Archean is overlain by the Proterozoic conglomerate dominated Gowganda Formation which in turn is overlain by the quartzite-dominanted Lorrain Formation. Both basement and cover rocks are cut by the gently to moderately dipping, Nipissing gabbro sheet (or sill) which has intruded in the form of basins and domes. The area is cut by numerous faults including the Recent, Lake Temiskaming, graben faults. The Silver Centre camp lies on the east side of a Nipissing gabbro basin (west side of a dome). Silver and cobalt were produced from steeply dipping carbonate veins spatially associated with the Nipissing sill. The main production here was from the upper contact of the Nipissing sheet where the veins were hosted by Archean mafic volcanics and the Nipissing gabbro itself. Productive veins strike north-south, northeast or east-west.

The part of the Gore property investigated here, covers a 4 km long ENE by about 1km. NS, Archean inlier located 2 to 3 km south of the main Silver Centre mining camp. The Archean volcanics of the inlier are bounded on the south by the Proterozoic Gowganda Formation and bounded on the north mainly by a Nipissing gabbro sheet.

Description of Work

This report is based on a one day property visit in 1995, and one day's reconnaissance and 5 days mapping in May 2000. Field work for this report applicable for assessment was as follows: 3rd, 12th, 15th, 16th, 17th and 22nd May 2000. Map and report preparation consisted of part days between 10th and 23th Oct 2000.

The purpose was to extend mapping done by R.V. Zalnieriunas to cover the eastern part of the picket line grid and the sulphide showings west of Pond #3 and to produce one geological and

prospecting map. The eastern part of the grid from L300E to 700E was mapped at 1:2000. Mapping was carried using 100 spaced picket lines for control. As well, 2 short lines west of Pond #3 were put in by topofil and compass.

Even though mapping by the author overlapped some of the area covered by Zalnieriunas, the rocks have been grouped differently by Zalnieriunas and the author and some problems were encountered in putting the 2 maps together. Specifically, Zalnieriunas grouped the quartz diorite (massive QFP) with the normal gabbros, whereas the author, because of its possible economic importance separated out this unit. (It contains abundant quartz phenocrysts and was originally thought to be an altered felsic flow or subvolcanic intrusive. It is significantly chloritized and in places contains several percent pyrite.) Before the 2 maps can be combined, some additional re-mapping and sub-dividing out the quartz-diorite unit west of line 300E is necessary. As some re-mapping will probably be necessary, it was decided to show only a geological interpretation of the area covered by Zalnieriunas rather than draw in all the outcrops and other details shown on Zalnieriunas' map.

Most new data generated since the author's previous work in 1995 were reviewed. However, no review of 1999 drilling by the J.R. Moses companies was made as J.A. Gore has not yet received a copy of this information.

A new structural interpretation of Zalnieriunas' map has been made. At least some of the problems of discontinuities in units can be resolved by introducing a number of 'Z' shaped, drag folds.

The whole rock geochemistry done by Zalnieriunas was re-evaluated and one additional sample, was taken. Some of this was used to re-draw contacts on the area mapped by Zalnieriunas.

A review of the available geophysics was made, particularly the Quantec magnetic and IP surveys and the recent MNDM Treasure Hunt airborne EM and magnetics.

The volcanic model and potential for volcanic hosted base metal deposits was re-evaluated in light of the recent geophysics, lithochemistry, prospecting and geological mapping.

Stratigraphy, Lithology, Geological Settings

The Archean rocks examined in this report, (an inlier as noted above) consist of mafic flows, intermediate to felsic volcanics and sill-like gabbro and 'quartz diorite' bodies. These rocks strike generally ENE and dip steeply north. These volcanics are thought to be a north facing (based on top determinations by McIlwaine in the area to north as described below in 'structure'), alternating sequence of felsic tuffs and pyroclastics and mafic flows as shown below. The units are numbered from south to north, presumably from oldest to youngest. This is done partly to suggest a stratigraphic sequence but mainly for the purpose of simplifying the discussion of the geology.

(4) intermediate to mafic volcanics pyroclastic rocks, (after McIlwaine, not mapped) in NE part of grid >200m

(3) *Upper felsic unit*: non-porphyritic intermediate to felsic tuffs and tuff breccias with thin bedded pyritic exhalite horizon(s) near top; One thin mafic flow included; 'formation' extends across entire grid; 260m

(2) massive to pillowed mafic flows, exposed across grid; 140m

(1) *Lower felsic unit*: felsic volcanics, non porphyritic and quartz crystal tuffs, pyroclastics with 'exhalite-like' pyrite concentrations interstitially in fragmentals; exposed only in SW part of grid; >140m

To the east unit (2) and possibly unit (1) are intruded by thick sill-like bodies of gabbro and 'quartz-diorite' (mafic quartz porphyry and quartz feldspar porphyry). At the thickest point at L600 to L700E, their combined thickness is over 350m. The 'quartz-diorite' has been mapped from line 600E to line 400E. On the weathered surface it is massive and dark appears coarse grained and generally resembles the normal gabbro. However, on the broken surface, abundant quartz phenocrysts are present. In other places, particularly around the edge of the unit, due to the streaky banding and the abundant quartz phenocrysts it has been mapped as a crystal tuff. It was also mapped as a flow, or a sub volcanic intrusive. However, the single whole rock analyses indicates the rock is probably fairly basic. The sample analyzed is chlorite altered and contains some pyrite. (See appendix) Although the low SiO_2 content of 40% could be attributed to strong alteration and introduction of a lot of sulphides into a felsic rock, the high TiO_2 content of 2.41 % suggests this was originally a basic rock. This unit correlates with the north part of the gabbro unit mapped by Zalneriunas. Even though the 'quartz-diorite' has a basic composition, the similarity of the blue and grey quartz phenocrysts of this intrusive to those in felsic crystal tuffs exposed in the southwestern grid area suggests there may be a connection between the two rocks. It may be that the quartz diorite is the feeder for some of the felsic tuffs. In any case the strong chlorite alteration and the abundance of pyrite in the quartz-diorite suggests it may be related to base metal sulphide formation.

