

SOUTH LORRATN

31M03NW2010 2.21008

010

2. % C 0 8 8

## Diamond Drilling, December 1999 Drill Hole: G-02 J.A. Gore Main Showing Maidens Lake Claims

South Lorrain Township, District of Timiskaming Northeastern Ontario

NTS: 31M/3

4 4

A.W. Beecham Haileybury, ON Jan. 2000



SOUTH LORRAIN

31M03NW2010 2.21008

010C

### **Table of Contents**

'Introduction'	gel
Results	1
Discussion	2
Recommendations	3

### Appendix I

Diamond Drill Hole Log, Hole # G-02, pages 1 to 9

### Appendix II

Assay Certificate: 0W-0003-RG1

### **List of Illustrations**

Fig. 1	J.A. Gore, Maidens Lake Claims Geology (part of)in poch	cet
Fig. 2.	Diamond drill hole section, BL "A", Section 0+00E, Scale 1:500 in pocl	cet

### Diamond Drilling J.A. Gore Main Showing Maidens Lake, South Lorrain Township, District of Timiskaming Ontario

One diamond drill hole was drilled to test an impressive stockwork of carbonate veins in Nipissing Diabase located 250m southeast of Maidens Lake. This stockwork is exposed over an area about 100m SE to NW by 60m SW to NE. The most prominent of four different vein sets and the one which contains the most anomalous cobalt, strikes at 060° and dips vertical to steeply south. Drill hole G-02 was drilled at 150°, at right angle to this prominent vein set. In the surface exposure, most of the veins have distinctive, banded wallrock alteration typical of the alteration seen along Cobalt-type, silver-cobalt veins in Nipissing Diabase. The main purpose of the drilling was to test the down dip projection of this carbonate vein stockwork, to see if there was an enhancement of silver and cobalt grades with depth. A secondary consideration was to determine the depth of the Huronian-Archean unconformity. The hole was laid out steeply enough to be ultimately drilled to basement. The geological setting here appears similar to the Cobalt camp where the best silver concentrations were in Huronian sediments sandwiched between overlying Nipissing Diabase and underlying Archean volcanics (at the lower contact of the Nipissing sill). In detail, the most productive Cobalt settings are in Huronian rocks just above the unconformity with the Archean basement. This is in contrast to the nearby South Lorrain silver camp where silver was concentrated in Archean volcanics and diabase at the top contact of the diabase sill.

The hole was drilled from the north so as to get more information on the Nipissing Diabase sill. The hole gave a dip to the diabase and explored parts of the diabase north of where it had been stripped on surface.

A total of 34 samples were taken of the abundant dolomite-calcite veins and breccia cement. Samples were analyzed for silver, cobalt and zinc. (Analyses for Zn were done as minor amounts of a red brown mineral which is fairly widespread in the vuggy carbonate-cemented breccias and carbonate veinlets had been tentatively identified as sphalerite). As most of the veins were at small angles to or parallel to the core, continuous sampling of vein material was not done.

#### Results

Numerous carbonate breccia veins and long sections of carbonate breccia were intersected in the Huronian sediments generally beneath the surface stockwork exposure. The longest breccia section, some 30m core length, occurs vertically below an area north of the main exposures. None of the veins can be directly correlated with surface veins. No cobalt minerals were seen in any of the veins or stockworks in the drill hole and no anomalous Ag or Co values were found. Most of the veins cut are breccia type veins which on the surface did not carry significant Co. Most of these are at small angles to the core axis and presumably these mark the 150° trending cross breccia veins seen on surface. However, the geometry of the long sections of carbonate breccia is uncertain. They may be exceptionally wide cross veins along which the hole was drilled or some other unknown geometry. They are believed to be hydrothermal breccias.

The veins and breccia zones carry minor amounts of pyrite, traces of chalcopyrite and minor amounts (up to 1 %) of an unidentified reddish brown mineral (iron oxides and

hydroxides). The veins and breccia fillings are zoned. Dolomite is the dominant carbonate and forms the outside of the veins with lesser amounts of white and pink calcite in the middle. Vugs are common in this calcite middle part and in places the calcite has been completely removed. The metallic minerals are mostly located at the boundaries of the dolomite and calcite and are left as vug linings where the calcite has been removed. Some of the red brown mineral resembles sphalerite. However, as noted above, the total absence of anomalous Zn suggests that it is mostly iron oxides and hydroxides.

The bottom of the Nipissing Diabase 'sill' was encountered at 20 m indicating a north dip of only 12°. None of the typical carbonate veins with banded wallrock alteration which are exposed on surface were recognized in this short section of diabase. This banded alteration is typical of veins cutting the Nipissing diabase. The Huronian sediments are generally quartz and feldspar rich and probably not as reactive as the diabase. Hence, the veins with banded alteration would not be expected in the Huronian rocks.

The drill hole was terminated in Huronian sediments without reaching the Archean volcanics at 147.8m or a vertical depth of 121m.

#### Discussion

The Huronian section in drill hole G-02 was compared with the strata cut in drill hole #1 put down to basement in 1991 and 1992 some 900m to the east, near the HR-64 Shaft. The aim of this comparison was to estimate the depth to basement at the G-2 site. Unfortunately no definite marker beds have been recognized in the two holes. The assemblages in the two holes are somewhat different. However, if one assumes that some of the massive argillite in DH #1 correlates with some of the paraconglomerates in G-02, then it is possible that a chlorite spotted section, from 96 to 114 m in DH G-02. This correlation would indicate that DH G-02 would have to be deepened about 30 to 35 m to reach the Archean basement.

Two empirical rules for this geological setting are that cobalt-silver veins are best developed just above the Huronian-Archean unconformity, and they are usually only developed within a maximum of 175m or 200m of the overlying diabase. An excessively thick Huronian section, here, would therefore be considered unfavourable. It is hence important to drill at least this one hole to the Archean before additional drilling is considered. It is important to know where the unconformity lies so that the strata immediately above it can be targeted in future drilling.

It is possible that some cobalt or silver bearing veins could have been obliterated by the large, apparently barren carbonate breccia veins. (The breccia veins did not carry anomalous Co in the surface exposures.) It is also possible that some minor silver or cobalt values could have been missed in the sampling. Sections of lost core totaling 2.2 m are reported between 84m and 96m and additional lost core of 1.2m near the bottom of the hole. No sludge samples were taken and some significant vein material could therefore have been lost or ground in these sections. However, as no anomalous Ag or Co, at all, was detected in any of the sampling, it seems likely that nothing significant was actually intersected.

In spite of the negative analyses, it is noted that exceptionally large amounts of carbonate veining and carbonate breccia with minor pyrite and hematite were encountered. This suggests a relatively large hydrothermal 'system' and because of this alone, exploration should be pursued.

### **Recommendations**

Drill hole G-2 should be deepened to basement, after which an evaluation of the potential of the 'system' is required before proceeding further. The presence of concentrations of cobalt minerals and even low silver values would be encouraging in this setting.

Le. C A.W. Beecham

Haileybury, Ontario 12th January 2000

## Appendix I

Diamond Drill Hole Log, Hole # G-02, pages 1 to 9

.

-

.

