

# ARMAND LAKE PROPERTY

Geology Report for Brian Fowler/Mike Shuman

NTS 42 C 13

September, 1993

Aubrey J. Eveleigh Clark Geological Consulting

2.15193



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MAPS

Map 1: Geology (in pocket)

# INTRODUCTION

On September 11 and 12 Geologists Aubrey Eveleigh and David Gliddon performed geological mapping on the Armand Lake Property for prospectors Brian Fowler and Mike Shuman. A total of 11 samples were taken and assayed for Copper, Zinc and Gold.

The property is considered to be a favourable area for hosting economic gold mineralization. This North Limb of the Hemlo Belt is believed to contain geology similar to that around the Hemlo mines and therefore warrants the attention of exploration.

# LOCATION AND ACCESS

The Armand Lake Property is located in the Schreiber-Hemlo Resident Geologist Area of Ontario. The property is approximately 20 km Northeast of the Hemlo mine sites. The claims are located North of Musher Lake in the Wabikoba Lake Area.

Access can be had via Highway 614 (Manitouwadge Highway) and turning off onto the Dotted Lake road at Kilometre 11. A new logging road called the Twist Lake Road runs approximately 400 metres North of the property boundary.

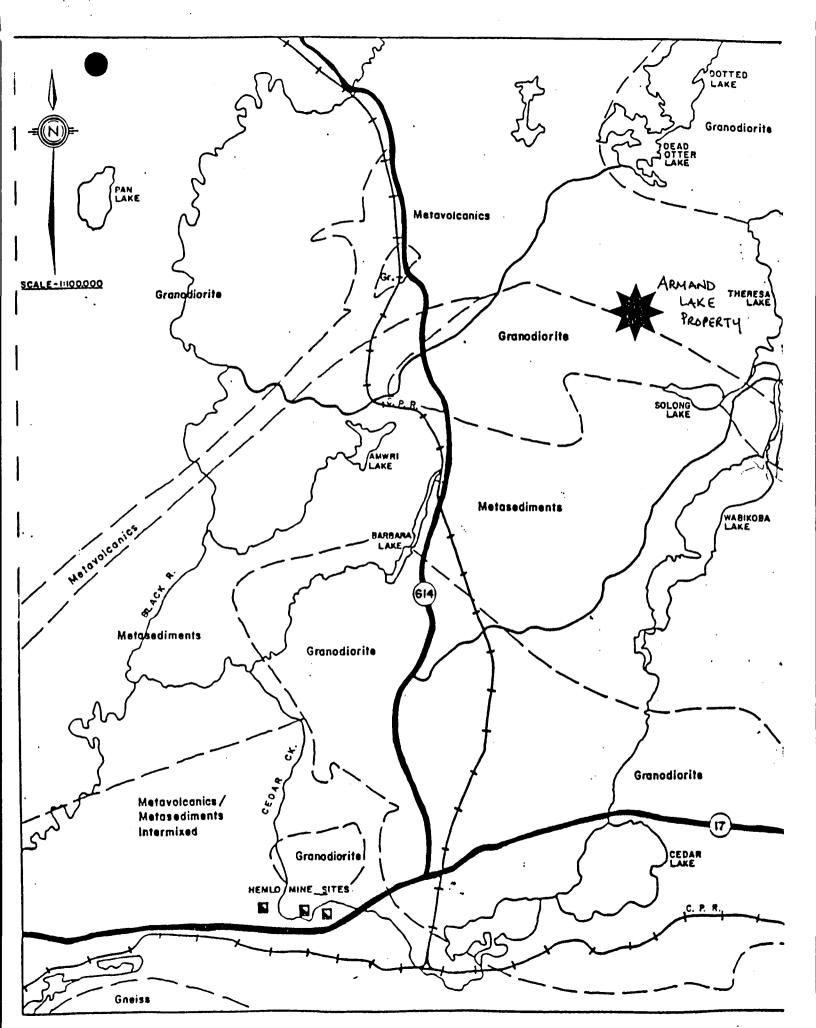
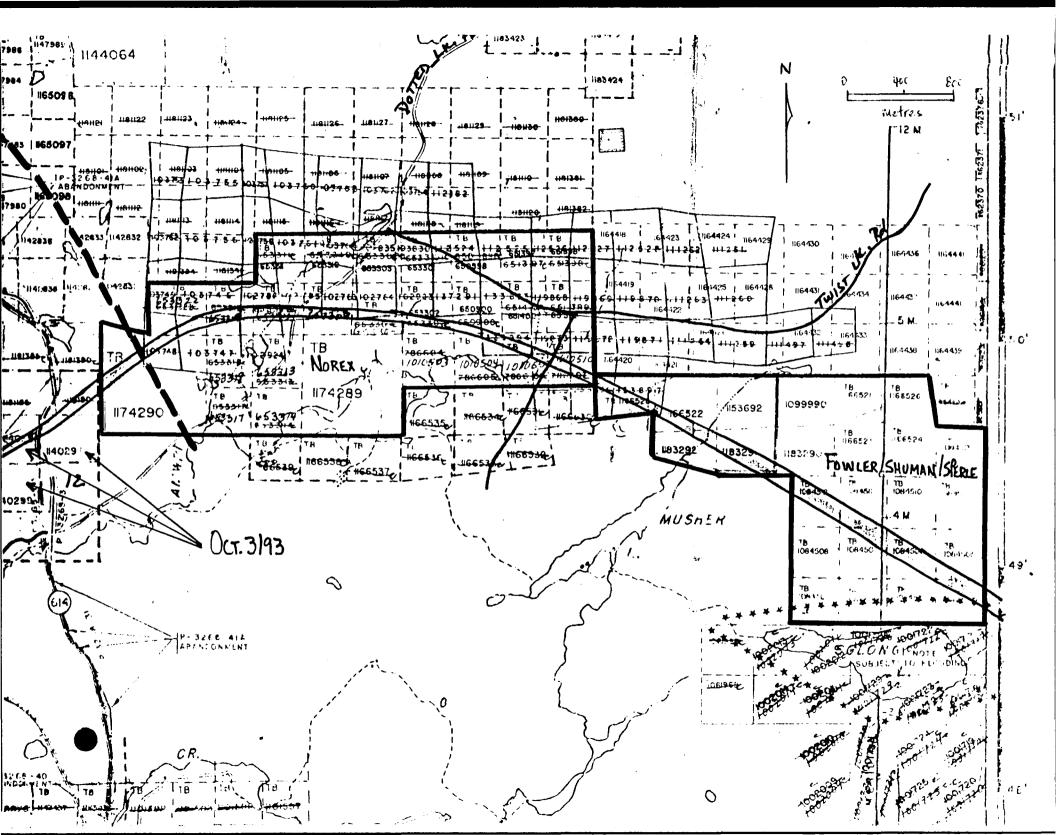


