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Reconnaissance Geological Mapping
J.A. Gore Property
Mining Claim 4200044

South Lorrain Township, District of Timiskaming

Larder Lake Mining Division

N.E. Ontario

NTS: 31M/3 & 31M/4;

A.W. Beecham
2nd August 2017
Revised 16th Oct. 2017

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Reconnaissance Geology, Claim 4200044, South Lorrain Twp. Scale: 1:2000 (revised 16th Oct 2017)

Introduction

Mining claim 4200044 lies immediately east of the past producing Keeley and Frontier silver mines. It is readily accessible by an all-weather road that branches from Highway 567, about 2 km south of the Lorrain-South Lorrain Township boundary and passes southward through the old silver mining area. There is an east-west branch from the north-south road which connects the Keeley-Frontier area to Highway 567 at Maidens Lake. This branch road passes through the property and provides access to within 200m of the west boundary. East of this point the branch road is now negotiable only by ATV. From Maidens Lake, the branch road is passable to within 0.5km of the east side of the claim. For this work, access was from the west.

Property Description

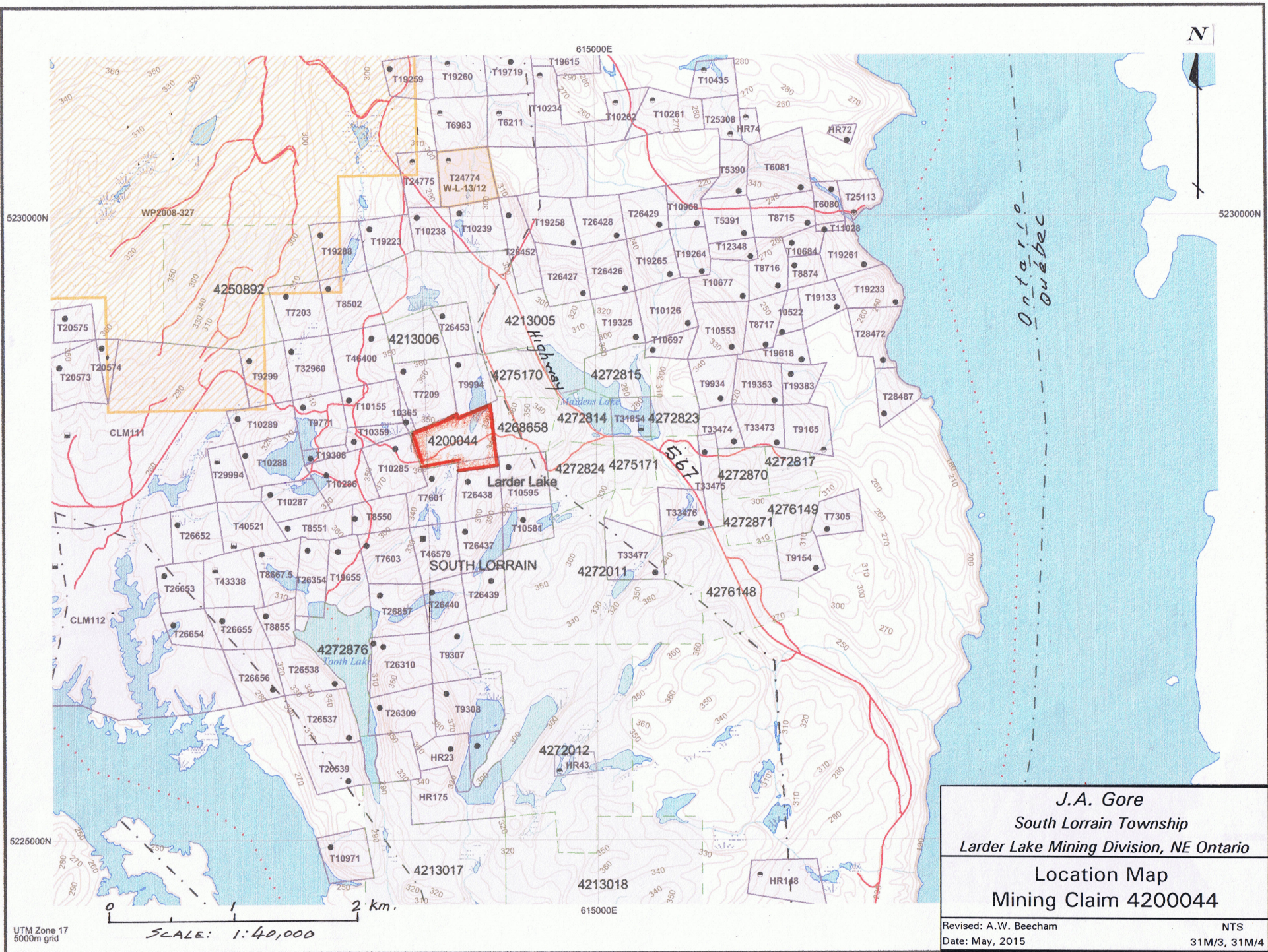
Claim 4200044 is made up more or less of the previous old 'original claims' Montrose RL459 and Williams RL 458. It is bounded on the west by the Keeley HR19 (now T10285) and on the north by the Harris HR 24 (now T7209) and on the south by the Wettlaufer HR 85 (now T7601) and claim HR 88 (now T26438). The ruins of a good deal of the Silver Centre town site and including some of the commercial buildings lie within the middle and south part of this claim. The low area in the southwest part of the claim, including the area mapped here as swamp, was known as the 'Keeley Hallow' (Fancy 1985, and person communications J.A. Gore). This area is now flooded by a beaver dam.

