GEOLOGICAL REPORT ON THE

MOIRA RIVER GOLD/BASE METAL PROSPECT,

TUDOR TOWNSHIP,

SOUTHERN ONTARIO MINING DIVISION

N.T.S. 31 C 13

January 20, 1999

Submitted by:
Rand G. Hodgson, B.Sc., B.Ed.
Geologist

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Introduction

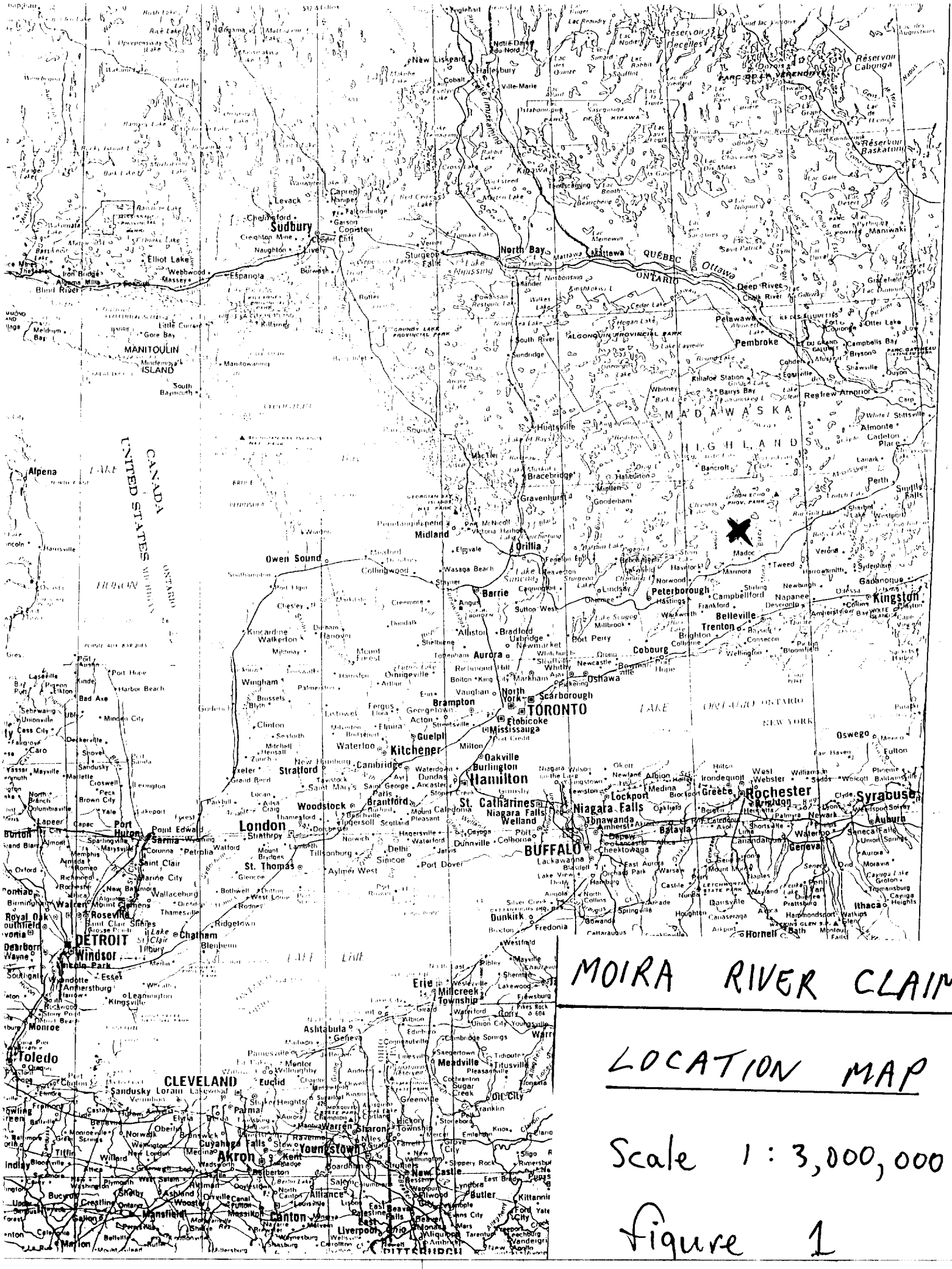
This report describes the results of a prospecting and geological mapping program carried out over a gold/ base metal prospect located in Tudor Township, Southern Ontario Mining Division. The work was carried out during the months of July to November, 1998 on a pace and compass grid over the entire property with 100 meter spaced traverse lines oriented in an east-west direction.

