

**Technical Report on the 2015 Geological and Geochemical
Survey on the Hurd Lake Property, O'Sullivan Lake Area, N.W.
Ontario**

2-56556

**Maun Lake Area (G-362)
Thunder Bay Mining Division**

NTS 42-L-7
Lat 50 deg. 27 min.
Long 86 deg. 59 min.

A handwritten signature in black ink, appearing to be "Rand Hodgson".

Rand Hodgson B.Sc.
Jan. 10 2016

Summary

The Hurd Lake property was the focus of a detailed prospecting and mapping program with selective geochemical follow-up. Objectives of this work were to re-investigate the New Athona copper- silver-gold occurrence and to search for other gold occurrences – several of which have been reported in the vicinity. These occurrences are situated in or close to a northeast trending fault system associated with a 300 gamma magnetic anomaly.

The program re-sampled the historical showing and increased its highest known assay result by ten times to 54.5 grams/tonne Au. in grab sample.

A new occurrence was identified at UTM 5588274 N 501198 E in a massive pyrrhotite within mafic flows in the south-east quadrant of the property. Also identified was a chemical metasedimentary unit (iron formation) loosely associated with the mafic-felsic contact at UTM 5588484 N 500815 E.

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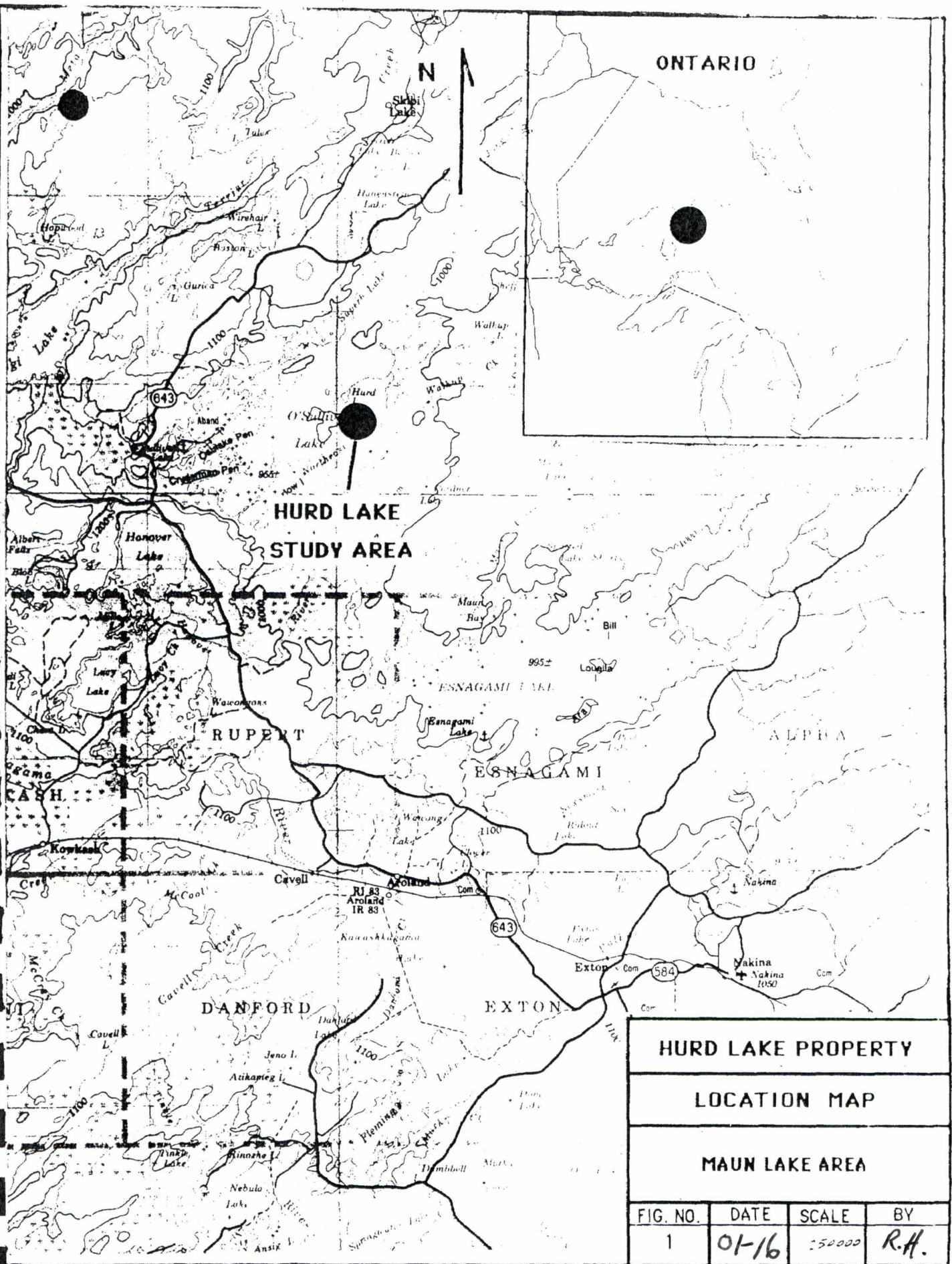
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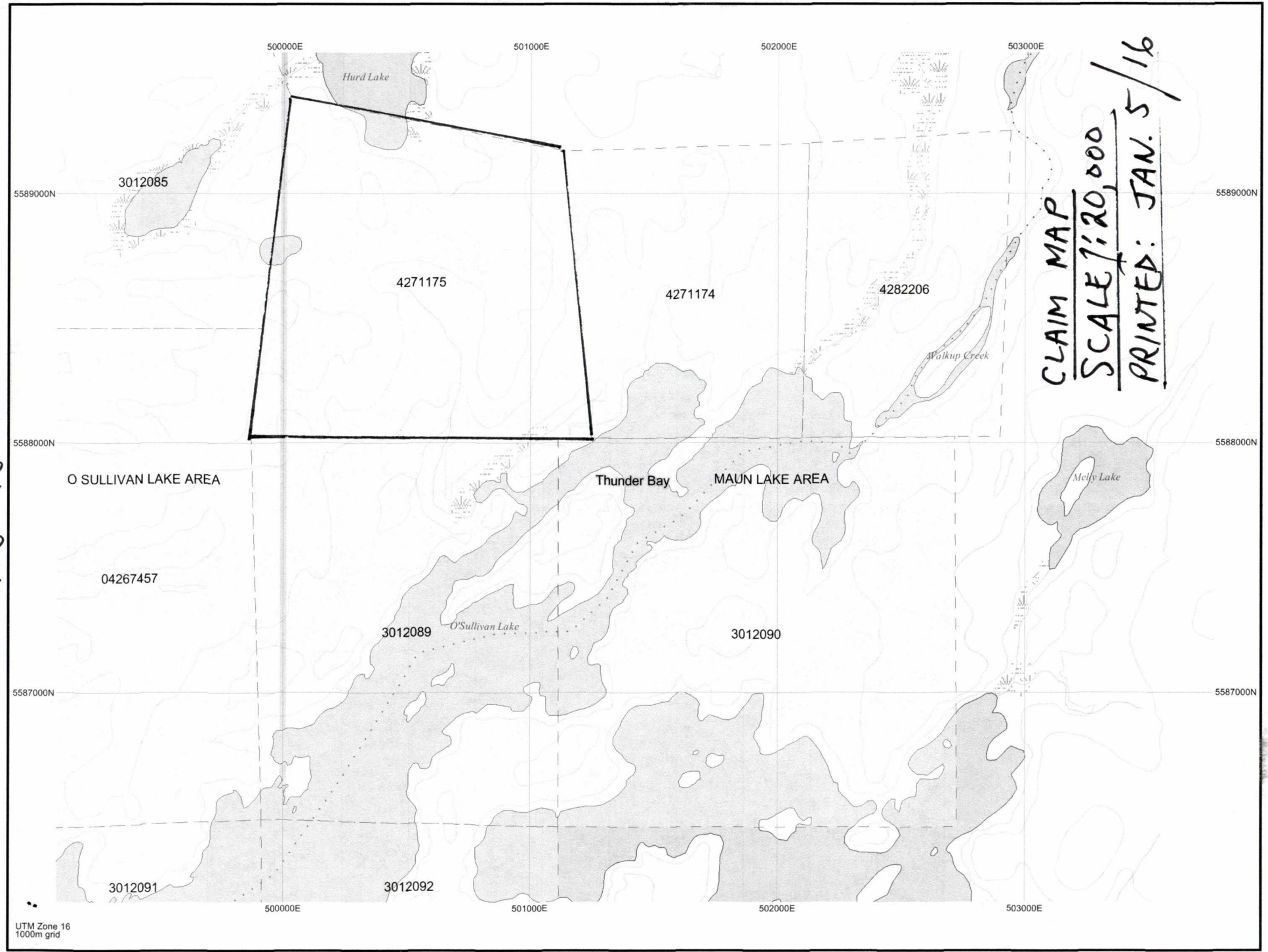
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Introduction