Regional Geology and Mineral Occurrences

Claim 4200044 lies within the small, now dormant, South Lorrain, silver-cobalt mining camp. The west boundary abuts on one of the most productive claims in the camp (the Keeley claim). In this area, the Archean basement rocks consist mainly of mafic volcanics. These are overlain unconformably by the Proterozoic Coleman, Firstbrook and Lorrain formations. These formations are made up of feldspathic quartzites, arkoses, siltstones and various conglomerates. These rocks are cut by a gently dipping 300m thick gabbro sill known as the Nipissing Diabase. The mining camp lies within a 2.5km by 2.5 km dome defined by the Proterozoic over Archean unconformity. The productive carbonate veins containing Co-Ni arsenides with native silver occur at the upper contact of a gently westward dipping (about 30°) part of the Nipissing Diabase. The veins are hosted mainly in the overlying mafic volcanics, but extend downward into the gabbro sill. Some of the ore veins are hosted entirely within the Nipissing sill as at the Wettlaufer mine.

Claim 4200044 is entirely underlain by Nipissing diabase and to date only minor mineral occurrences have been found on the claim. The Williams 64' Shaft, according to McIlwaine and Fancy, was sunk on a series of calcite veins striking 067° and some cobalt bloom in fractured wall rock. The surface veins dipped out of the vertical shaft but, a second vein at 40' depth returned an assays of 20 oz. to the ton Ag. At the 57' level, in a drift driven west encountered a little leaf silver. However, Wettlaufer Mines, who did this work, (in 1912 and 1913) judged the results to be too poor to continue further. In this survey, only some grey quartz and a little coarse grained calcite was seen. A composite sample of this vein material returned no silver or gold values. See Table I.

The Nesbitt Shaft, also according to McIlwaine was sunk on NW striking quartz-calcite veins carrying some cobalt bloom.



J.A. Gore
 South Lorrain Township
 Larder Lake Mining Division, NE Ontario

Location Map
 Mining Claim 4200044

Revised: A.W. Beecham
 Date: May, 2015

NTS
 31M/3, 31M/4

On the Montrose, 110' Shaft, Knight reports some brown weathering calcite or dolomite on the dump. Most of the muck from this shaft has now been removed (presumably for road building) and no significant veining was seen in what remains.

The muck pile from the Montrose 25' Prospect Shaft is covered with moss, obscuring the nature of the muck. No vein material was seen on the muck pile, however, a small 'stash' at the northwest corner of the shaft contains banded carbonate veins up to 10cm thick with a little pyrite in the wall rock. No significant Ag or Au values were returned from a composite sample of this material. See Table I.

Previous Work

A list of assessment files found on line and in hard copy (paper files) in the office of the Resident Geologist in Kirkland Lake is given in Appendix I. These files do not include any description of the numerous earth trenches found throughout the claim. Some of this work was likely done by the Montrose-Cobalt Syndicate and Wettlaufer mines, that undertook the shaft sinking. Other than prospect shafts which are identified separately, no deep rock pits were noted. Rock pitting would, presumably, have only been put down on carbonate veins with significance concentrations of Co-bearing minerals or native silver.

Montrose 25' Prospect Shaft (1909?) Fancy (pg. 25) reports the formation of the Montrose-Cobalt Syndicate in 1909; This organization may have provided the financing for these 2 shafts; The size of the muck pile (using a 5Ft by 7Ft shaft with 25% over-break and a S.G. of 1.75) suggests a depth up about 25m and there was possibly some lateral development done here.

