

**GEOLOGICAL REPORT**

on the

**TAM MINERAL CLAIMS**

**Clinton Mining Division  
British Columbia**

**N.T.S. 092P/14  
Latitude 51° 57' 00" N  
Longitude 121° 15' 00" W**

for

**Paul Reynolds  
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Vancouver, B.C.  
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by

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06 October 1998**

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

**25,670**

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## 1. SUMMARY

- 1.1 The Tam property consists of five contiguous mineral claims totaling 35 units. The claims are located approximately 21 kilometres northeast of Lac La Hache, B.C. The claims are accessible by good gravel roads from Lac La Hache.
- 1.2 The property is underlain by Nicola Group volcanoclastic and sedimentary rocks of Upper Triassic age. These rocks are intruded by a number of Upper Triassic-Lower Jurassic plutons, stocks and dykes which are part of an alkaline intrusive complex underlying the Spout Lake area.
- 1.3 The claims are located at the southeast end of a large arcuate aeromagnetic anomaly which reflects magnetite rich phases in the Spout Lake alkaline intrusive complex and/or alteration zones along its margin. Past exploration work along the southern limb of this anomaly located a number of occurrences mineralized with copper plus low values in gold, silver +/- molybdenum and tungsten over a strike length of 15 kilometres.
- 1.4 Mineralization on the property is clearly associated with syenitic intrusives and structures. More exploration work consisting of detailed geological mapping is required in order to understand the nature of this relationship. In addition to geological mapping, soil sampling should also be conducted.

## 2. INTRODUCTION

- 2.1 This report has been prepared to satisfy assessment requirements.
- 2.2 The information for the following report was obtained from sources cited under references and from fieldwork conducted by the Author from 08 July to 12 July 1998. The fieldwork conducted consisted of preliminary geological mapping at a scale of 1:10,000.
- 2.3 The registered owner of the Tam claims is Mr. Paul Reynolds. The claims lie approximately 21 kilometres northeast of Lac La Hache, B.C. Access to the claims is by paved highway and a network of logging roads.

## 3. LOCATION, ACCESS AND PHYSIOGRAPHY

- 3.1 The Tam claims are located approximately 21 kilometres northeast of Lac La Hache, B.C. The claims are centered at 51° 57' 00" north latitude and 121° 15' 00" west longitude on NTS map sheet 092P/14. The claims are in the Clinton Mining Division.
- 3.2 Access to the property is provided by the Timothy Lake Road from Lac La Hache and thence along a network of logging roads. The southern part of the property is accessed from the Timothy Mountain turn-off via Fly Lake while the northern part is accessible from Rail Lake via the "1700 Road". Total road distance from Lac La Hache is approximately 30 kilometres.

- 3.3 The claims are located on the western edge of the Quesnel Highlands in an area characterized by relatively low, rounded hills and ridges separated by depressions often occupied by small lakes, swamps or streams. The area is well forested with Fir, Spruce and Balsam. Approximately 40% of the property has been clear cut logged.

#### 4. CLAIM STATUS

- 4.1 The Tam property comprises five mineral claims totaling 35 units. Complete claim information is as follows:

<u>NAME</u>	<u>UNITS</u>	<u>TENURE NO.</u>	<u>EXPIRY DATE *</u>
Tam 1	12	348485	14 July 99
Tam 3	20	348486	14 July 99
Mat 1	1	348482	14 July 99
Mat 2	1	348483	14 July 99
Mat 3	1	348484	14 July 99

\* Includes assessment currently being applied.

- 4.3 All claims are recorded in the name of Mr. Paul Reynolds. Any legal aspect of claim ownership is beyond the scope of this report.

