

Box 6

N.T.S. 92-E-8

**REPORT**

**ON**

AHOUSAT COPPER ZINC

Vancouver Island, B. C.

1 9 6 6

ALBERNI  
MINING DIVISION

Vancouver, B.C.  
June 2, 1967 R.N.SAUKKO



REPORT

ON

ANOUSAT COPPER ZINC

1966

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R.N.SAUKKO

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Report to Shareholders by L. Hansen

Minister of Mines 1917 Report - Ormond Group

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Showing Area

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Self-Potential Survey ..... 1" = 100'

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Geology Map ..... 1" = 50'

Peninsula

Self-Potential Survey ..... 1" = 100'

Geochemical Survey ..... 1" = 100'

## R E P O R T

ON

### AHOUSAT COPPER ZINC

1 9 6 6

#### INTRODUCTION

During work on Meares Island group, several additional properties held by L. Hansen or associated companies were examined

The copper-zinc showing is held by Vanwest Minerals Ltd. N.P.L., a 3,000,000 share private company of which L. Hansen is president. The property is an old showing comprising in part the old Ormond and Contact groups. At the time the property was examined, a diamond drill owned by Hansen was on the property. It appeared that Hansen had drilled underneath the zone, in which case it would be flat lying and the showing exposed on the hillside could be presumed to be the width. If this were the case, then widths could have been in the range of 80 to 100 feet and the possibility of a shallow open pit worth investigating.

The property was optioned on the basis of a \$500.00 monthly payment, plus Falconbridge to pay Hansen \$5.00 per foot for any drilling done by Hansen's crew.

Falconbridge personnel on the property included S. Presunka, R. Samuelson, L. Basher, R. Smith and J. Schussler. Later in the season R. Macphee did some trenching which was examined by H.S. Lazenby.

#### LOCATION & ACCESS

The property consists of 34 claims including the old Ormond and Contact groups which are reported on in the 1917 Minister of Mines reports. It is located on Flores Island in the Alberni Mining Division. Access is by trail starting on the west side of Matilda Inlet about three-quarters of a mile north of the village of Ahousat. Another trail follows up Matilda Creek about one-half

mile further north and leads circuitously to the Ormond Group copper showings which are about one mile north of the area on which the bulk of the work was done.

#### SURVEY CONTROL & WORK DONE

A transit and stadia survey was run along the cut trails to serve as rough control for the various surveys. Also lines previously cut for the I.P. survey were also tied-in and used as applicable. From these various controls pace and compass lines were run for the self-potential, geochemical and magnetometer surveys.

Work done by Hansen & Associates included an I.P. survey (3 miles of line by McPhar Geophysics Ltd.) and 762 feet of AX diamond drilling. Falconbridge did the above mentioned surveys and 538 feet of AX drilling in three holes done by Hansen's crew and equipment. Falconbridge also did 268 feet of packsack drilling in four holes.

#### ROCK TYPES

Rock types will be mentioned briefly and include andesitic volcanics, banded epidotized chert, quartz epidote rock, probably a variant of the chert, a foliated intrusive of granodiorite composition.

i) Volcanic - a light to dark green rock of andesitic composition varyingly epidotized throughout the area. Dioritized and porphyritic phases were noted. In Hansen's early drilling some agglomeritic types were noted, though these are virtually impossible to distinguish in hand specimen. Weak to strong foliation, almost gneissic develops locally. Repetition of bands and scarcity of outcrop precluded tracing any particular band.

ii) Banded Chert - The chert is well and finely banded white to green. Epidote preferentially replaces some bands in all occurrences of this type. Dips, where exposed, are flat. A relative of the type is quartz epidote rock which does not show any banding or foliation. Both types represent inter-flow material.

iii) Intrusives - The main type in the area drilled is strongly foliated light grey type of probable granodiorite composition. Numerous intrusive occur through the area ranging from feldspar porphyries to diorite.

#### MINERALIZATION & GRADES

The mineralization consists of chalcopyrite, sphalerite, pyrrhotite and pyrite occurring in an actinolitized epidotized breccia. The chalcopyrite occurs in coarse blebs to one-quarter inch and fracture fillings, the sphalerite as coarse rounded to semi-rounded blebs and aggregates to one-half inch usually as replacements within the actinolitic skarn matrix to the brecciated volcanic fragments.