A detailed description of the principal rock types encountered during the course of the survey is provided, along with a record of the character and dimension of mineralized zones. Twenty-five rock samples were taken for lithogeochemical analyses and the results are provided. Recommendations for further development of the property are also made. The survey was supervised by Rand Hodgson, B.Sc.(geology) of 91 Fortieth Street, Toronto, Ontario.

Property Description, Location and Access

The property consists of Lots 9,10, and 11, Concessions IX and X, Tudor Township; an area of 600 acres. It is approximately 25 km north of Madoc and 180 km north-east of Toronto. The claim group, # 1140879, is geographically centred on latitude 44^0 45' N, longitude 77^0 34" W (N.T.S. Reference Sheet 31 C 13).

Access is by road - via Ontario Highway # 62 north from Madoc to the village of Gilmour. Passing through Gilmour, continue 3 km to the northeast then turn south on the Pine



MOIRA RIVER CLAIMS

LOCATION MAP

Scale 1 : 3,000,000

figure 1

MOIRA RIVER CLAIMS
DETAILED LOCATION MAP
Scale 1 : 500,000
figure. 2

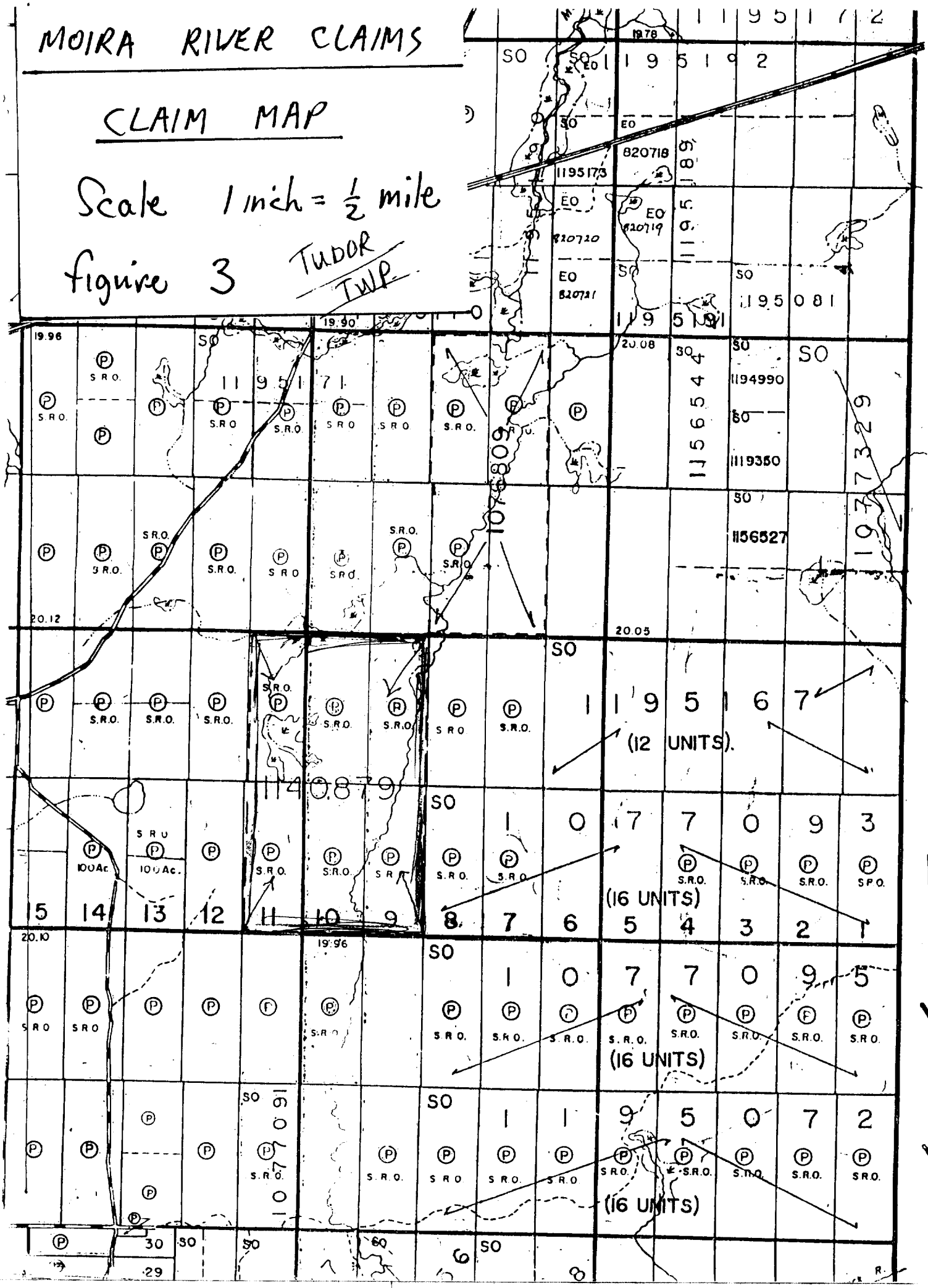
MOIRA RIVER CLAIMS

CLAIM MAP

Scale 1 inch = ½ mile

figure 3

TUDOR TWP



Ridge Road. A trail leading to the edge of the property leaves the Pine Ridge Road (formerly Old Snow Road) eastbound, approximately 9 km to the south. This trail is located on Map 2168 (Tudor Twp.) It leaves the Pine Ridge Road on Lot 14, Concession IX 500 meters south of a small lake.

The claim group is registered in and owned by the author of the report, Rand Hodgson.

Topography and Overburden

The average elevation above sea level is 300 m. With maximum local relief +/- 15 meters. The Moira River traverses the eastern half of the property in a N-S direction. Bedrock is exposed over approximately 10% of the area of the property, most of which is concentrated east of and immediately to the west of the river. The western half of the property is dominated by overburden and/or swamps and beaver dammed ponds.