Unit (3) consists of nondescript intermediate to felsic volcanics followed by one thin pillowed mafic unit followed in turn by strongly deformed, ribbon like felsic tuff . The stretched clasts are from lapilli size up to 3 cm. by 30 cm. The tuff is made up mostly of fine non-porphyritic rock, but there are sections here and there with small quartz phenocrysts. One or more thin, pyritic exhalites beds occur near the top of the lapilli tuff. The exhalite is followed by a thin section of massive felsic rock and then by unit (4).

Only a small amount of unit (4) was examined and the contact between unit (3) and unit (4) is not well defined. Some mafic and pillowed material was noted north of unit (3) and combining this with McIwaine's observations suggest that there is at least 200m of mafic volcanics lying north of unit (3). North of this point unit (4) is covered with Proterozoic rocks and unit (4) may in fact be a very thick unit of mafic volcanics extending to the north and including the mafic volcanics in the Keeley and Frontier area.

Structural Geology

Almost no top determinations are observed in this area. However, about 2 km. to the north, McIlwaine shows numerous, consistently north facing pillows. Consistent with the north facings is the fact that the upper felsic unit, described here, has appreciable concentrations of pyrite in exhalite horizons near its northern contact. On this tenuous basis it is interpreted that tops are to the north. One top determination made by Zalnieriunas on the western part of the grid is inconsistent with a north facing succession. He shows west facing pillows in an interpreted drag fold. If the drag fold interpretation is correct, this suggests tops are to the south. However, the author feels the weigh of evidence indicates tops are likely to the north.

Except in the thicker basalt units and gabbros, all of the Archean volcanics and sediments are strongly deformed and have a strong schistosity. The upper felsic unit at Pond #3 has a pronounced ribbon structure and only in a few places can these rocks be recognized as strongly deformed fragmentals.

In the area underlain by gabbro and quartz diorite in the SE part of the grid, there are a number of strongly schisted zones marked by small east-west valleys. It appears that deformation of the competent gabbro has been confined to narrow shear zones. At least some of these may coincide with septa (or 'rafts') of mafic and possibly felsic volcanics.

In Zalnieriunas' map, some problems are apparent in following 'formational' units very far along strike, and interpretations tend to be 'blob'-like. However, with this work, it is becoming apparent that these blobs and discontinuities can be explained by interpreting a series of 'Z' shaped, drag folds. These have closures of 100 to 200 metres. Fold plunges, based on a few small folds and rodding are about 35° to the west. If one assumes the facings to be to the north, then the drag folds would be, from north to south, over turned anticline-overturned syncline pairs.

Whole Rock Geochemistry

Eleven whole rock analyses were done by Zalnieriunas in 1995. One sample collected by the author was also processed for whole rock analyses. Zalnieriunas, in general, classified the felsic volcanics as calc-alkalic and the mafics as tholeiitic.

Some of the whole rock data are plotted in Fig. 3. This includes SiO_2, TiO_2, and where strongly depleted, Na_2O is also shown. These data were used to help classify the volcanics into (1) mafic or basaltic and (2) intermediate to felsic. With SiO_2 levels in the low 50's % and TiO_2 about 1% or more volcanics were called mafic or basaltic. Volcanics with more than about 60% SiO_2 and less than about 0.50% TiO_2 were called intermediate to felsic. The reader is referred to Zalnieriunas' report for the details of his geochemical classification.

Of note are three, strongly Na depleted felsic volcanic samples, #307, #309 and #310 in the area of the southwest shaft. This area also has high pyrite concentrations in the volcanics and generally coincides with a large IP chargeability anomaly.

Geophysics

The area has been covered by at least 2 airborne EM surveys designed to detect massive sulphide deposits, the St. Joseph Explorations INPUT Mark VI survey c. 1979 and the recent MNDM Operation Treasure Hunt survey. The St. Joseph Explorations survey located no significant conductors in the whole silver centre area. (Although the author was employed by St. Joseph Explorations when the survey was done, as the survey is over 20 years old and the information is now 'dated', there is no need for the results to be kept confidential.) Although no conductors were detected on the Gore property or surrounding areas, these surveys are effective only to a certain depth and the possibility exists of blind massive bodies below about 150m.

The 1997 Quantec Real-Section (gradient) IP covered only lines 100E to 600W. Two chargeability highs are of note. A large, irregular anomaly occurs in the SW part of this area from 100W to 600W. There is no corresponding low resistivity associated with this anomaly as would be expected if significant massive sulphides were present within a reasonable depth. Quantec indicates that the technique is 'seeing' to a depth of about 300m inferring that there are no large bodies of massive sulphide within 300m depth. This anomaly, in general, coincides with the area of sodium depletion. However, in detail, some of the highest chargeabilities coincide with mafic volcanics rather the Na-depleted felsic volcanics.