This report describes a geological and geochemical sampling survey carried out on a nine unit claim group- # 4271175 located on the Maun Lake Area sheet, Thunder Bay Mining Division, in north-western Ontario. The survey was conducted by Rand Hodgson, of 32 Fire Route 45 Buckhorn Ontario, Steven Crowder, of 115 Thornton St. Nakina Ontario., and Rebecca Rodrigues of 103 Northwood Dr. Nakina Ontario, during the periods June 21-30 and August 28-September 6 2015. 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. Thirty-seven rock samples and two soil 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 Hurd Lake property 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 9 claim units on the Maun Lake staking sheet (G-362)

Topography and Drainage

The claim group rises steeply from the lake with relief in the order of 10- 20 meters. Outcrop exposure is extensive (30-40 %) and evenly distributed across the property. There are prominent north-east trending ridges in the south –east quadrant and extensive plateau-like outcrop exposure in the north-west quadrant. The south central portion and parts of the north-east quadrant are lower, with more swamp and overburden.

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.

In the immediate area of the Hurd Lake 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. east 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. The Warren copper-nickel occurrences, located north-east of the property has 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 Hurd Lake 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 Hurd Lake property is underlain by a northeasterly trending sequence of mafic and intermediate volcanic flows intercalated with small amounts of felsic pyroclastics, which appear mainly as thin discontinuous units under the western half of the claim block. Occasionally narrow lensoidal or sill-like gabbroic intrusions locally interfinger with the volcanic. The mafic/intermediate rocks occur as andesitic-dacitic flows and pillow lavas with tops to the north. Alteration minerals observed include chlorite, carbonate in the mafics and sericite in the felsics. Magnetite is found in fine disseminations and ankerite along fractures, especially within the felsic pyroclastics. Small quartz-feldspar intrusives appear in the north section south of Hurd Lake- as they are proximal to the Hurd Lake Pluton. The rhyolitic

units occur as narrow (1.5 m) pinch and swell units, trending foliation parallel, forming thin interflow tuff horizons containing sericite schists and sulfides. Chemical metasediments (oxide iron formation) occur in the centre of the claim group near the contact between the felsics and the mafics. There is a preferred orientation parallel to the northeast trending regional strike slip faults.

Mineralization

Two gold enriched mineral showings were noted during the present program:

- 1) The Hurd Lake copper-silver-gold occurrence (New Athona) was relocated at GPS UTM 500412 E 5588938 N (zone 16) The showing is situated at the edge of the Hurd Lake Pluton, a quartz-feldspar porphyry which has intruded into a rhyolite unit and in itself contains significant gold occurrences. The rhyolite has been shattered by a north-east trending fault which has resulted in a brittle kink fold in the rhyolite. The mineralized rhyolite is exposed in a series of 5 parallel northwest trending trenches for a total strike length of 130 meters. Width of the fractured mineralized zone averages 6 meters but pinches to the south-west and disappears under overburden to the north-east along strike. Sulfide content varies from 2- 25 % and includes chalcopyrite, pyrite, pyrrhotite, arsenopyrite, with carbonate and sericite alteration. There is quartz-feldspar veining parallel to the mineralized zone. Of the 5 rock samples taken, the highest value returned 54.5 grams/tonne Au. or roughly 2 oz. per ton Au. This value represents an increase of 250 times over the highest values obtained from Smith's 1991 program and an increase of 10 times over the highest gold assay from any/all previously known exploration of this

occurrence. This high value, coupled with previous reports of 900 ppb in rhyolites 500 meters along strike to the south-west (Smith 1991) indicates a potential high grade gold enriched horizon which needs to be re- assessed.