### **DIAMOND DRILL HOLE LOG**

Property	Тр	Azimuth	Date started		Dip	Tests	(0)		Abbreviations:
Maidens Lake	South Lorrain.	150°, Grid South	7 Dec. 1999	collar	55°			Alt. altered	
Project	Lot & Conc.	Dip	Date Completed					Cp chalcopyrite	qtz=quartz
		55°	12 Dec. 1999					Po pyrrhotite;	Ct:= contact
Claim #	Co-ordinates	Length	Drilled by:					Sph sphalerite;	calc.= calcite
1230755	0+01E/42.2N	147.8m	Lachapelle Drilling					tr trace amounts	
Grid # Base Line "A"	Section	<b>Collar Elevation</b>	Logged by:						
	0+00E		A.W. Beecham					Core Size : BQ	

From	To	DESCRIPTION	Sample						ASSAYS	
m	m	-	Number	From	To	Length		ppm	ppm	ppm
		Objectives: to test Main Showing at depth, & to determine depth to Archean basement;						Ag	Co	Zn
0	2.74	CASING								
2.3	19.9	FRACTURED MEDIUM GRAINED DIABASE (NIPISSING DIABASE) Med. dark grey, med. grained, 1-2mm; feldspar and chloritized mafic; indistinct diabase texture; weakly magnetic,								
		Structure: Fractured, broken and some lost core: About 1m of lost core between 7.6 and 10.7;								
		Alteration & Veins: 5.5 - 6.0: lenses of buff calc.and calc. bx 10° to 45° with tr. Py 8.2 m: minor clac. bx veins 13 lm: 3 cm calc bx at 20°	4656	5.5	6.1	0.6	tr Py	0.1	35	24
		14.2 - 19.6m 2 to 5 mm calc. +/- red hematitie veinlets parallel to core; tr Py in carb. veins and wallrock; Feldspars in wallrock strongly altered and mafics chloritized;	4657	17.6	19.1	1.5	tr Py	0.1	41	43
19.9	<b>2</b> 6.9	MASSIVE ARGILLITE - PARACONGLOMERATE Dark green, fine grained, non magnetic, relatively soft; granular texture on broken surface; A few pebbles at 25m indicates unit is a paraconglomerate;								
		Structure: Shattered throughout & difficult to get fresh break; Massive, no layering except thin bedding at 80° in bottom 10cm. Sections of finely broken core;								
		Alteration & Veins: Buff calcite bx veins up to 3 cm nearly parallel to core make up 5% of unit, Tr Py here and there; tr Cp at 26.5 m	4658	24.2	25.4	1.2	tr Py	0.1	46	22

Page No. 1 of 9

.

		DIAMOND DRILL HOLE LOG	HOLE No.G-0				02 Pg.2 of 9			
From	To	DESCRIPTION	Sample						ASSAYS	
m	m		Number	From	То	Length		ppm	ppm	ppm
26.9	30.3	MASSIVE FELDSPATHIC QUARTZITE Medium grey to reddish brown, medium coarse sand. Very hard, weakly to moderately magnetic in places. Made up quartz & feldspar and 2-4% mafics.						Ag	Co	Zn
		<u>Structure:</u> Massive unbedded; Numerous fractures with carb. cement. <u>Alteration &amp; Veins:</u> Yellow earthy calc. + bx as follows: 2 -3cm at 271 lcm at 29.2 at 0° = 10°	<u>4689</u>	28.1	28.6	0.5		0.1	27	7
		Calcite bx below 30.0 m. Veinlets are vuggy. Minor reddish alteration as selvages of carb. veinlets.								
30.3	33.8	THIN BEDDED SILTSTONE - FINE FELDSPATHIC QUARTZITE Medium grey to light brown. H = 4; Moderately strongly magnetic								
		Structure: Thin, festoon, cross-bedding at 80° Shattered with calcite cement; Sections of broken core.								
		Alteration & Veins: 'Vuggy' buff coloured calcite bx veins - most at small angle to core. 30.3 - 30.8 3cm (+) calc. bx at <05° 32.4 - 10 cm calc. bx. 33.2 - 33.8 calc. bx (10% calcite) Main vein at about 60°	4659	30.2	30.8	0.6		0.1	32	5
		Remarks: Because of festoon cross bedding unit is distinctive - could be a marker bed;								
33.8	38.9	BX'D ALTERED MASSIVE SILTSTONE -FINE GRAIN FELDSPATHIC QUARTZITE As above except mostly massive and unbedded, Strongly magnetic								
		Structure: <sup>3</sup> / <sub>4</sub> of unit is bx'd + cemented with calcite. Angular slightly rotated bx; Bedding at 35.4m at 80°								
		Alteration & Veins: 15% of unit is carb matrix, bx of buff dolomite + calcite, tr Py, Moderate chlorite spotting:	4660	35.9	37.1	1.2	tr Py	0.1	18	10

.

\*\*

.

		DIAMOND DRILL HOLE LOG					02	Pg. 3		
		DESCRIPTION	Sample						ASSAYS	
			Number	From	To	Length		ppm	ppm	ppm
		Min: tr diss'd Py in wall rock.						Ag	Co	Zn
38.9	41.9	BX'D, ALTERED THIN BEDDED SILTSTONE								
		Medium grey, streaky; H = 4 - 5 Moderately magnetic.								
		Structure: Thin bedded at 70° 40% of unit carb. bx.								
		Alteration & Veins: 10% buff calcite matrix in angular bx; Minor Py with calcite 39.8m;								
41.9	45.5	BRECCIATED, MASSIVE FELDSPATHIC QUARTZITE As above. Mod strongly magnetic.								
		<u>Structure:</u> Mostly massive and unbedded. Thin bedding at 42.4m at 55° 80% of unit strong angular bx. Fragments up to 5 or 10 cm. Larger fragments not rotated.								
		<u>Alteration &amp; Veins:</u> Up to 35% buff carb. along walls (mostly dolomite) with a little white calcite in the middle of veins; a few % vugs; Tr Py mainly along dolomite calcite line + in vugs; dusting of dark brown mineral partly gossan in vugs & along dol-calcite lines; (Some of the dark material could be sphalerite?;	4661	43.9	45.3	1.4	Py,Sph?	0.1	22	6
45.5	48.0	BRECCIATED ORTHO CONGLOMERATE Grey - reddish brown - arkose - grit matrix with 50% or more pebbles of red granite, f.g. mafics + f. g. red-brown rock. Mod. to strongly magnetic with fine detrital magnetite;								
		Structure: Angular bx throughout								
		<u>Alteration &amp; Veins</u> :30% carb. (dolomite & subordinate calcite) bx matrix; tr Py here + there. Dusty dark brown mineral in vugs+ of dolomite - calcite line may be partly Sph. Isolated grains Sph? at 46.5m	4662	45.3	46.7	1.4	Py,Sph?	0.1	17	7

DH No.G-02

+

.

		DIAMOND DRILL HOLE LOG				HOLE	/ No.G-02	,	Pg.4 o	f 9
		DESCRIPTION	Sample						ASSAYS	
			Number	From	То	Length		ppm	ppm	ppm
48.0	64.3	BRECCIATED PARACONGLOMERATES Dark dull grey matrix of fine feldspathic matrix; Some sections are strongly magnetic; About 5 -8 % small pebbles up to 10cm; Cobbles f.g. felsic rocks; Cobbles are mostly red granite;						Ag	Co	Zn
		<u>Structure</u> :Unbedded; Angular bx with average of 20% carb. matrix Appears to be 20 - 30cm blocks separated by finer bx;								
		<u>Alteration &amp; Veins</u> : Matrix is zoned carb. with buff or light grey dolomite along walls making up 90% of vein + remainder core of vein is white calcite + comb lined vugs; Minor to tr Py + gossen ± tr Sph (?) at boundary of calcite + dolomite + linings of vugs;	4663	53.4	54.4	1.0	tr Py	0.1	36	8
		Small blebs Cp in white calc. at 47.9m. Most of fine mineral that look like Sph is oxidized and therefore difficult to positively identify Sph	4664	56.3	57.3	1.0	tr Py, Sph	0.1	20	7
		Remarks: 48 - 49.5 matrix of conglom. soft and argillitic;								
64.3	71.8	PARACONGLOMERATES Dark grey - fsp.'c quartzite - greywake matrix with a few % f.g. felsic, granite + quartz clusts. Mod to strongly magnetic.								
		Structure: A little bx with carb. matrix at 65m;								
		<u>Veins:</u> 69.8 - 1cm grey carb. include calc. + diss Py + minor Cp - 45°; 70.1 3 cm blebs pink calc. + minor Py Cp. A few 1 - 3mm white dolomite + calcite veinlets here and there;	4665	69.75	70.2	0.45	tr Py Cp	0.1	28	12
		$\underline{Min}$ : $\frac{1}{2}$ - 1% Py as diss'n + scattered grains;								
71.8	80.6	ORTHOCONGLOMERATE 80% - 10% pebbles to cobbles up to 15cm of f.g. felsics, granite, mafic volcanics in grit matrix; Moderately - strongly magnetic.								
		Structure: Mostly massive and unbedded:								

.

