

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 3445 MAP \_\_\_\_\_

3445

PROPERTY EVALUATION ON THE PEEVER - MOORE

GROUP OF CLAIMS

UPPER QUINSAM LAKE AREA

NANAIMO MINING DIVISION

VANCOUVER ISLAND, B.C.

92 F / 13E

for

PANTHER MINES LTD.

by

JOHN R. POICHI, B.Sc. P. ENG.

October 31, 1971.

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1 Location Map  
2 Hist. of copper  
3 Main showing

INTRODUCTION

This report was prepared at the request of Mr. H. Fichtner for Panther Mines Ltd. as a summary of the Geochemical and Geological examination made by the author to assess the economic potential of the Peever - Moore claims near Upper Quinsam Lake Vancouver Island. It is based on field work conducted during the period October 13 - 17, 1971, and an examination of published Government reports.

LOCATION MAP

FIG. #1

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT   
 NO. 3445 MAP

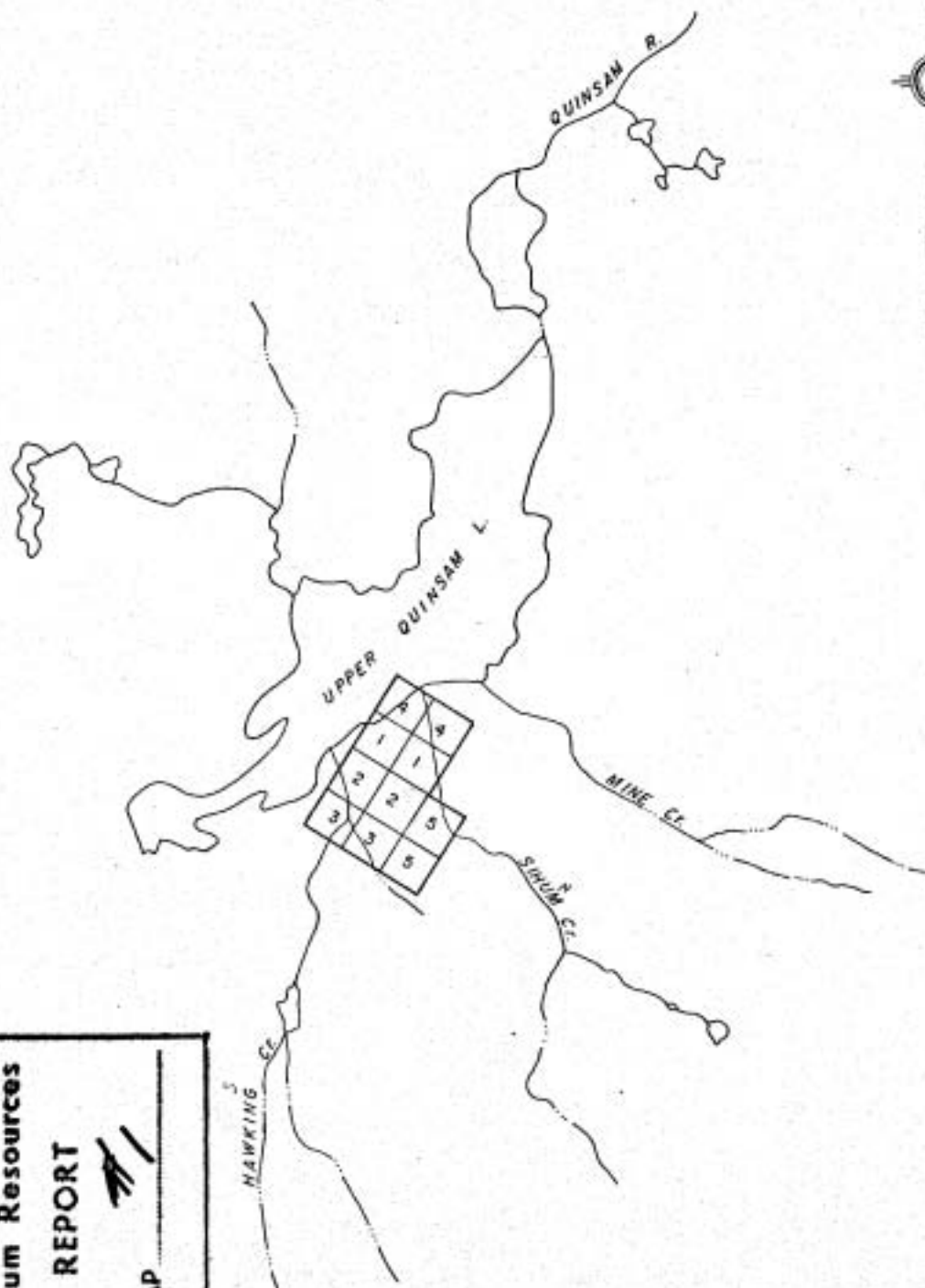


FIG. 1

PANTHER MINES LTD.	
PEEVER - MOORE CLAIMS	
LOCATION MAP	
JOHN R. POLONI	B Sc. ENG.
SCALE 1" = 6000'	DATE: OCT. 31, 1971

PROPERTY

The property consists of 10 located claims called Peever (1-5) and Moore (1-5) located 2½ miles west of Campbell River, Vancouver Island, at latitude 49°52'N and longitude 125°32'W. The claims were staked in June and August 1971, and have had sufficient work undertaken, as reported by the owners, to be covered for assessment credits for one year. A possible contravention exists on the north part of Peever #1 and Moore #1 with respect to overstaking.

