

5758

**PROGRESS REPORT  
for  
ACHERON MINES LTD.  
TI GROUP, VANCOUVER ISLAND**

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5758 MAP.....

**January 12, 1976  
Vancouver, B.C.**

**F. Holcapek, P.Eng.**

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**for**  
**ACHERON MINES LTD.**  
**TI GROUP, VANCOUVER ISLAND**

**1.00 INTRODUCTION:**

During October, 1974 Mr. D. Reinke and C. Nelson completed a trenching program on the Ti Mineral claims. The purpose of the trenching was to locate the source of a geochemical zinc anomaly outline during January, 1973.

During October, 1975 the trenches were freshened and sampled and detailed geological mapping of the area was completed by the writer.

**2.00 LOCATION AND ACCESS:**

The claims are located 2.5 miles west of Nahwitti Lake, north of the Holberg road and south of the Nahwitti River. The area is 18 miles west of Port Hardy. The centre of the property is located:

50°43'N;            127°55'W.

Access to the claims is via the Port Hardy-Holberg road and approximately 1 mile on foot from that road.

**3.00 PHYSIOGRAPHY:**

The property occupies an incised upland with moderate relief at about 2000' above sea level.

The property is covered with alternate areas of heavy timber and open cedar swamp. Underbrush is generally heavy in all areas.

Precipitation in this area is heavy throughout the year with varying amounts of snow in the winter.

#### 4.00 PROPERTY:

The property consists of 25 contiguous mineral claims recorded in the Nanaimo Mining Division, B.C.

<u>Claim Number</u>	<u>Record Number</u>
TI 2,4,6,8	22335,7,9,41
TI 29-34	23083-88
TI 48-53	23818-23
MO 1-4	30649-52
MON 1-4	30645-48
BUD 1	25146

All claims are owned by Acheron Mines Ltd. (NPL).

#### 5.00 GEOLOGY: REGIONAL

Geological mapping completed during 1968 to 1970 shows that the property is underlain by members of the Vancouver Group, intruded by Jurassic to Tertiary quartz diorite.

The stratigraphic column is as follows:

Jurassic and Tertiary(?): Quartz diorite and andesite dykes or sills.

Vancouver Group:Upper Triassic and Jurassic:Bonanza Sub Group:

Andesites, tuffs, rhyolite tuffs, dacite and argillaceous tuffs.

Upper Triassic:Quatsino Formation:

Limestone, fossiliferous along base in part marbelized, and skarn developed.

Karmutsen Formation:

Andesites, Minor Limestone, Pillow leaves shale and argillites along base.

5.10 STRUCTURAL SETTING:

In vicinity of the Ti mineral claims the trend of the rock formation is north-westerly with flat to intermediate dips to the south. In vicinity of the dioritic intrusions attitudes of the rock formations are variable and changes of 40° to 50° for the bedding, are common.

Faulting is the main structural feature observed in the field. Block faulting throwing the younger Bonanza Volcanics against the Karmutsen Volcanics is common and is responsible for forming numerous cliffs and hammock-like topography.

5.20 DETAIL GEOLOGY:

The trenched area has been mapped in detail at a scale of 1 inch = 100 feet and the newly built roads

have been checked to obtain additional geological information from new rock exposure.

The trenching has been centred along a skarn zone, trending about N 80 W, consistent with the attitude exhibit by Bonanza argillites exposed along the road 300 feet to the south. The zone is in contact with Quartsino limestone along the foot and hanging wall. A southerly dip at about 35 to 55° is indicated. A small exposure of coarse crystalline quartz diorite appears to terminate the skarn zone at 5+70N, 35+00W. The western limits are not known.

The skarn, where exposed, shows compositional changes from epidote-garnet to garnet amphibole to an amphibolite skarn.

Magnetite occurring as fine grained, dense lenses has been observed between trench 4 and trench 6.

Faulting is indicated by the presence of slicken-sided faces but apparent displacement or sense of movement could not be established.

Numerous small scale northerly trending block faults have been observed within the Bonanza Argillites. The spacing between individual faults is about 150 to 200 feet. Displacement observed appears to be minor, not more than 20 feet in the vertical section, i.e., west side down in respect to east.

### 5.30 MINERALIZATION:

The main economic mineralization exposed by trenching consists of sphalerite of dark to black colour (marmatite) and minor galena. The sphalerite occurs as massive lenses, streaks or fine disseminations with bright yellow staining were strongly oxidized. The galena occurs normally as very fine disseminations, not necessarily associated with sphalerite.

The skarn zone has been traced intermittently for a strike length of 700 feet and has widths of 70 to 100 feet.