Summary of Previous Exploration and Development

There is no record of any work done on Hodgson's claim group anywhere in the M.N.D.M literature or in the assessment files.

The geological/prospecting survey carried out encountered no physical evidence of previous work on the claim group (i.e. trenches, pits, claim lines, etc.).

Regional Geology and Structure

The area is underlain by a Proterozoic metavolcanic-metasedimentary sequence about 8400 m thick (Lumbers, 1969). The metavolcanic-metasedimentary sequence was regionally metamorphosed to the greenschist facies in Tudor and southern Limerick Township, and to the lower to middle amphibolite facies in central and northern Limerick Township. The regional metamorphism culminated after the sequence was folded about NE trending axes; the oldest rocks exposed display the lowest grades of metamorphism (Lumbers, 1969).

Two main divisions are recognized within the metavolcanic-metasedimentary sequence:

1. A predominantly metavolcanic group divided into 5 formations. The lower part (the Tudor metavolcanics) consists of mafic and minor felsic metavolcanics (about 1310 $\pm$ 15 million years old). The upper part is predominantly felsic and intermediate metavolcanics and clastic metasediments.

2. An extensive unit rich in carbonate metasediments. The lower part of the carbonate unit interfingers with, or is equivalent to the upper part of the metavolcanic group. The upper part of the carbonate unit comprises the youngest rocks of the metavolcanic-metasedimentary sequence, the base of which is unknown.

Structurally the area is very complex, most lithologies have been folded and/or faulted to some extent.

