We are committed to providing accessible customer service.
If you need accessible formats or communications supports, please contact us.

Nous tenons à améliorer l’accessibilité des services à la clientèle.
Si vous avez besoin de formats accessibles ou d’aide à la communication, veuillez nous contacter.

2.57421

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

Maun Lake Area (G-319)

Thunder Bay Mining Division

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

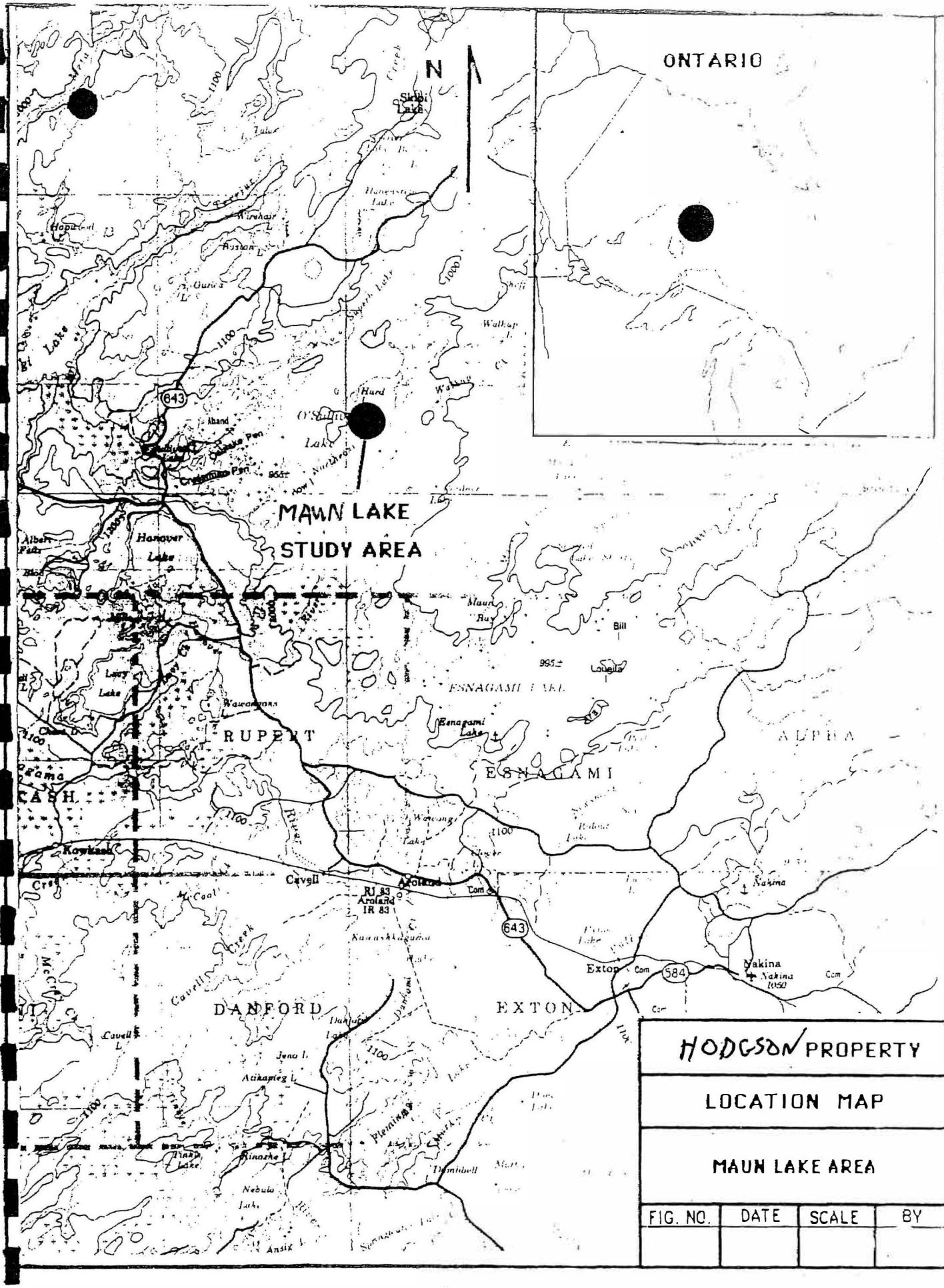
Rand Hodgson B.Sc.
Jan. 10 2017

Table of Contents page

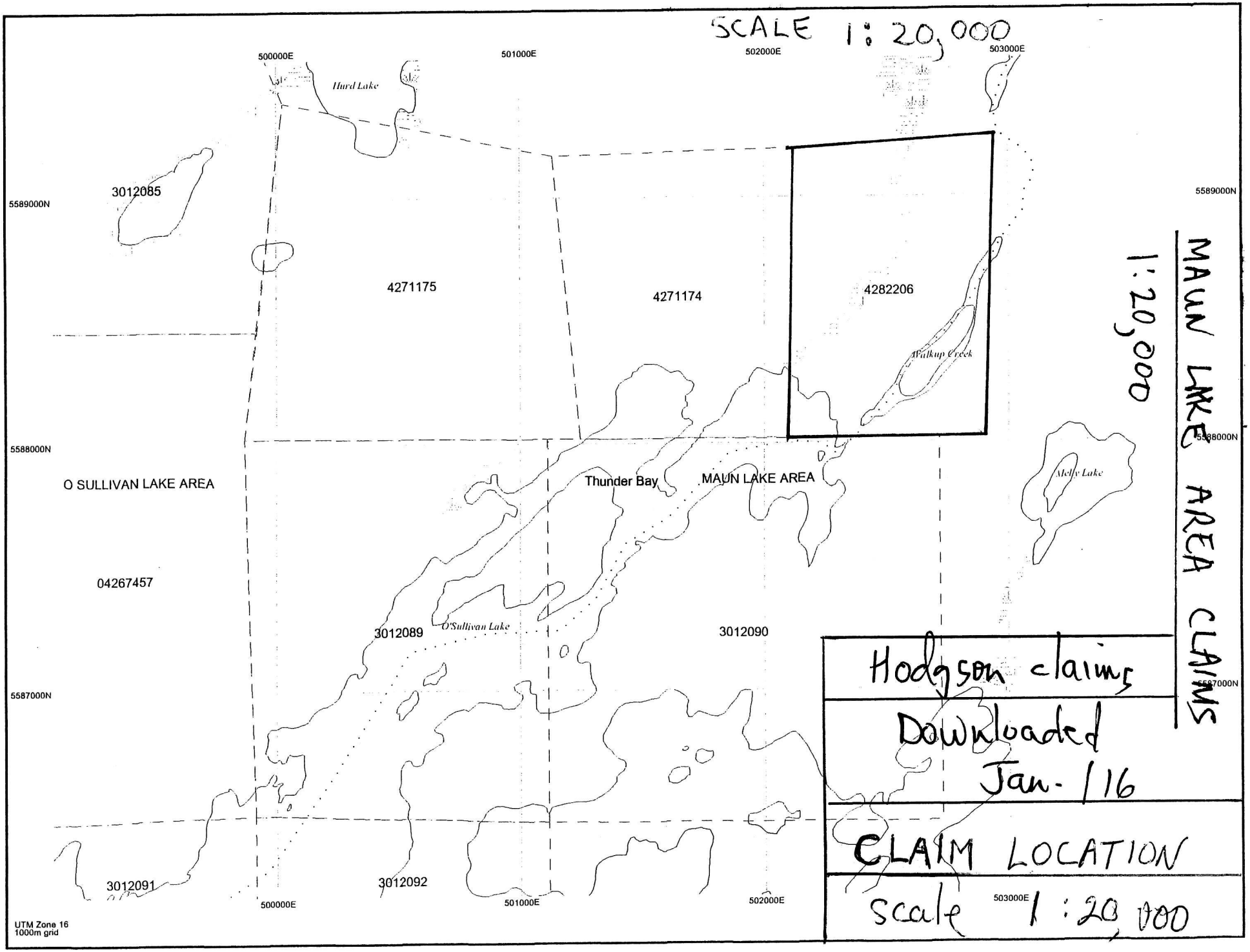
BACK POCKET

Summary

The Hodgson property was the focus of a detailed prospecting and mapping program with selective geochemical follow-up. There were two objectives for this program. One was to locate and re-investigate old trenches identified on Parker and Stott OGS map P3377 as the " Conlon 1" occurrence- somewhere within the northwest quadrant of the claim group. The second 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 but assay results indicate no gold present in the samples. The historical "Conlon 1" trenches were not located.



HODGSON PROPERTY			
LOCATION MAP			
MAUN LAKE AREA			
FIG. NO.	DATE	SCALE	BY


SCALE 1: 20,000
500000E
501000E
502000E
503000E
5589000N
5588000N
5587000N
Hurd Lake
3012085
4271175
4271174
4282206
Palkup Creek
O SULLIVAN LAKE AREA
Thunder Bay
MAUN LAKE AREA
Melfy Lake
04267457
3012089
O'Sullivan Lake
3012090
3012091
3012092
UTM Zone 16
1000m grid