Claim posts for Peever and Moore (1-4) claims were examined in the field and staking has been undertaken in accordance with requirements of the Mineral Act of British Columbia.

The claims are located inside the E and N Land Grant and are subject to the stipulations of that Grant.

LOCATION AND ACCESS

Located 2½ miles west of Campbell River, Vancouver Island, the claims are readily accessible via the Campbell River - Gold River highway for 12 miles and then along secondary logging roads to Upper Quinsam Lake. A minimum amount of work would be necessary to repair the logging roads.

#### TOPOGRAPHY

The topography of the claims is moderate. Elevations range from 1400 feet above mean sea level at Upper Quinsam Lake to a maximum of 2300 feet in the south easterly corner of claims #5. Outcrops appear generally as rounded knolls standing 150 - 200 feet above local surroundings.

Sihun and Hawking Creeks cross the claim block, both flowing in a northerly direction into Upper Quinsam Lake.

#### VEGETATION

Recent logging has removed all merchantible timber. Immature pine, from reforestation, and dense alder in stream beds are the principal tree types covering the area.

#### CLIMATE

The climate is generally agreeable during the summer months. Winter snowfalls are heavy but would not halt a mining operation. A light snowfall occurred on October 14th, but this soon melted, not hampering the geochemical or geological programs.

#### HISTORY

The area has an active history of exploration dating to early in the century. Lying immediately south-east of the Peever - Moore claims the Iron Hill property, discovered approximately 60 years ago was diamond drilled in 1948 by Coast Iron Co.



A small quantity of ore was shipped at that time. After leasing the property in 1951, the Argonaut Co. Ltd. mined, and shipped 1,998,526 short tons of iron-ore concentrates by December 1956.

Recent examinations on the claim group have been made by Donna and Passport Mines Ltd. No production history exists for the ground covered by the Peever - Moore claims.

#### GEOLOGY

The area south of Upper Quinsam Lake is underlain with Upper Triassic Karmutsen Volcanics intruded by Middle or Upper Jurassic granodiorite. Overlying the dark green volcanics are alternating beds of grey and white Quatsino limestone.

Only dark green volcanics were mapped on the claim group. Pillow lavas, amygdaloidal basalt and minor brecciated volcanics were seen. A geological reconnaissance map compiled by J. E. Muller and revised to July 1971 indicates a major North-South fault cutting across the claims. This fault may be expressed by a shear zone mapped at station 44+003 along the claim line.

#### MINERALIZATION

At several locations the volcanics are strongly magnetic. Magnetite occurs as fillings of amygdules in amygdaloidal basalt, and as minor blebs in the dark green volcanics.

Chalcopyrite was seen at five locations other than in the main showing area. The mode of occurrence is similar to that for magnetite. Minor amounts of malachite occur along small shears and fracture planes.

GEOCHEMISTRY

Soil samples were taken at 200 foot intervals along control lines spaced 400 feet apart over the claims. One hundred and eighty-one samples were taken in a 7.15 line miles of survey. The material sampled consisted of sandy clay, light to red brown in colour, from a well established B-horizon.

Geochemical analysis for copper was run on minus 80 mesh material using:-

Analytical method - Atomic Absorption

Digestion method - HClO<sub>4</sub> + HNO<sub>3</sub>

A copy of analytical data is included in Appendix B

Five geochemical anomalies were found in the survey. One, over the main showing area, is a two station anomaly while all the others are one station anomalies. All anomalies appear to be related to outcrop areas and not to drainage features.

Anomalous Zone A

- is a two station anomaly of +2000 and 900 p.p.m. copper over the main showing area. Geochemistry indicates that an extension may exist to the west.

Anomalous Zone B

- is a one station anomaly of 550 p.p.m. copper at 46+00S, 4+00W in an outcrop area. No copper mineralization was seen, to correlate with the anomalous conditions.

Anomalous Zone C

- is a one station anomaly of 550 p.p.m. copper in an outcrop area at 52+00S, 8+00W

Anomalous Zone D

- is a one station anomaly of 450 p.p.m. copper at 46+00S, 8+00W, possibly related to an area of shearing in volcanic rocks.