Figure 1 : PROPERTY LOCATION MAP

# CLAIMS

The claims are recorded in good standing on Claim Map Sheet G-620, Wabikoba Lake Area of the Thunder Bay Mining Division. The mapping program was performed on the following claims:

TB 1166525 TB 1166522 TB 1153692 TB 1183292 TB 1183291



# PREVIOUS EXPLORATION

In August of 1988 Noranda Exploration performed geological and geochemical surveys over the claims covered in this report. Their property was known as the Norman Property.

Newmont Exploration performed a geological and geochemical survey over the adjoining claims to the East in 1992.

# REGIONAL GEOLOGY

The Armand Lake Property is located on the North Limb of the Archean Hemlo-Heron Bay greenstone belt.

The Hemlo Area is predominately underlain by granitic rocks with the North Limb being mainly massive and pillow basalt mixed with felsic to intermediate pyroclastic rocks containing interflow sediments.

Low grade regional metamorphism has affected all of the Early Precambrian rocks in the area. Locally pluton contact zones indicate metamorphic conditions corresponding to medium grade.

# PROPERTY GEOLOGY

The property consists of a mixed sequence of mafic, felsic to intermediate volcanic and sedimentary rocks intruded by gabbro, quartz feldspar porphyries and the Musher Lake granodiorite pluton.

The <u>mafic volcanics</u> are usually massive with pillow and agglomeratic features observed in some outcrops. Epidote alteration is quite common.

The <u>felsic to intermediate volcanics</u> consist of massive flows (rhyolite and dacite) and crystal tuffs. The quartz eye sericite schist, which is the most interesting unit, can be observed in a couple of locations. This unit probably represents an altered pyroclastic rock (i.e. Crystal Tuff). Although most outcrops seem to suggest this, there are others which appear to be altered felsic intrusives (i.e. Quartz Feldspar Porphry). This crystal tuff, probably, has been intruded by a couple of generations of felsic intrusives and then altered to the point where the original protolith is indistinguishable. Even, what appears to be, the contacts between the pyroclastics and the felsic intrusives are very gradational and difficult to identify because of the alteration.

The <u>metasedimentary rocks</u> are intercalated argillite/greywacke layers. These sediments are rich in mafic minerals and in most cases altered to a quartz-biotite schist. Local gossanous patches can be observed in various outcrops and can assay anomalous copper and zinc.

The only <u>mafic intrusive</u> body found was a coarse grained unaltered gabbro. This unit appears to parallel stratigraphy.

The <u>felsic intrusive</u> unit is the Musher Lake pluton which dominates the southern section of the property. This pluton has a massive granodioritic texture. The southern portion of the property is also covered with an abundance of granitic boulders which are pegmatitic and granodioritic.