Montrose 110' (south) Shaft: (1909?) Knight (pp 234) is apparently referring to this shaft when he reports the Montrose shaft to be 110 FT. (33.5m) deep; pre-dates Knight's work of 1922; This shaft is now back-filled and the exact location not obvious; apparent that muck has been removed, presumably for road building;

Nesbitt (Williams north) Shaft (1910 -1915?); Abandoned mines, site #03655, reports this shaft or rock pit to a shallow 1m by 1m excavation with a waste rock dump; (not visited by author);

Wettlaufer Mines (1912-1913); held option on the Williams claim, RL458; sank shaft to 64Ft, at the location shown on the east side of the swamp and south of the Maidens Lake road. It was sunk on a prominent calcite vein; lateral development included a 27' cross-cut at "57 ½ FT" below collar and a little drifting on carbonate veins;

Keylode Silver Mines Ltd. (c1950-52), held a land package including the Curry, Wettlaufer claims to the south and southwest of the property and including the Montrose (western) part of present claim 4200044. (Reade M.). During this time they conducted underground exploration from the Curry No. 1 shaft and surface exploration including trenching and diamond drilling. Two holes were drilled on the Montrose claim and a third a short distance to the south, probably testing the Wettlaufer fault; location of these holes shown in Fig. 2 are only crude estimates, with the only possible common point on the old maps with current maps being, the #4 post of 4200044.

Jack Brydges: 1951 to 1961: diamond drilling (?) and possibly some trenching on Montrose claim; (Kirkland Lk resid. Geol File CO-1895); Possibly drill hole casing located by J.A. Gore and 'gps'd' in, about 60m N of Montrose southern shaft.

Norbert Silver Mines Ltd. C1952

Company formed to develop and do underground development from the Harris No. 1 and No.2 Shafts and to explore the adjacent Montrose claims, but no work is reported to have been done on the Montrose claim.

C1965

A small pile of AQ sized core was noted south of the #1 post of the claim. As well, scattered pieces of core were noted on the track leading from the Williams 64 FT shaft to the Maidens Lake road. This type of wire-line drilling was used only after about 1965. No records were found to identify this work from either site.

1969

4 short drill holes put down in the southeast corner of the south part of the 'L'-shaped, Montrose claim. Core logged by Martin Oslund;

M. Leahy: 1996; Beep-matt survey of claim;

J.A. Gore: 2006-present; explored by overburden stripping, magnetic and VLF EM surveys; Magnetic surveys produce a distinctive low along the interpreted Wettlaufer fault zone;

Description of Work

This work is a reconnaissance only, and no attempt was made to locate all of the outcrop. The SE corner, for example, was not traversed at all. Two chip samples of vein material were collected. At the north 25' Montrose Prospect Shaft a composite sample of carbonate vein material, some of it banded, and with a trace of disseminated pyrite, was collected. At the Williams 64' Shaft (along the swamp marking the Wettlaufer fault zone), in the south middle part of the claim, a composite sample of mainly grey quartz vein material was collected. The results of the analyses of these samples is shown in Table I below:

Table I List of Samples & Analyses

| Sam. # | Field # | UTM East | UTM North | Description | ppb | ppm | ppm |
|--------|---------|----------|-----------|--|-----|------|-----|
| | | | | | Au | Ag | Co |
| 18263 | G-08 | 613885 | 5228110 | composite grey quartz up to 12cm, + sparse coarse grained calcite from shaft muck; no metallic minerals; | <30 | <3.4 | na |
| 18264 | G-11 | 613744 | 5228294 | composite muck sample from small 'stash' at NW corner of shaft: carbonate veins, some banded, tr Py in selvages; | <30 | <3.4 | na |

na=not analyzed

An attempt was made to locate all the significant prospect shafts. The shaft recorded by Fancy in the south part just east of the centre line of the Williams RL458 was not located. This is possibly the shaft reported in the Abandoned Mines Site #03655 and referred to as the "Coo Mine". The Amis site was inadvertently overlooked in the search for this shaft. Old earth trenches were not mapped in but the general location just identified by the letters "TR". As well old building sites and areas with artifacts of the old mining era were simply marked with an "H".

A fairly thorough search of MNDM work assessment files, both on line and in the Kirkland Lake office was made, and, as noted above, relevant files are listed in Appendix I. It is likely that more assessment files exist, possibly grouped with adjacent and nearby claims and overlooked in this search. The files of rolled maps in the MNDM Kirkland Lake office were not searched.