Anomalous Zone E

- is a one station anomaly of 550 p.p.m. copper at 40+00S, 12+00E.

GEOLOGICAL MAPPING

Geological reconnaissance mapping was done as geochemical soil samples were taken along 7.15 line miles of survey. Dark green Karmutsen volcanic rocks characterized by pillow lavas and flow breccias were mapped in the area of the main showing.

In the main showing chalcopyrite occurs as fillings of amygdules and along fracture planes, and also in part as disseminations in the volcanics. Malachite occurs as secondary concentrations along fracture planes. The outcrop surface is only slightly weathered and mineralization is not indicated by any extensive gossan zone. Fig. 3

Shearing of the volcanic rocks was noted at two places. Geochemical anomaly - D may be related to this shear structure.

SUMMARY AND CONCLUSIONS

The Peever - Moore claims located 2 1/2 miles west of Campbell River is underlain with Upper Triassic Karmutsen Volcanic rocks.

A major zone of N - S shearing as indicated by J. E. Muller may be expressed by shearing found on the claims.

Approximately 2 million short tons of iron ore have been mined from the Iron Hill property immediately south east of the claims.

A Geochemical soil survey conducted over the claims indicates five anomalous zones, one of which is known to contain copper mineralization.

Chalcopyrite was found at six locations but only in the area of the main showing is the concentration considered to be significant.

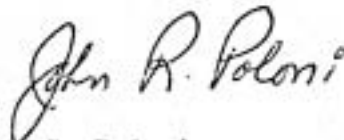
The Peever - Moore claim group is located inside the E. and N. Land Grant and is subject to a royalty payments to Can Pac Minerals on any base metals production.

Geochemical results indicate that the anomalies represent small, higher than average concentration of copper minerals in volcanic rocks. It would appear that except for Zone A where grades of 1 - 2 % copper may exist these concentrations may be of too low copper content to be economical.

RECOMMENDATIONS

A detailed examination of the main showing area is warranted. This should include a thorough trenching and sampling program across the outcrop, followed by geophysical surveys, if sufficient encouragement is met. Further work on Zones (B - E) inclusive will be subject to the findings of the above examination.

A renegotiation of the proposed agreement between Peever - Moore and Panther Mines is necessary in view of the Royalty requirements subject to Can Pac minerals (C.P.R.) and also to the findings of the preliminary survey.



J.R. Poloni  
B. Sc P. Eng

APPENDIX A

REFERENCES

REFERENCES

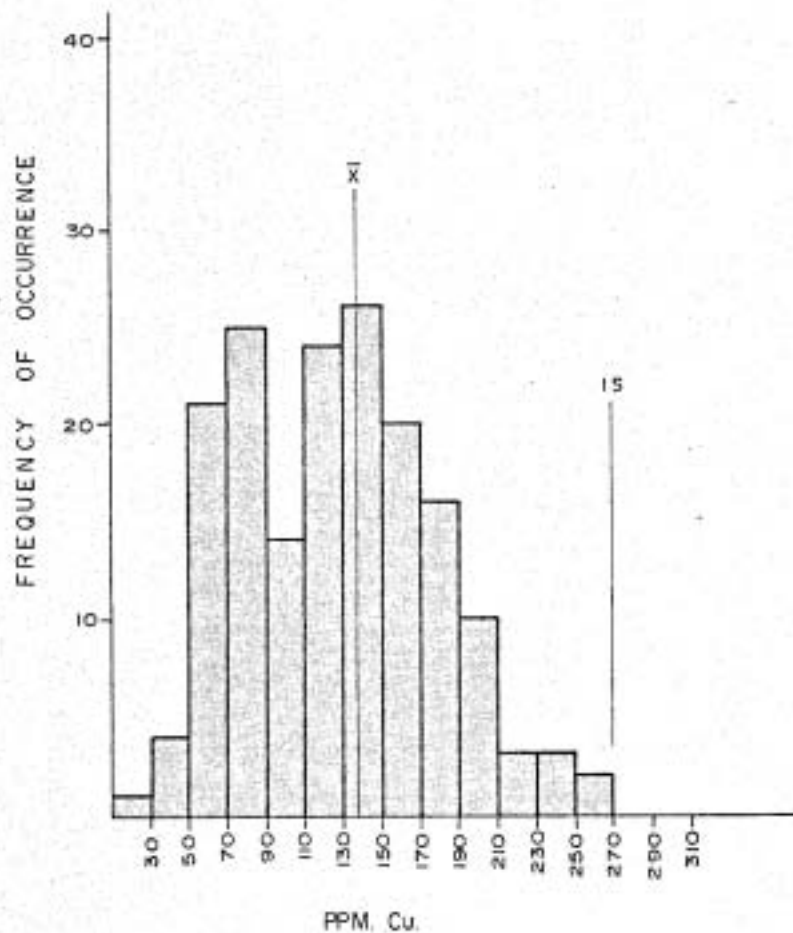
1. Gunning H. C. 1931  
Buttle Lake Map Area Vancouver Island. G.S.C. Summary  
Report 1930 Part A.
2. Sangster D. F. 1965  
The Contact Metasomatic Magnetite Deposits of South Western  
British Columbia G.S.C. Bulletin 172.
3. Reference Map by J. E. Muller - Geological  
Reconnaissance Map of Vancouver Island and Gulf Islands.