The main fold axes which trend NE appear to have been developed prior to the culmination of regional metamorphism (Lumbers, 1969). These NE trending fold axes have locally been refolded by W-NW trending cross folds. Much of the cross folding may be associated with the emplacement of major intrusive bodies.

Two major fault systems have been recognized:

1. A NE trending system, strike orientations range from NNW to ENE.
2. A NW trending system, strike orientations range from NW to W.

Faults of the NE system are often partly concordant with structural trends in the rocks they traverse. Rocks within these fault zones are sheared, mylonitized and highly contorted. These fault zones range from 1-2 m up to 40-50 m in width (Lumbers, 1969). The amount of displacement is unknown, but most faults show left hand offset. One of the major faults in this system is the Moira River Fault. According to Lumber (1969), this fault crosses the Hodgson property and can be traced from the south boundary of Tudor Township north into Grimsthorpe Township.

Property Geology

Mapping was carried out on 100 meter spaced pace and compass lines, as well as between lines where warranted by outcrop. Results are depicted on a 1:5000 scale geological compilation included in the report.

Mafic volcanic rock sequences dominate the claim group. They consist primarily of massive dark green fine and medium grained flows with abundant flow features such as pillows, vesicles and flow breccias.

Foliation increases eastward toward the Lingham Lake mafic intrusive where the mafic volcanics grade into amphibolites with locally developed quartz/plagioclase schists.

Minor felsic flows and felsic and mafic tuff units occur locally in the mafic volcanics but are very local and have little significance. Indicated by bedding in pyroclastic units, the mafic volcanics strike N-S throughout the property and are vertically inclined or dipping steeply to the west.

The Lingham Lake mafic intrusive complex is exposed on the south-east corner of the property. These are described simply as undifferentiated dirorites and gabbros.

In the south-western corner of the property, the main mafic volcanic unit comes in contact with calcareous medasediments, metamorphosed to the middle greenschist facies, they are described as grey and blue-grey fine grained marble. They are massive, finely laminated and have local calcite veining fractures.

Property Structure

Although both N.E. and N.W. trending regional structural events are reported by Lumbers in his Geological Report #67 (Limerick and Tudor Townships) only one has been identified with physical evidence on the property. The generally N.E. trending Moira River Shear Zone traverses the property in a northerly direction and provides a coarse topographic control over the routing of the Moira River. On the south portion of the property, however, the river meanders to the west of the shear zone to expose a distinct fault structure in outcrop. Intense shearing and mylonitization has weakened the rocks and exposed them to differential weathering. The result is a distinct north trending rift-like structure with a width of 10-20 meters. Rocks within this zone and immediately adjacent to it contain increased amounts of serecitization and mineralization including pyrite, chalcopyrite, arsenopyrite and gold.

Mineralization

Anomalous gold values up to 3000 ppb are found in narrow quartz-sulfide veinlets within the vicinity of the Moira River Shear Zone. The highest values are found in two separate locations and can be located on the map.

Conclusions and Recommendations

Although no mineralized veins of any significant width were found, the value of the property as an exploration target has been enhanced by locating the Moira River Shear Zone and the economic mineralization shown to exist locally within it.

It is recommended that a detailed soil geochemical survey and accompanying magnetic survey be carried out in order to delineate any possible gold and/or sulfide enrichment which may underlie overburden in the vicinity of the shear zone. This survey could be limited in geographical area because of the known location of the fault on the ground.

References

Christie, B.J., 1989. Assessment report on geological mapping and lithogeochemical sampling, Tudor Property, Tudor Township, Ontario. Unpublished Company Report.

Dillman, R.J., 1995. Diamond drilling report on the Tudor Property. Unpublished assessment report, M.N.D.M. library.

Lumbers, S.B., 1969. Geology of Limerick and Tudor Townships: Ontario Department of Mines Geological Report 67, includes Map 2168.