#### 5. HISTORY

- 5.1 The area of the Tam claims has been explored intermittently since 1966 when the area was first worked by the Coranex syndicate. Their claims, located west and northwest of the present Tim claims, and the surrounding area were explored by the syndicate from 1966 to 1968. The claims were explored by Asarco in 1969 and Amax Exploration in 1972. This work identified three main mineral occurrences: Peach, Miracle and Tim. The showings consisted of chalcopyrite-pyrite and lesser magnetite in syenodiorite and/or altered andesite, proximal to syenodiorite/andesite contacts.
- 5.2 During the same period, Amax Exploration was exploring their own claims located to the west of the Coranex ground. They located several significant skarn altered zones well mineralized with magnetite and chalcopyrite (WC showing). One zone, the North Zone, was estimated to contain 1.5 million tons grading 0.54% copper, 0.01 ounces/ton gold and 0.10 ounces/ton silver. A second zone, the South Zone, was not as well tested.
- 5.3 Craigmont Mines Ltd. drilled the North Zone in 1974, extending the known mineralized strike length to 660 metres. This drilling also indicated the possibility of a mineralized zone parallel to the north zone. Both the North and South zones are open along strike and to depth.

- 5.4 The area was re-staked in 1979 by Stallion Resources Ltd. They conducted soil sampling, trenching and limited diamond drilling, mostly in areas of induced polarization (IP) anomalies generated during the Coranex work in 1969.
- 5.5 In 1983, Stallion diamond drilled six short holes totaling 312 metres on the Tim No. 1 showing. Diamond drill hole DDH-1 was well mineralized from surface to 42.7 metres depth. This section graded 2.76% copper, 0.74 ounces/ton silver and 0.018 ounces/ton gold (Assessment report 12192). Hole DDH-2 intersected copper mineralization from 19.8 to 33.5 metres depth. This 13.7 metre intersection returned 1.03% copper with strongly anomalous gold and silver values. DDH-1 was drilled partially down dip.
- 5.6 In 1988, Liberty Gold Corp. optioned the claims and conducted a VLF-EM and magnetometer survey over the entire property. In 1989, Liberty conducted a soil geochemical survey over the property utilizing the previous years grid. They also conducted an IP survey over the central portion of the property. In 1990, they conducted a program of geological mapping, 17.8 kilometres of detailed IP survey, 736 metres of percussion drilling in seven holes and 1,245 metres of NQ diamond drilling in 12 holes.

## 6. REGIONAL GEOLOGY

- 6.1 The Tam claims lie within the Quesnel Trough, a 30 to 60 kilometre wide belt of Lower Mesozoic volcanic and related sedimentary rocks bounded by older sedimentary rocks of the Cache Creek Group to the east and younger Coast Intrusions to the west. In the area of the Tam claims the Quesnel Trough is dominated by Upper Triassic Nicola Group andesites, basalts, tuffs and argillites. The Nicola group is intruded by the Upper Triassic-Lower Jurassic Spout Lake Intrusions. These include plutons and batholiths that vary in composition from granodiorite to quartz diorite and small alkali stocks which vary in composition from syenite through diorite to pyroxenite.
- 6.2 The Late Jurassic-Early Cretaceous Takomkane batholith intrudes the Nicola Group to the east of the Tim claims. The Takomkane batholith is composed of granodiorite.
- 6.3 Portions of this area are obscured by Tertiary Plateau lavas. Bedrock exposure in the area of the Tim claims amounts to about 10%, the rest being covered by glacial drift deposited from Pleistocene ice sheets.

## 7. PROPERTY GEOLOGY

- 7.1 Preliminary geological mapping at a scale of 1:10,000 has been completed over portions of the Tam property. Total area mapped is approximately two square kilometres. This mapping has been confined, for the most part, to road-cuts and old trenches. A large portion of the property is covered by thick deposits of glacial drift. A brief description of the geological units follows:

### UNIT 1

- 7.2 The oldest and most abundant rocks on the property are the upper Triassic volcanic and related pyroclastic rocks of the Nicola Group. These comprise tuffs, flows and ignimbrites of andesitic composition. Bedded rocks strike west to northwest and dip steeply north. Near syenodiorite contacts, the volcanics are strongly fractured and sheared along northeast and northwest trends. The volcanics exhibit weak to moderate magnetic response.

### UNIT 2

- 7.3 This unit consists of grey and white very fine grain groundmass with 5-15 millimetre diameter rounded fragments of white, feldspar phenocrysts.

### UNIT 3

- 7.4 Dark greenish gray to gray, medium grained diorite. Unit 3a is similar to Unit 3 but with about 10% quartz and is labeled quartz diorite.

