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Additional Assaying Mataris Lake Showing Area

Connaught Township
NW. Shining Tree Area
District of Sudbury, NE Ontario

NTS 41P/11

A.W. Beecham
27th Nov. 2017

Table of Contents

List of Illustrations

Tables

Appendix 1 Analyses report

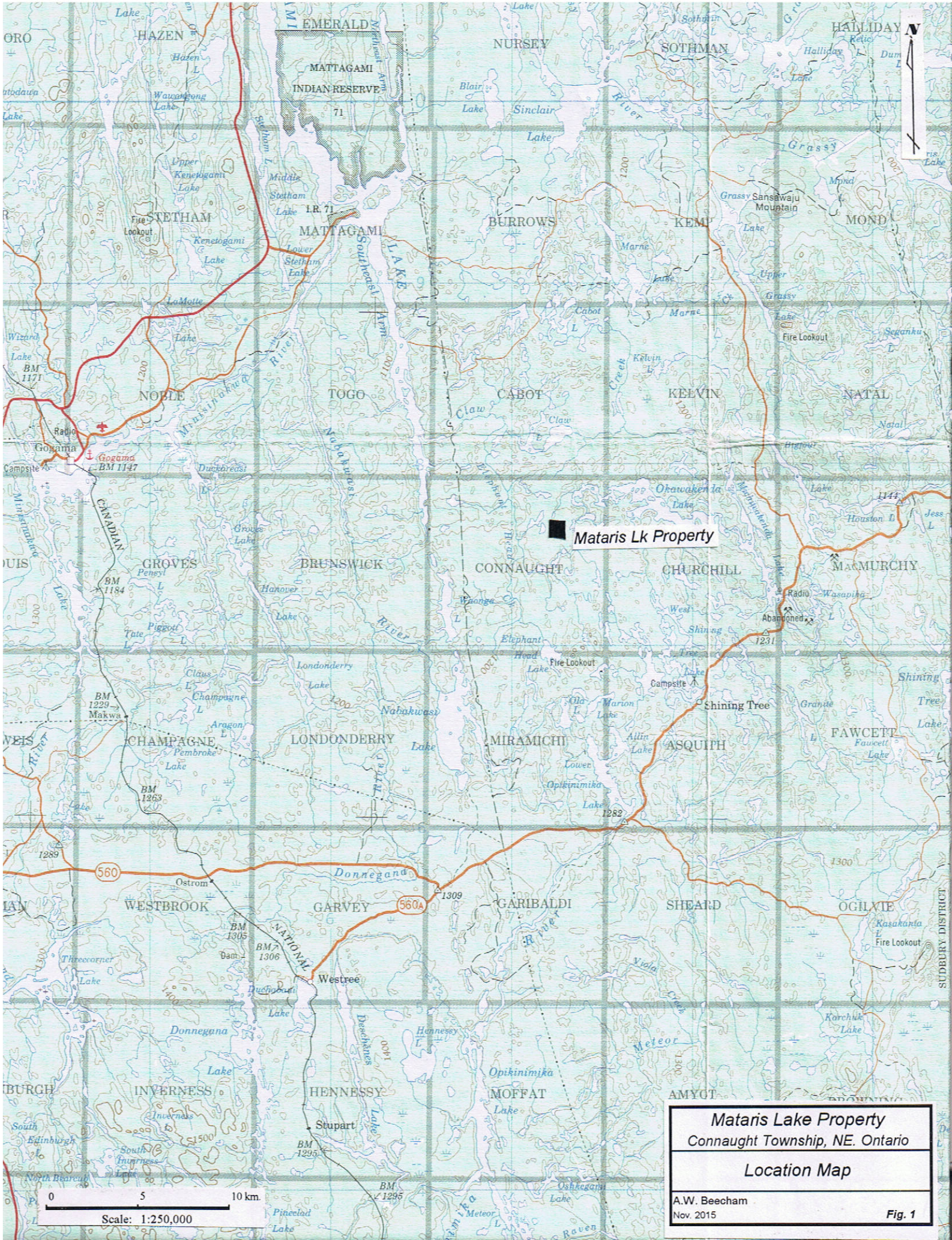
INTRODUCTION

The property is located 130 km NNW of Sudbury, 90 km south of Timmins and 115km WSW of Kirkland Lake in the west Shining Tree area. It is presently accessible from Highway 560 by a 16 km. water route, through Michiwakenda and Okawakenda Lakes, with one portage between the two lakes. The Mataris showings lie 1.4 km south of the western end of Okawakenda Lake.

The 9-unit claim covers the Mataris copper-zinc showing with significant concentrations of pyrite, chalcopyrite and sphalerite. Chlorite alteration is present with the sulphide mineralization. The mineralization is hosted in what visually are described as felsic to intermediate volcanic rocks.

Regional geology is shown by Ayer et al, 2003 in the Ontario Geological Survey map P.3527, Geological Compilation of the Matachewan Area, Abitibi Greenstone Belt. The Archean volcanics in this area pinch out to the west between the large Kinogamissi granitic batholith (8 km.) to the northwest and the Miramichi 'granitic' batholith (3 km) to the southwest. The compilation by Ayer et al (2003) suggests that the volcanics on the property belong to the Pacaud Assemblage, with the nearest age date, in NW Fawcett Township being 2741 Ma +/-10Ma. The lastest description of the local and immediately surrounding geology is by