MAUN LAKE AREA CLAIMS
1:20,000
Hodgson claims
Downloaded
Jan-16
CLAIM LOCATION
scale 1:20,000

Introduction

This report describes a geological and geochemical sampling survey carried out on a six unit claim group- # 4282206 - located on the Maun Lake Area sheet (G-319), Thunder Bay Mining Division, in north-western Ontario. The survey was conducted by Rand Hodgson and Wilson Hodgson, of 287 Swanston ave. Peterborough,Ontario K9H1P6 during the period Aug. 4-Aug. 20 2016. 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-two 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 Hodgson 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 502550 E - Zone 16. on the Maun Lake Area staking sheet (G-319) The claim registration # is 4282206.

Topography and Drainage

The claim group overlies two medium sizes creek/river systems emptying into O'Sullivan Lake. Both are navigable by canoe (with portages) and provide significant advantage for access to the claims. As one would expect, there is extensive low relief and associated overburden in the south central part of the property in the vicinity of the mouths of these rivers. The northern half of the group is covered with evenly distributed rock outcrop with moderate hummocky relief in the order of 10-20 meters . Outcrop exposure is moderate (10-20 %) and evenly distributed across the northern half of the property. There is also good outcrop exposure (30 %) in the far south-easterly corner of the claims

Exploration History

The area has been mapped by the Geological Survey of Canada (Wilson and Collins, 1904) and theOntario 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.

One thousand m. west of the Hodgson 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 serecite carbonate schists. No strike length was determined.

About 800 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 Hodgson 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 entire 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, 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.

Conclusions and Recommendations

Due to the absence of any anomalous gold in the assays, the Hodgson claims are considered to be low priority compared to proven known gold bearing veins in the felsic pyroclastic units further north. The claims do contain sulfide mineralization within the deformation zone and the potential to identify local occurrences of gold enrichment within the deformation zone remains.

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 Hodgson 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.

Jan 10/17

Peterborough Ontario
January, 2017

Rand Hodgson

Appendix I

Sample description and location

R-1 5589045 N 502613 E - quartz-eye rhyolite- 10% pyrite, pyrrhotite

R-2 5589000 N 502610 E - greywacke, siltstone schist- 5% pyrite,

R-3 5588690 N 502545 E - massive pyrite in Quartz vein bleb - epidote, tourmaline

R-4 5589100 N 502672 E - greywacke, siltstone - minor pyrite

R-5,6 5588906 N 502506 E - felsic volcanic schist 5% py. Po.

