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**Technical Report on the 2016 Geological and Geochemical
Survey on the Crowder Claims, Maun Lake Area, N.W.**

Ontario

Maun Lake Area (G-319)

Thunder Bay Mining Division

2 · 57450

NTS 42-L-7
Lat 50 deg. 27 min.
Long 86 deg. 59 min.
UTM Zone 16
5588500 N 501500 E



Rand Hodgson B.Sc. Jan. 10 2017

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Summary

The Crowder property was the focus of a detailed prospecting and mapping program with selective geochemical follow-up. The main objective was to map and prospect the property with the goal of identifying possible northeasterly extension of known gold bearing shear zone on a peninsula to the south of the claims - extending into O'Sullivan Lake -referred to the "Boot" peninsula showing. This showing was identified in "Clark and Roy 1992 OPAP report" as containing 1467 ppb Au. in grab sample. The claims were mapped/prospected on flagged north-west bearing traverse lines with 100 meter separation. A shear zone/ deformation zone was located trending north-easterly extending the Boot peninsula zone of deformation. It was sampled in 3 locations but assay results indicate no gold present in the samples.

Two new occurrences were identified on the claims as a result of this survey. UTM location 1) 5588337 N 501431 E- 4312 ppb Au. and 2) 5588902 N 501983 E-1097 ppb Au.

pg. 3

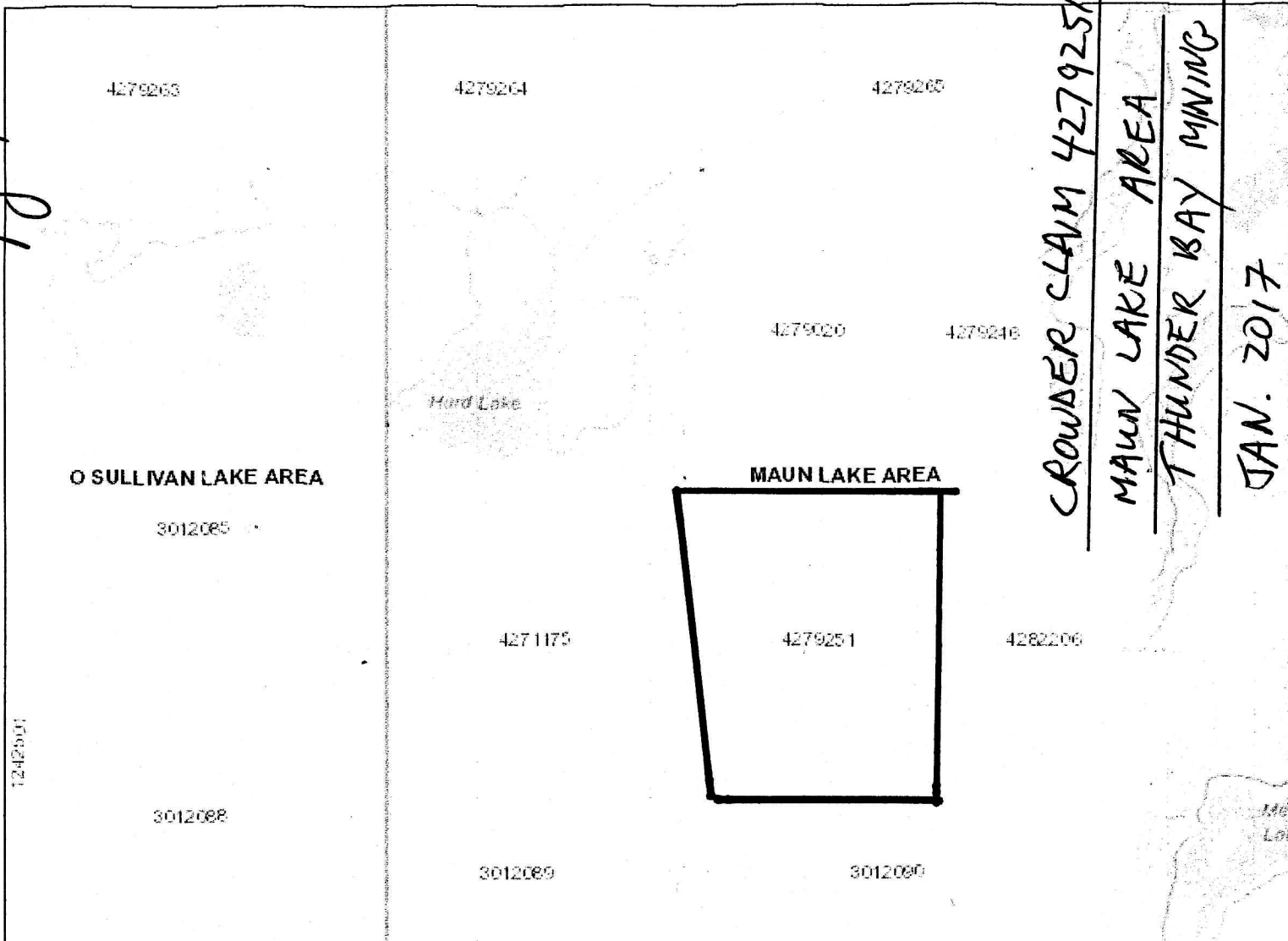
Ontario ClaimLocation MapCROWDER CLAIMSGroup # 4279251Jan. 2017