Sampling of the trenches (by D. Reinke) suggest that zinc values are distributed throughout the width of the skarn but higher values appear to occur along the foot wall.

Minor magnetite has been found between trench 4 and 6.

#### Sample Description: (by F. Holcapek)

<u>Sample:</u>	<u>Width</u>	<u>Description:</u>	<u>Location:</u>	<u>Zn%</u>	<u>Pb%</u>	<u>Ag oz/ton</u>
37655	grab	amphibole skarn visible sphalerite	junction of road	1.03	.36	.20
37656	5 ft	amphibole skarn oxid.	junction of road	1.20	.14	.02
37657	grab	amphibole skarn, minor sulfhides	along road	0.85	.61	.34

Sample:	Width	Description:	Location:	Zn%	Pb%	Ag oz/ton
#1	16 ft	skarn-amphib streaks & plebs of sphalerite	Trench #2	3.72	.18	.06
#2	8 ft	as above, adj samples	Trench #2	3.97	.28	.12
#3	16 ft	skarn weathered & oxidized, yellow staining, sphalerite	Trench #3	6.02	.04	.14
#4	grab	good sphalerite from dump, trench covered by logs	Trench #4	5.40	.01	.01

#### 6.00 CONCLUSIONS:

Zinc mineralization located on the Ti mineral claims is associated with amphibolite skarn within the Quatsino Limestone near the Bonanza volcanic contact.

The area was well delineated by geochemical sampling and partly coincides with a magnetic anomaly.

Several similar anomalies are indicated to the north of the trenched area. Completion of the road construction by logging companies made access to nearly all parts of the property easy. Numerous new rock exposures along the road cuts and quarries provided additional geological information.



Further work in form of diamond drilling using a small drill unit is warranted in the trenched area and additional geological mapping using the roads as ground control to clarify the geological setting should be completed.

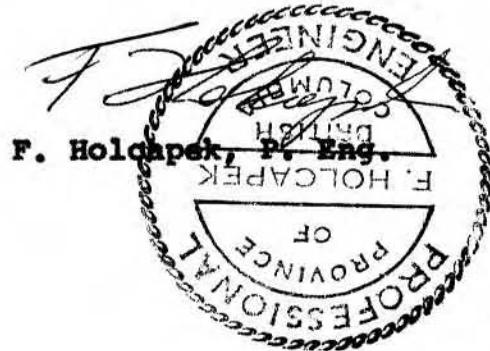


7.00

CERTIFICATE

I, F. Holcapek, of 92 - 10842 - 152nd Street, Surrey, British Columbia, do hereby certify that:

1. I am an exploration geologist and registered member in good standing with Association of Professional Engineers of British Columbia.
2. I am a graduate of the University of British Columbia with a Bachelor Degree in Geology, 1969.
3. I have been engaged in mining exploration for the last 15 years in Canada, U.S.A., Mexico and Australia.
4. This report is based on field work performed by myself and Mr. Reinke during October 1975.



January 12, 1976

Vancouver, B.C.

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.  
To WIT:

In the Matter of detail geological survey and  
sampling on the Ti Group.

I, R. Shnay

of c/o Agilis Exploration Services Ltd.  
107 - 325 Howe Street, Vancouver, B.C. V6C 1Z7

in the Province of British Columbia, do solemnly declare that The following personnel were  
employed and costs incurred in conducting the detailed geological  
survey and sampling on the Ti group during the period, October 7 - 9,  
1975 inclusive.

PERSONNEL:

F. Holcapek---P.Eng.-field	3 day @ \$150.00/day	\$450.00
F. Holcapek---P.Eng.-officer	1 day @ \$150.00/day	\$150.00
D. Reinke-----Prospector-field	3 day @ \$86.00	\$258.00
R. Shnay-----drafting	9.5 hours \$12.33/hour	\$117.13
		<u>\$975.13</u>