DH No.G-02

Page No.4

.

- -

•

		DIAMOND DRILL HOLE LOG	HOLE No.G-02 Pg.					. 5 of 9			
		DESCRIPTION	Sample					ASSAYS		;	lost
			Number	From	То	Length		ppm	ppm	ppm	core
		<u>Veins:</u> Hairline to 4mm white dolomite with a little calcite veinlets at 30°, 50°, 80°. Minor Py in veins 77.8: 2 veins 5-10mm lt. grey carb + Py at 65°	4666	77.77	77.9	0.2	1-2tr py	<b>Ag</b> 0.1	<b>C</b> o 25	<b>Zn</b> 11	
		Min:1 - 2% diss'd pale Py.									
80.6	88.4	FELDSPATHIC QUARTZITE As above, Mod. magnetic.									
		Veins: 82.4m 10 cm carb bx at 40° 82.9m - 83.7m Bx with 15% pink calc. with 2% Py;	4667	82.9	83.7	0.8	1-2%	0.1	47	9	
88.4	89.9	BRECCIATED FRACTURED, THIN BEDDED SILTSTONE (WITH FAULT ZONES?) Dark f.g. H = 4 - 4.5 Mod. magnetic									
		Structure: Thin bedded to <1mm thick to massive; bedding at 60°About 75% angular carb. cemented breccia - some bx are obvious bx veins at small angle to core.Sections of broken or ground or missing core as follows - may mark faults;84-84.50.4m84.7-86.00.9m									
		<u>Alteration &amp; Veins:</u> 86 - 86.6 lt. grey calc - bx 1-2% Py 87 - 87.2 lt. grey + pink + Py at 15°	4668 4669 4670	83.7 84.7 86.0	84.7 86.0 87.0	1.0 1.3	tr Py 1% Py	0.1 0.1 0.1	38 32 31	8 7 8	0.4 0.9
		<ul> <li>88 - 89.8 Dolomite + Calcite yellow to grey, f.g. bx veins; probably not thicker than 5cm) at 0° - 5° with trace of Py + tr of Cp at 88.1m</li> </ul>	4671 4672 4673	87.0 87.8 88.8	87.8 88.8 89.8	0.8 1.0 1.0	½% Py tr Py Cp	0.1 0.1 0.1	35 25 32	9 7 11	
89.9	96.3	FRACTURED MASSIVE SILTSTONE - ARGILLITE? Dark grey, fine grained H = 4 Moderately magnetic; Isolated Pebbles;									
		Structure:Highly fractured sections of broken + lost core; 94.5 -95.4 0.9m lost core; some fine fault breccia; possibly a fault here;									

---

•

		DIAMOND DRILL HOLE LOG			H	<b>DLE No.</b>	G-02	Pg. 6 of 9			
From	To	DESCRIPTION	Sample				%		ASSAYS		lost
m	m		Number	From	To	Length	Py	ppm	ppm	ppm	соге
		Sections of Carb cemented by $93 - 93.9m$ + sections of incipient by with carb cement;						Ag	Co	Zn	
		Alteration & Veins: 93 - 93.4 5mm - 1cm carb. bx vein along core with tr Pv 93.5 - 94.4 fine carb. bx - tr Pv	4674	93.5	94.4	0.9		0.1	31	14	
			4675	94.4	95.5	1.1		0.1	31	17	0.9
96.3	114.1	ALTERED MASSIVE SILTSTONE - (PARACONGLOMERATE)									
		Dark grey H= 4 - 5; mod. magnetic									
		mainly fine quartz + feldspar (silt) with quartz sand -sized grains (greywacke texture)									
		<u>Structure:</u> Massive, unbedded; sections of angular carbonate bx as follows; 99.7 -102; 104.5 - 105.5; 107.9 - 10.0; 110.5 - 111.1;									
		Alteration & Veins: Zoned carb-filled bx as noted in 'structure'& carb bx veins as follows:	4676	98.7	100	1.3	1/2-1	30	18		
		111.5 $2 \text{cm}$ carb'd by vein at 40°	4677	100.0	101	1.0	tr	32	18		
		111.8 1cm " " " 50°									
]		113.2 lcm """""10°									
		114 2cm carb'd bx vein, 3-5% Py at 40°									
		Mainly cream coloured dolomite with subordiate core of lt. grey white calcite with a little									
		Py, minor gossan at dolomite-calcite line. Possibly tr Sph but obscurred by gossan; larger	4678	104.2	104.8	0.6	tr-1/2	31	17		
		veins have vugs; Chlorite flecks & spots from 2mm to 15mm in sections throughout with					ļ				
		up to 5% Py in chlorite spots;									
			4679	107.8	109.2	1.4	tr-1/2	33	16		
		<u>Min:</u> See' veins'; tr to $\frac{1}{2}$ % Py in carb bx, with alteration spots + selectively in granite									
		pebbles; Some concentrations up to 2% over 1m;						• -			
			4680	110.5	111.1	0.6	tr-1/2	26	14		
		<u>Remarks</u> : Pebbles - cobbles make up less than 1% of unit - mainly granite;	1(0)		1117	0.0	h = 1/	~~	15		
		110.6 Tucm coddle of diorite;	4081	115.7	114.5	0.0	UT-1/2	33	15		
		Most clasts <1011. Note: Error on footoge blocks: There are 2 blocks 10that apart marked 378th									
		corrected to 388 (118 3m)									
114.1	116.7	PARACONGLOMERATE									
		Dark grey fine sand matrix 'greywacke' texture with qtz sand in tiner matrix. 5% 1-3cm									
		granite pebbles; some pebbles mafic volcanics;									
							1				
		Structure: Broken core 114.9 -115.2 Strongly fractured with carb. by veins.									

	DIAMOND DRILL HOLE LOG						HOLE No.G - 02 Pg.7 of 9							
From	To	DESCRIPTION	Sample				%		ASSAYS					
m	<u>m</u>		Number	From	To	Length	Py	_ppm	ррт	ppm				
1		Alteration & Veins: 114.25 2-3cm carb. bx vein at 60°						Ag	Co	Zn				
		114.9 - 116.7 8% carb. bx veins up to 1cm at 60°, 130°, 170°,	1000		116.4	1 1		• •	16					
		veins zoned with dolomite + calcite some vugs + a little Py + gossan;	4682	[15.5	110.4	1.1	u	31	16					
1167	128.1	MASSIVE FEI DSPATHIC QUARTZITE				I								
	120.1	Dark grev gtz - feldspathic same grevwacke-like texture, as above with gtz grains in fine												
		matrix; Weakly magnetic in places; About 1% granite pebbles mostly <5mm, but a few												
		up to 1 - 2 cm;												
		Structure: Mostly massive, uniform, only weakly fract with carb. cement + minor carb. bx												
		venuets												
		Alt. & Veins: 117.2-117.5: Zoned dolomcalc.veins minor Py + gossan, vugs 30°, 150°, 0°.												
		119.8 - 120.1 carb bx veinlets 45° - 0°												
		125.3 - 10% carb bx / 15 cm												
		Minor scattered chl. spots												
		Min: tr diss'd Py												
128.1	131.9	THIN BEDDED, RED - BROWN FELDSPATHIC QUARTZITE												
		Reddish brown, i/b with dark grey fine sand . H=>5; weakly magnetic in places.												
		Structure: Thin beds from <1mm to 10cm - beds at average 65°												
		moderately fractured with carb. bx cement.												
·														
		Alteration & Veins: Minor zoned carb. veins here + there throughout; Most prominent												
		ones as follows:												
		130 1cm at 35°	1602	120.0	121.2	1 7		0.1	27	10				
		130.9 - 131 : 20% carb bx tr Py 45°	4085	129.9	131.2	1.5	ur	0.1	57	10				
		Min:1% diss'd Py in red - brown beds.												
131.9	143.3	PARACONGLOMERATE - MASSIVE FELDSPATHIC QUARTZITE												
		As above 128.1 -131.9 but with 3-4% pebbles + cobbles - mostly granite.												
		Weakly magnetic in places												
1							ļ							

.