APPENDIX B

GEOCHEMICAL DATA



HISTOGRAM OF COPPER  
PPM. FREQUENCY



DATA

MEAN	135 PPM.
THRESHOLD	270 PPM.
POSSIBLY ANOMALOUS	40 PPM.
PROBABLY ANOMALOUS	540 PPM.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3445 MAP #2

FIG. 2

NOTE

To accompany report for Panther Mines Ltd  
by John R. Paloni.

# CREST LABORATORIES (B.C.) LTD.

1068 HOMER STREET  
VANCOUVER 3, B.C.  
PHONE 688-8586

CREST LABORATORIES LTD.  
7911 ARGYLL ROAD  
EDMONTON 22, ALBERTA  
PHONE 469-2391

## CERTIFICATE OF ASSAY

TO Panther Mines Ltd.  
333 - 805 Dunsmuir Street,  
Vancouver, B.C.

Oct. 21, 1971

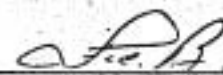
Lab No. 3466

**I hereby certify** THAT THE FOLLOWING ARE THE RESULTS OF ASSAYS MADE BY US UPON THE HEREIN DESCRIBED SAMPLES.

MARKED	COPPER	MARKED	PERCENT	MARKED	PERCENT	MARKED	PERCENT
57176 C	0.46						
57177 C	0.98						
57178 C	1.96						
57179 C	1.20						

**NOTE:**

Rejects Retained One Month  
Pulps Retained Three Months  
Unless Otherwise Arranged.



Registered Assayer, Province of British Columbia

Oct. 26, 1971

Panther Mines Ltd.,  
333 - 685 Dunsmuir Street,  
Vancouver, B.C.

cc Mr. John Poloni

Lab Number 727G

Geochemical analysis for copper

Mesh Size: - 80  
Analytical Method: Atomic Absorption  
Digestion Method:  $\text{HClO}_4 + \text{HNO}_3$

Sample Marked:	Copper	Sample Marked:	Copper	Sample Marked:	Copper
1	168 ✓	26	64 ✓	52	132 ✓
2	128 ✓	27	64 ✓	53	140 ✓
3	176 ✓	28	44 ✓	54	172 ✓
4	144 ✓	29	52 ✓	55	176 ✓
5	148 ✓	31	148 ✓	56	168 ✓
6	144 ✓	32	116 ✓	57	140 ✓
7	156 ✓	33	48 ✓	58	189 ✓
8	64 ✓	34	68 ✓	59	152 ✓
9	900 ✓	35	116 ✓	60	128 ✓
10	42000 ✓	36	96 ✓	61	168 ✓
11	172 ✓	37	128 ✓	62	136 ✓
12	200 ✓	38	52 ✓	63	76 ✓
13	80 ✓	39	88 ✓	64	64 ✓
14	184 ✓	40	160 ✓	65	88 ✓
15	172 ✓	41	56 ✓	66	120 ✓
16	256 ✓	42	140 ✓	67	112 ✓
17	128 ✓	43	156 ✓	678	112 ✓
18	116 ✓	44	76 ✓	679	108 ✓
19	176 ✓	45	120 ✓	70	64 ✓
20	176 ✓	46	156 ✓	71	104 ✓
21	196 ✓	47	140 ✓	72	88 ✓
22	136 ✓	48	148 ✓	73	84 ✓
23	64 ✓	49	84 ✓	74	56 ✓
24	60 ✓	50	124 ✓	75	128 ✓
25	304 ✓	51	56 ✓	76	72 ✓