The second chargeability anomaly lies in the NW part of the area surveyed. This has a coincident magnetic high and is probably due to magnetite concentrations in the Nipissing Diabase. This is not important for base metal exploration, but it could possibly be of significance for PGM exploration.

The ground magnetics by Quantec and the MNDM Treasure Hunt airborne survey, suggest that the gabbro body in the southeast part of the grid is somewhat larger than the outcrop area and extends a short distance southward under the Huronian cover. On the Quantec magnetics, there is a 1100m long linear anomaly trending about 070° across the southeast part of the grid. The Treasure Hunt magnetics has a more subtle 070° trend which suggests the gabbro may extend along this alignment as far west as the Montreal River and eastward to Lake Temiskaming. The projection of this trend to the east passes through a fairly large anorthositic gabbro in Fabre Township (Quebec) south of the village of Fabre. Because of the Huronian cover on the Ontario side and the thick Pleistocene clay cover on the Quebec side, it is possible that a fairly large gabbroic intrusive or series of intrusives may exist along this line.

South of the base line and from 200E to 700E, magnetic contours apparently reflecting the south side of the gabbro decrease gradually compared to a more abrupt fall off on the north side. Although this might indicate a south dip for the gabbro (in contrast to generally steeply north dip for the volcanics), the gradual decrease may simply mark a progressive deepening to the south of the Huronian cover rocks.

Showings and Mineral Occurrences, Hydrothermal Alteration

'Southwest' Shaft: This area was not examined in the latest field work. However, it was reconnoitred by the author with J.A. Gore in 1995. Based on the 1995 work and Zalnieriunas'

observations, this is a very interesting part of the property. This area is underlain by felsic volcanics some of which are quartz, crystal tuffs and possibly some interbedded mafic breccias. Fairly abundant pyrite with a little chalcopyrite occurs as heavy streaks (up to 20% over 5 cm.) and disseminations (several percent over 5 to 6m). The pyrite appears to have been deposited interstitially in the volcanoclastic rocks and may mark a horizon favourable for VMS deposits. The IP survey indicates the area of sulphide mineralization to be more extensive (at least 500m long) than exposed. The interpretation is that eastward this favourable horizon is cut off or dilated by the gabbro, and may pass eastward passes under the Huronian cover. Alternately, the eastern extension of the unit (1) felsics may be marked by the sheared, mineralized septa and rafts between the different gabbro sills in the southeast part of the grid.

Oslund Shaft Area (Clifton-Oxbow Shaft in Zalnieriunas report): According to J.A. Gore many of the old drill holes in this area cut significant concentrations of sulphides with various amounts of pyrite, galena and sphalerite. Significant cobalt mineralization was also cut. He reports a sample of old drill core from this area which analyzed 1600 ppm Cu and 4750 ppm Pb. A sample given to a Falconbridge geologist, he reports analyzed over 1 % Zn. There has been fairly detailed exploration of this area for silver, but judging from the amount of old, un-split core containing pyrite and base metal sulphides, no consideration was given to the base metal potential. The current geological interpretation places this area at the base of the upper felsic unit. Whether or not this marks another mineralized 'horizon' or just a cross-cutting extension of mineralization from the southwest shaft area, in not apparent. No mineralization is seen elsewhere at this horizon.

Galena Pit: Here pyrite is concentrated in chloritic, sheared volcanics (or gabbro) on the south side of the small pit. 1 to 2 % galena is common with minor chalcopyrite in small carbonate veinlets. Galena is a common associate of Ag-Co arsenide veins and this concentration may be related to erroded cobalt bearing veins.

Southeast Pyrite Showings: Concentrations of pyrite occur in chlorite altered quartz porphyritic rocks and sheared mafic volcanics (or gabbro) in the area bounded by lines 300E to 600E and between the baseline and 300N. Four notable sulphide concentration are as follows (1) 60m NW of the Galena Pit, on the east side of an open grassy swamp, patches of pyrite and some streaks of magnetite occur in deformed, rodded, quartz crystal tuff or quartz diorite. (2) At 450E/60N, heavy (up to 15 to 20%) pyrite and gossan patches with minor galena occur in sheared mafic volcanics or gabbro on the south side of an outcrop facing a prominent EW depression marking a shear zone. (3) 415E/100N patches heavy pyrite in small outcrop of chloritic quartz porphyritic rock; (4) 300E/150N heavy concentration of pyrite in quartz porphyritic rock and gabbro.

Although not a lot of sphalerite has been identified with the pyrite in this area, some of the whole rock analyzes show anomalous Zn, e.g. sample #303 from north of Galena pit, carries 465 ppm Zn and Sample #5722 at 270N/530E, contains 485 ppm Zn. As well, at a pit near the base line and about 650E, J. Gore found anomalous Zn in a sample and J. Ireland (the resident geologist for MNDM at that time) identified sphalerite in a small quartz vein.

The sulphides in this area may be volcanic hosted within septa (or large inclusions) caught up within or between gabbros intrusions, or they may be remobilized from some distance from blind sulphide deposits and re-deposited within sheared sections of the gabbro. In either case these sulphides may mark the eastern extension of the sulphide-rich band (or 'horizon') seen at the 'Southwest' shaft. This suggests the presence of an extensive sulphide and base metal bearing horizon in excess of one kilometre in length.