Enter map title

Notes:
Enter map notes

pg. 4



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 1.17 km

Projection: Web Mercator



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Introduction

This report describes a geological and geochemical sampling survey carried out on a six unit claim group- # 4279251 - located on the Maun Lake Area sheet (G-319), Thunder Bay Mining Division, in north-western Ontario. The survey was carried out during Sept. and Oct. 2016 by Steve Crowder and Milan Crowder of 115 Thornton St. Nakina, Ont., and Bruce Redgrift of 123 Thornton St. Nakina, Ont. It was carried out using combined pace and compass traversing supplemented with GPS location. Traverse lines were directed north-west and south-east with 100 meter separation. Sixteen rock samples were analyzed for gold using routine fire assay methodology. Results are submitted and located on the base map (scale 1: 4000). Samples are GPS located. All co-ordinates are from UTM Zone 16.

Property Description, Location and access

The Crowder claim group is situated on the north side of the North-East Arm of O'Sullivan Lake, approximately 37 km. NNW of Nakina, Ont. Access to the property is by road from Nakina to O'Sullivan Lake and then by boat across the lake. The property consists of a single block of 6 claim units centred approximately at UTM location 5588600 N 501850 E - Zone 16. on the Maun Lake Area staking sheet (G-319) The claim registration # is 4279251.

Topography and Drainage

This claim group is fronted on the south by O'Sullivan Lake. Relief rises gently from the lake and rises reaches a maximum of 20 meters above lake level on a major ridge which crosses the group from south-west to north-east. A small creek drains the central part of the group with surrounding swamp/overburden extending into the north- central and north-western quadrant. There is an extensive sand plain covering the south-east quadrant . Outcrop exposure is good (30%) but mainly as part of the ridge

Exploration History

The area has been mapped by the Geological Survey of Canada (Wilson and Collins, 1904) and the Ontario Geological Survey (Stott, 1984) as well as early mapping by the Ontario Department of Mines (Hopkins, 1916; Kindle, 1929; Moorehouse, 1955)

Gold and copper were first discovered in the O'Sullivan Lake area in the 1920's, centred on showings on the Osulak Peninsula and northeast of the lake, resulting in a staking rush after WW II, when Osulak Mines started to sink a shaft and carry out underground development. Since that time, several operators have attempted to resurrect the property. The most recent, Mining Corp. of Canada, removed 90,000 tons of 0.33 oz./ ton gold. Since 1950, both gold and base metal exploration has been undertaken throughout the O'Sullivan Lake belt but with only limited success.

Five hundred meters north-west of the Crowder property, the New Athona Mines copper-silver-gold occurrence, located 200 m. south-west of Hurd Lake, was investigated by means of 9 drill holes in 1955. The showing consists of 2 mineralized fracture zones containing arsenopyrite, chalcopyrite, pyrite, marcasite, accompanied by quartz sericite carbonate schists. No strike length was determined.