The pyrrhotite was noted as massive veinlets, disseminations and breccia fragments.

Magnetite also occurs throughout the area, being more prominent to the east. It is highly sulphurous and nowhere is it found over any extensive area, but was intersected in several drill holes. Minor showings are widespread on the property.

There appears to be a distinct zoning within the zone grading from a sphalerite-chalcopyrite in the west to preponderance of magnetite-chalcopyrite in the west. Though it appears that the mineralization occurs in a large rudimentary zone, the type of occurrence changes from a breccia matrix filling to vein type chalcopyrite-magnetite zone.

An arithmetic average of the zones as shown on the drill sections is 0.21% Cu and 2.05% Zn.

#### GEOCHEMICAL SURVEY

Soil samples were collected as the self-potential survey was run with samples at 50 foot intervals on 100' to 200' line spacing.

The soil anomaly is directly coincident with the self-potential anomaly and shows a broad half circle some 3,000 feet in arc length. As observed on the ground, the zinc values are strongest at the west end dying out to the east. The middle of the zone is weaker and the copper shows values extending to the east end. The zone roughly parallels the topographic contours, is curved and confirms the concept of a flat lying zone. The geochemical results were more or less predictable other than possible extension off the northeast end. The widening here is in part due to drainage. The extension area has minor trenching in the area with copper values.

The values obtained on the peninsula are quite limited in area and probably not significant.

#### GEOPHYSICAL SURVEYS

Self-potential and magnetometer was done by Falconbridge Nickel Mines. A previous IP survey was done by McPhar for Hansen and Associates.

The S.P. and I.P. are roughly coincident. The S.P. showed the main area of drilling to be a small spot high (called #1 on S.P. Map) within a large broad S.P. anomaly some 5,000 feet in curve length. Within this same large anomaly are five other highs which will be dealt with individually.

Anomaly 1) covers the main area of drilling.

Anomaly 2) is unexplained since there is virtually no outcrop on the



sidehill. Since the main zone (No. 1) is presumably flat lying then this anomaly could represent the extension across the valley.

Anomaly 3) was drilled on the edge and obtained minor values. Trenching later in the year showed graphite occurring in the cherty rocks as well as some minor zinc with the volcanics.

Anomaly 4) was explored by several old adits and trenches exposing massive pyrrhotite and some magnetite. One of the adits showed good chalcopyrite. Exposures show all these zones to be quite limited. Two holes were drilled by Hansen near Hub 27A which intersected magnetite and minor sulphides. These holes are on the edge, and between anomalies 4 and 5.

Anomaly 5) is exposed in several trenches, the showings consisting of pyrrhotite, magnetite and some local chalcopyrite.

Anomaly 6) is exposed in an old adit and minor trenching and consists of similar sulphides.

The magnetometer survey shows numerous erratic lows and highs with a roughly arcuate pattern. This probably represents the poddy and localized nature of the deposit.

#### SUMMARY AND CONCLUSION

Grades intersected in the drilling were disappointing compared to visual estimates, averaging 0.21% Cu and 2.05% Zn. Though the property is ideally situated there is little possibility that there is sufficient tonnage at the grades available to support an operation.

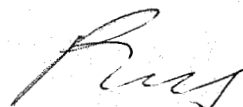
Hansen plans on several additional holes to test the self-potential high (No. 3) which was trenched and showed graphite and minor zinc. It was also suggested that he drill a deep vertical hole with the possibility of intersecting a similar paralleling band, though with similar grades would have to be quite shallow for a low ratio pit.

The immediate area examined does not warrant additional work.

The copper-magnetite pyrrhotite zones to the northeast all appear too small.

The Ormond showing, to which the tramline was constructed shows additional disseminated material bounding the high grade shear zones. The short examination and the difficulty of access did not permit additional work or more definite conclusions of further work. A copy of the Minister of Mines report is here included.

The zones on Ahousat Peninsula do not appear of any interest.