Pond #3 Exhalite: The main sulphide occurrence here is located 50m west of Pond #3 and some 10 to 15m north of the creek draining the pond. Here an old pit was put down along a small south-facing scarp. It exposes a 30 cm. thick bed of chert-like material with 15% pyrite. The adjacent rocks contain about 5% pyrite disseminated over 1.5 to 2m. No typical, thin bedding of the cherty exhalite was observed and the disseminated pyrite occurs on both sides of the 'chert' bed. The sulphides are traceable 10 to 15m along strike. The units dips north at 65°, but there is no indication which way the beds face. A second, similar, poorly exposed exhalite occurs 50m to the WNW. This may be the same horizon or a second bed. No other sulphides except pyrite were noted. The exhalite horizon, although immediately sandwiched between massive fine grained siliceous rocks occurs, more or less at the contact between a deformed, felsic lapilli tuff-tuff breccia to the south and a massive felsic volcanic rock to the north. It is also thought to be near the top (some 50m below) of the upper felsic volcanic unit. The siliceous rocks sandwiching the exhalite horizon are thought to have resulted from hydrothermal alteration. A little pale green sericite was noted in the silicified rock.

Quartz Veins and Gold Potential:

A stockwork of pyritic quartz veins cutting a fine grained altered felsic intrusive and lying approximately on the axis of an interpreted drag fold was found at 404E/398N. The host intrusive is affected by some sort of pink alteration and silicification. The exposure in on a small rise in an area of low ground. Although it was suspected the veins might be auriferous, a chip sample returned only 12 ppb Au. Similar, but less well developed veining and mineralization occurs at 300E/490N. This second site was not sampled.

Table II List of Samples

Field #	Lab. #	Location	Dist. from Line	ppb Au	ppm Cu	ppm Zn	Remarks
#22	8644	L400E/ 398N	4m E.	12			40% quartz stockwork with Py in pink, altered felsic intrusive;
#33	5772	L500E/270N	30m E		30	485	'quartz diorite' with blue & grey quartz phenocrysts, & chlorite altered matrix; See whole rock analyses of this sample in appendix;

Discussion and Conclusions

Two volcanic 'horizons' are recognized as favourable sites for volcanic hosted base metal deposits. The most interesting of these is within the lower felsic unit, i.e. unit (1) and extending to the north into the adjacent (overlying?) mafics flows, unit (2). In the area of the southwest shaft this 'horizon' is marked by a wide zone of pyrite concentrations where the pyrite is in the matrix of volcanoclastic rocks. The IP survey suggests this zone is irregular and may be 50 to 100 thick and that it extends eastward from the Southwest Shaft under the Huronian cover rocks and then probably ENE to the area of pyrite concentrations in the quartz diorite and gabbros in the SE part of the grid, a distance of some 1.2 km. Here and there along the band, minor copper and zinc mineralization accompanies the pyrite. This broad band of mainly pyrite mineralization is similar

to enveloping mineralization around many massive sulphide ore deposits. Of particular interest along this band is the area of strong sodium depletion around the Southwest Shaft.

A second horizon, favourable for VMS deposits is marked by the 'cherty', pyritic exhalite horizon exposed west of Pond #3. It occurs near the north side (stratigraphic top?) of the upper felsic unit. The exhalite lies north of (overlies ?) a felsic fragmental and is bordered on the north by (overlain by?) a massive felsic rock. Although no base metal sulphides have been seen here, there is considerable alteration in the form of silicification and a little pale green sericite. This horizon strikes about east-west. It is cut off to the west at Pond #2 by Nipissing gabbro. However, it is open and untested eastward, where it strikes under Pond #3 and a large area of low ground.

In the main part of the Cobalt camp, the best base metal concentrations occur in sequences of basalt flows with sulphide-rich 'black chert' beds. Concentrations of 0.5 to 0.75% Cu, and 2 to 3% Zn over 2 to 5 m are common. However, in this part of the general camp, the sulphide concentrations are associated with felsic volcanics and the setting more typical of productive VMS camps.

The presence of the minor copper, zinc and lead mineralization in this environment is ambiguous in that it may be related either to the Proterozoic cobalt-silver-arsenide hydrothermal system or to Archean VMS systems. The galena at the Galena Pit is hosted in fine carbonate veins and seems to be therefore related to the Co-Ag-As system. However, the broad disseminated pyrite zones with minor base metals in sodium-depleted felsic volcanic, as near the southwest shaft are typical of Archean VMS systems.

This is a very interesting property and seems to contain the right environment for VMS, massive sulphide, base metal deposits. It is felt the continuing exploration of these horizons along strike and to depth has a good chance of locating , base metal rich, massive sulphide lenses. Although airborne EM surveys and the Quantec IP have decreased the possibility of large, shallow massive sulphide bodies, the presence of anomalous amounts of Zn, Na-depletion anomalies and favourable volcanics setting indicates good potential for VMS deposits. The area around the 'western shaft' seems particularly favourable.

Basemetal concentrations in this environment occur mostly with the massive sulphides lenses. These are almost always detectable by EM methods and this should be considered in the next stage of exploration.

