

84-#807 - 12652

Prospecting and Sampling

Report on the MISTY Claim

Nanaimo Mining Division

NTS 92-L-12

50°42'N

127°51'W

September, 1984

D. B. Petersen

Owner: E. Alionis

Operator: Daiwan Engineering Ltd.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

12,652

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1. Introduction

This report describes the work that was done by R. Philp, Z. Philp, M. Mora, D. Petersen, and E. Alionis in July and August, 1984. It is being submitted for assessment purposes to cover two years of work.

2. Location and Access

The MISTY claim is situated in Northern Vancouver Island immediately South of Nahwitti Lake, 25km West of Port Hardy. See Fig. 1, "Location Map". Geographic co-ordinates are $50^{\circ}42'N$, $127^{\circ}51'W$.

Access is by main logging road from Port Hardy to Holberg that runs through the claim. Several branch logging roads and trails South of this main road traverse the property.

3. Topography and Vegetation

The claim covers the North slope of a large hill 750m high. Elevations on the claim vary from 200m to 700m.

The greater part of the claim has been logged. The unlogged part is covered by stands of mature cedar with underbrush.

4. Local Geology

The Nahwitti Lake region has been mapped by Northcote (1970). The area is underlain by volcanics and sediments of the Upper Triassic to Jurassic Vancouver Group. These rocks are intruded by late Jurassic to Tertiary quartz-diorites and andesitic sills and dykes. See Fig. 2, "Preliminary Geological Map".

Northcote divides the Vancouver Group as follows:

Bonanza Sub-Group: andesitic flows and breccias, felsitic tuffs, greywacke, shale, argillaceous and calcareous shales, and argillaceous limestone.

Quatsino Formation: limestone.