Table of Lithological Units for the Hodgson Property

CENOZOIC

RECENT

Swamp, lake and stream deposits

PLEISTOCENE

Sand, gravel, boulders, clay

Unconformity

PROTEROZOIC

FELSIC META-INTRUSIVE ROCKS

Granitic gneiss

Intrusive Contact

MAFIC META-INTRUSIVE ROCKS

Gabbro, diorite

Intrusive Contact

META-SEDIMENTARY ROCKS

Carbonate metasediments- marble

Clastic metasediments - greywacke

FELSIC METAVOLCANICS

Flows, tuffs, lapilli tuffs

MAFIC METAVOLCANICS

Flows, pillowed flows, tuffs, schists, amphibolite

CHAUNCEY ASSAY LABORATORIES LTD.

33 Chauncey Avenue, Toronto, Ontario, M8Z 2Z2
Tel: (416) 239-3527 FAX: (416) 239-4012

CERTIFICATE OF ANALYSIS

RECEIVED FROM: RANDY HODGSON DATE: SEPTEMBER 24, 1998

REPORT NO. MI-3910 SAMPLES OF: ROCKS

DATE RECEIVED: SEPTEMBER 17, 1998 ATTENTION: RANDY HODGSON

SAMPLE NO:	Au PPB
1	50
2	40
3	120
4	280
5	100
6	260
7	80
8	160
9	120
10	50
11	40
12	50
13 -80 MESH	1450
13 +80 MESH	120

NO FREE GOLD IN #13

J. van Engelen B.Sc. CHEMIST

J van Engelen Mgr.

CHAUNCEY ASSAY LABORATORIES LTD.

33 Chauncey Avenue, Toronto, Ontario, M8Z 2Z2
Tel: (416) 239-3527 FAX: (416) 239-4012

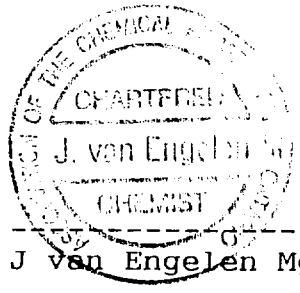
CERTIFICATE OF ANALYSIS

RECEIVED FROM: RANDY HODGSON DATE: DECEMBER 10, 1998

REPORT NO. MI-3932 SAMPLES OF: ROCKS

DATE RECEIVED: DECEMBER 2, 1998 ATTENTION: RANDY HODGSON

SAMPLE NO:	Au PPB
14	404
15	943
16	314
17	494
18	458
19	494
20	492
21	587
22	898
23	3009
24	654



J van Engelen Mgr.

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)
W0090.00006
Assessment Files Research Imaging

ections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this nt work and correspond with the mining land holder. Questions about this collection nt and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

31C13SE2005 2.20046 TUDOR 900

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.
- Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

Name RAND HODGSON	Client Number 145101
Address 91 40th STREET	Telephone Number
TORONTO	Fax Number
Name	Client Number
Address	Telephone Number
	Fax Number

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

☑ Geotechnical: prospecting, surveys, assays and work under section 18 (regs) ☐ Physical: drilling stripping, trenching and associated assays ☐ Rehabilitation

Work Type GEOLOGICAL SURVEY	Office Use
	Commodity
	Total $ Value of Work Claimed 12,583
Dates Work Performed From Day 01 Month 06 Year 98 To Day 30 Month 10 Year 98	NTS Reference
Global Positioning System Data (if available) Township/Area TUDOR	Mining Division S. Ontario
M or G-Plan Number M-156	Resident Geologist District Tweed

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name SAME AS ABOVE	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

4. Certification by Recorded Holder or Agent

I, RAND HODGSON (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent		Date JAN 10/00
Agent's Address	Telephone Number	Fax Number

0241 (03/97)

RECEIVED
JAN 27 2000
GEOSCIENCE ASSESSMENT OFFICE

Deemed April 26/2000

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W0090.00006

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date
eg	TB 7827	16 ha	$26,825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8,892	$ 4,000	0	$4,892
1	1140879	12	12,583,00 ~~12,583.00~~	9600	0	2983
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
	Column Totals					

I, RAND HODGSON (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
	JAN. 10/00