### UNIT 4

- 7.5 Pink to pinkish gray medium grained syenodiorite. Along the contacts with the andesite, both the andesite and syenodiorite are altered to epidote. An andesite-syenodiorite hybrid consisting of andesite with minor (<15%) syenodiorite appears to form along the andesite-syenodiorite contact. Much of the copper mineralization is concentrated within this hybrid phase (which is often mapped as andesite). This unit is highly magnetic.
- 7.6 Mineralization consists of malachite and chalcopyrite in intensely epidote and quartz altered andesite, syenodiorite and syenite breccia. Much of the mineralization is concentrated in an andesite-syenodiorite hybrid that appears to form within shears and fractures. Chip and grab samples of mineralized rock, taken by the author during previous exploration programs, returned copper values ranging from trace to one percent.

## 8. CONCLUSION AND RECOMMENDATIONS

- 8.1 The Tam claims are underlain by andesites of the Nicola Group which are intruded by syenitic rocks of the Spout Lake Intrusions. Copper mineralization consisting of malachite and chalcopyrite forms along fractures and shears at or near volcanic-intrusive contacts.
- 8.2 More exploration work consisting of detailed geological mapping rock geochemical sampling and soil sampling is warranted. Geological mapping should be done at both property scale and showing scale.

9. REFERENCES

Butler, Sean

Geological Report on the 1983 Diamond Drilling Program Tim Claim Group, Lac La Hache, BC for Stallion Resources Ltd. November 29, 1983.

Jones, Harold M.

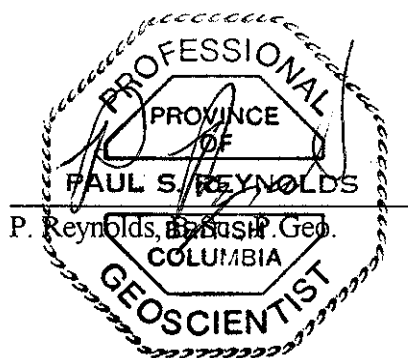
Report on the Tim Claims, Lac La Hache Area, BC. Private report for Parkside Ventures Inc. August 10, 1994.

10. CERTIFICATE

I, Paul Reynolds, of the city of Vancouver in the province of British Columbia do hereby certify that:

- 1) I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of British Columbia.
- 2) I am a graduate of the University of British Columbia with a B.Sc. degree in geology.
- 3) I have practiced my profession as exploration geologist since graduation in 1987.
- 4) This report is based on a review of previous reports and on fieldwork conducted by the Author from 08 July to 12 July 1998.
- 5) I own the Tam claims.

Dated this 6th day of October, 1998.