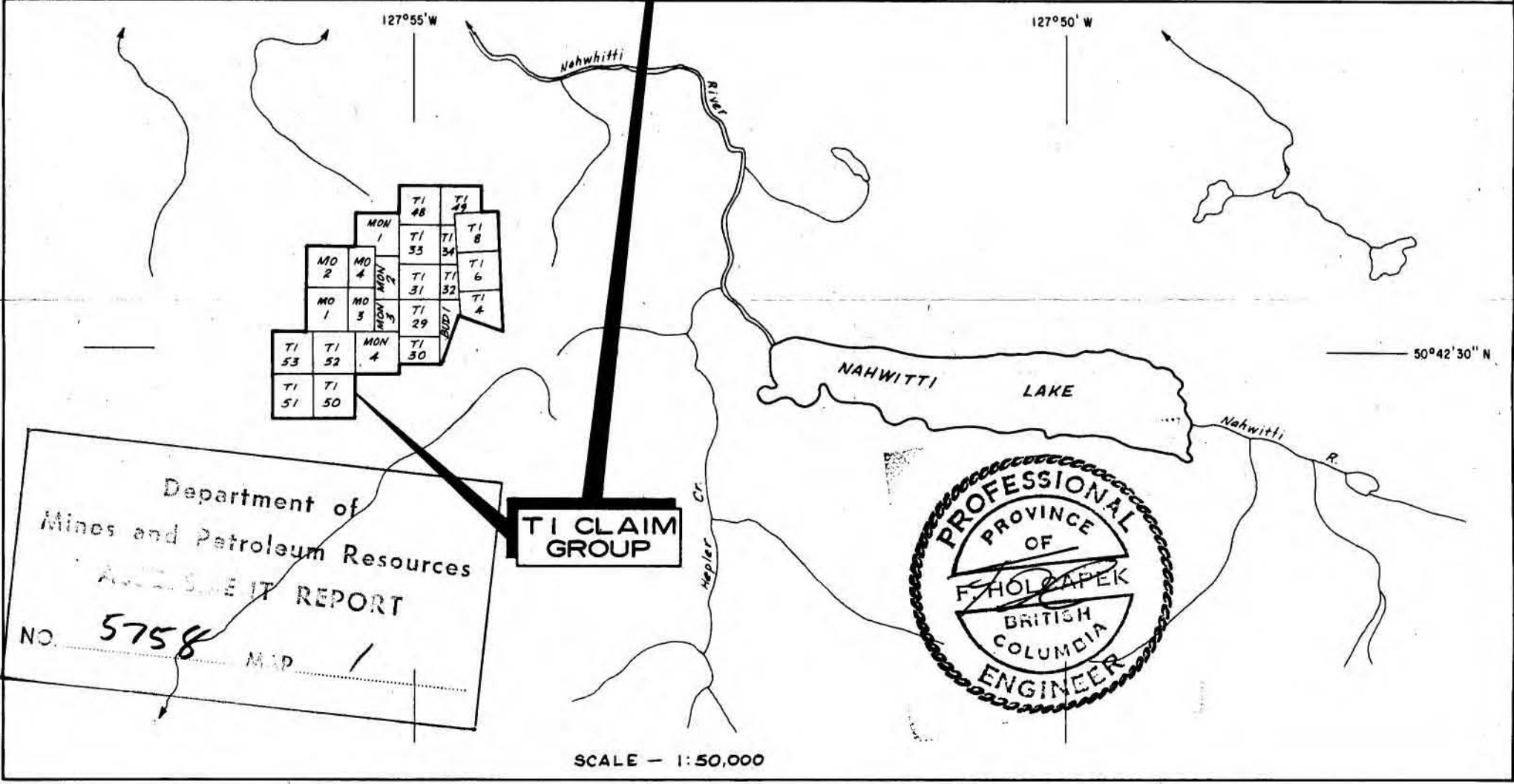