Sample Marked:	Copper ppm	Sample Marked:	Copper ppm	Sample Marked:	Copper ppm
77	232✓	114	136✓	151	84✓
78	384✓	115	136✓	152	64✓
79	450✓	116	120✓	153	112✓
80	204✓	117	84✓	154	216✓
81	288✓	118	104✓	155	380✓
82	500✓	119	108✓	156	76✓
83	384✓	120	88✓	157	172✓
84	232✓	121	164✓	158	140✓
85	104✓	122	152✓	159	204✓
86	228✓	123	124✓	160	192✓
87	88✓	124	140✓	161	116✓
88	120✓	125	132✓	162	152✓
89	240✓	126	160✓	163	268✓
90	148✓	127	116✓	164	156✓
91	92✓	128	56✓	165	108✓
92	104✓	129	164✓	166	550✓
93	550✓	130	180✓	167	276✓
94	120✓	131	192✓	168	88✓
95	64✓	132	108✓	169	184✓
96	100✓	133	104✓	170	72✓
97	60✓	134	128✓	171	68✓
98	124✓	135	156✓	172	64✓
99	84✓	136	188✓	173	172✓
100	140✓	137	168✓	174	84✓
101	80✓	138	200✓	175	176✓
102	96✓	139	148✓	176	192✓
103	32✓	140	28✓	177	152✓
104	84✓	141	156✓	178	168✓
105	140✓	142	72✓	179	40✓
106	124✓	143	128✓	180	136✓
107	168✓	144	144✓	181	84✓
108	176✓	145	156✓	<del>181</del> 182	216✓
109	140✓	146	144✓		
110	148✓	147	80✓		
111	80✓	148	104✓		
112	84✓	149	68✓		
113	204✓	150	64✓		

Yours truly,  
 F. C. Burgess  
 CREST LABORATORIES (B.C.) LTD.,  
 Chief Assayer

APPENDIX C

WRITER'S CERTIFICATE

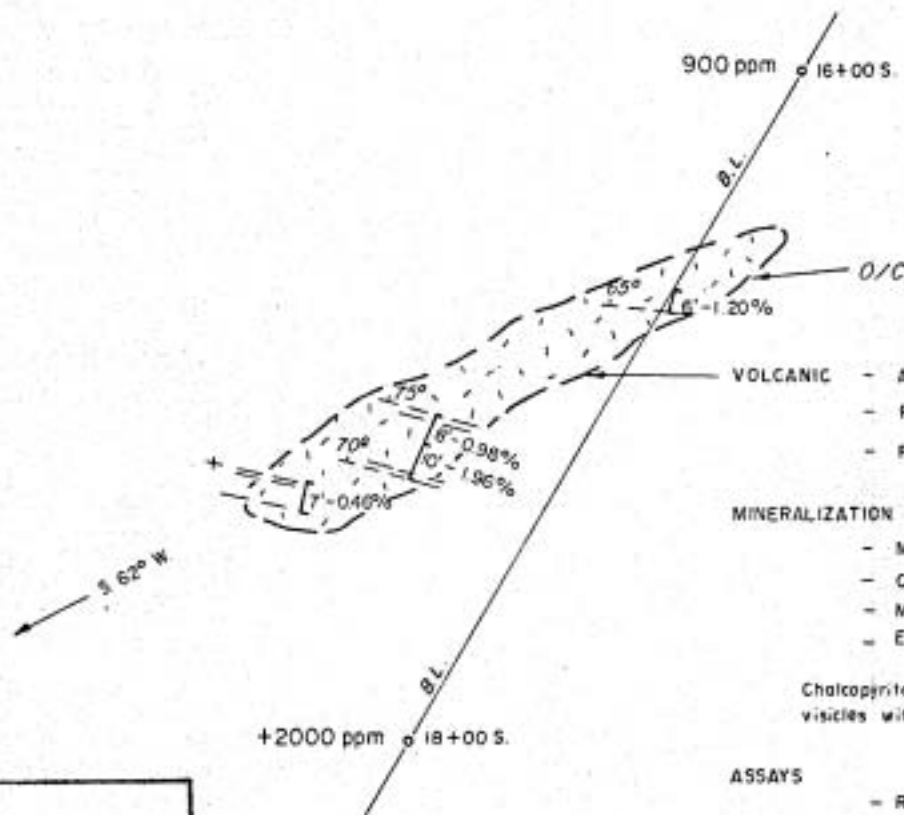
CERTIFICATE

I, John R. Poloni of 5502 8B Avenue in Delta, in the Province of British Columbia do hereby certify that:-

1. I am a Consulting Geologist.
2. I am a graduate of McGill University of Montreal Quebec, where I obtained a B.Sc. degree in Geology in 1964.
3. I am a registered Professional Engineer in the Geological Section of the Association of Professional Engineers of the Province of British Columbia.
4. I have practiced my profession since 1964.
5. I am a Fellow of the Geological Association of Canada and a member of the Canadian Institute of Mining and Metallurgy.
6. I have conducted the work progress on the Peever - Moore claims and have examined the claim locations for Peever - Moore 1 - 4 claims and have found them to be staked in accordance with the B.C. Mineral Act.

Dated this 1st day of November 1971.

*John R. Poloni*  
John R. Poloni, B. Sc. P. Eng



- VOLCANIC**
- Amygdaloidal Basalt
  - Pillow Structure
  - Fractured E - W Direction

- MINERALIZATION**
- Malachite
  - Chalcopyrite
  - Magnetite
  - Epidote

Chalcopyrite occurs along fractures and in vesicles with or replacing calcite and epidote.

- ASSAYS**
- Representative chip type
  - Copper %

FIG. 3

Department of  
Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
NO. 3445 MAP A3

PANTHER MINES LTD.