**APPENDIX I**  
**STATEMENT OF COSTS**

# STATEMENT OF COSTS

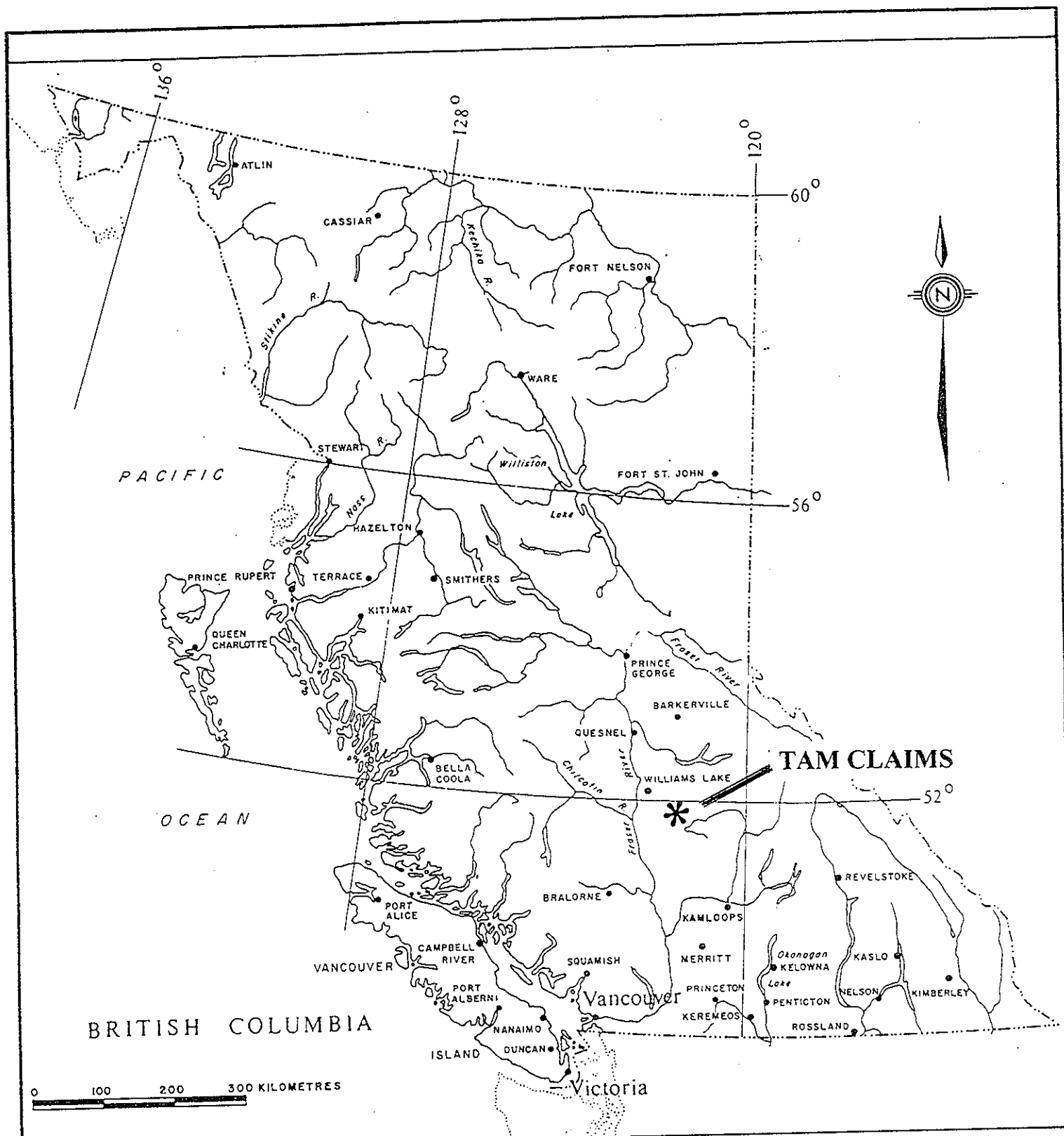
July 9 to July 12, 1998

Paul Reynolds, Senior Geologist	4 days @ \$500/day	2,000
Lory MacRae, Assistant	4 days @ \$300/day	1,200
Truck Rental	4 days @ \$55/day	220
Mileage	1,200 km @ \$0.20/km	240
Food, Gas & Lodging		353
Report (Paul Reynolds)	1.5 days @ \$500/day	750
GST on \$4,410		309
<b>TOTAL</b>		<b>\$5,072</b>