About 400 m. north of the claims an unknown operator drilled about 4 holes into what is referred to as the Megan- Hurd gold occurrence. The drill target was a narrow sulfide –rich shear zone in felsic volcanic. Assays up to 14,000 ppb.were reported. The Warren copper-nickel occurrences, located 1 km.north of the property have been the focus of intermittent activity since the 1950's. Historical exploration activity has resulted in significant polymetallic occurrences being discovered-confirming the mineral potential.

Regional Geology

The property is situated within the Kowkash Greenstone Belt, a fairly typical north-east trending greenstone sequence consisting of a mafic to felsic transition, younging to the north, intercalated with intermediate-felsic and chemical metasediments (iron formation) . The interflow sediments are mainly tuffs, tuff breccias and siliceous metasediments, which carry locally massive iron and copper sulfides, with lesser sphalerite magnetite and arsenopyrite.

The greenstones are locally intruded by syngenetic and postgenetic tectonic sills and dykes-gabbro and diabase. Metamorphic grade is generally lower greenschist facies.

Structurally, the Kowkash belt has been faulted in a north-east trending strike-slip fashion, resulting locally in strongly sheared, highly schistose volcanic units. Government airborne geophysics suggest fault offsets of greater than 600 meters.

Property Geology

The Crowder property is underlain by a northeasterly trending sequence of primarily mafic volcanic flows with minor intercalated felsic volcanic flows. Occasionally narrow lensoidal or sill-like gabbroic intrusions locally interfinger with the volcanic. Minor exposures of felsic intrusive and also diabase dykes have been identified. A zone of weak deformation has been identified as the extension of the deformation zone on the Boot peninsula on O'sullivan Lake. It is approximately 150 m. thick and extends north-easterly 800 meters across the south-east corner of the property. Lithologies within this deformation zone are described as schistose clastic sediments and/or mafic volcanics- manifested as chlorite schists. Included are minor beds of massive pyrite, minor magnetite within both chlorite schist and minor felsic sericite schist interbeds. Elevated levels of sulfide (5-10%) are found throughout this wide and long regional zone of deformation. Geochemical results from this zone indicated an absence of anomalous Au.

Mineralization

The zone of deformation identified during this survey contains elevated levels of sulfide mineralization (5-10 %py.po. mag.) with locally massive pyrite beds. The rock samples taken for geochem. analyses from this mineralized zone contain no anomalous gold. However, a new occurrence has been identified in old trenches located on the north shore of the lake- UTM 5588337 N 501431 E (see map)- Three grab samples taken- consistently anomalous-960;1411; and 4312 ppb Au. These samples were described as dacitic volcanic chlorite schist with sericite and 5%pyrite.

There is known anomalous gold (1470 ppb) associated with this same zone extension to the southwest (Boot peninsula occurrence). The property remains prospective for gold for this reason.

Another high assay was taken on the north-eastern part of the group-5588902 N 501983 E in a felsic sericitic schist with minor py. It assayed 1097 ppb Au.

Conclusions and Recommendations

Due to the discovery of 2 new occurrences on the claims during this survey, and the fact that there are significant occurrences in the immediate surrounding claims to the south, west, and north, the claims remain highly prospective for gold enrichment. Ground geophysics and geochemical surveys are recommended.

References

- Parker, J.R. and Stott, G.M. 1998 Precambrian Geology, O'Sullivan Lake Area O.G.S map p 3377
- Moorhouse, W.W. 1956 Geology of the O'Sullivan Lake Area O.D.M Annual report 1955
- Mason, J., White, Gerry 1986 Gold Occurrences, Prospects and Deposits of the Beardmore – Geraldton Area O.G.S. Open File Report 5630
- Smith, Michael, Technical Report on the Hurd Lake Property, O'Sullivan Lake Area O.P.A.P. # OP91-043 M.N.D.M file # 42L07N.W.8040-63.6249 Maun Lake
- Nelson, Cullen, Clark Exploration Consulting Assessment Report on the Aurum Property of Superior Canadian Resources Inc. 2005. M.N.D.M assessment file #2.30942

Statement of Qualifications

I, Rand Hodgson , of 287 Swanston Ave. Peterborough Ont., do hereby state –

- 1) That I have been a consulting geologist practicing my profession from the above address since 2001, and have been actively engaged in mineral exploration since 1977.
- 2) That I hold a B. Sc. In geology from the University of Waterloo (1977)
- 3) That I am the author of the report on the Crowder Maun Lake claims, and that I personally supervised and carried out the field program.
- 4) That the data contained in the report is true to the best of my knowledge.