Johns (1999, Map P.3420). He shows the area to be mainly underlain by 110° trending Archean volcanics. Johns shows most of the volcanics to be mafic types with a band of felsic volcanics lying south of the property. NNW trending occurrences of Proterozoic Gowganda Formation overlies small areas of the Archean rocks west of the property. The Gowganda Formation is accompanied by a sheet of Nipissing Gabbro. To the north, an east-west-trending belt of Temiskaming-type clastic sediments truncates the mafic/felsic volcanics. These sediments are recognized as marking the deformation zone known in the Swayze belt to the west as the Ridout Fault or 'break' with which significant gold mineralization is associated. To the east, this deformation zone is thought to correlate with the Tyrrell Shear with which gold mineralization is also associated. A number of north to north-northwest, Matachawan swarm diabase dykes cut the Archean rocks.

The west boundary of the claims lies close to the Arctic-Atlantic water shed with the area to west draining to the Matagami River and James Bay and that to east draining to the Montreal River and St. Lawrence basin. Local relief is only about 15m with slightly higher relief coincident with Proterozoic rocks to the west. Most of the claims are covered with mature, deciduous and mixed forest. Lesser areas of coniferous forest occupies lower parts of the property. Although overburden seems to be relatively thin, exposure is sparse in the main showing area, with most of the exposures due to pitting and trenching. Mineralization appears to be exposed only in the pits and trenches.