**APPENDIX II**

**FIGURES 1 – 4**

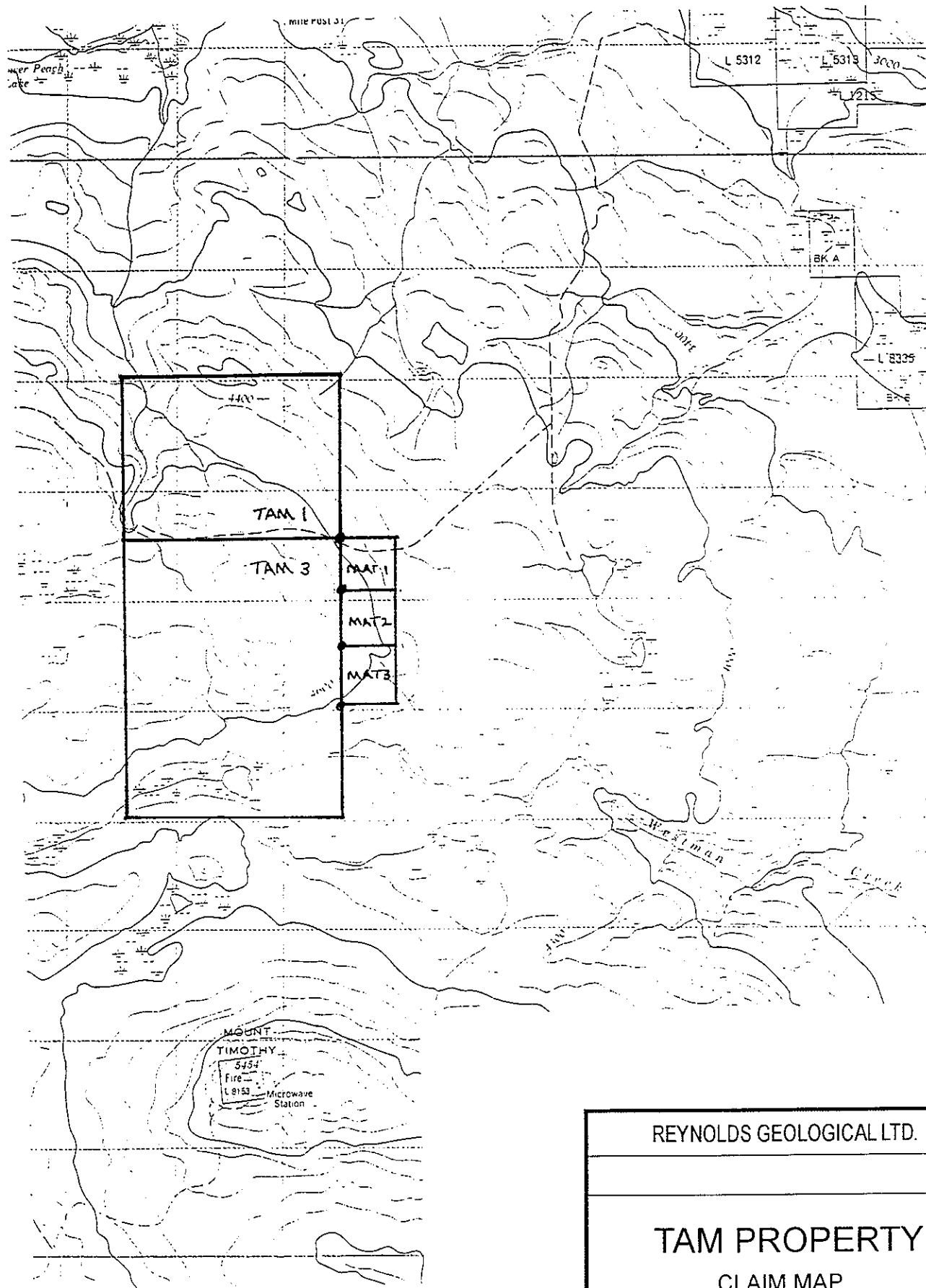


**MOUNT TIMOTHY PROJECT**  
**LAC LA HACHE AREA, BRITISH COLUMBIA**  
 CLINTON MINING DIVISION  
 NTS 092 P/14 E, W

**TAM CLAIM GROUP**  
**LOCATION MAP**

JULY 1996,

FIGURE 1



REYNOLDS GEOLOGICAL LTD.