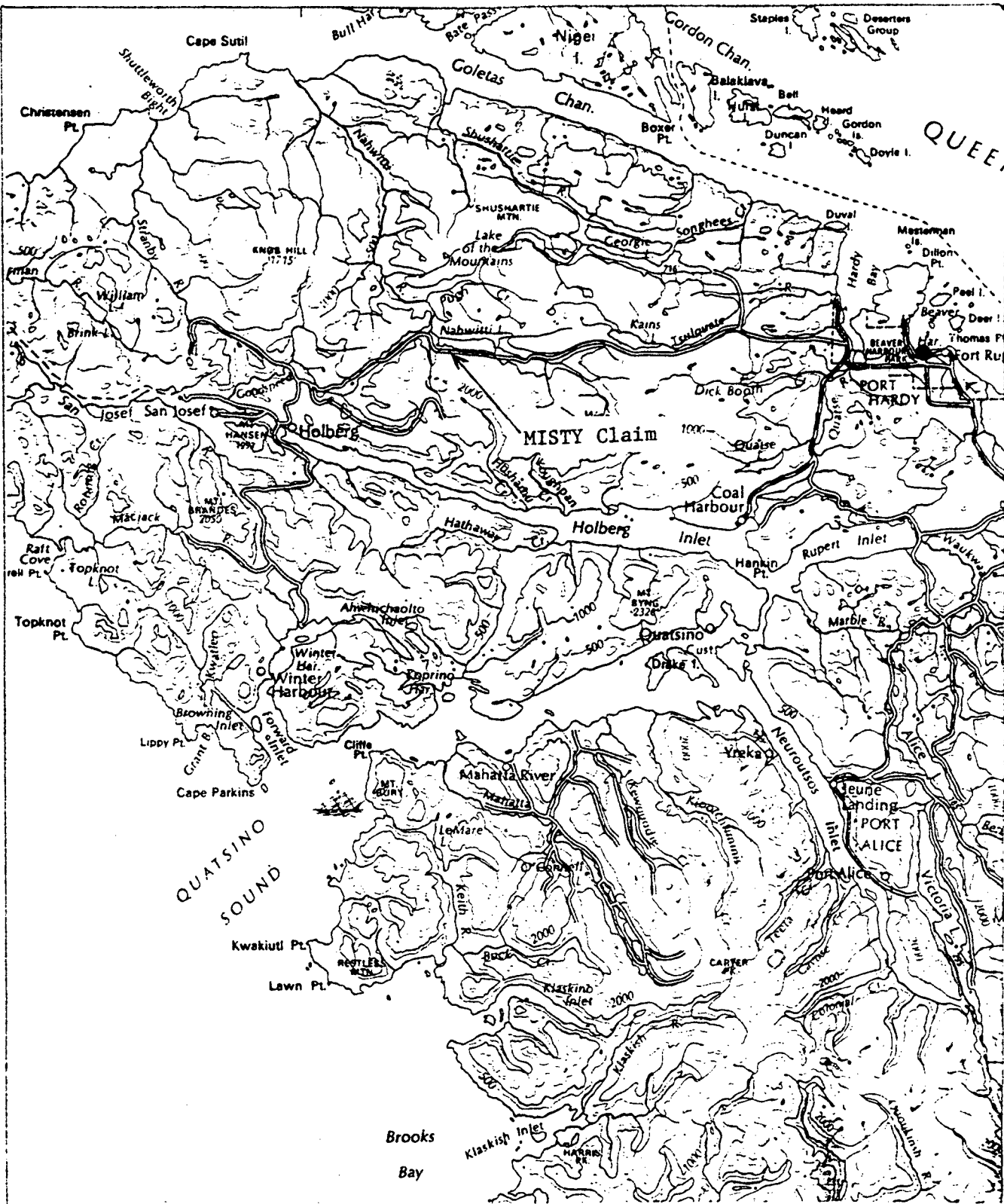


Fig. 1

Location Map

Scale: 1 inch = 6 miles

sofeteron








Figure 2
PRELIMINARY GEOLOGICAL MAP
RUPERT INLET - CAPE SCOTT AREA







GEOLOGY BY K.E. NORTHCOTE

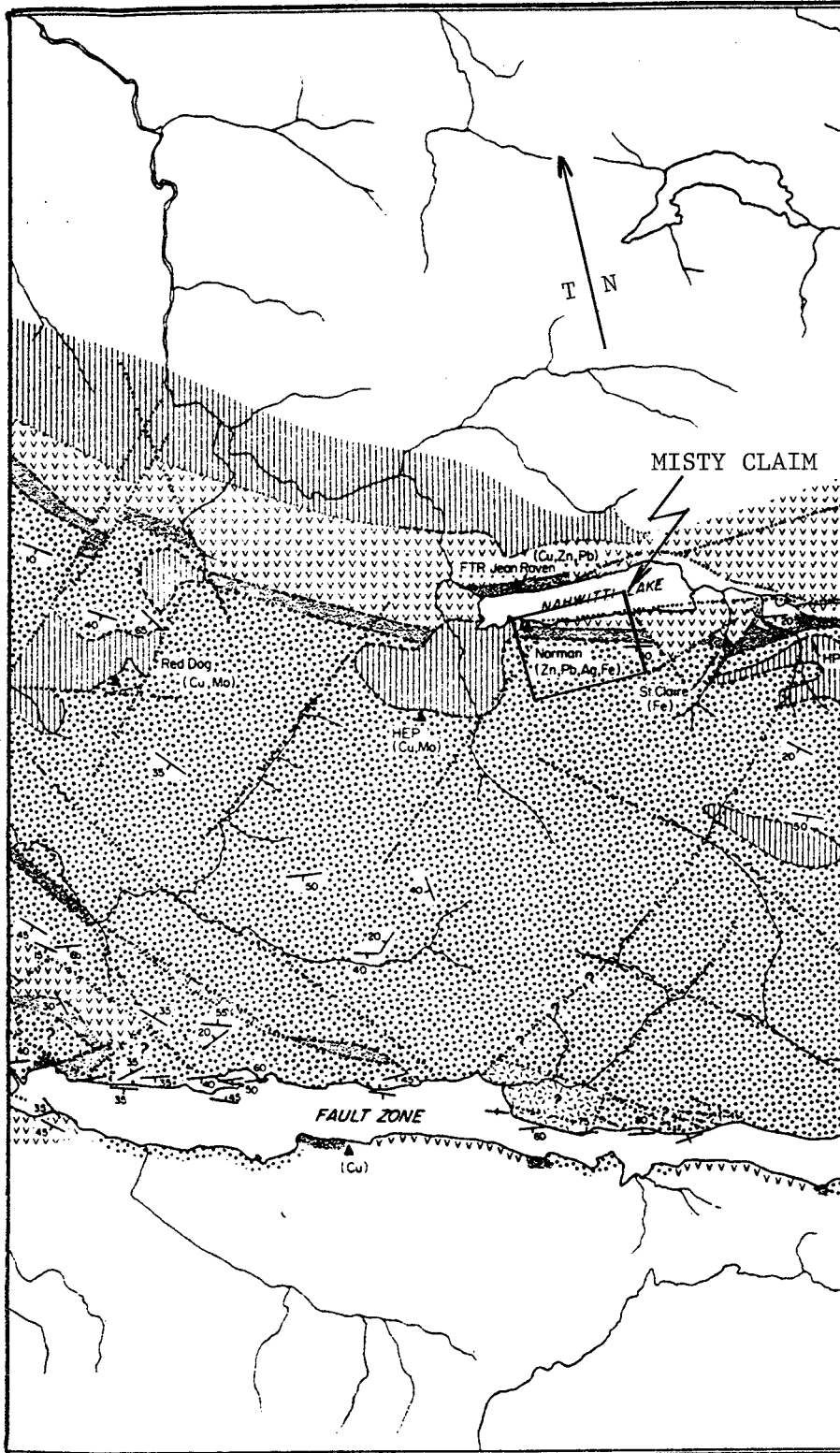


LEGEND

- 
INTRUSIVE ROCKS
 VARIED COMPOSITION FROM DIORITE TO GRANITE AND INCLUDES PORPHYRITIC PHASES
- 
LOWER CRETACEOUS SEDIMENTARY ROCKS
 CONGLOMERATE, SANDSTONE, SILTSTONE, SHALE, CARBONACEOUS HORIZONS
- 
BONANZA SUBGROUP
 UPPER VOLCANIC UNIT: LARGELY PYROCLASTIC TUFF, LAPILLI TUFF AND TUFF BRECCIA OF ANDESITE AND BASALT COMPOSITION WITH SOME BASALT AND RHYODACITE FLOWS AT THE TOP OF THE UNIT
 LOWER SEDIMENTARY UNIT: THIN BEDDED ARGILLACEOUS AND CARBONACEOUS LIMESTONE, CALCAREOUS SHALE AND SILTSTONE AND GREYWACKE
- 
QUATSINO FORMATION
 LIMESTONE, MEDIUM TO THICK BEDDED
- 
KARMUTSEN FORMATION
 BASALTIC AMYGDALOIDAL AND MASSIVE FLOWS, INTERBEDDED TUFF, SOME PILLOW BRECCIA AND POORLY DEVELOPED PILLOWS. THIN LIMESTONE BEDS NEAR TOP OF FORMATION

SYMBOLS

- CONTACTS:
- KNOWN 
 - APPROXIMATE 
 - ASSUMED 
 - LINEAMENTS FROM AIR PHOTOGRAPHS. SOME OF THESE ARE KNOWN TO REPRESENT FAULTS 
 - BEDDING 
 - MINERAL DEPOSITS 



APRIL 15, 1971

4. Local Geology (Cont'd)

Karmutsen Formation: massive to amygdaloidal flows, breccias, pillow lavas and tuffs of andesitic to basaltic composition, thin limestone beds.

There is extensive block faulting in the area, and lack of exposure of rocks makes the tracing of units difficult.

5. Claim Geology

Mapping by Philp (1979), showed that within the claim area andesites and tuffaceous andesites are present. Northerly and Northeasterly shearing is common and is accompanied by chlorite and, in places, epidote. Granodiorite is present in many areas and, in most places, is strongly sheared and altered. Occasional limestone outcrops are present which form skarns at their contact with the granodiorite. Skarn type mineralization in three different sites was noted, consisting of lead and zinc with minor silver.