All the rock units on the claim block show a foliation of 110 - 140 with steep dips (vertical to 80) to the SSW. Previous mapping suggested a south facing direction.

# ALTERATION and MINERALIZATION

The felsic pyroclastic unit (or quartz eye sericite schist) is usually strongly foliated with sericite and silica alteration. Trace amounts of fuchsite (chromium mica) alteration can be found in some outcrops. The pyrite content usually ranges from 1% to trace. Gold assays have returned values up to .086 ounces of Au per ton in grab samples taken by Brian Fowler/Mike Shuman from the quartz eye sericite schist.

This pyroclastic unit has taken the majority of the structural strain on the property as well as the silicification, probably from the intrusion of the Musher Lake pluton. This is the key unit to focus on for further exploration of the alteration and mineralization.

# CONCLUSIONS and RECOMMENDATIONS

Although no significant values were obtained from the grab samples during this program, the quartz eye sericite schist still remains a very interesting unit and holds the best potential for hosting economic gold mineralization. The similarities between this unit and those associated with the Hemlo deposit is reason enough to warrant further exploration. There is a lack of outcrop exposure for the quartz eye sericite schist. More outcrop may be found with detailed prospecting or trenching.

# REFERENCES

Geological and Geochemical Report for Norman Property, Daphne Peterson, Noranda Exploration Company LTD., 1987

Lithogeochemical Report on the Summers Lake (East) Central Claim Block, Harvey M. Klatt, Newmont Exploration of Canada LTD., 1992.

# STATEMENT OF QUALIFICATIONS

- I, Aubrey John Eveleigh of Thunder Bay, Ontario do hereby certify that:
  - 1. I am a Geologist residing at 155 Coady Place
  - 2. I am a graduate of Memorial University of Newfoundland (1989) with a Bachelor of Science Degree in Geology
  - 3. I have been involved in mineral exploration since 1985
  - 4. I have not received, directly or indirectly, or expect to receive any interest in the company and its properties

Signature:

Name: <u>Aubrey John Evelei</u>

# APPENDIX 1

# SAMPLE RECORD SHEET

Sample #	Description	Au(ppb)	Cu(ppm)	Zn(ppm)
AE-1	Qtz. eye sericite biotite schi	st < 5		
AE-2	Qtz. eye sericite schist	< 5		
AE-3	Gossaned argillite sediment	< 5	107	46
AE-4	Mafic Volcanic	< 5	76	84
AE-5	Qtz. biotite sericite schist	8	93	34
AE-6	Mafic Volcanic	7	70	42
AE-7	Hornblende Biotite Schist	18	98	217
AE-8	Gossaned Metasediment	16	148	72
AE-9	Gossaned Metasediment	12	135	189
AE-10	Gossaned Metasediment	6	101	36
AE-11	Gossaned Metasediment	10	84	28

# APPENDIX 2



# ACCURASSAY LABORATORIES A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2 THUNDER BAY, ONTARIO P7B 6G3 PHONE (807) 623-6448 FAX (807) 623-6820 Page 1

MR. A. EVELEIGH 103-79 North Court Street Thunder Bay, Ontario P7A 4T7

September 22; 1993

Job #934397

Sample Accurassay	# Custome:	r	Gold ppb	Gold Oz/t
1 2 3 4 5 6 7 8 9 10 10	Custome: AE-1 AE-2 AE-3 AE-4 AE-5 AE-6 AE-7 AE-8 AE-9 AE-9 AE-9A	r Check	ppb <5 <5 <5 8 7 18 16 12 <5	02/t <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001 <0.001
11 12	AE-10 AE-11		6 10	<0.001 <0.001



# ACCURASSAY LABORATORIES A DIVISION OF ASSAY LABORATORY SERVICES INC.

:10- 1-83 :

1070 LITHIUM DRIVE, UNIT 2 THUNDER BAY, ONTARIO P78 6G3 PHONE (807) 623-6448 FAX (807) 623-6820 Page 1

MR. A. EVELEIGH 103-79 North Court Street Thunder Bay, Ontario P7A 4T7

October 1, 1993

Job #934397

Sample {		Zinc	Copper
Accurassay	Customer	ppm	ppm
3	AE-3	46	107
4	AE-4	84	76
5	AE-5	34	93
6	AE-6	42	70
7	AE-7	217	98
8	AE-8	72	148
9	AE-9	189	135
10	AE-10	36	101
11	AE-11	28	84





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Ministry of and Mines

Ministère du Northern Development Développement du Nord et des Mines

Geoscience Approvals Section 933 Ramsey Lake Road 6th Floor Sudbury, Ontario P3E 6B5

Telephone: (705) 670-5853 (705) 670-5863

Our File: 2.15193

Transaction #: W9340.00196

January 12, 1994

Mining Recorder Ministry of Northern Development and Mines 435 James Street South Suite B003 Thunder Bay, Ontario P7E 6E3

Dear Sir:

RE: APPROVAL OF ASSESSMENT WORK SUBMITTED FOR GEOLOGY ON MINING CLAIMS TB1166522 ET AL IN THE WABIKOBA LAKE AREA

A Notice of Deficiency was not issued on this Report of Work prior to the 90 day deemed approval date and as outlined in subsection 6(5) of the Mining Act Regulations this Report of Work is deemed approved as of JANUARY 3, 1994.