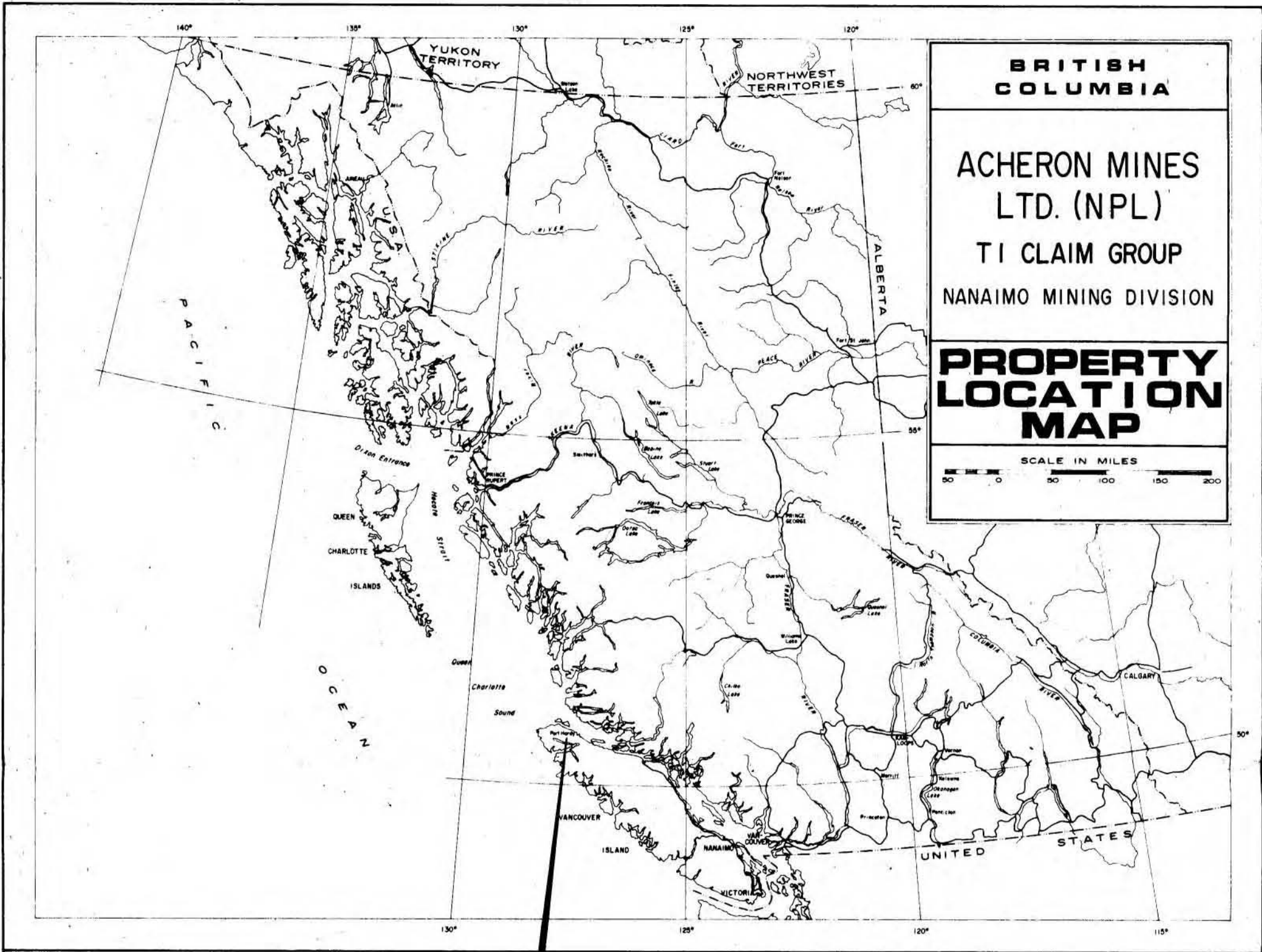
DISBURSEMENTS:

Typing Service	\$ 25.00
Plane fare	155.50
Car Rental, gas	165.00
Chemex	110.25
Groceries, etc.	65.00
	<u>\$420.75</u>
Overhead or disbursements	84.15
	<u>\$504.90</u>

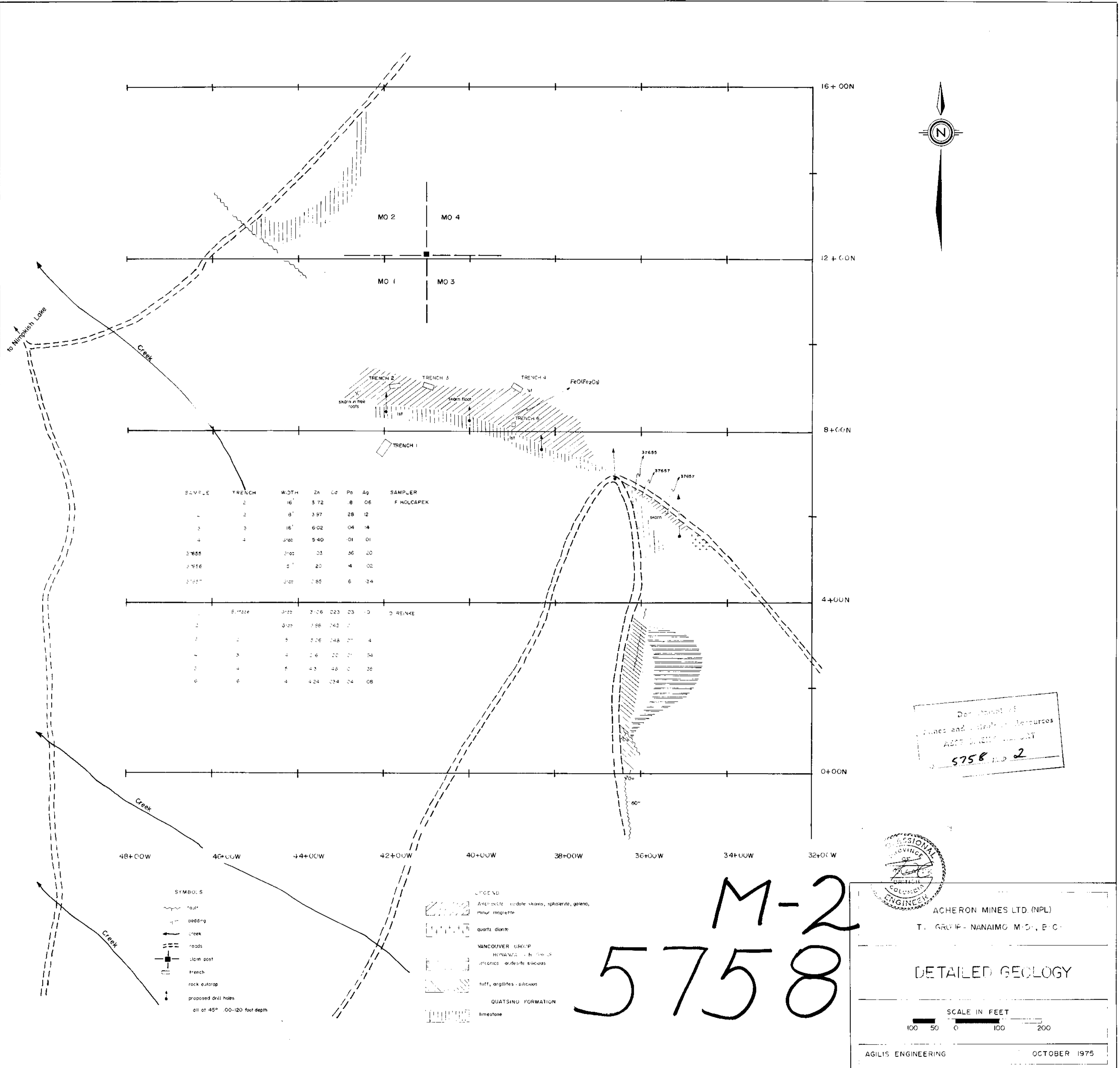
TOTAL \$1,480.03

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of  
the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the *City*  
of *Vancouver*, in the  
Province of British Columbia, this *13*



Department of  
 Mines and Petroleum Resources  
 CLAIM SITE REPORT  
 NO. 5758 MAP 1

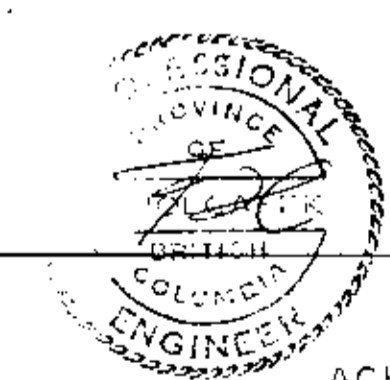


SAMPLE	TRENCH	WIDTH	Zn	Cd	Pb	Ag	SAMPLER
	2	16'	3.72	.8	.06		F. HOLCAPEK
1	2	8'	3.97		.28	.12	
2	3	16'	6.02		.04	.14	
3	4	3'00"	5.40		.01	.01	
37655		3'00"	.03		.36	.20	
37656		5'	.20		.4	.02	
37657		3'00"	1.85		.6	.24	
1	Sample	3'00"	3.06	.023	.03	.10	D. RENKE
2		3'00"	3.86	.043	.1		
3	2	5'	5.76	.048	.07	.4	
4	3	4'	1.6	.20	.07	.54	
5	4	5'	4.3	.48	.07	.36	
6	6	4'	4.24	.234	.04	.08	

- SYMBOLS**
- fault
  - bedding
  - creek
  - roads
  - ulam post
  - trench
  - rock outcrop
  - proposed drill holes  
all at 45° 00-120 foot depth

- LEGEND**
- Amphibole - cordate skarns, sphalerite, galena, minor magnetite
  - quartz diorite
  - VANCOUVER GROUP**
  - BENANZA - B.C. OF  
porphyry, andesite, dacite
  - tuff, argillites - siliceous
  - QUATSING FORMATION**
  - limestone

Department of  
Mines and Technical Resources  
ACTING DEPUTY MINISTER  
5758 P. 2



M-2  
5758

ACHERON MINES LTD. (NPL)  
T. GROUP - NANAIMO M.D., B.C.

**DETAILED GEOLOGY**

SCALE IN FEET  
100 50 0 100 200

AGILIS ENGINEERING      OCTOBER 1975