Rand Hodgson B.Sc. January 2017

Appendix I

Sample Location and Description

- S1) 5588337 N 501431 E andesite/dacite w/ chlorite,sericite,5% pyrite
- S2) 5588649 N 501689 E quartz w/ py. In mafic flow
- S3) 5588902 N 501983 E rhyolite, sericitic, minor py. (less than 1%)
- S4) 5588291 N 501421 E mafic flow / minor fine py.
- S5) 5588299 N 501421 E mafic flow minor fine py.
- S6) 5588281 N 501394 E same
- S7) 5588285 N 501380 E same
- S8) 5588398 N 501199 E Quartz feldspar porphyry (QFP)
- S9) 5588404 N 501189 E no sample
- S10) same as S1 -
- S11) 5588185 N 501670 E narrow Quartz vein, carb., in dacitic flow
- S12) 5588275 N 501767 E dacite flow/ minor py.
- S13) 5588330 N 501808 E same
- S14) 5588349 N 501815 E narrow q.v. in dacite/ minor py. Ser. chl.
- S15) 5588424 N 501991 E narrow q.v. veinlets in dacite flow / 2% fine py.
- S16,17) same as S1 mafic chl. schist/ minor ser./ 10%py.minor cpy.

assay results

Element Method Det.Lim. Units	@Au GE_FAA313 5 ppb	WtKg G_WGH79 0.001 kg
S01	1411	1.059
S02	45	0.435
S03	889	1.241
S04	10	1.035
S05	<5	1.500
S06	16	0.534
S07	<5	0.825
S08	6	1.300
S09	LNR	LNR
S10	960	1.135
S11	8	0.837
S12	6	0.404
S13	<5	0.631
S14	17	1.012
S15	<5	0.711
S16	LNR	LNR
S17	4312	1.211
*Rep S03	1097	

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Appendix III Daily log

CLAIM 4279251

Daily report claim #4279251

Sept 10/16 traverse from center south end of claim west high ridge large shoreline outcrop 2 samples

Sept 13 traverse west northwest out crop overburden approx. 100m in turning dense and swampy 400m 1 sample

Sept 15 traverse north overburden no out crop trenching no sample taken

Sept 18 traverse north northwest over burden blowdown 2 samples taken

Sept 21 traverse north east large outcrop 10m in from shoreline extensive stripping

Sept 25 same outcrop as 21st trenching sampling over 40 meters 5 samples taken schists

Oct 2 traverse north east past out crop turns swampy small creek 400m small out crop no sample

Oct 3 traverse northeast 2nd outcrop sample trench 2 samples

Oct 19 traverse east swamp no outcrop river no samples

Oct 20 start other side of river traverse east northeast out crop stripping one sample

Oct 25 traverse from same spot as 20th east northeast no new out crop overburden turns to swamp

Oct 28 traverse north from river 100m from claim corner out crop stripping

Oct 29 return to last outcrop stripping extensive 2 samples

Oct 30 travel from nakina to Peterborough

Nov 1 consult with geologist over samples and mapping

Nov 1 and 2 return to nakina from Peterborough



INVOICE

Invoice Number : 11026152
Date : 05-JAN-17
Page : 1 / 1

COD SGS MINERALS
185 CONCESSION ST
PO BOX 4300
LAKEFIELD ON K0L 2H0
Canada

Customer Number 272831
Currency CAD
Payment Term Due immediately
SGS Order No. 871122

Customer Reference Attn: ACCOUNTS PAYABLE- Steve Crowder
Certificate(s) / Report(s) No(s). WO#LK1600993
Reference Order NO_QUOTE
Job Reference : WO#LK1600993: _DEFAULT
Order Source Reference: 0000036402