R. N. SAUKKO

Vancouver, B.C.  
June 2, 1967

PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER #1  
 SHEET NUMBER 1  
 SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_  
 DEP. \_\_\_\_\_  
 ELEVATION OF COLLAR \_\_\_\_\_  
 DATUM \_\_\_\_\_  
 DIRECTION AT START: BEARING \_\_\_\_\_  
 DIP -90°

STARTED \_\_\_\_\_  
 COMPLETED \_\_\_\_\_  
 ULTIMATE DEPTH 337'  
 PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
0 - 7	Overburden							
7 - 8	Actinolite Epidote							
	Bedded. Minor magnetite, Py Po.							
8 - 24	Chert							
	Alternating, short sects of bedded siliceous rock							
	with bands of epidote, with more massive, more							
	intensely ep patches. Core angles 60n- 70.							
24 - 77	Epidote quartz Carbonate rock. Minor Po.							
	Short graphitic zone at 38'. Middle part							
	intensely fract. with Py filling.							
77 - 113	Diorite or Volcanic?							
	Fine to m.f.g. Apparent chill to U.C. obscured.							
	Texture becomes porphyritic at L.C. Felds phenos.							
	Fine grd. sects may be later intrusive?							
	On fresh break looks more like volcanic. LC 40°.							
113 - 158	Epidote Quartz rock (chert) becomes banded							
	downhole. Core angles 20 - 40°. Not all banded,							
	Actinolitic zones. Minor Py, Po.							
158 - 163	Volcanic?							
	Light grey f. grd.							
163 - 167	Tuff?							

PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER #1

SHEET NUMBER 2

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT \_\_\_\_\_  
 DEP \_\_\_\_\_

ELEVATION OF COLLAR \_\_\_\_\_

DATUM \_\_\_\_\_

DIRECTION AT START: BEARING \_\_\_\_\_  
 DIP -90°

STARTED \_\_\_\_\_

COMPLETED \_\_\_\_\_

ULTIMATE DEPTH 337'

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
167 - 248	Banded dark green rock epidotic zones. 165 - 15° Volcanic.							
248 - 253	Med. grey, med. grd. Vague gneissic text. Minor andesite dikes. Some Py. Minor flecks and stringers Cpy. Diorite.							
253 - 337	Clump texture to mafic minor included zones ? Felds phenos or fragments? Fragmented? Mylonite? Dior.? Volc.? Fairly well foliated in spots at 35° to 40°. Becomes strongly gneissic in places to end of hole. Minor dior. intrus.							
337'	END OF HOLE							

PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER #3  
 SHEET NUMBER 1  
 SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_  
 DEP. \_\_\_\_\_  
 ELEVATION OF COLLAR \_\_\_\_\_  
 DATUM \_\_\_\_\_  
 BEARING \_\_\_\_\_  
 DIRECTION AT START: -35°  
 DIP \_\_\_\_\_

STARTED \_\_\_\_\_  
 COMPLETED \_\_\_\_\_  
 ULTIMATE DEPTH 293'  
 PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE			
0 - 23	Alternating short sects. of andesite dikes and diorite or granodior - similar to rock in Hole 4 but more mafic - text and grain size same. Cut by mineralized ep. felds. stringers. Contact andesite 45 - 60°.						
23 - 62	Epidotized Acid Rock. Minor Cpy veins with Zn and Po assoc. with more skarny sects. Aspy. minor, as fracture fillings. Lower contact arbitrary. Some core angles 10-20°.						
62 - 82	Epidote Quartz Rock Breccia test in spots. Short felds. porph. sects.						
82 - 132	Chert. Light grey, Minor Cpy flecks - less than 1/1%. Some more highly skarned zones. are volc.? Core angles 15 - 20°.						
132 - 234	Diorite or Granodior 25 - 30% mafics. Patches in zone could be assim. volc. Epidote stringers and alt. Andesite dikes. Fine dissem. Py. Local minor Cpy. 210 - 220 Mafics decrease, clumpy text and have partially resorbed look.						

VAN-WEST MINERALS, LIMITED

PROPERTY \_\_\_\_\_

HOLE NUMBER #3 \_\_\_\_\_

SHEET NUMBER 2 \_\_\_\_\_

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_  
DEP \_\_\_\_\_

ELEVATION OF COLLAR \_\_\_\_\_

DATUM \_\_\_\_\_

DIRECTION AT START: BEARING \_\_\_\_\_  
DIP -35° \_\_\_\_\_

STARTED \_\_\_\_\_

COMPLETED \_\_\_\_\_

ULTIMATE DEPTH 293' \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
234 - 243	Felds Porphyry. Brownish tint. Contacts. obsc.							
243 - 250	Diorite. Clump text. 250 strong shear with gauge on contacts.							
250 - 293	Volcanic and Chert Mixture. Brecc. Minor Cpy, Aspy, Py. Some graphitic slips.							
293'	END OF HOLE							

PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER #4  
 SHEET NUMBER 1  
 SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_  
 DEP. \_\_\_\_\_  
 ELEVATION OF COLLAR \_\_\_\_\_  
 DATUM \_\_\_\_\_  
 DIRECTION AT START: BEARING \_\_\_\_\_  
 DIP -45°

STARTED \_\_\_\_\_  
 COMPLETED July 1966  
 ULTIMATE DEPTH 223'  
 PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Cu.	Zn.	Ag.	Au.
0 - 82	Breccia Zone and Sulphides	0	5	5	0.15	tr.	0.4	tr.
	Overall 20 - 25% Po,	5	10	5	0.07	tr.	0.1	tr.
	Poss 1/2% Cu, 3% Zn.	10	15	5	0.05	0.15	0.2	tr.
	Cpy. as blebs to 1/4" and	15	20	5	0.09	tr.	0.7	tr.
	fract. fil. Occurs assoc.	20	25	5	0.23	6.41	0.1	0.02
	with actinolitic skarn matrix	25	30	5	0.21	1.45	0.2	0.02
	to volc. and epidote fragments	30	35	5	0.08	0.87	0.1	tr.
	Po. occurs as breccia fragments	35	40	5	0.25	3.89	0.3	0.02
	also garn. Some cherty	40	45	5	0.15	1.55	0.2	0.02
	frags.	45	50	5	0.08	0.37	0.1	tr.
	0 - 15 Acidic? Zn - Cu	50	55	5	0.16	4.24	0.2	0.01
	minor. 10 - 15% epidote	55	60	5	0.35	6.14	0.6	0.02
	23 - Pod massive arseno	60	65	5	0.81	5.19	1.6	0.02
	15 - 41 Heavy Po, minor Py	65	70	5	0.36	7.19	0.6	0.02
	2 - 3% Sphal. 3/4 - 1 Cpy.	70	75	5	0.17	2.84	0.4	0.02
	Zn Cu associated with	75	80	5	0.21	5.64	0.5	0.01
	actinolite.	80	85	5	0.13	3.17	0.3	0.02
	26' - Banded Po at 35 - 40°							
	41 - 51 Skarny breccia zone	20	85	65	0.24	3.75	0.4	
	cherty fragments.							
	51 - 82 Breccia possibly 12% Sphal. 2-3% Chalco.							

PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER #4

SHEET NUMBER 2

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_  
 DEP. \_\_\_\_\_

ELEVATION OF COLLAR \_\_\_\_\_

DATUM \_\_\_\_\_

DIRECTION AT START: BEARING \_\_\_\_\_  
 DIP -45°

STARTED \_\_\_\_\_

COMPLETED July 1966

ULTIMATE DEPTH 223'

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
82 - 87	Epidote Actinolite skarn may be forming in intrusive lower cont. obscured.							
87 - 90	Acid intrusive.							
90 - 103	Skarn probably developed in intrusive.							
103 - 134	Acid intrusive, foliated mod. alt. Fractured. Ep. in fract. Fol. at 45 - 60.							
134 - 178	Chert Well banded at 60°. Ep replaces some bands. Minor Po. 176 - 177 Minor sphalerite.							
178 - 193	Skarn and Quartz mainly granular epidote partly leached in spots. Recovery poor.							
193 - 223	Volcanic and Chert. Minor patches Aspy and minor Zn. Highly fractured. 205 leached, alt., near or in fault zone!							
223'	END OF HOLE							



PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER 4A

SHEET NUMBER 1

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_

STARTED \_\_\_\_\_

DEP. \_\_\_\_\_

COMPLETED July 1966

ELEVATION OF COLLAR \_\_\_\_\_

ULTIMATE DEPTH 165'