The gabbro and the quartz-diorite in the southeast corner of the grid in places carries up to several percent pyrite and based on the magnetic surveys, as noted above, the intrusive is likely considerably larger than the exposed. Because there are clasts of the gabbro in Coleman Formation conglomerates, and the fact that it appears to be overlain by the Huronian Coleman Formation and because of the strong local deformation of the gabbro it is reasonably certain that the intrusive is Archean. The Archean age somewhat detracts from its possible importance for PGE and Ni-Cu deposits as the larger deposits, those located in the Sudbury and River Valley areas, are hosted in Proterozoic intrusives, there are some, small Archean intrusives, to the northeast in the Temiscamingue area of Quebec which host Ni, Cu and some PGM. Hence, the gabbro warrants some attention for it's possible PGM potential.

Recommendations

Continued exploration for base metal sulphide deposits is strongly recommended. Mapping and prospecting should be expanded. This should cover (1) the WSW strike projection of the altered, mineralized zone around the 'Southwest' Shaft, (2) the eastern portion of the whole Archean inlier well east of Bulldog Lake. This would cover the projection of the mineralized quartz diorites Pond #3 exhalite horizons. Additional check mapping is required at the boundary between work done by Zalnieriunas and the author. Sulphide occurrences in the areas already mapped and in the new areas to be covered should be systematically grab sampled and analyzed for Cu, Pb, Zn, Co and Ag. Although copper mineralization is generally obvious, significant Zn mineralization is easily overlooked.

Additional whole rock geochemistry to include the Pond #3 exhalite area and the 'quartz-diorite' intrusive is recommended. About 6 to 10 samples would be sufficient. Wide-spaced sampling of new exposures should be done.

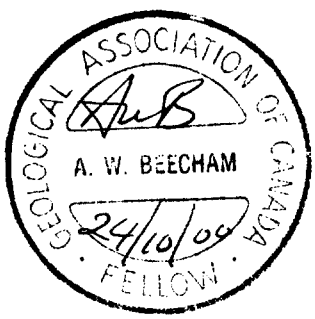
The whole grid should be covered by a deep-EM technique to search for conductors below the detection level of the airborne surveys. This surveying should be done generally on 100m line spacing. The magnetic survey done by Quantec should be extended to cover new areas to the east and the Pond #3 area.

Some attention to the PGM potential of the gabbros and quartz-diorites is warranted. Wide-spaced sampling of the intrusives, particularly areas with generally elevated sulphide contents and where pyrrhotite and chalcopyrite are present is recommended.

No recommendations for exploration for silver and cobalt have been made. This is not meant to imply that the silver-cobalt potential is poor, it is simply that the silver-cobalt potential has not been addressed.

Further evaluation of the VMS potential of this interesting property will very soon require relatively expensive diamond drilling and with the termination of the Ontario Prospectors Assistance Program, it recommended that the owner seek a partner to continue the exploration.

A.W. Beecham
24th October 2000



References

Beecham, A.W. Sept. 1995 — Gore Claims, South Lorrain Township (one day property visit report and notes, and location map)

Campbell, R.A. Sept. 1992 — Report on the Airborne Magnetic and VLF-Electormagnetic Surveys on the Properties of Albert Chitaroini, South Lorrain Township, Larder Lake Mining Division, ON; by H Ferderber Geophysics Ltd., Val d'Or, QC.

Chitaroni, Gino P. Sept. 1992 — OPAP Report on the Elite Cobalt Base-Metal Project, South Lorrain Township for Mr. Albert Chitaroni

Gore, J.A. 1996 — Prospecting Report 1996 John Gore Properties South Lorrain Township; (Report for OPAP Submission and assessment filing)

Lalonde, David Dec. 1995 — Geophysical Surveys Oxbow Lake Property Grid "A", South Lorrain Township; J.A. Gore; (VLF-EM and Magnetometer Surveys)

Legault, J.M. Dec. 1997 — Gradient-Realsection Induced Polarization and Ground Magnetic Surveys at the Oxbow Property, South Lorrain Twp, near Cobalt, ON on behalf of Isometric Mineral Corporation, Sarnia, ON. (Survey by Quantec IP Inc.)

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MNDM 2000 — Airborne Magnetic and Electromagnetic Surveys, Temagami Area, Map 82 069; (Operation Treasure Hunt)

Robinson Nov. 1992 — Compilation of Geology, Mining and Exploration Activities: South Lorrain Twp. near Chitaroini Claims

Zalnieriunas, R. Jan. 1996 — 1995 Geology Report on the Oxbow Lake Property, South Lorrain Township, Ontario, Canada; An OPAP funded survey carried out by Mr. J.A. Gore of Cobalt, Ontario

Appendix

Whole Rock Analyses, year 2000

Analyses of Grab Samples

Swastika Laboratories Ltd.
1 Cameron Ave., Swastika, Ontario, P0K 1T0
Tel: (705) 642-3244 Fax: (705) 642-3300

J. A. GORE
Attention: J.A. Gore
Project:
Sample: pulp

Report No : 0W2051 RL
Date : Jul-05-00

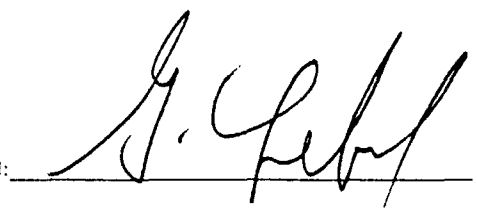
ICP Whole Rock Assay

Lithium Metaborate Fusion

Sample Number	SiO_2 %	Al_2O_3 %	Fe_2O_3 %	CaO %	MgO %	Na_2O %	TiO_2 %	K_2O %	MnO %	P_2O_5 %	LOI %	Ba ppm	Sr ppm	Zr ppm	Sc ppm	Y ppm	Be ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	V ppm	Zn ppm	Rb %	Nb ppm	Total %
5772	40.23	14.96	23.46	2.10	7.55	1.81	2.41	0.24	0.37	0.32	5.94	60	30	310	45	45	15	45	15	30	30	260	485	<0.01	<10	99.53

Up to 100 ppm Cr contamination due to sample grinding.