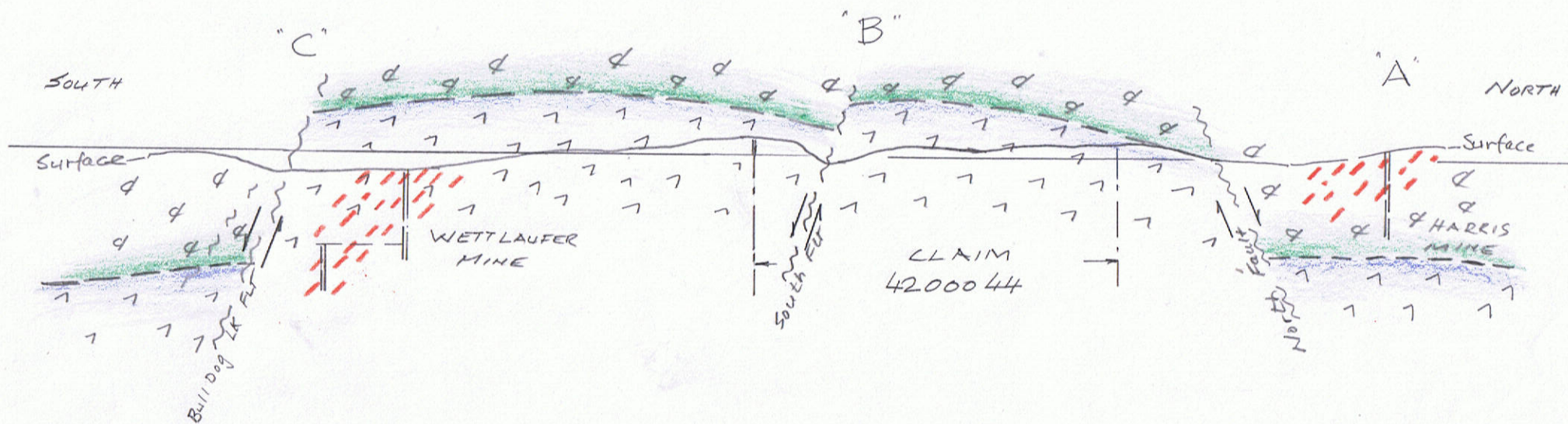
Property Geology

As noted above, the claim is entirely underlain by the Nipissing gabbro sill. Two types were mapped out separately. The prominent, high, outcrop areas in the NW, west and southwest area are formed from typical varied textured, very coarse grained gabbro. These rocks are non-magnetic when tested with a hand magnet. The remainder of the property is underlain by uniform, medium to relatively fine-grained 'diabasic'-textured gabbro. Most of this gabbro is moderately magnetic. Neither rocks are penetratively deformed. The actual contact between these 2 types was not seen, but simply interpreted from outcrop distribution. Due to the gentle westward dip of the Nipissing sill here, the location of the contact around the swampy area is considerably influenced by the topography and the location is uncertain.

Little or no metallic mineralization was noted in either types of gabbro. A little disseminated pyrite was recorded here and there. Apart from the shaft muck, no significant veining, either carbonate or quartz was noted.

Structural Geology

There is likely some doming of the Nipissing sheet, as shown on this claim by the trace of the internal contact in the gabbro in the west part of the property. However, there are strong linear valleys that suggest some of this, so-called doming, is due to generally east trending faults. Just north of the property and south of the Harris mine, there is a fairly prominent 070° trending depression, which coincides with a 200m, right hand offset of the Nipissing-Archean contact. This is interpreted by the author as being due, at least in part due to a fault. Assuming that most of the movement is dip-slip, this indicates that the south block of this fault moved up significantly. See Cross Section Sketch, Fig. 2. If the movement was later than the mineralization, then any possible extension of the Harris No. 2 vein 'structure' south of this fault would expose a lower part of that vein, which would probably contain quite different mineralization or perhaps no mineralization. This provides an explanation of why the Harris vein has not been found to extend southward onto claim 4200044. Similarly, a 070° trending fault (the 'south fault') with a 100m left-hand offset of the Nipissing-Archean contact is apparent just north of the SW corner of the claim. This suggests that the south block of this fault dropped down, relative to the



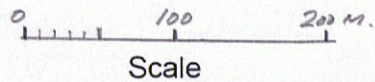
Legend



Nipissing 'Diabase'

Archean Mafic Volcanics

Co-Ag Carbonate Vein
and Vein 'Structure'



VERTICAL N-S SECTION
Across West Part Cl. 4200044
from Harris to Wettlaufer mine

Fig. 2

central block. (The fault scarp remaining is in the opposite direction with the high side on the south. The scarp, however, probably results from differential weathering and does not indicate the direction of movement.) Hence, any NE trending extensions of the Wettlaufer veins, would also be elevated relative to the veins at the Wettlaufer shaft. Some distance south of the property and south of the Wettlaufer mine, there is a more prominent fault of this same set, known as the Bull Dog Lake fault. Here the horizontal off-set of the Nipissing-Archean contact is about 500m. (As noted in Regional Geology, these faults appear to be part of the domal structure with which the Silver Centre silver and cobalt deposits are associated. This domal structure is best outlined by the outward-dipping Huronian-Archean contact, which at Silver Centre outlines a structure 2.5 km in diameter within which all the important Ag-Co deposits lie. Belousov's (1960) modelling suggests that 1 or 2 sets of normal faults would be associated this type of doming.

The Wettlaufer Fault is marked by a linear magnetic low some 50 to 60m wide. Significant alteration with the destruction of magnetite must have occurred within this corridor. Hence, detailed magnetics could provide a useful tool in searching for other, similar corridors of deformation.