---

•

		DIAMOND DRILL HOLE LOG				HOL	HOLE No.G - 02			Pg. 8 of 9		
From	To	DESCRIPTION	Sample						ASSAYS		lost	
m	m		Number	From	To	Length	Py	ppm	ppm	ppm	core	
		Structure: Massive unbedded; Moderately fractureed with carb bx cement;						Ag	Co	Zn		
		<u>Veins</u> : 136.6 -0 139: sections of fine carb bx, 5 to 8% zone , dolomite-calc. 142.4 - 142.7: carb bx veinlets at 43° and 160°;	4684	136.6	137.3	0.7	tr	0.1	27	13		
		Min: tr diss'd Py				i						
143.3	145.0	CARBONATE BRECCIA - FELDSPATHIC QUARTZITE-PARACONGLOMERATE Clasts as above unit.Angular										
		bx: large fragments 1 10cm with the bx matrix with 35 -40% carb. Mostly dol, with lesser amount calcite.	4685 4686	143.3 144.1	144.1 145.0	0.8 0.9	tr tr	0.1 0.1	24 21	11 24		
		<u>Min:</u> Tr Py										
145.0	147.8	FRACTURED PARACONGLOMERATE As above 151.9 - 143.3	4605	145.0	116.6	1.6		0.1	20	16	0.0	
		Structure:broken core; 1.2m lost or ground in section; No gouge; possibly only errors in blocks)	4687 4688	145.0 146.6	146.6	1.6		0.1	30 21	16 16	0.9	
		Veins: Minor carb. veinlets										
	147.8	END OF HOLE										
		GENERAL COMMENTS										
		(1) Abundant angular breccia with vuggy dolomite(non fizzy) and calcite matrix; Carbonate										
		contains a little Py and red brown iron oxides and hydroxides; Py content in carbonate										
		breccia and breccia veins increases slighty downward;					1					
		(2) 84m - 86m 1.3m of lost core; 04.4 $-$ 96m; 0.9m of lost core;										
		94.4 - 9011: 0.911 of 10st core. 145 - 147 8m; apparent 1.2m of lost core: Some of this loss could be due to errors in										
		'footage' blocks:										
		(3) No explanation as to why no prominent 060° veins were intersected, unless they were										
		obliterated by prominent 150° trending breccia veins; or possibly 060° veins may be										
		developed only in Nipissing Diabase; Significant veins could have been lost or ground in										
		sections of lost core as noted above;										

.

--

		DIAMOND DRILL HOLE LOG				HOL	E No. G-02	Pg 9 (	of 9
From	To	DESCRIPTION	Sample					ASSAYS	
m	m		Number	From	То	Length	ppm	ppm	ppm
							Ag	Co	Zn
		Drilling Notes:					C C		
		(1) head set at 55° by A.W. Beecham: No down hole dip tests taken:							
		(2) Casing left in place:							
		(3) Error in 'footage' blocks at 378 FT: Two blocks with "378" placed 10 FT apart:							
		Possible that at least some of apparent lost core is due to error in blocks:							
		A, O C							
		N. W. Wheel							
		A.W. Beecham							
		28 December 1999							
		CSOCIATIO	1						
		R R R R R R R R R R R R R R R R R R R							
		$\rightarrow A R $							
		Samo.							
		5 W REFECHAM D							
		O A. W. DELONING							
		0, 50/05, 10							
		V ZT Broop A							
		· FELLOWN	1						
		TELLOV							
									-

Appendix II

Assay Certificate: 0W-0003-RG1



## Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

Page 1 of 2

## Geochemical Analysis Certificate

0W-0003-RG1

Date: JAN-05-00

J. A. GORE Company: Project: J. A. Gore Attn:

We hereby certify the following Geochemical Analysis of 34 Core samples submitted DEC-31-99 by.

Sample	Ag	Со	Zn	
Number	PIM	PPM	PFM	
4656	0.1	35	24	
4657	0.1	41	43	
4658	0.1	46	22	
4659	0.1	32	5	
4660	0.1	18	10	
4661	0.1	22	6	
4662	0.1	17	7	
4663	0.1	36	8	
4664	0.1	20	7	
4665	0.1	28	12	
4666	0.1	25	11	
4667	0.1	47	9	
4668	0.1	38	8	
4669	0.1	32	7	
4670	0.1	31	8	
4671	0.1	35	9	
4672	0.1	25	7	
4673	0.1	32	11	
4674	0.1	31	14	
4675	0.1	31	17	
4676	0.1	30	18	
4677	0.1	32	18	
4678	0.1	31	17	
4679	0.1	33	16	
4680	0.1	26	14	
4681	0.1	33	15	
4682	0.1	31	16	
4683	· 0.1	37	· 10	
4684	0.1	27	13	
4685	0.1	24	11	:

mis chart N Certified by

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



## Swastika Laboratories

A Division of Assayers Corporation Ltd.

### Assaying - Consulting - Representation

Established 1928

Page 2 of 2

### Geochemical Analysis Certificate

0W-0003-RG1

Date: JAN-05-00

Company: J. A. GORE Project: Aun: J. A. Gore

٩,

We hereby certify the following Geochemical Analysis of 34 Core samples submitted DEC-31-99 by .

Sample	Ag	Со	Zn	
Number	PPM	PPM	PPM	
4686	0.1	21	24	
4687	0.1	30	16	
4688	0.1	21	16	
4689	0.1	27	7	

oh\_1 Certified by\_

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



100/9A

#### Ministry of Northern Development and Mines **Declar Perfor**

### Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use) W0180.00156 Assessment Files Research Imaging



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

 31M03NW2010
 2.21008
 SOUTH LORRAIN
 900

 Instructions:
 - For work performed on Crown Lands before recording a claim, use form 0240.

 - Please type or print in ink.

1. Rec	corded holder(s) (Attach a list i	f necessary)	<b>2</b> 5 2 1 0 0 8
Name	JOHN A. GURE		Client Number
Address	P.D. BUX ZIZ	COBACT. ON	Telephone Number 705 672-2071 & 679-5710
	POJ ICO		Fax Number 705-672-5023
Name			Client Number
Address	,		Telephone Number
			Fax Number

### 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)	al: drilling, stripping, Rehabilitation
Work Type	Office Use
DIAMOND DRILLING	Commodity
	Total \$ Value of Work Claimed 9422
Dates Work Performed From 744 12 1999 To 12 12 Day Month Year Day Month	1999 NTS Reference
Global Positioning System Data (if available) Township/Area Soutit Lorra	N Mining Division harder hake
M or G-Plan Number	Resident Geologist District Kirkland hake
Please remember to: - obtain a work permit from the Ministry o - provide proper notice to surface rights h - complete and attach a Statement of Cos - provide a map showing contiguous minin - include two copies of your technical repo	Invatural Resources as required; olders before starting work; ts, form 0212; Ing lands that are linked for assigning work; MAR 3 0 GEOSCIENCE ASSESSION I
3. Person or companies who prepared the technical report	(Attach a list if necessary)
A. W. BEECHAM	705 672-5023
Address P. D. Box 867 HALLEYBURG ON	Pot 14 705 672 - 3960
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number OFFICE - SUDBURY RECEIVED
· · · · ·	MAR 3 0 2001
4. Certification by Recorded Holder or Agent	A.M. P.M. 7 181 9/10/11/12/11/2/3/4/5/6
I,, do hereby	certify that I have personal knowledge of the facts set
forth in this Declaration of Assessment Work having caused the or after its completion and, to the best of my knowledge, the ar	e work to be performed or witnessed the same during nexed report is true.
Signature of Recorded Holder or Agent	Date 26 MARCH ZOUL
Agent's Address	Telephone Number Fax Number

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.