Sample is fused with Lithium Metaborate
and dissolved in dilute HNO3.

Signed: 

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

0W-3548-RG1

Company: **A. BEECHAM**
Project: JAG
Attn: A. Beecham

Date: OCT-23-00

We hereby certify the following Geochemical Analysis of 1 Rock samples submitted OCT-17-00 by .

Sample Number	Au PPB
8644	12

One assay ton portion used.

Certified by G. Leboss

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

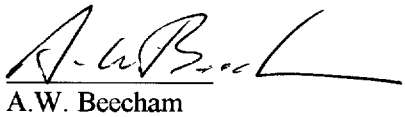
Addendum

Since the report was written, the information on drilling on the property by Medicci Mineral Corporation has become available. Two holes of this program were put down in the area described by this report. Fig. 3 has been updated to show these drill holes.

Drill hole SL-99-02 was drilled on line 400W just north of the area studied, and tested a coincident IP and magnetic (high) anomaly. The anomaly is explained by the presence of magnetite in Nipissing Gabbro. This hole also cut a 'Cobalt-type' vein, but no significant silver is present.

Drill hole SL-99-03 was collared on the baseline at 400W and drilled south at 47°. It tested a strong IP response which coincides on surface with an interesting disseminated-vein sulphide zone in felsic volcanics. The volcanics are altered and surface sampling in this area shows a strong Na depletion. The hole intersected a 23m thick zone of diffuse sulphides, carrying 1 to 8 % pyrite. The pyrite is accompanied by interesting concentrations of sphalerite, chalcopyrite and galena. The following maximum grades were encountered: 0.75% Cu over 0.1m; 1.2% Zn over 0.65m and >1% Pb over 0.44m. There is a considerable amount of lower grade material. Two 'Cobalt-type' veins, one within the sulphide zone and one just to the north, were intersected. (These veins carry concentrations of As, Ag, Co, Cu, Pb, and Zn). The silver values are not very encouraging, the best being 37.5 g/t over 0.44 metres. However, the concentrations of pyrite, sphalerite, and chalcopyrite in significantly altered volcanics is very similar to rocks which envelope typical tuff-pyroclastic hosted VMS basemetal deposits. Although some of the metals may have been enriched by the 'Cobalt-type' hydrothermal system the presence of widespread Zn and Cu mineralization without As and Co is interpreted as being encouraging for basemetal exploration.

Correlating the drilling data with Zalnieriunas' mapping suggests that the volcanics at this point dip north at only 40° to 45°.



A.W. Beecham
11 April 2001

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

Date: 2001-MAY-22

GEOSCIENCE ASSESSMENT OFFICE
933 RAMSEY LAKE ROAD, 6th FLOOR
SUDBURY, ONTARIO
P3E 6B5

Tel: (888) 415-9845
Fax:(877) 670-1555

JOHN AUBREY GORE
31 Ruby Street
P.O. Box 212
Cobalt, ONTARIO
P0J 1C0 CANADA

Submission Number: 2.21064
Transaction Number(s): W0180.00170

Dear Sir or Madam

Subject: Approval of Assessment Work

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

If you have any question regarding this correspondence, please contact LUCILLE JEROME by email at lucille.jerome@ndm.gov.on.ca or by phone at (705) 670-5858.

Yours Sincerely,

Ron Gashinski
Supervisor, Geoscience Assessment Office

Cc: Resident Geologist

John Aubrey Gore
(Claim Holder)

Assessment File Library

John Aubrey Gore
(Assessment Office)

31M03NW2011 2.21064 SOUTH LORRAIN 900

Work Report Summary

Transaction No: W0180.00170 **Status:** APPROVED
Recording Date: 2001-APR-24 **Work Done from:** 2000-MAY-03
Approval Date: 2001-MAY-01 **to:** 2000-MAY-22

Client(s):

138273 GORE, JOHN AUBREY

Survey Type(s):

ASSAY GEOL

Work Report Details:

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
L 1118450	$1,585	$1,585	$417	$417	$1,168	1,168	$0	$0	2003-FEB-19
L 1198567	$0	$0	$400	$400	$0	0	$0	$0	2003-MAR-03
L 1200715	$32	$32	$0	$0	$32	32	$0	$0	2002-NOV-08
L 1230765	$0	$0	$800	$800	$0	0	$0	$0	2003-FEB-02
	$1,617	$1,617	$1,617	$1,617	$1,200	$1,200	$0	$0	