Mataris Lake Property

Connaught Township, NE. Ontario

Location Map

A.W. Beecham
Nov. 2015

Fig. 1

Ontario

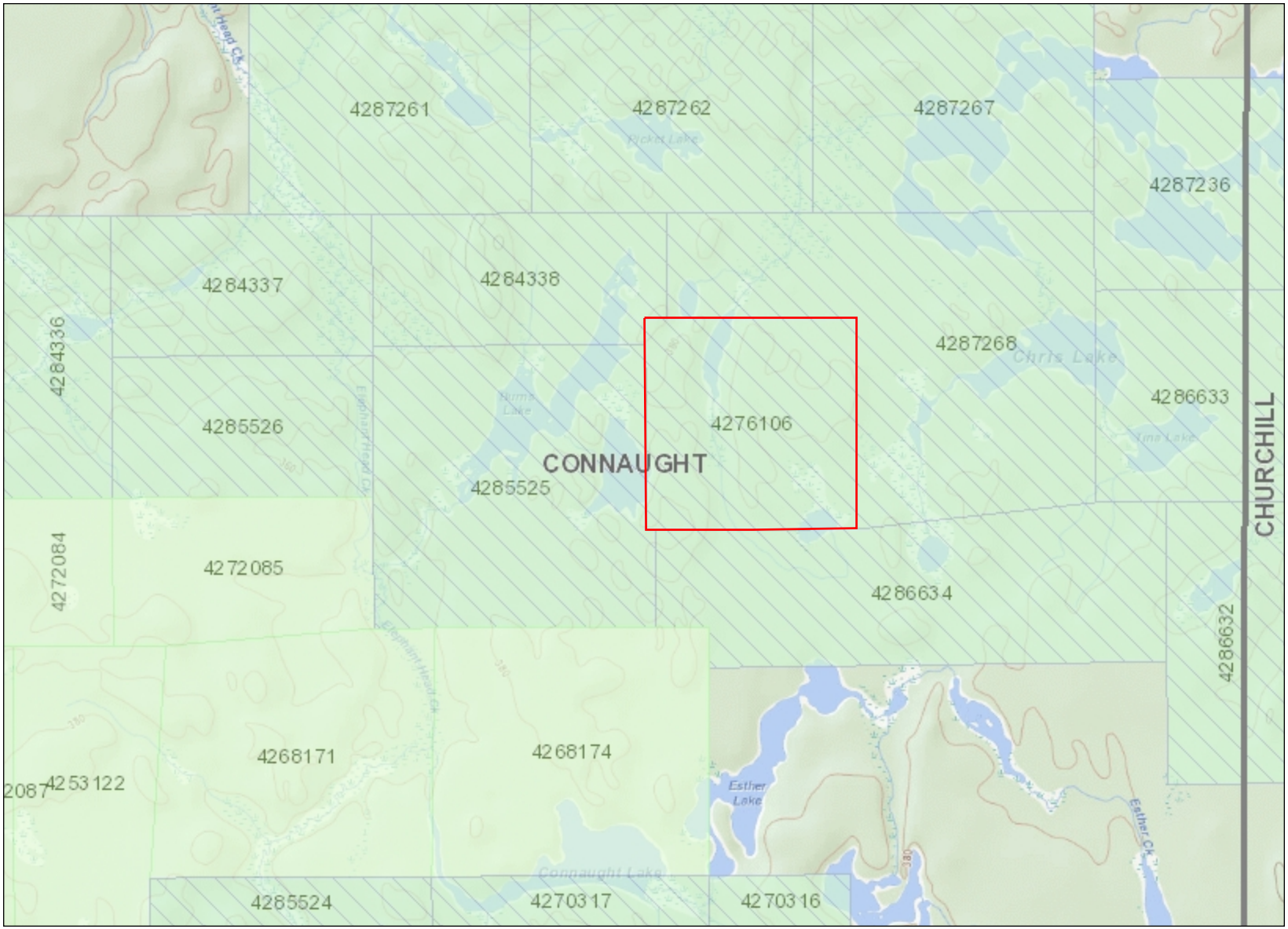
MINISTRY OF NORTHERN DEVELOPMENT AND MINES

CLAIMaps

Mataris Lake Property, Claim Map Fig. 2

Notes:

Enter map notes



Legend

Administration Boundaries
- Mining Divisions
- Resident Geologist District
- Townships and Areas
- UTM Grid
- Geographic Lot Fabric
- Other Federal Land

Mineral Tenure Grid
- OMTG Tenure Grid

Alienations
- Withdrawal
- Notice

Unpatented Claim
- Active
- Reconciled
- Pending

Disposition
- Disposition

Disposition Symbols
- Camp
- Disposition Unknown/Pending
- Freehold Patent Mining Rights Only
- Freehold Patent Surface Rights Only
- Freehold Patent Surface and Mining Rights
- Land Use Permit
- Leasehold Patent Mining Rights Only
- Leasehold Patent Surface Rights Only
- Leasehold Patent Surface and Mining Rights
- License of Occupation Mining Use Only
- License of Occupation Surface Use Only
- License of Occupation Surface and Mining Rights
- License of Occupation Uses Not Specified
- Order in Council
- Tower
- WPLA