	·····	<u>W0180.00</u>	<u>)/S/.</u>			
Mining work wa mining l column indicate	<b>Claim Number.</b> Or if is done on other eligible and, show in this the location number d 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	1230755	3	\$9422	\$4800	13200	#1422
2	1,230744	2		\$3200		
3						
4						
5						
6						
7						
8						
9						
10						
11						
12					· · · · · · · · · · · · · · · · · · ·	
13						
14						
15						
	I	Column Totals	\$9422	\$ 8000	#3200	\$ 1422

I,  $\underline{J \cdot A} \cdot \underline{Gore}$ , do hereby certify that the above work credits are eligible under (Print Full Name) , do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Begulation 6/96 for assignment to contiguous claims or for application to

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.

Signature of Recorded Holder or Agent Authorized in Writing Date March 26/2001

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

Some of the credits claimed in this declaration may be cut back. Please check ( $\nu$ ) 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):

RECEIVED

MAR 3 0 2001

Note: If wear have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, tollowed by function 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 R	ecorder (Signature)
0241 (02/96)		



Ministry of Northern Hovelopment and Mines

# Statement of Costs for Assessment Credit

Transaction Number (office use) 00180.00156.

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 Rend, Sudbury, Ontario, P3E 605.

	······································		
Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilo- metres of grid line, number of samples, etc.	Cost Per Unit	Total Cost
DIAMOND DRILLING	147.8 metros BQ	# 46.46	6866.45
ASSAYS	345AMPLES FOR Ag. Co, Zn.	\$9.50	323.00
Associated Costs (e.g. supplies	mobilization and demobilization).		
Mobilization,	demobilization		500.00
Musc - Supple	ies j Services		266.20
Geologist.	, 		645.00
Work by cla	im holder		675.00
Transp	ortation Costs		14630
Food a	nd Lodging Costs		
	Total Value o	Assessment-Work	# 9421.95
Calculations of Filing Discounts 1. Work filed within two years of p 2. If work is filed after two years Value of Assessment Work. If t	MA GEOSCI performance is claimed at 100% of the and up to five years after performance, this situation applies to your claims, use	R 3 0 2001 ENCE ASSESSMENT OFFICE above Total Value of it can only be claimed the calculation below	Assessment Work. d at 50% of the Total v:
TOTAL VALUE OF ASSESSME	ENT WORK $\times 0.50 =$	Total \$ va	lue of worked claimed
Note: - Work older than 5 years is not e - A recorded holder may be requir request for verification and/or corr Minister may reject all or part of t	ligible for credit. ed to verify expenditures claimed in thi ection/clarification. If verification and/or ne assessment work submitted.	s statement of costs v correction/clarificatior	vithin 45 days of a n is not made, the
Certification verifying costs:	do hereby certify that the	amounts shown are a	as accurate as may
(please print full name) reasonably be determined and the	costs were incurred while conducting	assessment work on t	he lands indicated on

the accompanying Declaration of Work form as  $\frac{\#ecorded \ if \ older. \ agent, \ or \ state \ company \ position \ with \ signing \ authority)}{(recorded \ holder. \ agent, \ or \ state \ company \ position \ with \ signing \ authority)} \ I \ am \ authorized$ 

to make this certification.

Date March 26/2001 Signature John a. Jore

Ministry of Northern Development and Mines	Ministère du Développement du Nord et des Mines	😵 Ontario
		Geoscience Assessment Office
		933 Ramsey Lake Road
April 26, 2001		6th Floor
		Sudbury, Ontario
JOHN AUBREY GORE		P3E 6B5
31 Ruby Street		
P.O. Box 212		Telephone: (888) 415-9845
Cobalt, Ontario		Fax: (877) 670-1555
1 03-100		Visit our website at:
		www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm
Dear Sir or Madam:		Submission Number: 2.21008
,		Status
Subject: Transaction Number(	s): W0180.00156	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 lucille.jerome@ndm.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

Lucille Jerome

ORIGINAL SIGNED BY Lucille Jerome Acting Supervisor, Geoscience Assessment Office Mining Lands Section

Correspondence ID: 15893 Copy for: Assessment Library

## Work Report Assessment Results

Submission Num	nber: 2.21008				
Date Correspondence Sent: April 26, 2001		, 2001	Assessor:LUCILLE JEROME		_
Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date	
W0180.00156	1230755	SOUTH LORRAIN	Approval	April 26, 2001	
Section: 16 Drilling PDRILI	L				
<b>Correspondence</b> Resident Geologis Kirkland Lake, ON	e to: st N		<b>Recorded Hold</b> JOHN AUBRE Cobalt, Ontario	er(s) and/or Agent(s): ′GORE	
Assessment Files Sudbury, ON	Library				



There wintig its reporting characteristic construction is presented housing investors in structure of housing to be dependent and space to address exploration on the value of the dependent of the structure housing to the structure for address explore and the dependent of approximate the interview. The structure housing the structure housing to the structure for address explore and the structure housing the structure for address explore addres

General Information and Limitations

MARSESCARDSAR

nggy Ugun - Nike ga Projection: 1: Unit & dogroup Topographic Data Sekusta, Land Information, Onie in Mining (Land Jeans Boucca: Provincial Mining Recorders' Offici Like dwg at agent above recorperand facilities and end access extant focus notants, incase, segments, agil of weget dealing signs, learning or other f of departicipant of agits and information focus to be for each size or table and end and signs in the size of agits and information focus to be for each size or table and tables learning sizes that restrict an product the each size relating classification.