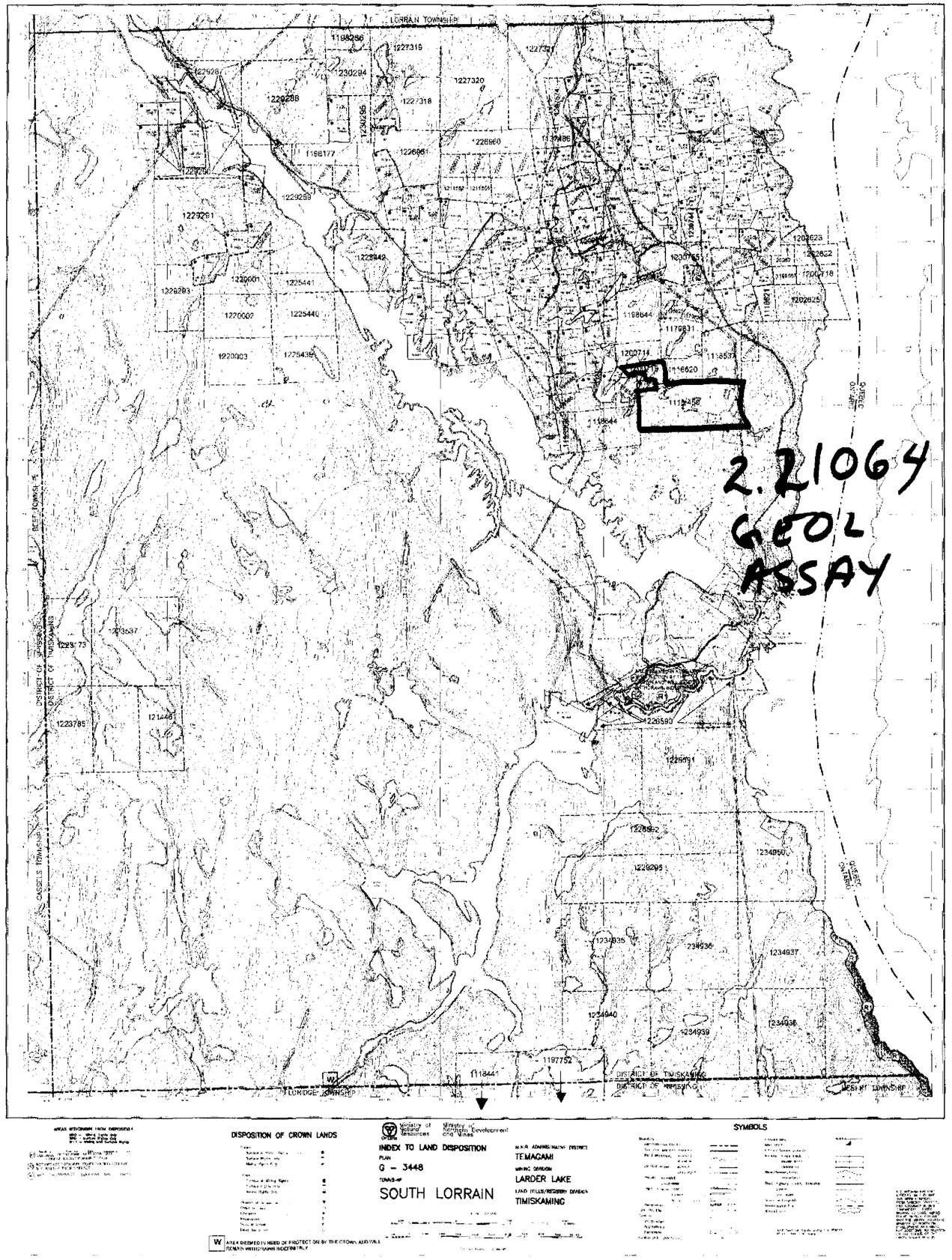
External Credits: $0

Reserve:

$0 Reserve of Work Report#: W0180.00170

$0 Total Remaining

Status of claim is based on information currently on record.



GEOLOGICAL LEGEND

PROTEROZOIC

Nipissing Diabase

- 15 Undifferentiated
- 15a Medium grained diabase, gabbro, quartz diabase
- 15b Hypersthene gabbro

Gowganda Formation

- 12
- 12a Arkose
- 12b Feldspathic quartzite
- 12c Paraconglomerate with argillite matrix
- 12d Paraconglomerate with feldspathic quartzite matrix
- 12e 'Greywacke' massive, siltstone-argillite
- 12g 'Greywacke' (sandstone type)
- 12h Orthoconglomerate

ARCHEAN

- 11 Lamprophyre
- 10 Late diabase dykes; (a)Matachewan Type; (10) interpreted from magnetics
- 9 Granitoids; (a) granite, (b) syenite, (c) quartz monzonite,(d) granodiorite, (e) trondhjemite

Mafic Intrusives

- 5a Medium to coarse gabbro
- 5f 'Quartz diorite', quartz +/- feldspar porphyritic, 'black quartz porphyry'
- 5d Fine grained mafic intrusives
- 5g Med. to coarse grained feldspar porphyritic gabbro

Sediments

- 4a Argillite
- 4c Chert
- 4i Feldspathic quartzites
- 4d Interbedded, fine felsic tuff, & chert
- 4e Sulphide-rich exhalites