Geology Layers
- AMIS Sites
- AMIS Features
- Drill Holes
- Mineral Occurrences

0 1.71 km

Projection: Web Mercator

N

PROPERTY DESCRIPTION

Claim #	Units	Due Date	Recorded Claimholder
4276106	9	27 June2018	A.W. Beecham Client #106450 P.O. Box 867, Haileybury, ON P0J 1K0 Tel: 705 672 5023

PREVIOUS WORK

1913, 1916; John Mataris: Showings discovered and several pits (excavations from bedrock) put down (according to Laird, 1934); As there are few natural exposures in the showing area, it is not known how the original discoveries were made. No records of this work found in assessment files.

1927; Noah Timmins; 200 FT diamond drill hole reported by Liard H.C. 1934; no record found in assessment files;

1956: Banks; Drilled 11 short vertical and two, 60° holes on Mataris showings; No assays found in assessment files and drill hole plan missing from Kirkland Lake files;

1957; Bardyke M.L.; Drilled 9 holes on Mataris Showing; Reported significant Cu mineralization as follows:

DH. B-2: 0.35%Cu/14.3m
1.21%Cu/5.18m
DH. B-4: 1.19%Cu/2.44m

Drill sections at 040° to 060°, with earlier holes drilled toward SW and later holes toward NE; Presumably they interpreted the mineralization to dip SW.

1965: Monarch G.M. L.; 2 diamond drill holes tested an apparent east-west, vertical loop EM conductor, at estimated locations of about 50 and 275m east of the showings;

1972, 1973; Coniston Expl: 9 drill holes that tested EM-16 (VLF EM) conductors; The EM data were interpreted as marking east-west conductors some of which coincided with the Mataris mineralization and holes were drilled from N to S; According to author's compilation, holes were drilled over and to the E and W of the Mataris mineralization; No assays are recorded but numerous zones of pyrite +/- chalcopyrite mineralization are reported. Interpretation of these zones is uncertain; their apparent mineralization model had an E-W trend;

1976, 1977; Texas Gulf Canada: Horizontal loop EM and Magnetics over an area including Mataris showing; no HLEM conductors found; Mataris sulphides not conductive; A 1.5km N-S by 4 km E-W rectangle, picket line grid over and extending 1 km west and 3 km east of the Mataris showing was explored. Geophysics and geological mapping at 1:2400 by D. Mullen was done on N-S picket lines; Mataris mineralization was chip sampled; Some of better averages are as follows:

0.67%Cu; 1.20%Zn/7.62m
1.75%Cu; 1.12%Zn/3.05m
1.28%Cu; 0.02%Zn/3.05m

Detailed geological mapping by Mullen, provided a geological model with 170° trending volcanic stratigraphy, but with uncertain dip;

1988; Asquith Resources: magnetic survey over large block including the Mataris showings;

1992, 1993; Noranda Exploration: covered Mataris showing area and area to NE with IP surveys; Tested an IP chargeability anomaly coincident with Mataris showing with 4 drill holes, 2 drilled from east to west appear to have been drilled 'down-dip'; Two holes drilled from west to east intersected significant pyrite and copper mineralization; Correlating this mineralization with the surface chargeability anomaly indicates a 40° west dip or plunge to the sulphide mineralization;

2008: Slocan Minerals (Lang Group); 100m-spaced, 045° flight lines, magnetic and VTEM survey over area from Elephant Head Lake in the south to Claw Lake in the north, including the Mataris showing area. The Mataris showing did not show up as conductors in this survey;

2015: A.W. Beecham: Re-located old pits and did lithochemical survey, based on 14 samples for major elements and multi-element analyses; No gold analyses were done.