PEEVER - MOORE CLAIMS

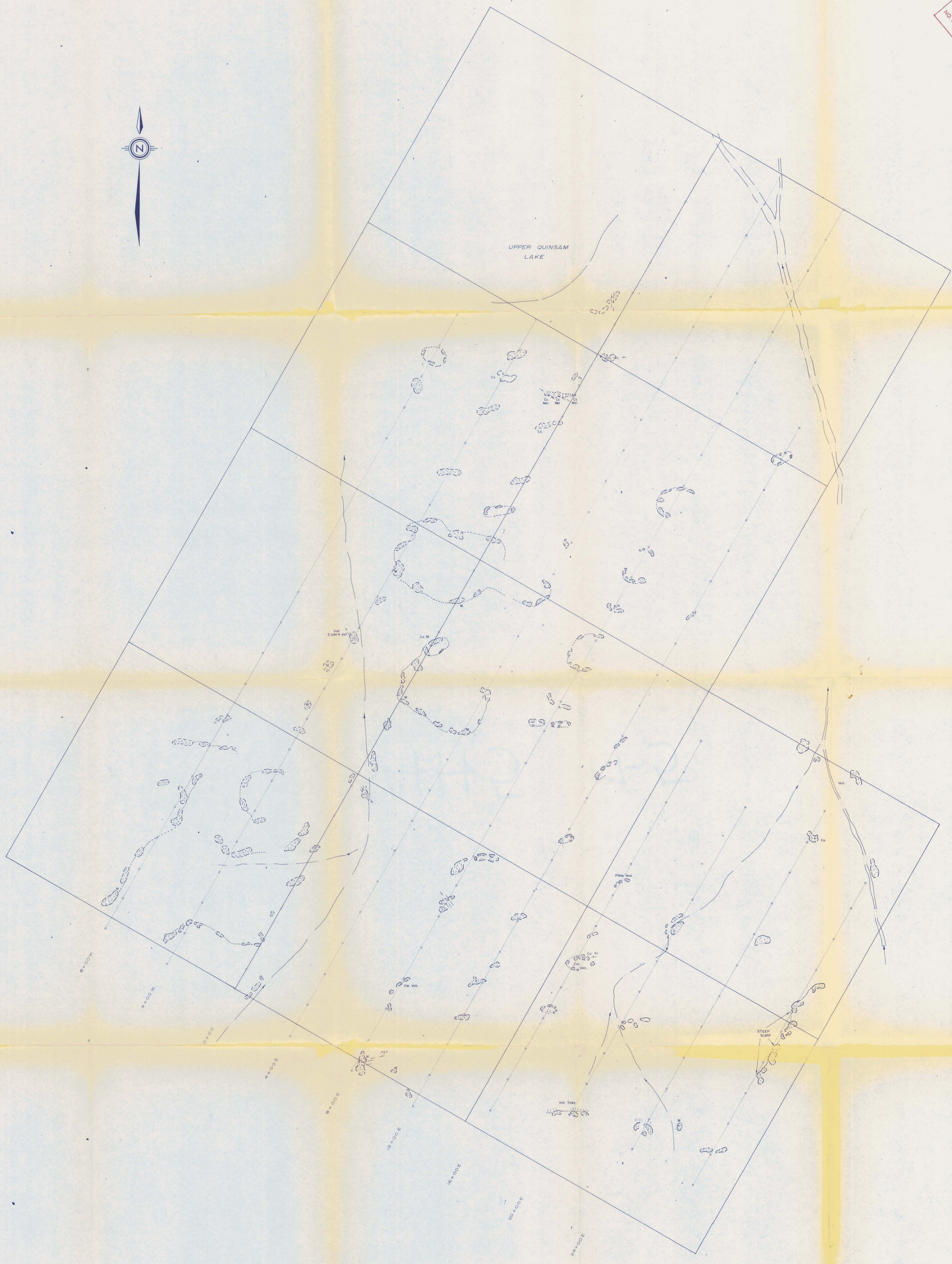
**MAIN SHOWING**

JOHN R. POLONI

B. Sc. P. ENG.

SCALE: 1" = 50'