DATUM \_\_\_\_\_

DIRECTION AT START: BEARING \_\_\_\_\_  
DIP -67°

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Cu.	Zn		
0 - 11	Breccia - Massive Po	0	5	5	0.23	0.50		
	Fragments include, skarn	5	10	5	0.23	0.60		
	chert, Carb. veining. Minor	10	15	5	0.01	tr.		
	Cpy.	15	20	5	0.05	0.25		
11 - 23	Epidote Skarn	20	25	5	0.07	0.15		
	Some Po., fractured. Little	25	30	5	0.12	tr.		
	or no Cpy or Zn.	30	35	5	0.19	0.80		
23 - 41	Breccia Massive Po	35	40	5	0.13	0.65		
	As before Less Cpy.	40	45	5	0.09	1.25		
	Carb stringers, garnet.							
41 - 45	Higher grade zinc zone. Similar to							
	51 - 82 in Hole #4.							
45 - 46	Fault Zone.							
	Breccia, highly weathered.							
	Fine Py.							
46 - 72	Epidote - Volcanic							
	Little or no mineralization. Some							
	volcanic remnants.							
72 - 84	Volcanic							
	Med. grey green. Some felds., phenos. ep.stringers.							
84 - 113	Acid Intrusive.							

PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER #4A  
 SHEET NUMBER 2  
 SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_  
 DEP. \_\_\_\_\_  
 ELEVATION OF COLLAR \_\_\_\_\_  
 DATUM \_\_\_\_\_  
 BEARING \_\_\_\_\_  
 DIRECTION AT START: DIP -67°

STARTED \_\_\_\_\_  
 COMPLETED July 1966  
 ULTIMATE DEPTH 165'  
 PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
	Same as #4. Cont. irreg. pink felds. Epidotized.							
113 - 119	Weakly foliated at 50-55. Volcanic.							
119 - 123	Med. green grey. As before. Acid intrusive.							
123 - 134	As before. Foliated at 45. Epidote - Chert. Siliceous epidote bearing rock. Locally well bedded. Cherty.							
134 - 139	Volcanic Pale green, fractured, minor sulph.							
139 - 164	Epidote Chert rock. As before.							
164 - 165	Volcanic. As section 134 - 139. Minor sulph.							
165'	END OF HOLE.							

PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER 75  
 SHEET NUMBER 1  
 SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT \_\_\_\_\_  
 DEP \_\_\_\_\_  
 ELEVATION OF COLLAR \_\_\_\_\_  
 DATUM \_\_\_\_\_  
 DIRECTION AT START: BEARING \_\_\_\_\_  
 DIP -55°

STARTED \_\_\_\_\_  
 COMPLETED July 1966  
 ULTIMATE DEPTH 150'  
 PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Zn	Cu	Ag	Au
0 - 45	Breccia Zone	0	5	5	0.52	0.41	0.6	tr.
	Angular frags. - light green	5	10	5	1.77	0.87	1.4	tr.
	Fine grd. Good Cpy	10	15	5	0.90	0.43	0.7	tr.
	first 15 feet	15	20	5	1.55	0.29	0.4	tr.
	21.5 - 26 Porphyritic Andesite	20	25	5	0.85	0.03	0.2	0.01
	Fine felds phenos. Short	25	30	5	2.87	0.19	0.2	tr.
	granitic sects.	30	35	5	1.20	0.16	0.3	0.02
	Chert frags. - finely bedded	35	40	5	1.97	0.23	0.3	tr.
	contorted 44 - 45.	40	45	5	2.25	0.16	0.3	tr.
45 - 53.6	Breccia and Volcanic	45	50	5	2.05	0.23	0.4	0.01
	Minor sulph. Some mag.	50	55	5	0.53	0.13	0.1	0.01
	as breccia filling. As before	55	60	5	0.13	0.01	tr.	tr.
	Volc. partly skarnified.							
53.6 - 59	Andesite Dike	0	50	50'	1.59	0.30	0.44	
	M.f.g. grey green, highly fract.							
	filled with ep. stringers.							
59 - 93	Skarn and Chert.							
	Alternating sects. Some cherts appear to be rotated fracture blocks.							
	63 late leached fault or bx							

PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER #5  
 SHEET NUMBER 2  
 SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_  
 DEP. \_\_\_\_\_  
 ELEVATION OF COLLAR \_\_\_\_\_  
 DATUM \_\_\_\_\_  
 DIRECTION AT START: BEARING -55°  
 DIP \_\_\_\_\_