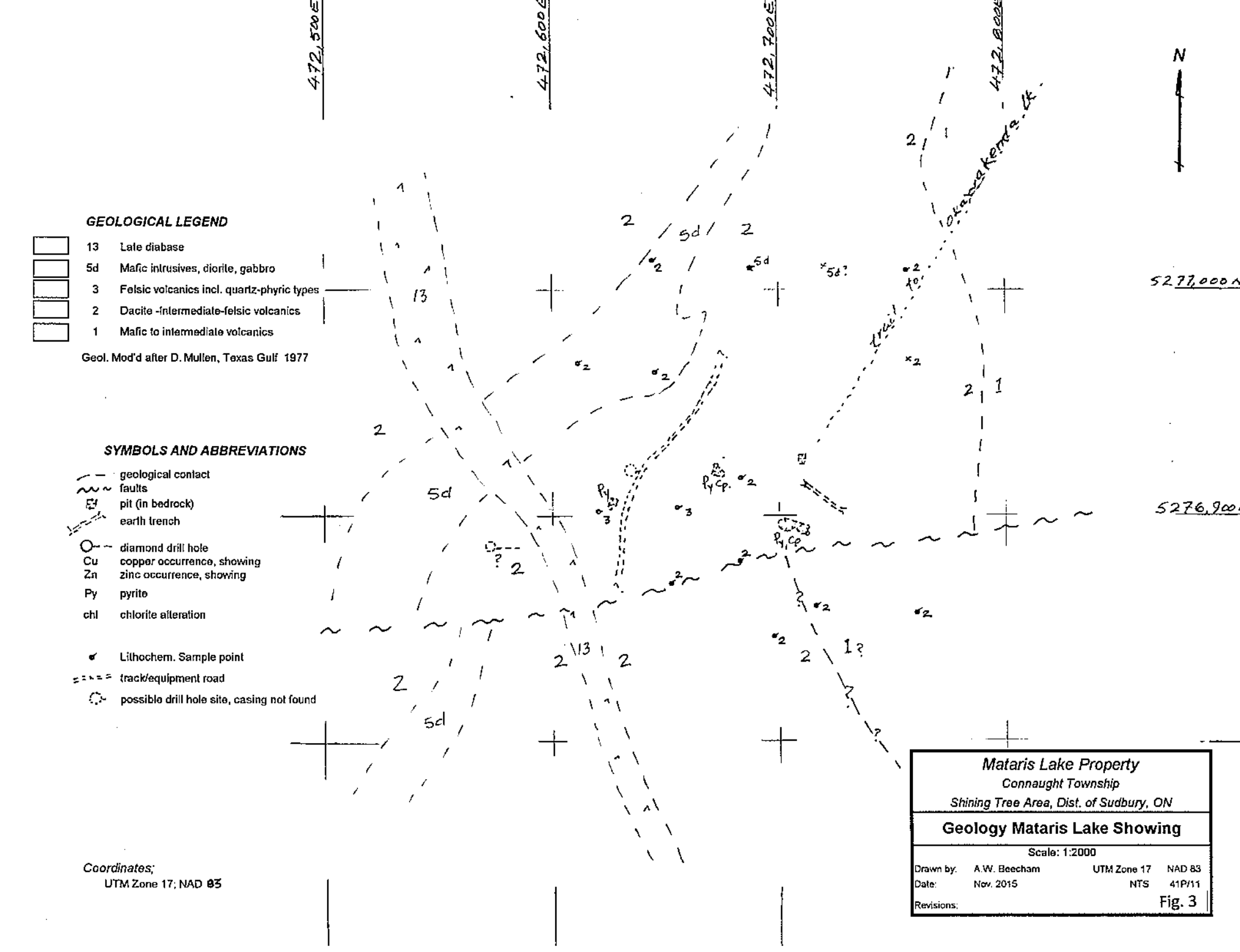
PROPERTY GEOLOGY AND MINERAL DEPOSITS

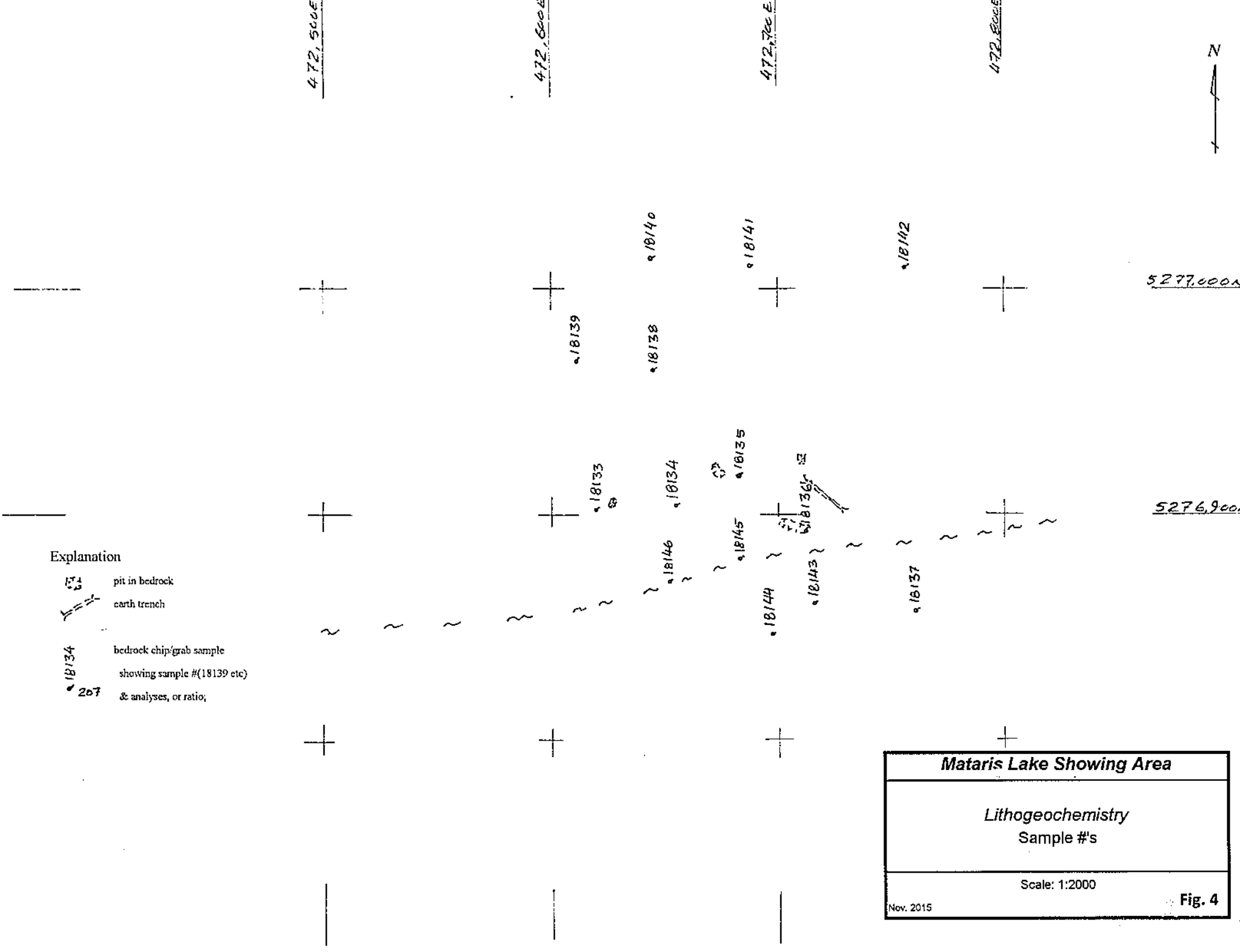
The geology of the property is well described by Mullen (1977). This includes a map at 1:2400 covering the existing property and a large area to the east. Mullen's geological 'picture', based on detailed outcrop observation, contrasts sharply with the Ontario Geological Survey by Johns. Mullen shows a north to NNW trending sequence of mafic-intermediate-felsic volcanics with a number of gabbro intrusives, folded about a NNW axis and cut off to the north by younger Temiskaming-type rocks.