	NOR DREWN DE VELOPMENT AND MALES PROVINCIAL MIRING RECORDER & OFFICE	MINING LAND TENURE
	Date / Time of Issue Apr	r 26 2001 10:58h Eastern
	TOWNSHIP / AREA	PLAN
6 2 <b>32 070</b> M .	SOUTH LORRAIN	G-3448
	ADMINISTRATIVE DIS	TRICTS / DIVISIONS
a KALODURI	Mining Division	Lander Lake
	Land Titles/Registry Divisio	n TIMISKAMING
	Ministry of Natural Resource	es District NOR TH BAY
5 230 00 <b>7</b> 0	TOPOGRAPHIC	
	James and a Brandwar	Fredrikt Usert
	Texnishing	Curises and Marses Rights
5 225 000M	card area lists in the	s again an gan ding
	Sing Provide Sector Sector	на умультор
n water states	inden Bielene	Lesesindi Halard
	Control and a risk	Contage 6 mms Citity
	Сортан Арриян Ан Мадениевика	Mixing Strate Tree
5 227 000M	Ó s≥nn	Lacance at the operation
	Mark constraints	U - contrate d
	Pallovin Manufa	<ul> <li>S. Association and the physical states and the second secon</li></ul>
5 226 DUCH	e una el caso de la cas	
		_
	•──● Hydto.r*e	List (1) as 6 Amell
5 225 000M	Communication Line	Constant and Annual A
	<ul> <li>Vectored Area</li> <li>Must as end of pression of the much states decay of</li> </ul>	en e
		12 14567 Ministry Cleins
5 224 UUDAY	1	LAND TENURE WITHDRAWALS
		1224 Arces Willick own from Dispusition
		Mining Ast Withdrawal types Want Sansanson whing 8 girster to the Waster search where the statement
5 2231 0410N		With Heldy g a girts Charge V (backson) Orcher in Council With Nickson Taylors With an an annual sector sector Nacional Statistics
		MPS Carraystagess⊺reger/Meterstaten MPTT Metersgikististort,Meterstaten
e gy s namer		••••••••••••••••••••••••••••••••••••••
		anı adır. I <u>rkoru Izyana benası</u>
5 221 6084		
	LAND TENURE WITHDRAWAL	DESCRIPTIONS
	· · · · · ·	108
5 820 800M	alontifus <u>Type</u> Date Reserved 4697 Wern Jan 1 2001 SEC 3695	ATION OF ONE CHARLER OM HIGH WATER MARK TO BE NABE ON ALL PATENT
5 220 8000	Hichitos Type Date Reservat 4497 Wern Jan 2001 Sic 350 4716 Wern Jaco 12001 REServa OF CAND	AS DORIDENING ON LANCETIMES A MINULETTECTIVE FEBRUARY 13, 1920
5 220 80000 ·	Worm/Clus         Pyre         Data	AS DORDERINGION EAKE TIMBKAMINU, ETTEETIMETERRUMPI 13, 1920 . SBAIRNER SEPT 17.06 SDO 131027 ANNOVELER MIR DIA JAMAN MIR
5 890 80000 -	Biomitica         Pype         Datio	as borden inde on lake indikk andre, fille finder 43, 1928 - Semen Frisser 1926 Stori 13002 - Semen Fille Semerika 13002 - Semerika indika 132000 Hals - New Fille Semerika 13000 Fille - Semerika 111 Hals Semerika
5 220 SUCM ·	Biomitica         Pype         Data	SS BORDEN NEU ON LANCE INNEN AMNUE, ETEELEN EEN FEBRUARY 43, 1928 SBRIENE SEATUR SEPT 1976 STOL 13 TO 2 SBRIENE LEAGUE HE FROM HANN BURLECT, RICH I'S RESERVATION AF ONG DREE OF ALL LANES & RIVERS BRIENE ALL MERSER TYPO MAN COMPREHENSIVE DI ANNING COUNCIL DREEM ANNI ALBOR SEPT 17 COM MAN COMPREHENSIVE DI ANNING COUNCIL
5 270 90000 ·	Biomicia         Pype         Data	SE DO DE INICIONE CANCELIMINA MANUELETE CENTE DE DU ALVA 23, 1948 1.586 NER SEPET (PAR SEO 13102) 1.686 NER SEPET (PAR SEO 13102) 1.807 NER SER SESTEVATION AL ORG DREE DE ALLEARES & RIVERS 80 W ON 1 A 306 SEPET (PROBANAS COMPREHENSIVE DE ANNIHO COLUNCIE 1950 W 1-540, REF (PAR DE MAS A MER ANTINER DE NEED OF 1950 W 1-540, REF (PAR DE MAS AND AN MATHORA WAINDER NITE LY
5 250 900M	Biomitica         Propi         Datio	SE DO DE INICIONE CALLE INICIAL MINICIAL MINICI, ET EL EL TAL EL DEU ATRY 43, 1948 I SEMENTER SEPT 1756 ESTO 131027 INICIA EL CRIMERTER SERVICION AL ORO DRES DE ALLEARES E REVERS EN MORT 1306 ESTE 1756 MAS COMPRETENSIVE PLANNING COLLIGIE 1990 WEL-SCHAR (CRIMERT MAS AND AL OLE MED IN NEED OF FROM MY 144 E COMMA AND MEL REMAIN MATHD RAWNINDEF NITELY 20 WORT, 2005 THE FROM MAS
5 250 00000 5 210 00000 5 210 00000	Minimizian         Payne         Data	SE DO DO LINEO DE LA AL ININE A MANUEL ET LE LE MET L'EDRUARY 43, 1948 - SUBAINER SEPTIONE MAIS - SUBAINER SEPTIONE MAIS - SUBAINER SE L'ENTRONE MAIS - SUBAINER SE L'ENTRONE ALS - SUBAINER SE L'ENTRONE - SUBAINER - SUBAINER SE L'ENTRONE - SUBAINER - SUBAINER - SUBAINER - SUBAINER - SUBAINE - SUBAI
5 221 UUUM * >19 AANM 5 215 ONIM 5 217 OOOM	Biomicilia         Prope         Data	SE DOROLE INTEL ON LANEL INTEL A MANUELET LE LEMET L'ORDANY 43, 1948 ISBORNER SEPT 1996 STOLISTO? ISBORNER A AGAINE RETAINANT MAN INTEL ACTRION Y SRESERVATION ALONG ONES ON ALL LANES & RIVERS BOW ON LA 2006 SEPT 1966 MASS COMPRETENSIVE DE ANNHO COURCE BOW ON LA 2006 SEPT 1966 MASS COMPRETENSIVE DE ANNHO COURCE TOO MY THE CROWN AND WELL REMAIN WITHOR RAWN INDER MITLEY REMONE BRIEFS I MEMORIANS REMONE BRIEFS MEMORIANS
5 210 000M	Biomicia         Pyre         Data	SE DO DE LINEE ON LEASE LINESS AMALE, ET LE ET MET E DRUARY 43, 1948 I SUBAINEN SEPT 1756 SERO 13102 MERTALE, ALMEN E TAMMEN MAS MERTALE, AND ES RESERVATION AL ONG DRES OF ALL LAKES & RIVERS MEMORI 1305 REPT 1766 MAS COMPRETINISIVE PLANNING COUNCIL 1990 WEL-59-30 MER 1768 MAS AND ALL DE MED IN NEED OF FROM BY LASS AND MEL REM AN MET DRAWN INDEPINITELY 20 W.O.T. SHOP THE PROMISS MISSING AND MENTION MET DRAWN INDEPINITELY 20 W.O.T. SHOP THE PROMISS
5 21 UUUN 4 >19 DANM 5 2 19 QMM 5 2 17 COOM	Michaeline     Proper     Data	SE DO DE LINEO DE LANGE INICIA SMELO, ET LE CENE FEBRUARY 43, 1948 I SUBANTA SEPTI 76 SENO 13007 MENDAL MARIA EL FONDA MAS MENDAL MARIA EL FONDA MAS DES DE ALL LAKES BRIVERS MENDAL MARIA SERVICES MENDAL SERVICES MENDAL SERVICES MENDAL SERVICES MENDAL SERVICES MENDAL SERVICES MENDAL SERV
5 216 000M	Biomicilia         Pyre         Data	S (DORD E NUL ON LANEL INTER A MANUELT LET MET LETION FRU 13, 1948 I SUBAINEN SEPTI 1956 STOLI 13,027 INTER ALC (LAUS E TORONT MAX INTER C (LAUS E TORONT MAX UNIT AC (LAUS E TORONT ALC ON ALC ON A ONES OF ALL LAKES E TORONT ALC ON ALC ON A UNIT AC (LAUS E TORONT ALC ON ALC ON ALC ON ALC ON TORONY THE COUNT AND MAL UNIT AC (LAUS ALC ON ALC ON ALC ON ALC ON ALC ON TORONY THE COUNT AND MAL UNIT AC (LAUS ALC ON ALC ON ALC ON ALC ON ALC ON UNIT AC (LAUS ALC ON ALC ON ALC ON ALC ON ALC ON ALC ON UNIT AC (LAUS ALC ON ALC ON ALC ON ALC ON ALC ON ALC ON UNIT AC (LAUS ALC ON ALC ON ALC ON ALC ON ALC ON ALC ON UNIT AC (LAUS ALC ON ALC ON ALC ON ALC ON ALC ON ALC ON ALC ON UNIT AC (LAUS ALC ON ALC ON UNIT AC (LAUS ALC ON ALC ON UNIT AC (LAUS ALC ON ALC ON UNIT AC (LAUS ALC ON ALC O
5 218 000M	Bioinficial         Page         Data	SE DO DOLE INICIO NE LA SEL INICIA A MANUEL ET LE ET MET E DEUR A VENE SE DE SEGO I SECO 2 I SEMENTE MA SER E FORME MAS INICIA E CRUDET SE RESTRUCTURAS INICIA E CRUDET SE RESTRUCTURAS INICIA E CRUDET SE SERVERS MANUEL SAME REST TACOMA ALCONO DE SO ALL LAKES & RIVERS MANUEL SAME VENE TACOMA ALCONO INICIA E CRUDET SECONO INICIA E CRUDET SECONO AND MEL SAME MANUEL INICIA IN VALUET DE NEED OF FICONO MY THE CRUDET SECONO AND MEL SAME MANUEL INICIA IN VALUET DE NEED OF FICONO MY THE CRUDET SECONO AND MEL SAME MANUEL INICIA INICIA INICIA INICIA INICIA AND MEL SAME MANUEL INICIA INICIA INICIA INICIA INICIA AND MEL SAME MANUEL INICIA INICIA INICIA INICIA INICIA INICIA AND MEL SAME MANUEL INICIA INICIA INICIA INICIA INICIA INICIA INICIA AND MEL SAME MANUEL INICIA INICIA INICIA INICIA INICIA INICIA INICIA AND MEL SAME MANUEL INICIA INICIA INICIA INICIA INICIA INICIA INICIA INICIA AND MEL SAME MANUEL INICIA INICIA INICIA INICIA INICIA INICIA INICIA INICIA AND MEL SAME MANUEL INICIA INICIA INICIA INICIA INICIA INICIA INICIA INICIA INICIA INICIA AND MEL SAME MANUEL INICIA INICIA INICIA INICIA INICIA INICIA INICIA INICIA AND MEL SAME MANUEL INICIA INICIA AND MEL SAME MANUEL INICIA INIC
5 278 000M	Biomicilia         Propert         Data	SE DO DOLE INICIO NE LA CLETIONINA MINULE ET LE CENTRE TE DE DU ATTA 13, 1948 I SUBANTA SEPTIONO EN L'ANDRE MAS INICIA CE RIGHT E FAMINE MAS INICIA CE RIGHT E RESERVATION AL OND DREE DE ALL LANGS & RIVERS INICIA CE RIGHT SERVATION AL OND INICIA CE RIGHT E RESERVATION AL OND INICIA CE RIGHT INICIA COMPARIS DE LA COMPANIA DE COLLA CLE INICIA CE RIGHT INICIA DE LA COMPANIA DE LE DO CO FICIALITA E REGISTRA MAS ALL INICIA DE LA NAME O DE LE MILLY AU INICIA E RIGHT INICIA DE LA COMPANIA ONDE PORTE DE INICIA DE LA COMPANIA DE LA COMPANIA DE LA COMPANIA DE LE DO CO INICIA DE LA COMPANIA DE LA COMPANIA DE LA COMPANIA DE LA COMPANIA AMBANIS ANDEREM A MARTINE DE LA COMPANIA DE LA COMPANIA AMBANIS ANDEREM A MARTINE DE LA COMPANIA DE LA COMPANI