R-7-9 5588845 N 502475 E - mafic volcanic, chlorite schist- 15% coarse py. Crystals

R-10 5587993 N 502515 E - Quartz vein- 8 cm. Thick- < 5% fine disseminated py.

R-11 same location - Chlorite schist host rock (mafic volcanic)

R-12 5588000 N 502725 E - chlorite schist- minor py.

R-13-15 5588080 N 502842 E - - massive bedded py.- 1 cm. Thick- in chlorite schist

R-16-18 5588097 N 502295 E - felsic sericite schist - 2 meter thick- 5% fine disseminated py.

R-19 5588992 N 502317 E - quartz vein with minor py. In intermediate flow.

R-20,21 5588901 N 502435 E - felsic flow contact with Quartz-feldspar porphyry - minor pyrite

R-22-24 5588920 N 502686 E - narrow (10 cm.) quartz vein with py.

R-25,26 same location - chlorite carbonate schist host rock.

R- 27 5588824 N 502602 E - chlorite carbonate schist

R-28 5588667 N 502545 E - quartz vein py. Cpy.

R-29,30 same location - mafic schist host rock

Certificate of Analysis

Work Order : LK1600694

[Report File No.: 0000008077]

To: **Rand Hodgson**
White Fish Expl
COD SGS MINERALS
185 CONCESSION ST
PO BOX 4300
LAKEFIELD ON K0L 2H0

Date: Oct 17, 2016

P.O. No.	:	-
Project No.	:	_DEFAULT
No. Of Samples	:	32
Date Submitted	:	Sep 19, 2016
Report Comprises	:	Pages 1 to 2 (Inclusive of Cover Sheet)

Distribution of unused material:
To Be Determined:

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	I.S.	= Insufficient Sample
n.a.	= Not applicable	--	= 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