The Mataris showings, consist of disseminations and veinlets of pyrite, chalcopyrite and sphalerite with fairly extensive chlorite alteration. The best sulphide and base metal concentrations are within a broad E-W trending band more or less at right angle to the strike the lithology as interpreted by Mullen. Extensive sulphide mineralization is reported in drill holes by Bardyke Mines, Coniston Exploration and Noranda Exploration. Significant copper and zinc values are present, as noted above (Previous Work). The mineralization appears to die out gradually to the north, but to the south it may be terminated by an E-NE fault. In detail, there is poor correlation of mineralization between the older drill holes. However, correlating mineralization in Noranda holes #4 and #5, with the IP chargeability and the surface showings is reasonably good and suggests a 50m+/- thick, 40° west dipping tabular zone of discontinuous mineralization. The sulphide concentrations in the Bardyke and Conisil holes seem to fit roughly into this zone. Whether the mineralization is conformable or cross-cutting the volcanic units is unclear. However, correlating the lithology in the Noranda drill holes with the Texas Gulf's surface geology fits reasonably well with a western dip for the lithology. The mineralization is has not been related to any definite lithological contact.

DESCRIPTION OF WORK

Gold values were not determined on in the 2015 lithogeochemical survey. As even small amounts of gold in a base metal deposits can significantly affect the economics of the deposit, it was decided to analyze some of the coarse rejects kept from the 2015 sampling. On 27th Sept. 2017, nine of these rejects were submitted to Polymet Labs in Cobalt, ON, for fire assay for gold. Analyses were received 6th November 2017. The results are shown in Table I below and assay certificates are included in Appendix I.


472,500E
472,600E
472,700E
N
Okapukenda Lk.
5277,000N
5276,900N
GEOLOGICAL LEGEND
13 Late diabase
5d Mafic intrusives, diorite, gabbro
3 Felsic volcanics incl. quartz-phyric types
2 Dacite -intermediate-felsic volcanics
1 Mafic to intermediate volcanics
Geol. Mod'd after D. Mullen, Texas Gulf 1977
SYMBOLS AND ABBREVIATIONS
geological contact
faults
pit (in bedrock)
earth trench
diamond drill hole
Cu copper occurrence, showing
Zn zinc occurrence, showing
Py pyrite
chl chlorite alteration
Lithochem. Sample point
track/equipment road
possible drill hole site, casing not found
Coordinates;
UTM Zone 17; NAD 83
Mataris Lake Property
Connaught Township
Shining Tree Area, Dist. of Sudbury, ON
Geology Mataris Lake Showing
Scale: 1:2000
Drawn by: A.W. Beecham
UTM Zone 17
NAD 83
Date: Nov. 2015
NTS 41P/11
Revisions:
Fig. 3



Mataris Lake Showing Area

Lithogeochemistry
Sample #'s

Scale: 1:2000

Nov. 2015

Fig. 4

Table I Summary of Analyses

Symbol	**Au**	Ag	Cd	Cu	Ni	Pb	Zn	Bi	S
Units	**ppm**	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Det'n Lim		0.5	0.5	1	1	5	1	10	0.001
Method	**FA**	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
18133	**<0.03**	<0.5		90	<20	185	1740		
18134	**<0.03**	1.5	8.5	207	12	49	2770	< 10	2.02
18135	**<0.03**	0.8		4000	<20	36	280		
18136	**0.137**	7.8	14.9	> 10000	5	30	7150	10	2.06
18137	**<0.03**	< 0.5	< 0.5	257	32	< 5	137	< 10	0.061
18143	**<0.03**	< 0.5	< 0.5	89	9	< 5	63	< 10	0.156
18144	**<0.03**	< 0.5	< 0.5	47	10	< 5	67	< 10	0.086
18145	**<0.03**	< 0.5	< 0.5	39	11	< 5	103	< 10	0.031
18146	**<0.03**	< 0.5	< 0.5	37	10	< 5	71	< 10	0.075