5 2211 UUUM 4 219 AANM 5 219 OWW 5 215 OWW	Minimizing     Property       44.07     Yearn       44.07     Warm       44.07     Warm       12.71     Warm       12.71     Warm       42.01     2001       12.71     Warm       43.01     2001       47.01     Xer       48.01     Warn       48.01     Warn       48.01     Warn       48.01     Warn       48.01     Xer       48.01     Warn       48.01     Warn       48.01     Warn       48.01     Xer       48.01     Warn       48.01     Xer       48.01     Warn       48.01     Xer       48.02     Xer       48.03     Xer       49.04	S DO DO LINEL ON LOAD. IN MINE A MANUELTIELE UNE TERBUARY 43, 1948 ISBRANCH & SERVICE AT 2000 M MAS INFLACE, RIGHT & RESERVATION ALONG DRES OF ALL LAKES & RIVERS MAN ON TA 300 SPET TARGONAS COMPREHENSIVE DI ANNIHO COLLICIE 1969 W 14, 400 K 470 R MOS AND WELL REMAIN VALUE DI NEED OF TOM IN THE EROYM AND WELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MELL REMAIN VALUE RAWN INDEF NIPLLY 20 W/ON I, 2005 MM // MOS MAS
5 278 000M	Minimizing     Property     Provide	AS DO DO LINED ON LANEL INTER A MANUELTIELE UNE TEDRU ANY 43, 1948 LSBRAN FRISE FOR SERVICES INTER LSBRAN FRISE RESERVATION ALCONO DORES OF ALL LANKS & RUPERS BUY ON LSBRAN FRITTAGE MASK COMPRETENSIVE DI AMBINO COLINCIE 1980 WYL LSBRAN FRITTAGE MASK AND ALCUNED IN NEED OF FORM MY THE COUVER AND MALL REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE MASK AND MALL REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE MASK AND MALL REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE MASK AND MALL REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE MASK AND MALL REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE MASK AND MALL REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE MASK AND MALK REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE MASK AND MALK REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE MASK AND MALK REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE MASK AND MALK REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE MASK AND MALK REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE MASK AND MALK REMAIN VALUE RAWN (NDEF MIDLLY 2010 WYL FRITTAGE RAWN (NDEF MIDLES)
5 2218 UNUM	Michilds     Type     Data	AS DODOLE INTO ON LAAL THINK A MANUL THE LETWERTENDUM Y 13, 1948 I SUBANTA SEPT 1966 STOLI 13007 SUBORNE A AGAIN IN TAMON MAN DREE OF ALL LAKES & RIVERS WI (VI) 1306 STPT 1760 MAS COMPRETINGTING I ANNIHO COLLACIL 1980 WILLSAM HER 1748 MAS AND MILL HIM MILLORAWIN ONDER MITLLY 20 W/ON I 366 THA MAN MOL AND MILL HIM MILLORAWIN ONDER MITLLY 20 W/ON I 366 THA MAN MAN AND AN I 366 THA MAN MAN I PROSPECTING.
5 210 0000 5 210 0000 5 210 0000 5 210 0000	Minimizing     Property     Provide	AS DODOLE HINLE ON LAAL I HINLEA MANUL IT LELTING TEDRUARY 43, 1948 I SUBANTIK SEPT 476 AS STOLES AS SUBANTIK AS AN IN FORMATIKAS INFLACE, RIGHT SECTORE MAS INFLACE, RIGHT SECTORE AS WORT 1306 SPET TAKENAS COMPARING STOP PLANNING COLLIGIE INFLAMMENT AND MALE AND MALE INTERNATION AND FET NIFLLY AN INFL EROYM AND MALE INFLAMMENT RAYMENT FET NIFLLY AN INFL EROYM AND MALE INFLAMMENT RAYMENT FET NIFLLY AN INFL EROYM AND MALE INFL INFL MALE INFO TO THE INFL Y AN INFL EROYM AND MALE INFO IN MALE INFL INFO TO THE INFL Y AN INFL EROYM AND MALE INFO INFO TO THE INFL Y AN INFL EROYM AND MALE INFO INFO TO THE INFL Y AN INFL EROYM AND INFL INFO INFO TO THE INFL Y AN INFL INFO TO THE INFO INFO INFO TO THE INFL Y AN INFL INFO TO THE INFO INFO INFO TO THE INFL Y AN INFL INFO TO THE INFO INFO INFO INFO TO THE INFL Y AN INFL INFO INFO INFO INFO INFO INFO INFO INFO
5 221 000M	Minimizing     Propert     Data	AS DODOLINING ON LAAL THINK A MANULET LELETING FEDDUARY 43, 1948 I SBORNER & SERVICE SERVICE SBORNER & SERVICE SERVICE DRES OF ALL LAKES & RIVERS BUY ON LABOR SET TAKEN AS COMPREHENSIVE DI ANNIHO COLINCIE 1969 WEL-59438 (ACH VARENS MAS ALL IN ULENDE IN NEED OF FROM THE COMM AND WELL REMAIN VARIO RAWN INDEF NIRLY 30 WON LABOR SERVICE REMAINS SERVICES SERVICE SERVICE BUY ON LEARN SERVICE SERVICES BUY ON LEARN SERVICE SERVICES BUY ON LEARN SERVICES BUY ON LEA
5 278 0404	Marchilds     Type     Data	AS DO DO LINED ON LANEL INTERNA MANUELET LE LETAEL TENDUATY 13, 1948 I SUBAINER SEPT 1760 SERO 13002 I SUBAINER SERT 1760 MAIN DORES DE ALL LAKES & RIVERS BU WORT 1306 SEPT 1760 MAIN AL OND 1980 WEL-5600 MER 1760 MAIN AL DE LE MED HEN SEU 1990 WEL-5600 MER 1760 MAIN MAIL REMAIN WELLO DA NEED OF FROM MY THE ERGYMM AND MAIL REMAIN WELLO RAWAN ONDER MIDLLY 20 WORT 13600 MM / MAIN MAIL BROWLE SKIELTHE AND MAIN PROPOSITION BROWLE SKIELTHE AND MAIN PROPOSITION BROWLE SKIELTHE AND MAIN PROPOSITION BROWLE SKIELTHE AND MAIN PROPOSITION
5 215 0000	Minimizer     Property     Provide Start 2001     -0.9866000       44.07     Weem     Jan 1.2001     REServe       47.06     Weem     Jan 1.2001     SEC 2001       1271     Weem     Jan 1.2001     SEC 2001       47.07     Weem     Jan 1.2001     SEC 2001       47.01     Weem     Jan 1.2001     SEC 2001       46.01     Weem     Jan 1.2001     SEC 2001       97.01     Weem     Jan 1.2001     SEC 300       97.01     Weem     Jan 1.2001     SE	SE DODOLI INICIO NE LA LE INICIA A MANUEL FILLE E NUEL E DIDUATY 43, 1948 I SUBAN FIL SEPT 476 A STOLI 13027 SUBOLI LA MARIA E 1760 A MAS INICIA CE (RINN E SERVE A MARIA DERE DE ALL LA KES BITTER MARIA E MARIA MARIA A MARIA MARIA E MARIA MARIA MARIA A MARIA MARIA DA MARIA E COLUCIE ISBU WEL-SUAR MER 1760 MAS INICIA E COMMAND AND AND AND AND MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA MARIA E MARIA MARIA MARIA E MARIA M
5 210 000M	Minimizer     Propert     End.	S good in had on Long times a Marcy, FILL CLAUETE DRUARY 13, 1948 I SBORNER & SEPT (Processor) SBORNER & SERT (Processor) SBORNER (STRUCK) SBORNER SERT (Processor) SBORNER (STRUCK) SBORNER (STRUCK) SBO
5 210 0000 5 210 0000 5 210 0000 5 217 0000 5 217 0000 5 218 0000	Biological Property         Page 1200         - 0 Research           4477         Weem         Jan 1 2001         REServe           278         Weem         Jan 1 2001         REServe           278         Weem         Jan 1 2001         SEC 301           278         Weem         Jan 1 2001         SEC 301           278         Weem         Jan 1 2001         SEC 301           479         Weem         Jan 1 2001         SEC 301           479         Weem         Jan 1 2001         SEC 301           481         Weem         Jan 1 2001 <t< td=""><td>SE DODOLO INICIO NE CALLE INICIA MINULE ILI LE LE LUE LE LE DU LE TEÑDUARY 43, 1948 I SEGENTE A SEPT TRA SER INTERS INICIA CLARIS E TRANSFERS INICIA CLARIS E TRANSFERS INICIA CLARIS E RUE DU LE DU LE DU LE DU LE DU LE INICIA CLARIS E RUE TRANSFERS INICIA CLARIS E RUE TRANS</td></t<>	SE DODOLO INICIO NE CALLE INICIA MINULE ILI LE LE LUE LE LE DU LE TEÑDUARY 43, 1948 I SEGENTE A SEPT TRA SER INTERS INICIA CLARIS E TRANSFERS INICIA CLARIS E TRANSFERS INICIA CLARIS E RUE DU LE DU LE DU LE DU LE DU LE INICIA CLARIS E RUE TRANSFERS INICIA CLARIS E RUE TRANS
5 278 0000	Marchilder     Type:     Data	SE DO DO LINICIO NE CALLE INITIA A MANOL ETTE LE TALE TE DE UNE TE DE DU ATTY 13, 1948 I SUBA NER SEPT 176 AS SERO 13002 BERENDAL ILARAS DE 17600A MAS. LINE ACC, RINN ES RESERVATION AL ONG DERES DE ALLE ANKES BERVERS MANON LINE ACCENTRATION AL ONG MANON LINE ACCENTRATION ALLE AND ALLE AND ALLE AND ALLE AND ALLE MANON LINE ACCENTRATION ALLE AND ALLE A
5 211 UUM 5 216 UMM 5 216 UMM 5 217 UUM 5 217 UMM 5 218 UMM 5 213 UMM 5 213 UMM	Martiniza     Proper     Data     Data     Data     Data       4477     Werm     Jan 1 2001     REServe       1271     Werm     Jan 1 2001     SEC 251       273     Werm     Jan 1 2001     SEC 252       4691     Werm     Jan 1 2001     SEC 252       4691     Werm     Jan 1 2001     SEC 252       970 rec     Werm     Jan 1 2001     SEC 252       970 rec     Martinization and 100 rec     Martinization and 100 rec       100 rec     Martinization and 100 rec     Martinization and 100 rec       101 rec     Martinization an	SE DODOLO INICIO NE CALLE INICIA A MALO, ETEL EL PUE DE TEÑDUARY 43, 1948 I SBREN FRI SEPT FRA SEN 13027 I SBREN FRI SET RESTRUMENTALS INICIA CE CHINE TERSES INICIA CE CHINE TERSES INICIA CE CHINE TRESE RASA COMPRETENSIVE DE ANNELO COLLUCIE INICIA UN AND MELT RESTRUMENTAL DE INICIA DE OC ICON TE LE COVIN AND MELL REMAIN VALIDIRAVINI MOET NIPELY INICIA CE STRUMENTALS INICIA CE STRUMENTALS INICI CE STRUMENTALS INICIA CE STRUMENTALS INICI CE STRUMENTALS INICIA