2) At UTM 501198 E 5588274 N, a new gold occurrence was located in mafic flows- associated with thin quartz veining in thin shearing. The sample consisted of massive pyrrhotite and returned a highly significant value of 3.95 grams/ tonne. Sampling from previous prospecting programs have failed to yield significant results in these mafic volcanics underlying the upper felsics to the northwest. This sample indicates a potential new mineralized horizon in the lower mafic volcanics.

Much time was spent attempting to locate a 3300 ppb gold showing reported by Smith in 1991. The map of 1991 contained no GPS data. There was no indication of claim posts or grids but an extrapolation of intersecting claim lines helped us to locate a quartz sericite shear zone similar to the one described by Smith. It was located at 500801 E 5588506 N. and was close to iron formation and a large rhyolite breccias. Unfortunately, Smith's values were not confirmed in our samples. The highest value from several samples from both the sericite schist and the iron formation was 0.15 g/tonne.

Conclusions and Recommendations

1) The model proposed for gold exploration on the property is valid. All gold values on the claims are associated with northeast trending shear zones. An anomalous gold zone extending southwest from the New Athona occurrence should be further investigated by means of detailed prospecting, mag., HLEM, and asoil geochemical survey on a 12.5 meter coverage scale.

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 32 Fire Route 45, Buckhorn , Ontario, 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 Hurd Lake property, 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.

Buckhorn Ontario
January, 2016



Rand Hodgson

Appendix 1

Sample Location and Description

All locations from UTM Zone 16

SOIL 1-2)	5588506 N 500801 E	from vicinity of ser. schist w/ iron formation
R1)	5588355 N 500768 E	dacite minor py.
R2)	5588740 N 500663 E	andesite minor py. cpy.
R3)	5588764 N 500663 E	dacite w/ py. ser. qtz.
R4)	5588636 N 500661 E	dacite w/ 5% py. po.
R5)	5588636 N 500661 E	dacite w/ 5% py. po.
R6)	5588484 N 500805 E	rhyolite w/ 5% py. cpy.
R7)	5588484 N 500815 E	oxide iron formation
R8)	5588401 N 500743 E	dacite minor py. pillow lava
R9)	5588401 N 500743 E	oxide iron formation
R10)	5588401 N 500743 E	massive f.gr. sed. Dark colour, sil.
R11)	5588401 N 500743 E	andesite minor py.
R12)	5588401 N 500743 E	q.v. in andesite
R13)	5588506 N 500801 E	qtz. Ser. schist 5% py.
R14)	5588506 N 500801 E	qtz. Ser. schist 5% py.
R15-20)	5588506 N 500801 E	Qtz. Ser. schist 5% py.
R21)	5588274 N 501198 E	pillowed andesite carb. Minor py.
R22)	5588274 N 501198 E	massive po. in narrow shear qtz carb.
R23)	5588274 N 501198 E	narrow q.v. in andesite
R24)	5588520 N 500360 E	dacite minor py.
R25-26)	5588680 N 500425 E	dacite minor py.
R27)	5588875 N 500456 E	15 cm. wide barren q.v.
R28)	5588875 N 500456 E	dacite
R29)	5588850 N 500456 E	QFP intrusive minor py. from trenching
R30)	5588280 N 501175 E	narrow q.v. minor py.
R31-36)	5588938 N 500412 E	rhyolite, chert, 15-20 % py. cpy.



SGS Canada Inc.

P.O. Box 4300 - 185 Concession St.