Item	Description	Quantity	UoM	Unit Price	Net Amount	Amount
37366	Routine Analysis by Fire Assay Exploration grade 30g Pb fusion, AAS GFM Acc: 4000.20.2300.0000000	15	Ea	16.00	240.00	271.20
37351	Sample Preparation Weigh, dry (<3.0kg) crush 75% -2mm, split <250g, pulverize 85% -75µm GFM Acc: 4000.20.2300.0000000	15	Ea	9.00	135.00	152.55
Actual Execution End-Date		03-JAN-2017				

HST	48.75
Net Amount CAD	375.00
Sum of Tax CAD	48.75
Total Amount CAD	423.75

Contact Name: WATSON, SHANE
Direct line: 705-652-2307
E-mail: SHANE.WATSON@SGS.COM

Issuing Affiliate : F402001
11026152 05-JAN-17 272831

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CAD2014113008
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Certificate of Analysis
Work Order : LK1600993
[Report File No.: 0000008776]

Date: January 03, 2017

To: Steve Crowder
COD SGS MINERALS
115 Thornton Rd
ON K0L 2H0

P.O. No.: -
Project No.: _DEFAULT
Samples: 17
Received: Nov 25, 2016
Pages: Page 1 to 2
(Inclusive of Cover Sheet)

Methods Summary

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
15	GE_FAA313	@Au, FAS, AAS, 30g-5ml
15	G_PRP89	Weigh (<3kg) Dry, Crush 75% -2mm, Split <250g, Pulverise to 85% -75µm
15	G_WGH79	Weighing of samples and reporting of weights

Storage: Pulp & Reject

REJECT STORAGE : DISCARD
PULP STORAGE : DISCARD

Comments:

Exploration quality assays - not suitable for commercial exchange
Replicate/Duplicate results outside acceptance criteria due to high probability of coarse gold

Certified By :

Brett Pipher
Project Coordinator

SGS Minerals Services (Lakefield) is accredited by Standards Council of Canada (SCC) and conforms to the requirements of ISO/IEC 17025 for specific tests as indicated on the scope of accreditation to be found at <http://www.scc.ca/en/programs/lab/mineral.shtml>

Report Footer:

L.N.R. = Listed not received
n.a. = Not applicable

I.S. = Insufficient Sample
-- = No result

*INF = Composition of this sample makes detection impossible by this method

M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Methods marked with an asterisk (e.g. *NAA08V) were subcontracted

Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

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5589500N



5589000N

5588500

5588000N
501000E

501500E

502000E
5588000N

LEGEND

- ① MAFIC VOLCANIC (a) flow (b) tuff (c) schist
 - ② Intermediate volcanic (a) flow (b) tuff
 - ③ felsic volcanic (a) flow (b) tuff (c) rhyolitic
 - ④ Chemical sediment (a) chert (b) iron formation (c) calcite
 - ⑤ mafic intrusive (a) diorite (b) gabbro
 - ⑥ felsic intrusive (a) granite (b) Q.F.P.
 - ⑦ clastic sediment
- Symbols
- |||| ridge
 - o/b overburden
 - swamp
 - strike, dip, foliation
 - x small outcrop
 - large outcrop
 - inferred geological contact
 - power line
 - Q.F.P. quartz feldspar porphyry
 - soil sample (with number)
 - rock sample (with number)
 - py. pyrite
 - po. pyroxite
 - ser. sericite
 - mag. magnetite
 - I.F. iron formation
 - Au. gold
 - as. arsenopyrite
 - trench
 - pit
 - sil. silicification
 - q.v. quartz vein

CLAIM #
4279251

Au. *S-3

* Au.

ZONE OF DEFORMATION

Lake

% Sullivan Lake

Boot Peninsula

Au.

CROWDER CLAIMS

GEOLOGY + GEOCHEMISTRY

MAUN LK. AREA

THUNDER BAY MINING DIV.

U.T.M. ZONE 16

SCALE 1:4000

0 100 200 300 400 m

Rand Hodgson B.Sc. N.T.S.

JAN. 2017

42 LOG NE

2-57450

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