Discussion and Recommendations

There is considerable low ground along the NE trending valley marking the Wettlaufer Fault. Surface prospecting would not have been effective here and there remains good potential for more veins hosted in Nipissing gabbro. This corridor deserves a high priority in further exploration. As a first pass, it is recommended that B-horizon soil geochemistry be used to search for possible mineralized till streaks, particularly for those that might be emanating from veins along the Wettlaufer fault zone. East-west sample lines with small sample separation, would be most effective. Whether or not any soil anomalies are found, some drill testing of the Wettlaufer structure is recommended. Soil geochemistry is also recommended to test other areas of little or no outcrop such as the swampy area north of the road on the west part of the claim. Some detailed magnetics should be considered, possibly using east-west lines. The aim would be to map other deformation zones such as the work by Gore has done along the Wettlaufer fault zone.

The productive veins of the silver-cobalt camps such as South Lorrain, Casey-Harris and Gowganda, lie within very small areas. This claim lies very close to the known productive area of the South Lorrain camp and as such it warrants careful exploration.



A.W. Beecham

2nd August 2017

Revised 16th Oct. 2017

References

Belousov, V.V. (1960) Tectonophysical investigations, Bull. Geol. Soc. Amer. 71, pp. 1255-1270.

Fancy, P. F. (1985)

Silver Centre (the story of an Ontario mining camp) 145 pages; published by Highway Book Shop, Cobalt, Ontario P0J 1C0;

Field D.J. (1954; compiled by) Sixty-Second Annual Report of the ODM., vol. LXII, Part 2, 1953, pp 114;

Knight Cyril W. et al (1924) The Geology of the Mine Workings of Cobalt and South Lorrain Silver Areas; vol. XXXI, Part II 1922, 31st Annual Rep. Ontario Department of Mines

McIlwaine, W.H. (1970)

Geological Report 83, Geology of South Lorrain Township, Ontario Dept. of Mines & Northern Affairs; Incl. Map 2194, S Lorrain Tp. Dist. Timisk.; Scale 1 in to ½ mile;

Reade M. (1953, compiled by) Sixty-First Annual Report of the O.D.M., vol. LXI, Part 2, 1952, pp. 100;

Appendix I

List of Assessment Files on and adjacent to Claim 4200044

Appendix II

Statement of Qualifications and Experience

This is to state that I, Arthur W. Beecham, resident of Haileybury, Ontario, hold a Bachelor of Science Degree (1962) in Geology from Carleton University, Ottawa and a Master of Science Degree in Geology (1969) from Queen's University, Kingston, Ontario.

I have worked as an Exploration and Mining Geologist continuously from graduation until the present. This includes work in Saskatchewan, NWT, Manitoba, Ontario, Quebec, Nfld, Botswana (southern Africa) and Uganda (East Africa). In this work I have been involved in exploration for sediment hosted Cu-Co deposits, pitchblende vein type uranium deposits, Archean VMS and gold deposits, tungsten-bearing skarns, Cu-Ni deposits and Ag-Co-carbonate vein deposits of Cobalt. I have also worked on development projects for gold deposits. My experience in the Cobalt camp includes surface and underground exploration for silver-cobalt and base metal VMS deposits with subsidiaries of St. Joe Minerals, between 1975 and 1986.

I have first-hand knowledge of the property from 4 1/2 days field work in July, 2017.

I have no direct or indirect interest in the property.

Haileybury, Ontario

27th July 2017



A.W. Beecham, B.Sc., M.Sc.

Appendix III

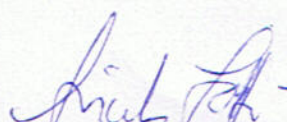
Analyses Certificate


Certificate of Analysis

A.W. Beecham Geological Services

We certify that the assay results in the following
Certificate are factual and true.

Certificate # 23275

Certified by: 
Assayer

Certified by: 
President/Manager

Date: July 31, 2017

Disclaimer: The results included on this report relate only to the items tested.
The Certificate of Analysis should not be reproduced except in
full, without the written approval of the laboratory.

PolyMet Laboratories

CERTIFICATE: 23275

Client: A.W. Beecham
Geological Services

Date of Issue: July 31, 2017

Job #: 0-206
Shipment Date: July 20, 2017

| Sample # | Au Oz/ton | Au g/tonne | Ag Oz/ton | Ag g/tonne |
|----------|--------------|---------------|--------------|---------------|
| 18261 | <.001 | <.03 | <.10 | <3.4 |
| 18262 | <.001 | <.03 | <.10 | <3.4 |
| 18263 | <.001 | <.03 | <.10 | <3.4 |
| 18264 | <.001 | <.03 | <.10 | <3.4 |

Std OxK 119
Blank

0.106 3.63
<.001 <.03

4 Mucks

Assayer: _____

Arish J. Lee

Appendix IV

Daily Log of Work, Rocks & Mineralization Observed

Daily Log Prospecting/Mapping Claim 4200044, South Lorrain Twp.