DATE: OCT. 31, 1971

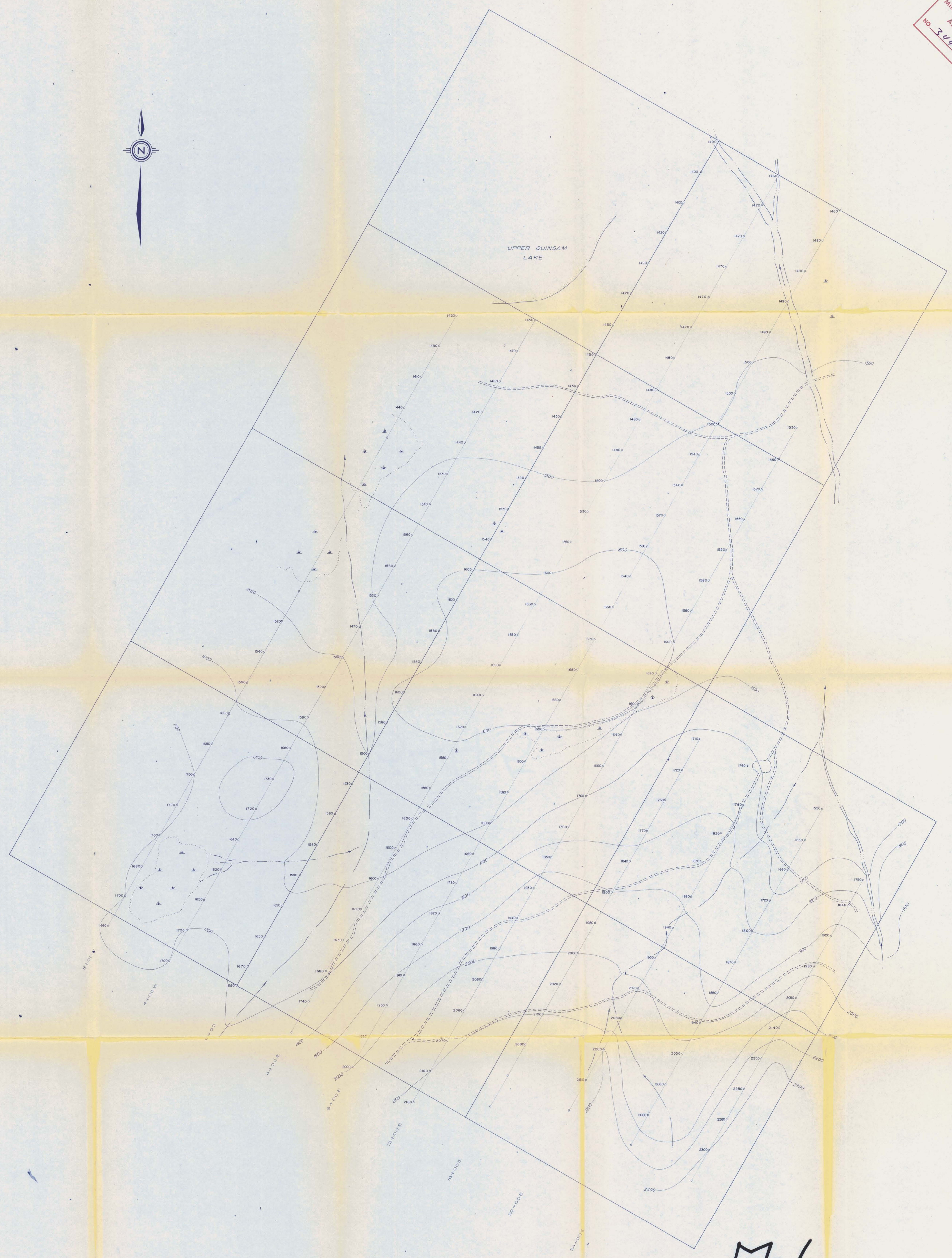


3445 M-5

LEGEND  
 VOLCANIC ROCKS  
 M MAGNETITE  
 Cu CHALCOPYRITE  
 MAL MALACHITE  
 SHEAR ZONE

PANTHER MINES LTD	
PEEVER - MOORE CLAIMS NANAIMO M.D.	
<b>GEOLOGICAL PLAN</b> UPPER QUINSAM LAKE VANCOUVER ISLAND, B.C.	
JOHN R. POLONI B.Sc. P.Eng.	
SCALE: 1" = 200'	DATE: October 29, 1971