STARTED \_\_\_\_\_  
 COMPLETED July 1966  
150'  
 ULTIMATE DEPTH \_\_\_\_\_  
 PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
	67 - 70°							
	83 - 60°							
	90 - 70°							
	Cs crystals magnetite sporadically through sect. assoc. with carb. veins. More garnet in zone.							
93 - 111	Epidote quartz felds. probably assoc. with chert. 95' - vague banding at 40°.							
	Contacts obscured.							
111 - 134	Intrusive and Volc.							
	Alternating sections of							
	foliated intrusive and Volc. fine grd.							
	Weakly re-crys. Some csr. hb. blebs. Aplitic breccia zones.							
	At 45 - 60°.							
134 - 150	Foliated Intrusive							
	Light grey - med. grained. Hb fine dissem Py, poss. Cpy,, minor quartz.							
150'	END OF HOLE.							

PROPERTY VAN-WEST MINERALS, LIMITED

#6 Packsa

HOLE NUMBER 1

SHEET NUMBER \_\_\_\_\_

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_

STARTED \_\_\_\_\_

DEP. \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION OF COLLAR \_\_\_\_\_

ULTIMATE DEPTH \_\_\_\_\_

DATUM \_\_\_\_\_

DIRECTION AT START: BEARING -90°  
DIP \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Cu.	Zn.	Ag.	Au.
0 - 18	Breccia	0	5	5	0.65	5.16	1.3	0.02
	Similar to previous holes. Some	5	10	5	0.25	1.05	0.4	tr.
	very cs epidote and volc. fragments	10	15	5	0.31	3.64	0.4	0.01
	Matrix Po Cpy Zn Py. Mag.	15	20	5	0.16	2.12	0.2	tr.
	with mainly actino skarn.	20	25	5	0.09	1.15	0.2	tr.
	Carb. blobs and stringers.	25	30	5	0.16	1.50	0.4	0.01
18 - 23	Porphyritic Andesite	30	35	5	0.30	3.34	0.9	0.01
	Fine grd. Fine felds phenos.	35	40	5	0.06	1.62	0.1	tr.
	Ep. stringers. No sulph.	40	45	5	0.37	1.52	0.8	0.02
	May be dike.	45	50	5	0.33	3.29	0.6	0.01
23 - 35	Breccia	50	55	5	0.09	1.02	0.2	0.02
	As before. Values erratically	55	60	5	0.12	2.59	0.1	0.02
	distributed. More carb. veining	60	65	5	0.13	2.64	0.4	0.02
	Lower grade.	65	70	5	0.03	1.75	0.1	0.02
35 - 44		70	75	5	0.01	0.17	tr.	tr.
	Poor recovery and open hole	75	81	6	0.01	0.25	tr.	tr.
	Rock same. Possibly lower							
	grade. Total recovery 2 feet.	0	70	70	0.22	2.31	0.41	
44 - 52	Breccia							
	As before							
52 - 57	Skarn.							

PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER #6 Packback  
 SHEET NUMBER 2  
 SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT \_\_\_\_\_  
 DEP \_\_\_\_\_  
 ELEVATION OF COLLAR \_\_\_\_\_  
 DATUM \_\_\_\_\_  
 DIRECTION AT START: BEARING \_\_\_\_\_  
 DIP -90°

STARTED \_\_\_\_\_  
 COMPLETED \_\_\_\_\_  
 ULTIMATE DEPTH 81'  
 PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
	Mainly epidote, some garn.							
	Small dike or							
	from 53 - 54.5.							
57 - 70	Breccia.							
	Little or no Cpy. Zn plus seams of Aspy.							
	Alt. with less brecciated sects of volc.							
	grad. dec. in % Zn.							
70 - 81	Epidote Qtz. rock and breccia							
	patches to end of hole.							
	Minor Zn.							
81'	END OF HOLE.							