Abbreviations: Py = pyrite
 qv =quartz vein
 ca=carbonate vein
 Db= diabase

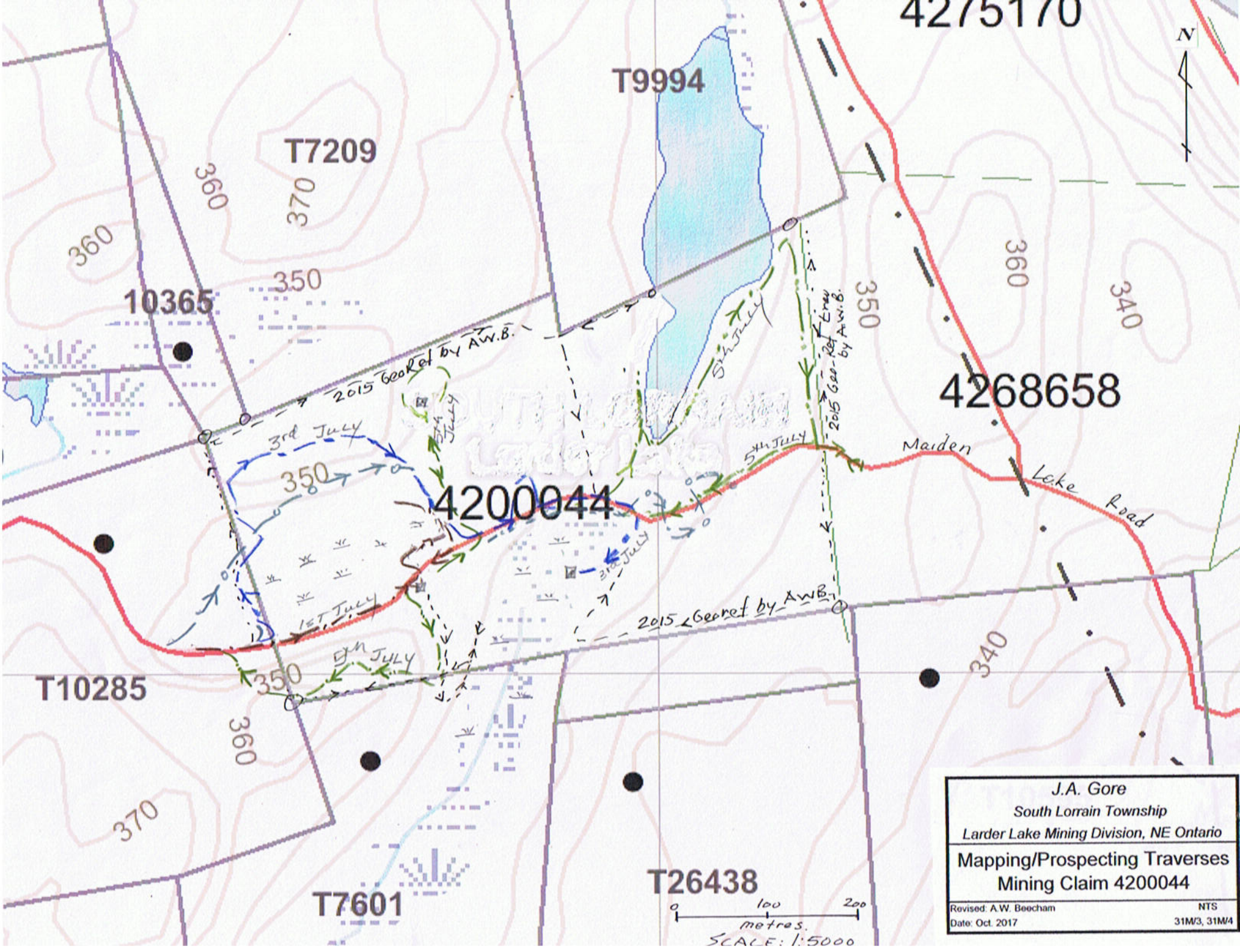
mg. =medium grained
 sh.=shaft

| Date | Description of Work | Work By | Time, | Rock types | Mineralization & veins |
|---------------|---|-----------------------------------|--------------|---|------------------------------------|
| 03-May-17 | Search for & locate N. shaft, check conditions of access roads | J.A. Gore and K. Gore | 1/2 day each | | |
| 06-Jun-17 | Review relevant, on-line assessment files | A.W. Beecham | 1/2 day | | |
| 09-Jun-17 | Review relevant, assessment files in Kirkland Lk | A.W. Beecham | 1/2 day | | |
| 01-Jul-17 | Map/prospect along old E-W road thru cl; Montrose sh, E. and NE side swamp('Keely Hollow') | A.W. Beecham | 1/2 day | Nipissing Db, 2 types | none |
| 03-Jul-17 | Map/prospect NW part cl., along road in centre of cl. & 64 shaft area, sample shaft 'muck'; recognize apparent topographic fault feature along N. boundary of claim which seems to fault-of Harris vein-structure from the N. | A.W. Beecham | 3/4 day | Non-magnetic varied textured Db on hill tops, magnetic mg Db on lower areas | barren qv, no metallic minerals; |
| 05/07/2017 AM | Map/prospect; dh casing 75m NNW of Montrose Sh, Montrose prospect sh (N, middle part claim); o/c on Lk shore NE part Cl. | A.W. Beecham & K. Gore (as guide) | 1/2 day each | mg diabase; | ca at Montrose N. sh with minor Py |
| 05/07/2017 PM | Map/prospect lake shore NE corner claim, E claim boundary; E part access road; o/c area in SE part claim; map in E-W fault scarp in SW corner of claim; | A.W. Beecham | 1/2 day | magnetic mg Db and non-magnetic varied textured Db | none |
| 10-Jul-17 | In 'office'; plotting | A.W. Beecham | 1/4 day | | |
| 11-Jul-17 | map/prospect o/c area, W. boundary, slope N of swamp, west part claim; map in part of townsite ruins in E part claim in order to locate Nesbitt Sh (not located); | A.W. Beecham | 3/4 day | magnetic mg Db and non-magnetic varied textured Db | none |
| 12-Jul-17 | Office; map drawing, put topograph on map from Google Earth; | A.W. Beecham | 1/2 day | | |
| 19-Jul-17 | Office: Map prep. Legend, title block | A.W. Beecham | 1/2 day | | |
| 26-Jul-17 | Office: Report writing, drawings scanned | A.W. Beecham | 1/2 day | | |
| 27-Jul-17 | Finalize geology/prospecting map, put on CD | A.W. Beecham | - | | |

Appendix V.