# TAM PROPERTY CLAIM MAP

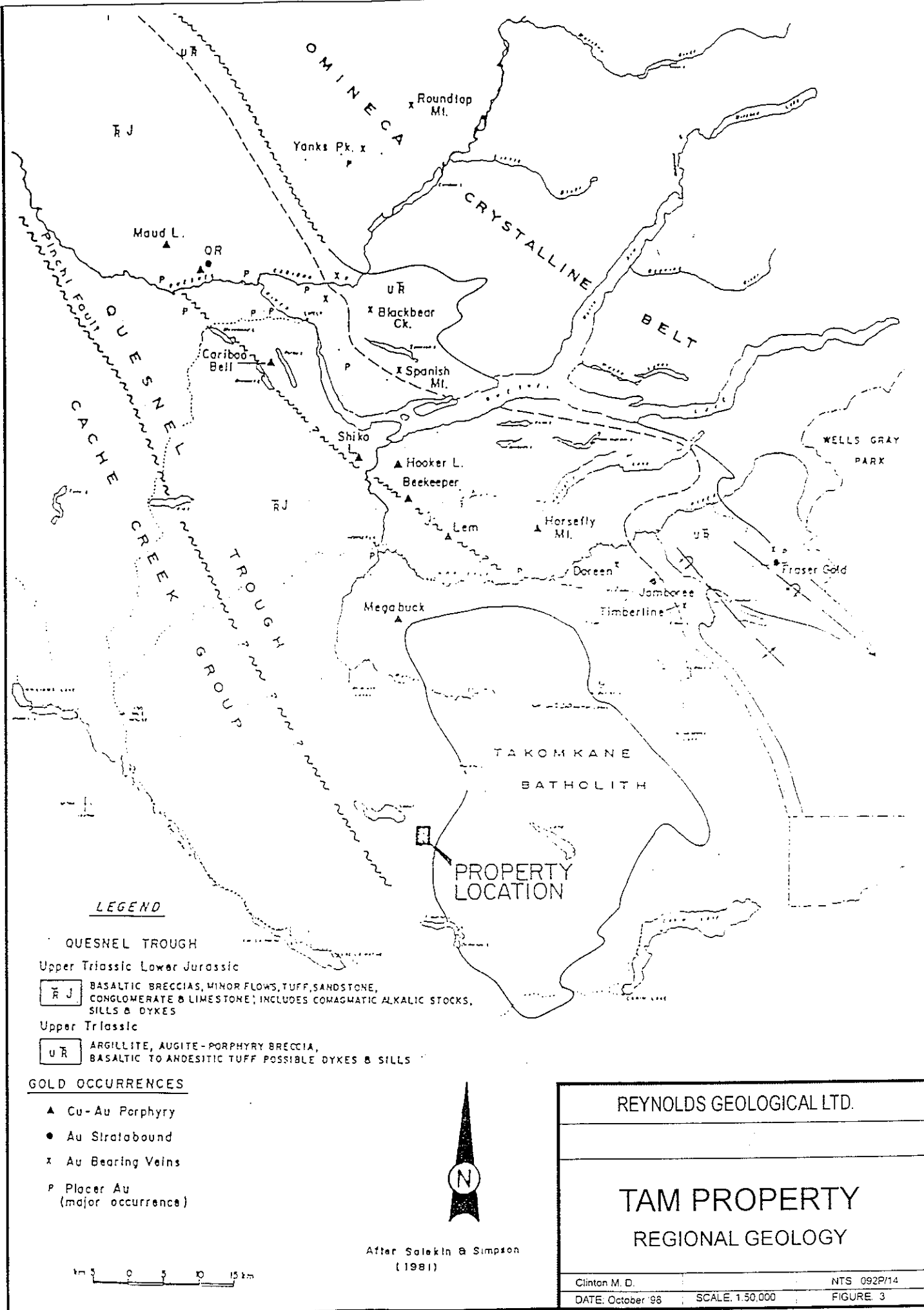
Clinton M. D.