If you require further information please contact Lucille Jerome at (705) 670-5855.

Yours sincerely

Ron C. Gashinski

Senior Manager, Mining Lands Section Mining and Land Management Branch

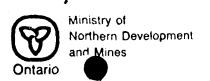
Mines and Minerals Division

LJ/ls

cc: Resident Geologist

Thunder Bay, Ontario

Assessment Files Library Toronto, Ontario



# **Report of Work Conducted** After Recording Claim

Mining Act

Transaction Number W9340-196

MINING LANDS

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

Recorded Holder(s)

Mike Shuman

- nstructions: Please type or print and submit in duplicate.
  - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining
  - A separate copy of this form must be completed for each Work Group.
  - Technical reports and maps must accompany this form in duplicate.
  - A sketch, showing the claims the work is assigned to, must accompany this form.

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Rehabilitation							
Other Authorized Work							
Assays							
Assignment from Reserve							
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Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
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	1166525	1	500	400	100	
	1153692	1	575	400	175	
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Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark ( $\sim$ ) one of the following: emi Ca

W Credits are to be cut back starting with the claim listed last, working backwards

equally ever all claims contained in this report of way to be cut back Cred to are TO Orect In the event that you have not specified your choice of priority, option one will be implemented

to be but back as priorized on the attached appendix

Exerpain of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respecto the mining claims. Note 1:

has bush purformed on patented or leased land, pleass compless 7.0**%** Note 2.



Ministry of Northern Development and Mines

Mini. du Développement du Nord et des mines

# Statement of Costs for Assessment Credit

# État des coûts aux fins du crédit d'évaluation

# Mining Act/Loi sur les mines

ersonal information collected on this form is obtained under the authority f the Mining Act. This information will be used to maintain a record and ngoing status of the mining clalm(s). Questions about this collection should e directed to the Provincial Manager, Minings Lands, Ministry of Northern evelopment and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario 3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute quesiton sur la collece de ces renseignements au chef provincial des terrains miniers, minière du Développement du Nord et des Mines, 159, rue Cedar, 4º étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

Transaction No./Nº de transaction

# . Direct Costs/Coûts directs

Туре	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Fees Oroits de	Type Clark Geol. Comely	2,93	
l'entrepreneur et de l'expert- conseil			2193
Supplies Used Fournitures utilisées	Туре		
Equipment	Туре		
Location de matériel			
	Total Dir Total des coû	ect Costs ts directs	2193

# 2. Indirect Costs/Coûts indirects

\*\* Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Туре	Description	Montant	Total global
Transportation Transport	Tours le	255.	
			255
Food and Lodging Nourriture et hébergement	Motels Forest	200.98	201.77
Mobilization and Demobilization Mobilisation et démobilisation			
	Sub Total of In Total partiel des co		456 -
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Total Value of Assi (Total of Direct and Indirect costs)	Allowable d'évalue (Total de	totale du crédit ation es coûts directs ets admissibles	2649

2632

ote: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter toui ou une partie des travaux d'évaluation présentés.

# iling Discounts

Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.

Work filed three, four or five years after completion is c'aimed at 50% of the above Total Value of Assessment Credit. See calculations below:

otal Value of Assessment Credit Total Assessment Claimed  $\times$  0.50 =

# Remises pour dépôt

- 1. Les travaux déposés dans les deux ans suivantileur achévement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation
- 2. Les travaux déposés trois, quatre ou cinq ans après leur achève nent sont remboursés à 50 % de la valeur totale du crédit d'evaluation susmentionné. Voir les calculs ci-dessous

Valeur totale du crédit d'évaluation	Evaluation totale demander
×	0,50 =

# ertification Verifying Statement of Costs

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make this certification

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Attestation de l'état des coûts

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à faire cette attestation.

# **Problem Page**

The original page in this document had a problem when scanned and as a result was unable to convert to Portable Document Format (PDF).

We apologize for the inconvenience.

# Problème de conversion de page

Un problème est survenu au moment de balayer la page originale dans ce document. La page n'a donc pu être convertie en format PDF.

Nous regrettons tout inconvénient occasionné par ce problème.