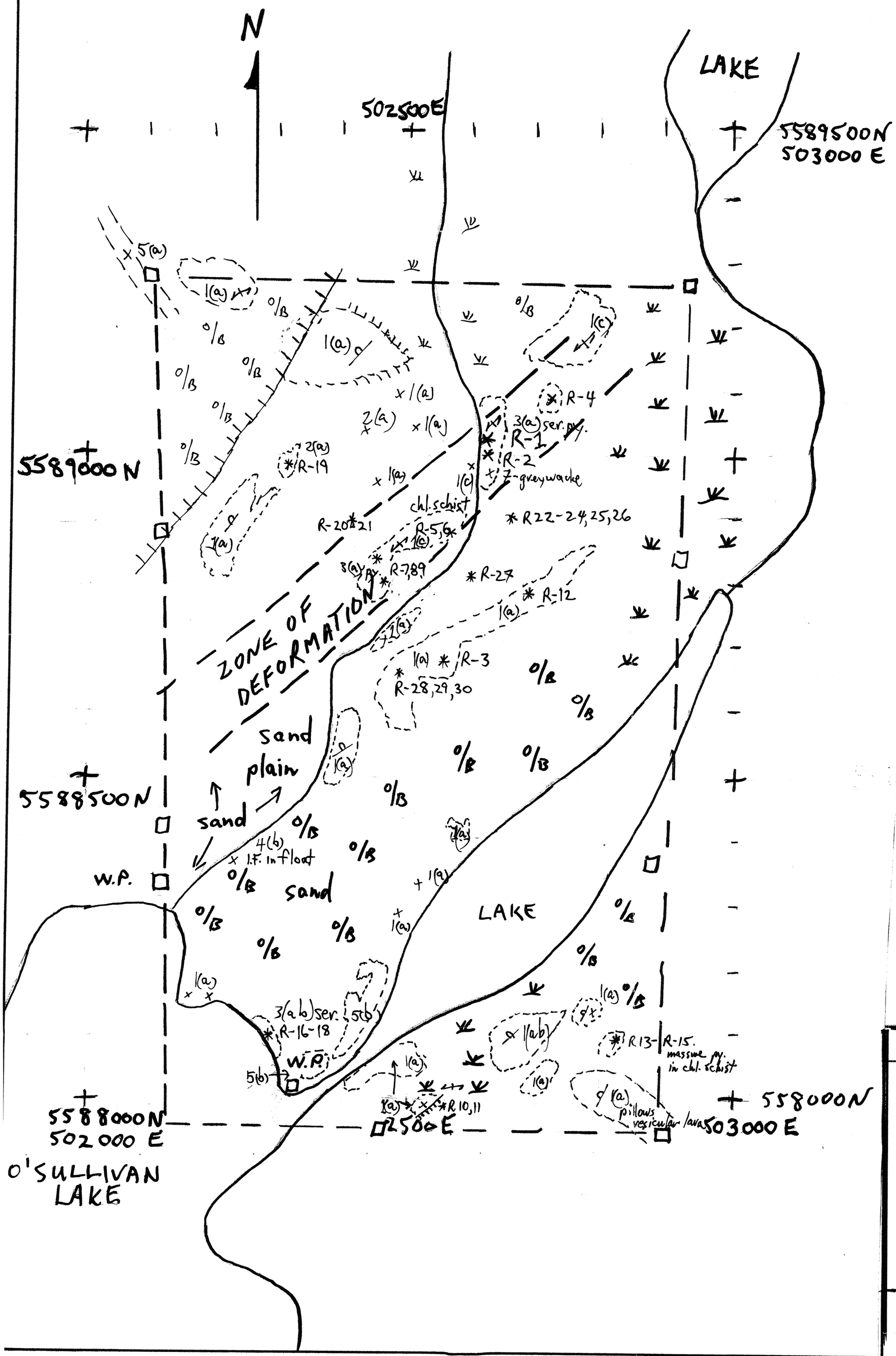
Methods marked with an asterisk (e.g. *NAA08V) were subcontracted

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

SGS

Appendix H

	Element	WtKg	@Au
	Method	G_WGH79	GE_FAA313
	Det.Lim.	0.001	5
	Units	kg	ppb
R01		0.515	<5
R02		0.682	8
R03		0.383	44
R04		0.978	<5
R05		0.630	<5
R06		1.004	<5
R07		1.343	14
R08		1.058	6
R09		0.803	11
R10		0.890	<5
R11		0.487	<5
R12		1.018	<5
R13		0.514	17
R14		0.774	15
R15		0.735	16
R16		0.983	44
R17		0.829	38
R18		0.844	39
R19		0.296	21
R20		1.065	61
R21		0.878	11
R22		0.483	<5
R23		0.467	<5
R24		0.536	<5
R25		0.546	<5
R26		1.123	<5
R27		1.894	<5
R28		0.553	36
R29		0.931	<5
R30		0.930	<5
R31		0.876	<5
R32		0.699	8
*Rep R02			6
*Dup R19		N.A.	30



LEGEND

① MAFIC VOLCANIC (a) flow (b) tuff (c) schist

② Intermediate volcanic (a) flow (b) tuff

③ felsic volcanic (ryolitic) (a) flow (b) tuff

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
- interpreted geological contact
- o — o power line
- Q.F.P. quartz feldspar porphyry.
- soil sample (with number)
- rock sample (with number)
- py.- pyrite
- po. pyrrotite
- ser sericite
- mag. magnetite
- I.F. iron formation
- Au gold
- as. arsenopyrite
- trench
- pit
- sil. silicification
- q.v. quartz vein

HODGSON CLAIMS

GEOLOGY + GEOCHEM.

MAUN LK. AREA

THUNDER BAY MINING DIV.

UTM ZONE 16

SCALE 1: 4000

0 100 200 300 400 m

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

JAN. 2016 42L06NE