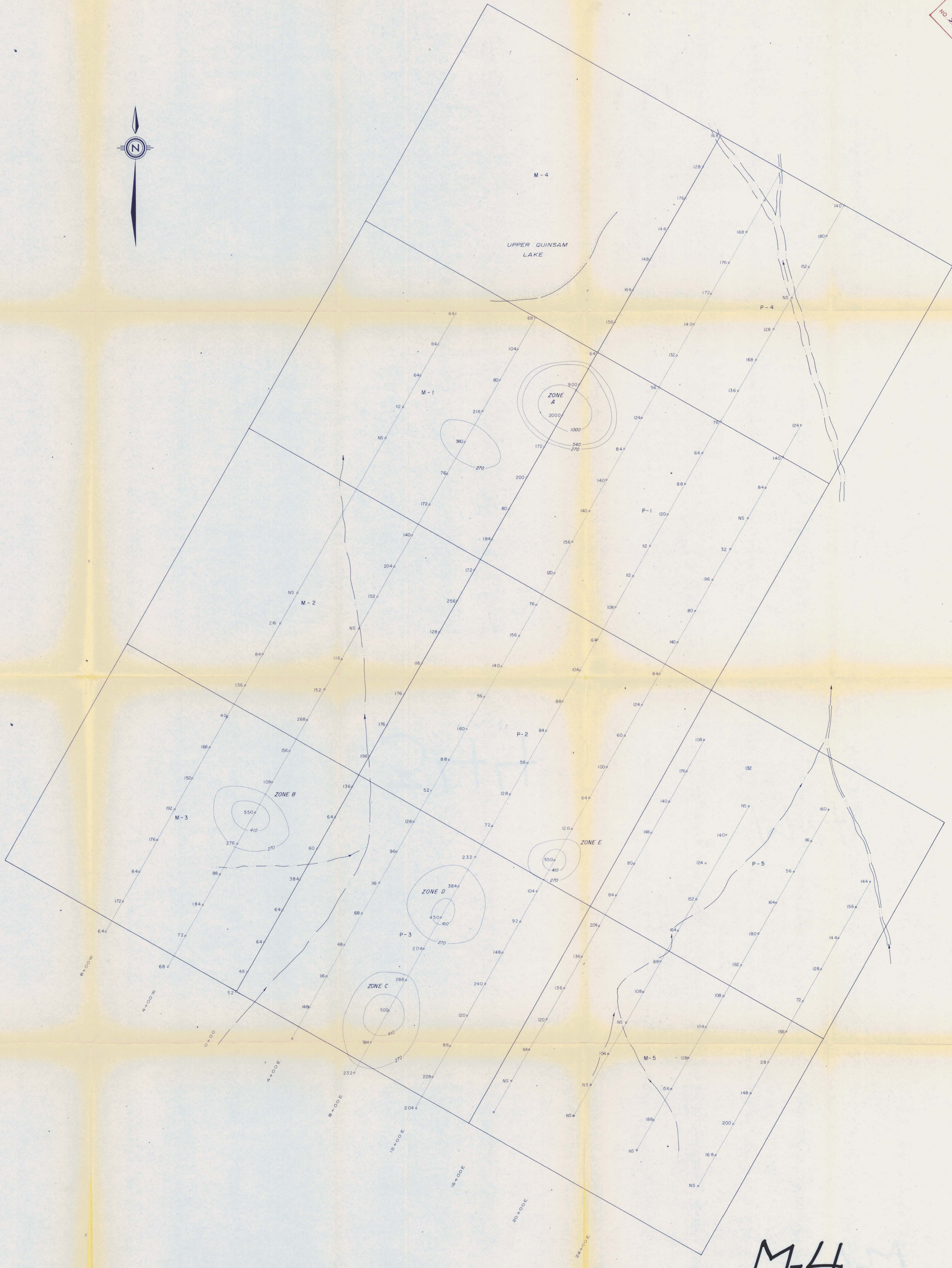
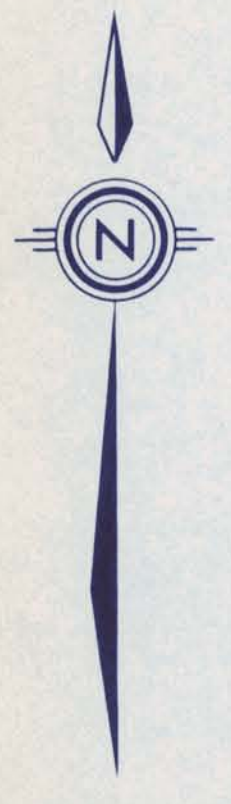


M-6

3445

- LEGEND
- SWAMP
  - LOGGING ROAD
  - GRID - STATIONS
  - Creek DRAINAGE
  - Stream

PANTHER MINES LTD.	
PEEVER - MOORE CLAIMS NANAIMO M.D.	
TOPOGRAPHY UPPER QUINSAM LAKE VANCOUVER ISLAND, B.C.	
JOHN R. POLONI B.Sc. P.Eng.	
SCALE: 1" = 200'	DATE: October 29, 1971



3445

M-4

- LEGEND**
- CLAIMS M-1 (MOORE-1)  
P-1 (PEEVER-1)
  - STREAM
  - CREEK
  - GEOCHEMICAL DATA  
LINE-STATION
  - MEAN Cu T = 135 ppm  
THRESHOLD = 270 ppm  
POSSIBLY ANOMALOUS > 410 ppm  
PROBABLY ANOMALOUS > 540 ppm

PANTHER MINES LTD.  
PEEVER - MOORE CLAIMS  
NANAIMO M.D.  
**GEOCHEMICAL PLAN**  
UPPER QUINSAM LAKE  
VANCOUVER ISLAND, B.C.  
JOHN R. POLONI B.Sc. P.Eng.  
SCALE: 1" = 200'      DATE: October 29, 1971