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☐ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☒ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp

RECEIVED
JAN 27 2000
GEOSCIENCE ASSESSMENT OFFICE

Deemed Approved Date	Date Notification Sent
Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)	

0241 (03/97)

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use): W0090.00006

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
GEOLOGICAL	70 days	$100	$7,000 —
Associated Costs (e.g. supplies, mobilization and demobilization).			
paint			8 —
ASSAYS ($13.13 each x 24)			315 —
Transportation Costs			
$0.30 / km. x 8400 km			2520
Food and Lodging Costs			2740 —
$83/day for 33 days for 2 persons			
		Total Value of Assessment Work	12,583 —

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK × 0.50 = Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, RAND G. HODGSON (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as recorded holder (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

RECEIVED
JAN 27 2000
GEOSCIENCE ASSESSMENT OFFICE

Signature	Date
	Jan 10/00

0212 (02/96)

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9845
Fax: (877) 670-1555

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

March 10, 2000

RAND GRAHAM HODGSON
91 FORTIETH STREET
TORONTO, ONTARIO
M8W-3N2

Dear Sir or Madam:

Submission Number: 2.20046

Subject: Transaction Number(s):		**Status**
	W0090.00006	Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact STEVE BENETEAU by e-mail at steve.beneteau@ndm.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 14648
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.20046

Date Correspondence Sent: March 10, 2000 **Assessor:** STEVE BENETEAU

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W0090.00006	1140879	TUDOR	Approval	March 09, 2000

Section:
12 Geological GEOL

Correspondence to:
Resident Geologist
Tweed, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):
RAND GRAHAM HODGSON
TORONTO, ONTARIO

Correspondence ID: 14648

Limerick Twp.(M.114)

Lake Twp.(M.110)

Grimsthorpe Twp.(M.97)

Madoc Twp.(M.120)

THE TOWNSHIP OF

TUDOR

COUNTY OF HASTINGS

MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	● or Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	MRO.
SURFACE RIGHTS ONLY	SRO.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C
TRAILS	
PATENTED S.R.O.	

NOTES

This Map Is Not To Be Used FOR SURVEY PURPOSES

Lot And Concession Lines Shown Hereon Are Projected From The Best Informations Available But Their True Position Is Not Guaranteed. For Official Survey Purposes Consult The Original Survey Plans And Field Notes Of Records In The Ministry of Natural Resources.

400' Surface rights reservation along the shores of all lakes and rivers

Ⓡ S.R.O. NOT OPEN FOR STAKING UNDER SUBSECTION 30(B), MINING ACT, R.S.O. 1990
M.R.O. - MINING RIGHTS ONLY
S.R.O. - SURFACE RIGHTS ONLY
M&S - MINING & SURFACE RIGHTS