C | { | x | x | 1

_(	GEOLOGICAL LEGEND
	PROTEROZOIC
15a	Nipissing Diabase Medium grained diabase (quartz diabase) Hypersthene gabbro
13	Gowganda Formation, Firstbrook Member
12a 12b 12c 12d 12d 12d 12g 12g	Gowganda Formation, Coleman Member Arkose Feldspathic quartzite Paraconglomerate with argillite matrix Paraconglomerate with feldspathic quartzite matrix 'Greywacke' massive, siltstone-argillite 'Greywacke' (sandstone type) Orthoconglomerate
11 5 4 3 3a	Lamprophyre Mafic Intrusives Sediments Intermediate to Felsic Volcanics & Subvolcanic Intrusive Lapilli tuff
2a 2b 2c 2d 2d 2e 2f	Massive, mafic flow Mafic flow breccia Coarse-grained mafic volcanic Pillowed mafic flow Variolitic, mafic flows Shear deformed, mafic volcanic

### SYMBOLS AND ABBREVIATIONS

	carbonate vein with alteration	alt	altered
		fg	fine grained
	anomalous Co (> 100ppm)	cg	coarse grained
	in carbonate vein	qv	quartz vein
		az	azurite
	geological contact	chl	chlorite
~~~	fault	Ср	chalcopyrite
	schistosity, foliation	ер	epidote
-	bedding	gf	graphite, graphitic
	outcrop, area of outcrop	G	gossan
TIL	pit, bedrock trench	Gn	galena
·**	embankment	hem	specular hematite, hematite
	claim line, approx	mt	magnetite
	road	mal	malachite
	track, winter road	Po	pyrrhotite
	diamond drill hole	Py	pyrite
		ser	sericite



2.21008

Geology by: A.W. Beecham Date: Aug. 1999 Drawn by: A.W. Beecham

Revised: Jan. 2000 May 2000 NTS 31M/3

Fig 1



## LEGEND

### PROTEROZOIC

### 15 Nipissing Diabase

15(a) Medium grained diabase (quartz diabase)

1500 ----

-----

12
12(a)
12(b)
12(c)
12(d)
12(e)
12(g)
10/61

--------

125

### Arkose Feldspathic quartzite Paraconglomerate, argillite matrix

Gowganda Formation, Coleman Member

Paraconglomerate, feldspathic quartzite matrix 'Greywacke' massive, siltstone-argillite 'Greywacke' (sandstone type) Orthoconglomerate

### ARCHEAN

3

2

5	Mat	Sc In	tru	sin	

- 4 Sediments
  - Intermediate to Felsic Volcanics
  - Mafic Volcanics

### Symbols

4 0 0

0-1

	carbonate vein	s (dolomite and	t calcite)			
	carbonate veins with wallrock alteration					
	carbonate cem	ented breccia	dolomite and ca	alcite		
	Assays:					
-2 10	Ag ppm	Co ppm	Zn ppm			
	geological cont	tact				

~~~ fault

bedrock surface overburden surface