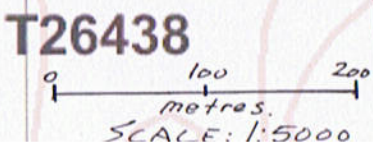
Claim Map with Work Traverse

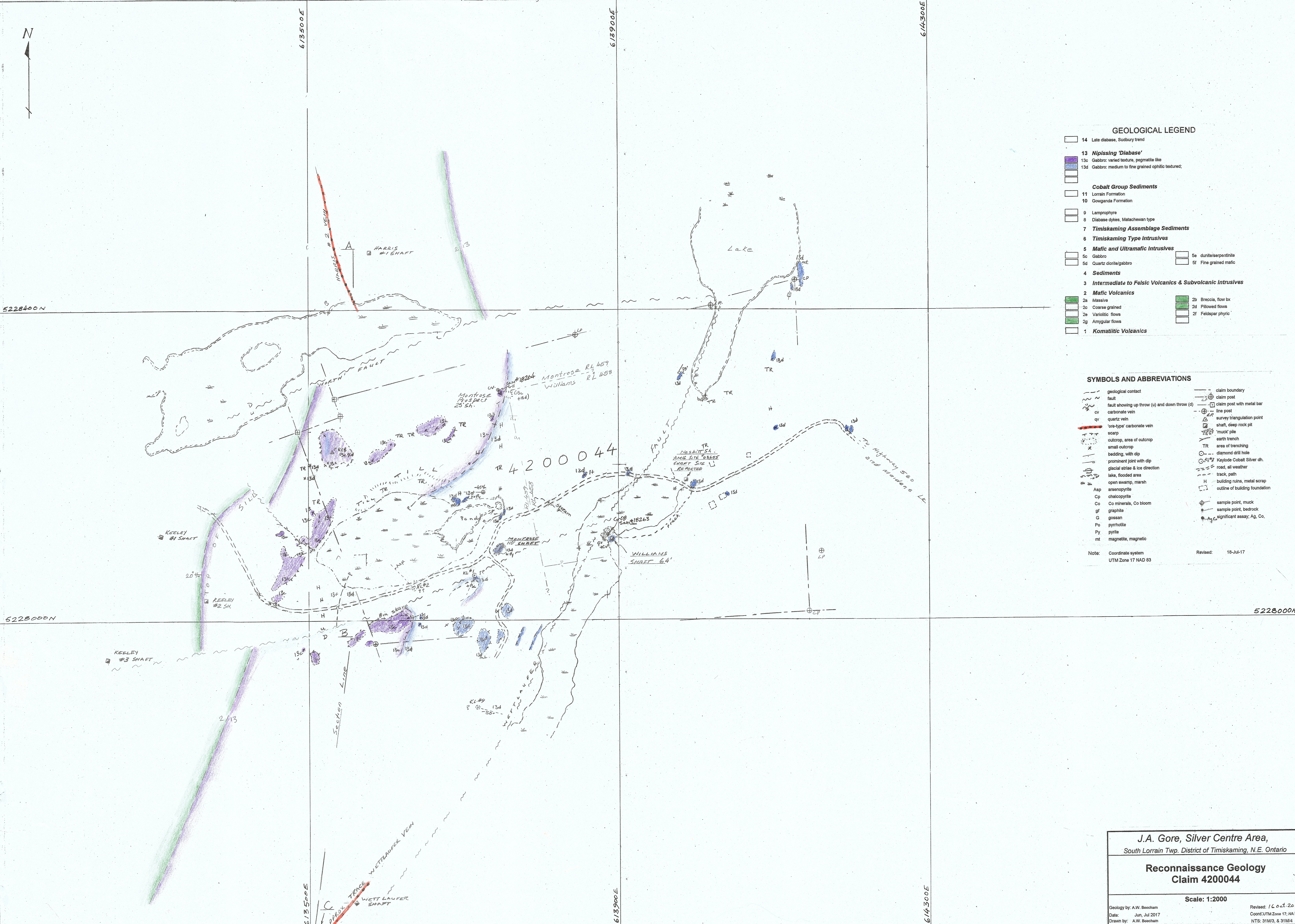
Scale: 1:5000



4200044

| | |
|---|--------------|
| J.A. Gore | |
| South Lorrain Township | |
| Larder Lake Mining Division, NE Ontario | |
| Mapping/Prospecting Traverses | |
| Mining Claim 4200044 | |
| Revised: A.W. Beecham | NTS |
| Date: Oct. 2017 | 31M/3, 31M/4 |





GEOLOGICAL LEGEND

| | | | |
|--|---|----|--------------------|
| 14 | Late diabase, Sudbury trend | | |
| 13 Nipissing 'Diabase' | | | |
| 13c | Gabbro: varied texture, pegmatite like | | |
| 13d | Gabbro: medium to fine grained ophitic textured | | |
| Cobalt Group Sediments | | | |
| 11 | Lorrain Formation | | |
| 10 | Gowganda Formation | | |
| 9 | Lamprophyre | | |
| 8 | Diabase dykes, Matachewan type | | |
| 7 Timiskaming Assemblage Sediments | | | |
| 6 Timiskaming Type Intrusives | | | |
| 5 Mafic and Ultramafic Intrusives | | | |
| 5c | Gabbro | 5e | dunite/serpentine |
| 5d | Quartz diorite/gabbro | 5f | Fine grained mafic |
| 4 Sediments | | | |
| 3 Intermediate to Felsic Volcanics & Subvolcanic Intrusives | | | |
| 2 Mafic Volcanics | | | |
| 2a | Massive | 2b | Breccia, flow bx |
| 2c | Coarse grained | 2d | Pillow flows |
| 2e | Variolitic flows | 2f | Feldspar phytic |
| 2g | Amygdalar flows | | |
| 1 Komatiitic Volcanics | | | |

SYMBOLS AND ABBREVIATIONS

| | | | |
|--|---|--|--------------------------------|