Intermediate to Felsic Volcanics and Subvolcanic Intrusives

- 3
- 3a Rhyolite flows
- 3c Quartz (+/- feldspar)phyric tuffs
- 3e Quartz (+/- feldspar)phyric flows
- 3f Felsic tuff, tuff breccia (non phyric)
- 3h Dacite porphyry intrusives (F.P. porphyry intrusives)
- 3k Fine-grained felsic intrusives
- 3d Quartz (+/- feldspar)phyric intrusives
- 3j Dacitic volcanics
- 3l Fine, bedded tuff, ash
- 3n Massive, felsic volcanic

Mafic Volcanics

- 2
- 2a Massive
- 2c Coarse grained
- 2e Variolitic flows
- 2f Sheared mafic volcanics
- 2b Breccia, flow bx
- 2d Pillowed flows
- 2h Mafic volcanics (unspecified)
- 2t Mafic tuff

SYMBOLS AND ABBREVIATIONS

- sss sericite alteration
- # # silicification
- sulphide concentrations
- whole rock analyses: sample #; % SiO2 ; TiO2; Na2O
- geological contact
- unconformity
- fault
- shear zone, fault
- schistosity, foliation
- bedding
- isoclinal anticline
- isoclinal syncline
- outcrop; area of outcrop
- shaft
- pit
- earth trench
- diamond drill hole
- swamp; open grassy swamp
- pond
- claim post located, approx.
- steel survey pin
- track

- alt altered
- fg fine grained
- cg coarse grained
- qv quartz vein
- cv carbonate vein
- chl chlorite
- Co cobalt minerals
- Cp chalcopyrite
- gf graphite ; graphitic
- Gn galena
- hem hematite
- Mo molybdenite
- mt magnetite
- Po pyrrhotite
- Py pyrite
- ser sericite
- Sph sphalerite

A.W. Beecham
Oct. 2000

N

Oxbow Lake

approximate

Pond #2

Pond #3

Bulldog Lake

approximate

H.R. 43

1200715

1118620

1118450

1118545

1118544

1118450

1118544

Baseline 00N

SL-99-02

SL-99-03

'Oslund' Shaft

Line Post

Galena Pit

'south west' shaft (location approx)

#302 42.8 1.68

#304 68.1 0.42

#305 50.9 0.56

#306 69.5 0.23

#307 68.4 0.63 0.29

#308 52.2 1.09

#309 71.3 0.71 0.05

#310 71.2 0.24 0.10

#311 74.4 0.26

#5722 402 241

#301 49.0 1.99

700W 600W 500W 400W 300W 200W 100W 00W 100E 200E 300E 400E 500E 600E 700E

1118450

1118544

Notes:
Geology: L300E-700E by A.W. Beecham May 2000 and L300E to L700W by R.V. Zalnieriunas 1995 re-interpreted by A.W. Beecham Oct. 2000;

2.21064

J.A. Gore, Oxbow Lake South Area

South Lorrain Twp. District of Timiskaming

Geology

Scale: 1:2000

Geology by: A.W. Beecham
Date: May, 2000
Drawn by: A.W. Beecham

Revised: April 2001

NTS 31M/3

approx. location of #4 post for cl 11845

#1 Post cl 1118544

DIABASE CONTACT

L7W L6W L5W L4W L3W L2W L1W L0 L1E L2E L3E L4E

BLO (90°T)

Huronian Contact

Huronian Sediments

DIABASE?

Beaver Pond

DDH AC-3-92

DDH AC-2-92

DDH E-1

DDH E-3

DDH E-9

#301 #302 #303 #304 #305 #306 #307 #308 #309 #310 #311

pillows are deformed moler toothed

LEGEND

PROTEROZOIC
- ND Nipissing Diabase

Huronian
- HC Coleman Formation
  - a arkose
  - c conglomerate / tillite
  - s schist
  - m mudstone
  - f pebbly

ARCHEAN

Felsic to Intermediate Intrusive Rocks
- 1G Granite
- 1FP Feldspar Porphyry

Mafic Intrusive Rocks
- 3D Diabase
- 3G Gabbro

Sedimentary Rocks
- S4 Mudstone
- S3 Greywacke

Metavolcanics
- V7 Mafic
- V5 Intermediate
- V2 Felsic

Modifiers
- m massive
- fb flow banded
- p pillowed
- pb pillow breccia
- h hyaloclastite
- t tuff, tuffaceous
- t1 ash tuff
- t2 crystal tuff
- t3 lapilli tuff
- ◘ porphyritic (qtz eyes)

SYMBOLS

- Small bedrock outcrop
- Large Bedrock outcrop
- Road / trail
- Path / blazed line
- Swamp / marsh
- Stream, beaver pond
- Bedding, inclined
- Volcanic pillow flow tops
- Foliation, inclined, vertical
- Geological contact, assumed, observed
- Fault, assumed
- Inclined Drill Hole, assumed, located
- Shaft / exploration pit
- Pit
- Trench
- #302 bedrock sample site

MINERALIZATION
- py pyrite
- gn galena
- mal malachite
- sulf sulfides
- qtz quartz
- calc calcite

True North

0 50m 100m 200m

J.Gore - 1995 OPAP

South Lorrain Township, Ontario
South Claim Group

1995 DETAIL GEOLOGY

Drawn: 10-24-95	Scale: 1:2,000	
Revised:	Grid: 1995	Drafter: rvz
Survey by: R.V. Zalnieriunas		
Field Work Dates: October 12 to 16, 1995		

R.V. Zalnieriunas Jan. 6/96

Fig. 4