Notes: Ag, Cu ,Ni, Zn analyses for
for samples #18133 and
#18135
by FUS-MS
Au by Fire Assay

Analyses for Ag, Cd, Cu, Ni, Pb, Zn, Bi, S reported in
2015

RESULTS AND DISCUSSION

The gold values are shown with analyses from 2015. Only one slightly anomalous gold value was found. Sample #18126 has slightly elevated gold (137 ppb). The elevated gold coincides with the highest copper, zinc and sulphur levels. It is located at the east end of the cluster of Cu-Zn bearing samples. It appears that gold values are likely not of much economic significance. However, more data are required to determine if this is the case. In any case, in the future, gold determinations should done with any base metal assays.

A.W. Beecham
27th Nov. 2017

REFERENCES

Ayer, J.A. et al 2003	Geological Compilation of the Matachewan Area, Abitibi Greenstone Belt; Map P.3527, Scale: 1:100,000; Ont. Geol. Survey;
Beecham, A.W. 2015	Lithogeochemistry, Mataris Lake Showing Area, Connaught Twp., NW Shining Tree Area, Sudbury Mining District; Report for assessment;
Carter, M.W. 1980	Geology of Connaught and Churchill Townships, Dist. of Sudbury, Rep. 190, Ont. Geol. Survey;
Johns, G.W. 1999	Shining Tree Area (West Half); Map P.3420; Scale: 1:30,000; Ont. Geological Survey;
Laird, H.C. 1934	Geology of the Makwa-Churchill Area; Ontario Dept. of Mines, Vol. 43, pt. p37-80 (published 1935). Accompanied by Map No. 43c, Scale: 1 in. =1 mi.
Mullen, D 1977	Geological Report Connaught 55 Report; NTS 41-P-11; for Texas Gulf Canada, On-line OGS Assessment Rep. 41P11NW0408; Paper copy Kirkland Lk Res. Geol. Files: CO 0873;

APPENDIX I

Assay Certificate # 23281, PolyMet Labs, Cobalt, ON

PolyMet Labs
A Division of Polymet Resources Inc.

1 Presley St, P.O. Box 699, Cobalt, Ontario, Canada P0J 1C0
Tel: (705) 679-5500 • Fax: (705) 679-5519
Email: info@polymetinc.com Website: www.polymetinc.com

Certificate of Analysis

A.W. Beecham Geological Services

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

Certificate # 23281

Certified by: _____
Assayer

Certified by: _____
President/Manager

Date: November 20, 2017

PolyMet Labs
A Division of Polymet Resources Inc.

1 Presley St., P.O. Box 699
Cobalt, ON P0J 1C0
PH: (705) 679-5500 FAX: (705) 679-5519

ASSAY CERTIFICATE #: 23281

CLIENT: A.W. Beecham Geological Services

Date of Issue: November 6, 2017

Job #: 0-206

Sample Description: Rejects

Shipment Date: September 27, 2017

OD28 Certificate of Analysis Apr 2012 Rev (3)

Sample #	Au Oz/ton	Au g/tonne
18133	<.001	<.03
18134	<.001	<.03
18135	<.001	<.03
18136	0.004	0.137
18137	<.001	<.03
18143	<.001	<.03
18144	<.001	<.03
18145	<.001	<.03
18146	<.001	<.03

Std OxK 119	0.110	3.771	9 Rejects
Blank	<.001	<.03	

Assayer: _____