| | geological contact | | claim boundary |
| | fault | | claim post |
| | fault showing up throw (u) and down throw (d) | | claim post with metal bar |
| | carbonate vein | | line post |
| | quartz vein | | survey triangulation point |
| | 'ore-type' carbonate vein | | shaft, deep rock pit |
| | scarp | | muck pile |
| | outcrop, area of outcrop | | earth trench |
| | small outcrop | | area of trenching |
| | bedding, with dip | | diamond drill hole |
| | prominent joint with dip | | Keyode Cobalt Silver dh. |
| | glacial striae & ice direction | | road, all weather |
| | lake, flooded area | | track, path |
| | open swamp, marsh | | building ruins, metal scrap |
| | Asp arsenopyrite | | outline of building foundation |
| | Cp chalcocopyrite | | sample point, muck |
| | Co Co minerals, Co bloom | | sample point, bedrock |
| | Gf graphite | | significant assay: Ag, Co. |
| | G gossan | | |
| | Po pyrrhotite | | |
| | Py pyrite | | |
| | mt magnetite, magnetic | | |

Note: Coordinate system UTM Zone 17 NAD 83
 Revised: 18-Jul-17

J.A. Gore, Silver Centre Area,
 South Lorrain Twp. District of Timiskaming, N.E. Ontario

Reconnaissance Geology
Claim 4200044

Scale: 1:2000

| | |
|--------------------------|----------------------------|
| Geology by: A.W. Beecham | Revised: 16 Oct 2017 |
| Date: Jun, Jul 2017 | Coord: UTM Zone 17; NAD 83 |
| Drawn by: A.W. Beecham | NTS: 31M3, & 31M4 |