Lakefield - Ontario - KOL 2H0

Phone: 705-652-2000 FAX: 705-652-6365

Appendix III

Walk In Minerals ON

Attn : Randy Hodgson

32 Fire Route 45

Buckihor, ON

705-657-1182

29-September-2015

Date Rec. : 09 September 2015

LR Report : CA02246-SEP15

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Au g/t	Weight g
2: Soils #1	< 0.02	621
3: Soils #2	0.07	241
4: Rocks #1	< 0.02	540
5: Rocks #2	< 0.02	392
6: Rocks #3	< 0.02	535
7: Rocks #4	< 0.02	336
8: Rocks #5	< 0.02	882
9: Rocks #6	0.05	858
10: Rocks #7	< 0.02	364
11: Rocks #8	< 0.02	666
12: Rocks #9	< 0.02	894
13: Rocks #10	< 0.02	1334
14: Rocks #11	< 0.02	268
15: Rocks #12	< 0.02	225
16: Rocks #13	0.03	852
17: Rocks #14	< 0.02	805
18: Rocks #15	< 0.02	1315
19: Rocks #16	0.15	565
20: Rocks #17	0.04	679
21: Rocks #18	0.03	826
22: Rocks #19	0.04	440
23: Rocks #20	0.04	458
24: Rocks #21	< 0.02	399
25: Rocks #22	3.95	197
26: Rocks #23	< 0.02	509
27: Rocks #24	< 0.02	545
28: Rocks #25	< 0.02	684
29: Rocks #26	< 0.02	824



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Phone: 705-652-2000 FAX: 705-652-6365

LR Report : CA02246-SEP15

Sample ID	Au g/t	Weight g
30: Rocks #27	< 0.02	293
31: Rocks #28	< 0.02	257
32: Rocks #29	< 0.02	479
33: Rocks #30	< 0.02	709
34: Rocks #31	54.5	421
35: Rocks #32	0.27	400
36: Rocks #33	0.05	916
37: Rocks #34	0.21	714
38: Rocks #35	0.41	1039
39: Rocks #36	0.20	894

Control Quality Analysis - not suitable for commercial exchange

Brett Pipher

Project Coordinator, Minerals Services,
Analytical



Appendix 4
INVOICE

Invoice Number : 10903384
Date : 29-SEP-15
Page : 1 / 2

COD SGS LAKEFIELD RESEARCH INC.
C/O 185 CONCESSION ST.
LAKEFIELD ON K0L 2H0
Canada

Customer Number 272833
Currency CAD
Payment Term Due immediately
SGS Order No. 763249

Customer Reference OSR:350180 ATTN:Randy Hodgson
Certificate(s) / Report(s) No(s). CA02246-SEP15
Paid by VISA September 29, 2015. AR
Auth# 085560

Item	Description	Quantity	UoM	Unit Price	Net Amount	Amount
37366	Routine Analysis by Fire Assay 30 g Lead Fusion Sample Prep GFM Acc: 4000.20.2300.0000000	38	Ea	12.00	456.00	515.28
37366	Routine Analysis by Fire Assay Au PM Assay - single element GFM Acc: 4000.20.2300.0000000	38	Ea	17.00	646.00	729.98
37351	Sample Preparation Crush 75% passing 2mm GFM Acc: 4000.20.2300.0000000	36	Ea	4.45	160.20	181.03
37351	Sample Preparation Extra sample split GFM Acc: 4000.20.2300.0000000	38	Ea	0.75	28.50	32.21
37351	Sample Preparation Dry samples <3.0kg, 105Å°C GFM Acc: 4000.20.2300.0000000	38	Ea	2.40	91.20	103.06
37351	Sample Preparation Pulverize 250g 85% 75um GFM Acc: 4000.20.2300.0000000	38	Ea	4.40	167.20	188.94
37351	Sample Preparation Weighing and Reporting GFM Acc: 4000.20.2300.0000000	38	Ea	1.25	47.50	53.68

Actual Execution End-Date 28-SEP-2015

HST 207.58
Net Amount CAD 1,596.60
Sum of Tax CAD 207.58
Total Amount CAD 1,804.18

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