6. Previous Work Done

According to Fominoff (1971), an I.P. Survey conducted by Siegel Associates for Giant Explorations showed that background chargeability is high, that correlation between chargeability increases and resistivity responses are lacking and that three zones of chargeability highs are present, the highest of which is a single station peak close to the centre of the present MISTY claim.

According to Rote (1973), Giant Explorations conducted magnetometry, geochemistry and geological mapping on the Eastern portion of the TAXI 1 claim group, and did not cover the area currently underlain by the MISTY claim.

Geological mapping by Philp (1979) on North-South lines spaced 100m apart showed that andesites, tuffaceous andesites, limestones and granodiorite are present. Copper, zinc, and minor silver mineralization is

6. Previous Work Done (Cont'd)

present in three skarn zones.

7. Work Done in 1984

Work done in 1984 included prospecting the logging trails and the creeks for mineralization, and chip sampling the mineralized areas.

R. Philp, P. Eng., (22 July) made a technical assessment of the property, Z. Philp (22 July) and M. Mora (22 July) spent 2-man-days prospecting the claim for sulphide mineralization under the direct supervision of R. Philp. D. Petersen (12 August) and E. Alionis (12 August) spent 2 man-days chip sampling the mineralized zones.

The mineralized zones and sample locations are shown plotted on Fig. 3 "Compilation Map". The results of the sampling are shown in Section 8, below.

The chip sampling was performed by the writer and by E. Alionis, who used a chisel and hammer to take acorn-sized chips spaced between 10 and 50cm apart depending on the length of the sample. The numbered samples were sent to Acme Analytical Labs in Vancouver for analysis for Ag, As, Cu, Pb, and Zn by means of I.C.P. analysis. Au analysis was done by A.A.

8. Results of Work Done in 1984

The results of the sampling are summarized below.

<u>Sample No.</u>	<u>Length</u> <u>m</u>	<u>Cu</u> <u>ppm</u>	<u>Pb</u> <u>ppm</u>	<u>Zn</u> <u>ppm</u>	<u>Ag</u> <u>ppm</u>	<u>As</u> <u>ppm</u>	<u>Au</u> <u>ppb</u>
8426549	grab	64	2	79	.1	23	95
8426550	0.5	243	11	10929	.6	24	5
8426551	1.2	260	15	420	.8	35	45
8426552	0.6	119	11833	14002	34.1	12	10
8426553	0.4	88	90	289	.3	24	5
8426554	1.0	1595	58	612	5.2	105	5

8. Results of Work Done in 1984 (Cont'd)

<u>Sample No.</u>	<u>Length</u> <u>m</u>	<u>Cu</u> <u>ppm</u>	<u>Pb</u> <u>ppm</u>	<u>Zn</u> <u>ppm</u>	<u>Ag</u> <u>ppm</u>	<u>As</u> <u>ppm</u>	<u>Au</u> <u>ppb</u>
8426555	30.0	35	4	49	.1	2	5
8426556	30.0	67	4	32	.1	2	5
8426557	10.0	31	3	27	.1	2	5

9. Discussion

The results show that the highest metal values are in the skarn zone in the vicinity of samples 550 to 554 with two zinc values of 1.1% and 1.4%, and one lead value of 1.18%. The highest silver value is 34.1ppm (1.1 oz/t). Gold values are consistently low. Where exposed, this zone is seen to be approximately 1m wide.

The skarn zone, that is located in the creek at the centre of the property, is high up in the face of a cliff and was found to be inaccessible and could not be sampled.

The samples taken in the South of the property across the pyritized and pyrrhotized andesites display background values in all metals.

10. Conclusions

As a result of the prospecting and sampling programme, it is concluded that:

1. the pyritized and pyrrhotized andesites contain background metal values.
2. the mineralized skarn zone exposed in the creek in the Northwestern part of the property contains low grade copper, lead, zinc, and silver values.

11. Recommendations

It is recommended that consideration be given to implementing a reconnaissance soil geochemical programme to explore for large bodies of mineralized skarn.