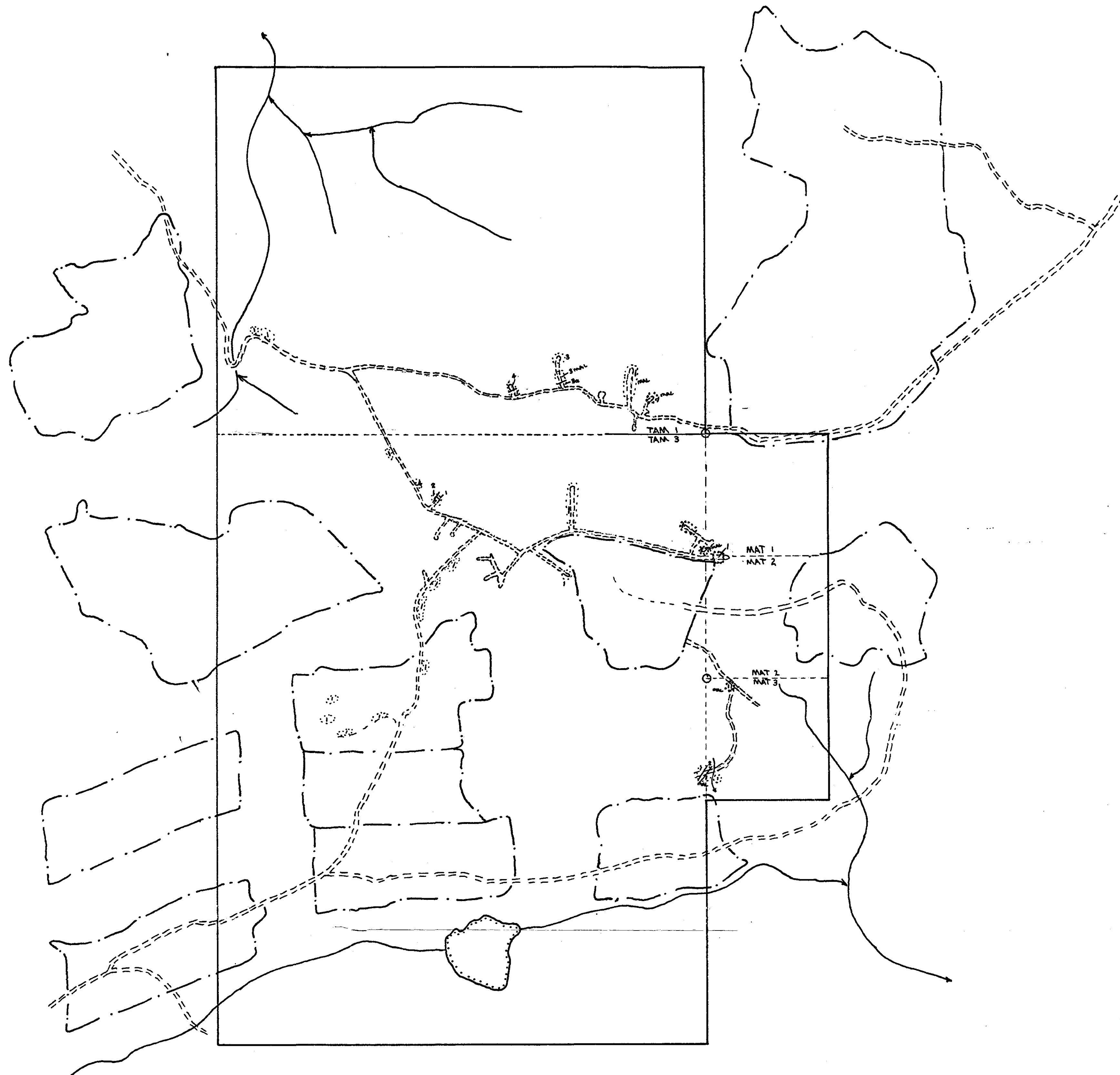
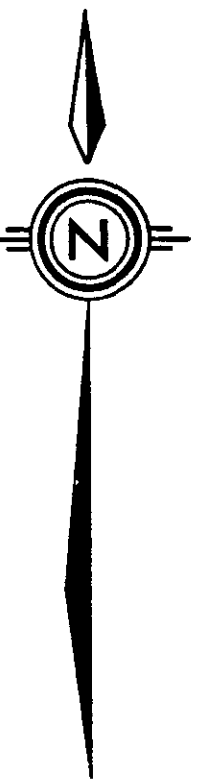
DATE: October '98

SCALE: 1:50,000

NTS: 092P/14

FIGURE 2





**LEGEND**

- Road
- Stream
- Lake
- Clearcut
- Outcrop
- Mal Malachite
- Cpy Chalcopyrite

**Tertiary**

- 5 Basalt

**Triassic-Jurassic**

- 4 Syenodiorite
- 3 Diorite 3a Quartz Diorite
- 2 Syenite Breccia

**Upper Triassic**

- 1 Andesite. Predominately andesite and related tuffaceous rocks.



**TAM CLAIMS  
GEOLOGY**

NTS: 092P/14	CLINTON M.D.
DATE: September 1998	SCALE: 1:10,000
FIGURE 3-10A1 SURVEY BRANCH APPENDIX REPORT	

25,370