DESC.	ORDER #	DATE	DISP.	FILE

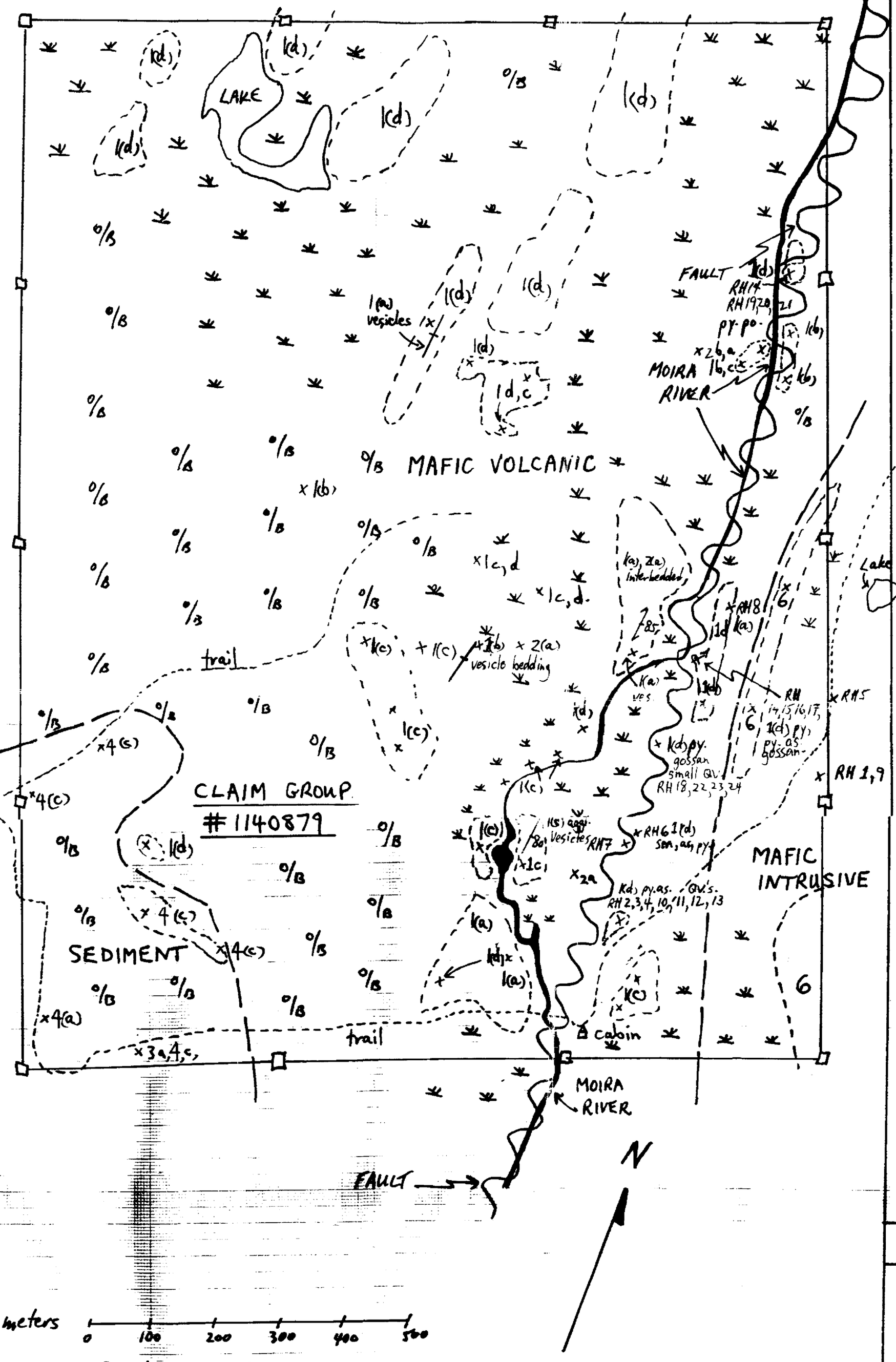
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON

PLAN NO.-M.156

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH



GEOLOGY

1.) MAFIC VOLCANIC
- (a) flow
- (b) pillow
- (c) tuff
- (d) schist

2.) FELSIC VOLCANIC
- (a) flow
- (b) tuff

3.) SEDIMENTS (CLASTIC)
- (a) sandstone
- (b) shale

4.) SEDIMENTS (chemical)
- (a) chert
- (b) iron formation
- (c) carbonate

5.) INTRUSIVE (felsic)

6.) INTRUSIVE (mafic)

SYMBOLS

- inferred contact
- outcrop
- ridge
- o/b overburden
- fault
- strike, dip (bedding)
- strike, dip (schistosity)
- trench, pit
- S sulfide
- As arsenopyrite
- Py pyrite
- po pyrrotite
- ser sericite
- mag magnetite
- ves. vesicular texture
- aggl. agglomerate
- carb. carbonate
- f.gr. fine grained
- RH 1-24 rock sample #'s.
- claim post
- cabin
- trail

MOIRA RIVER CLAIMS

GEOLOGY + SAMPLE LOCATION

TUDOR TOWNSHIP

N.T.S. 31 C 12,13

GEOLOGY BY RAND HODGSON BSc., B.Ed. 9/98