12. Statement of Costs

The following costs were incurred in the 1984 programme:

Labour

R. Philp	22 July	1 day @ \$ 350	
Z. Philp	22 July	1 day @ \$ 115	
M. Mora	22 July	1 day @ \$ 115	
D. Petersen	12 August	1 day @ \$ 250	
E. Alionis	12 August	1 day @ <u>\$ 115</u>	\$ 945

Transport

Truck Rental	2 days @ \$40	\$ 80	
Gasoline		25	
Travel		<u>548</u>	653

Meals and Accommodation 312

Supplies 53

Analyses 9 @ \$ 9 81

Reporting

D. Petersen	2 days @ \$ 250	\$ 800	
Typing	1 hour @ \$ 15	15	
Printing		<u>20</u>	<u>535</u>
			<u>\$ 2,579</u>

13. Title

The following are the particulars of the MISTY claim:

<u>Name of Claim</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Record Date</u>
MISTY	1523	12	17 August, 1983

DB Petersen

DB Petersen
D.B. Petersen, P. Eng.

14. References

Rote, I.S., 1973, Geophysical, Geochemical and Geological Report on the TAXI 1 Group; B.C.D.M. assessment report #4472.

Northcote, K.E., 1970, Rupert Inlet - Cape Scott Map Area; G.E.M. p. 254-258.

Fominoff, P.J., Crosby, R.O., 1971, Report on an Induced Polarization Survey, NORMAN Claims, Port Hardy Area, B.C.; B.C.D.M. assessment report #3055.

Philp, R.H.D., 1979, Geological Report on the BIG JOE claim (10 units), Nanaimo Mining Division, B. C.

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.

In the Matter of the prospecting and rock sampling
survey conducted on the MISTY claim.

To Wit:

I, David B. Petersen

of Daiwan Engineering Ltd., #1010 - 409 Granville Street, Vancouver, B. C. V6C 1W9

in the Province of British Columbia, do solemnly declare that the following personnel were employed and costs incurred in conducting the survey:

PERSONNEL

R. Philp - Geologist	1 day @ \$ 350	
Z. Philp - Prospector	1 day @ \$ 115	
M. Mora - Prospector	1 day @ \$ 115	
D. Petersen - Geologist	1 day @ \$ 250	
E. Alionis - Helper	1 day @ \$ 115	\$ 945

FIELD COSTS

Truck Rental	\$ 80	
Gasoline	25	
Travel	548	
Meals and Accommodation	312	
Supplies	53	
Analyses	81	1,099

REPORTING

Labour and Drafting	\$ 500	
Typing	15	
Printing	20	535

TOTAL \$ 2,579

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 *1st*
day of *October 1984* A.D. *D.B. Petersen*

[Signature]
A Commissioner for taking Affidavits for British Columbia or
A Notary Public in and for the Province of British Columbia.

APPENDIX I

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: AUG 14 1984

DATE REPORT MAILED: *Aug 16/84...*

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.

SAMPLE TYPE: P1-6 SOIL P7-SOIL & ROCK

ASSAYER: *D. Toye* DEAN TOYE. CERTIFIED B.C. ASSAYER

DAIWAN FILE # 84-2107

PAGE 7

SAMPLE#	CU PPM	FB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
84-26515S	14	26	17	.1	2	-
84-26516S	48	22	54	.1	6	-
84-26517S	4	15	5	.1	2	-
84-26523S	7	25	11	.5	2	-
84-26524S	26	30	41	.1	7	-
84-26525S	6	35	15	.4	3	-
84-26527S	55	17	91	.1	14	-
84-26528S	7	17	12	.3	2	-
84-26529S	14	14	29	.3	2	-
84-26530S	8	6	11	1.0	2	-
84-26549R	64	2	79	.1	23	95
84-26550R	243	11	10929	.6	24	5
84-26551R	260	15	420	.8	35	45
84-26552R	119	11833	14002	34.1	12	10
84-26553R	88	90	289	.3	24	5
84-26554R	1595	58	612	5.2	105	5
84-26555R	35	4	49	.1	2	5
84-26556R	67	4	32	.1	2	5
84-26557R	31	3	27	.1	2	5
84-26558R	2647	87	664	26.0	83	90
84-26559R	744	39	288	5.3	26	25
84-26660R	239	3	52	.6	2	5
84-26661R	3459	17	4656	.9	152	5
84-26662R	142	1	26	.1	17	5
84-26663R	71	4	51	.1	21	5
84-26664R	2827	21	116	3.7	62	5
84-26665R	442	1	509	.1	14	5
STD S-1/AU-0.5	119	112	180	32.0	115	510

12,652

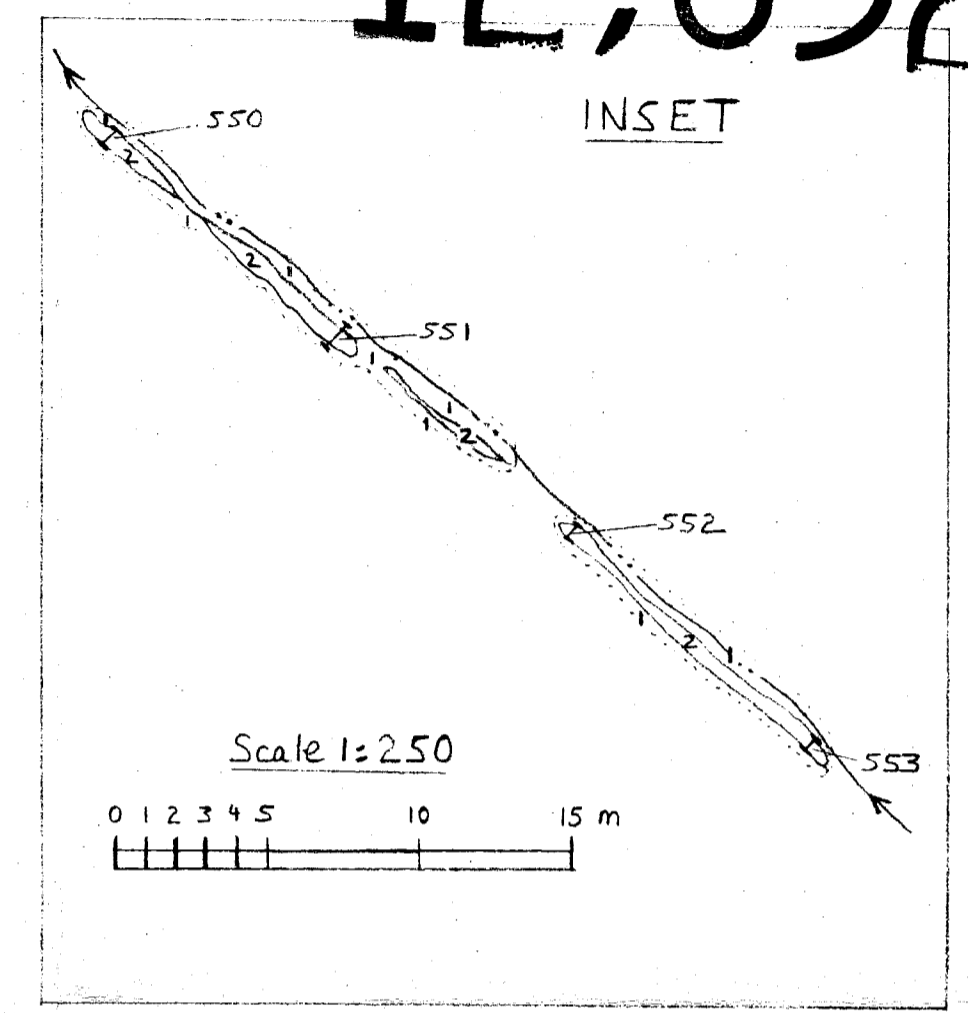
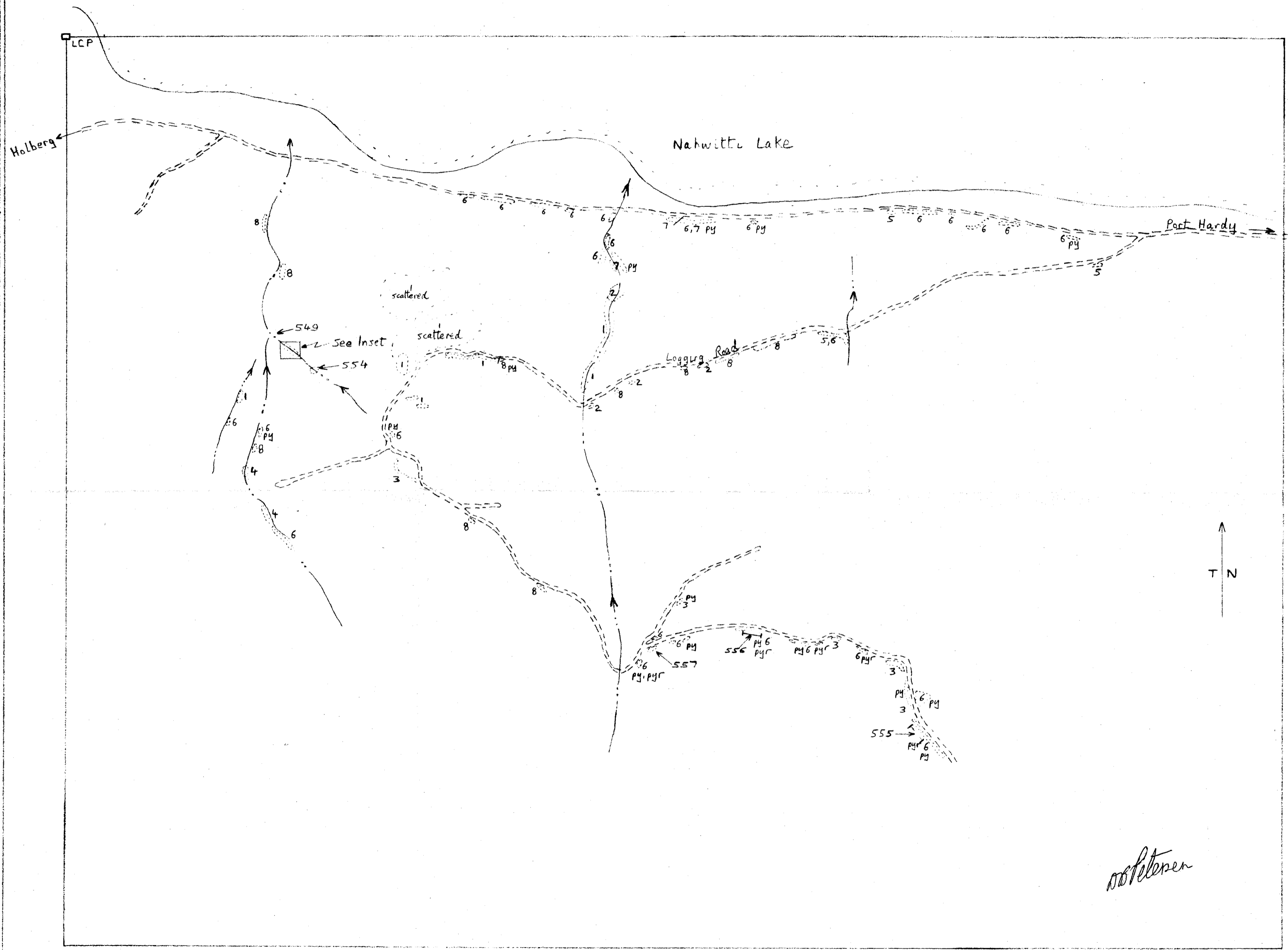
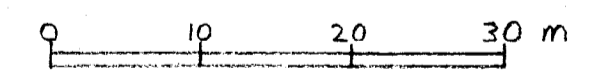


Fig 3
MISTY CLAIM
Compilation Map
Scale 1:5,000



- | | | | |
|---|--------------|------|--|
| 8 | Cranodiorite | ○ | Outcrops |
| 7 | Diorite | ← | Creeks |
| 6 | Andesite | ==== | Roads |
| 5 | Basalt | py | Pyrite |
| 4 | Rhyolite | pyr | Pyrrhotite |
| 3 | Chert | 556→ | Sample Locations and numbers preceded by 8426... |
| 2 | Skarn | | |
| 1 | Limestone | | |

Philp

Geology after Philp, 1979.