PROPERTY VAN-WEST MINERALS, LIMITED

#7 Packs

HOLE NUMBER

SHEET NUMBER 1

SECTION FROM TO

# DIAMOND DRILL RECORD

LOCATION: LAT \_\_\_\_\_  
 DEP \_\_\_\_\_

ELEVATION OF COLLAR \_\_\_\_\_

DATUM \_\_\_\_\_

DIRECTION AT START: BEARING \_\_\_\_\_  
 DIP -90°

STARTED \_\_\_\_\_

COMPLETED July, 1966

ULTIMATE DEPTH \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Cu.	Zn.		
0 - 8	Magnetite	0	5	5	0.02	0.50		
	30% magnetite, orange	5	10	5	0.05	1.05		
	yellow garnet. Partly	10	15	5	0.01	0.07		
	leached. Only minor	15	20	5	0.05	0.27		
	sulphides.	20	25	5	0.34	0.97		
8 - 17	Volcanic & Skarn	25	30	5	0.34	3.52		
	Partly skarned volc., 2 ft.	30	35	5	0.09	2.17		
	garnet at end. Little or no	35	40	5	0.16	4.57		
	sulph. Vague banding in spots	40	45	5	0.11	1.82		
	at 40 - 45°. Little indication of	45	50	5	0.03	1.37		
	breccia.	50	55	5	0.11	1.77		
17 - 54	Breccia	55	60	5	0.01	0.70		
	Cpy. Zn. Aspy. Py Some mag.,	60	65	5	0.01	0.13		
	Po. Grade lower than							
	other holes.	5	55	50	0.13	1.76		
54 - 57	Skarn.							
	As before. Mainly epidote.							
57 - 64	Volc. & foliated intrusives, little or no sulphides.							
64 - 68	Foliated Intrusive.							
	As before. At 40 - 45. Weak cp.							
68'	END OF HOLE.							

PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER #8 Packsack

SHEET NUMBER 1

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT \_\_\_\_\_

STARTED \_\_\_\_\_

DEP \_\_\_\_\_

COMPLETED July 1966

ELEVATION OF COLLAR \_\_\_\_\_

ULTIMATE DEPTH 62'

DATUM \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DIRECTION AT START: BEARING \_\_\_\_\_

DIP \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Cu.	Zn.		
0 - 38		0 - 5		5	0.06	0.30		
	Skarn and impure phase of	5 - 10		5	0.66	1.77		
	chert. Local pods of Cpy. Zn.	10 - 15		5	0.57	1.60		
	and Po. Intermittent short	15 - 20		5	0.05	tr.		
	sections of carb. cemented	20 - 25		5	0.03	tr.		
	breccia. Hematite flecks	25 - 30		5	0.14	0.70		
	in upper 10 ft. Sulphides							
	die out about 20 ft.	0 - 15		15	0.43	1.24		
	3' 70°							
	17' 35°							
	27 - 30 Breccia - some sulphides							
	36 - 38 Highly leached,							
	sheared and bx . epidote skarn							
38 - 62	Volcanic.							
	Volc. with epidote quartz							
	sections and grades into							
	felds. pheno. dioritized.							
	volc. epidotized shears.							
	Mirror dissem. Py.							
62'	END OF HOLE							



PROPERTY VAN-WEST MINERALS, LIMITED

HOLE NUMBER #9

SHEET NUMBER 1

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_  
 DEP. \_\_\_\_\_

ELEVATION OF COLLAR \_\_\_\_\_

DATUM \_\_\_\_\_

DIRECTION AT START: BEARING \_\_\_\_\_  
 DIP -45°S

STARTED \_\_\_\_\_

COMPLETED July 1966

ULTIMATE DEPTH 57.5'

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Cu.	Zn.	Ag.	Au.
0 - 11.5	Volcanic	11	17	6	0.23	tr.	0.01	tr.
	Dk. green grey -occasionally	31	36	5	0.02	tr.	0.01	tr.
	felds. phenos., skarny patches	36	41	5	0.02	0.27	0.1	tr.
	with 5 - 10% dissem. Py.	41	46	5	0.04	tr.	tr.	0.01
	and very minor Cpy.	46	51	5	0.07	0.17	0.3	tr.
11.5 - 17	Skarn.	51	56	5	0.11	tr.	tr.	tr.
	Mainly epidote in fractured							
	volcanic. Heavy Py. Foliated at 45°.							
17 - 31	Porphyritic volcanic(?)							
	Cs. felds phenos in dk. grey							
	volc. matrix. No sulphides.							
	Could be intrusive.							
31 - 56	Epidote Carbonate rock.							
	Altered lime. Some magnetite.							
	Minor Cpy. Occ. flecks							
	cs. sphalerite. Minor flecks							
	moly. Locally heavy pyrite.							
56 - 57.5	Volcanic.							
	Vaguely lineated.							
57.5'	END OF HOLE.							

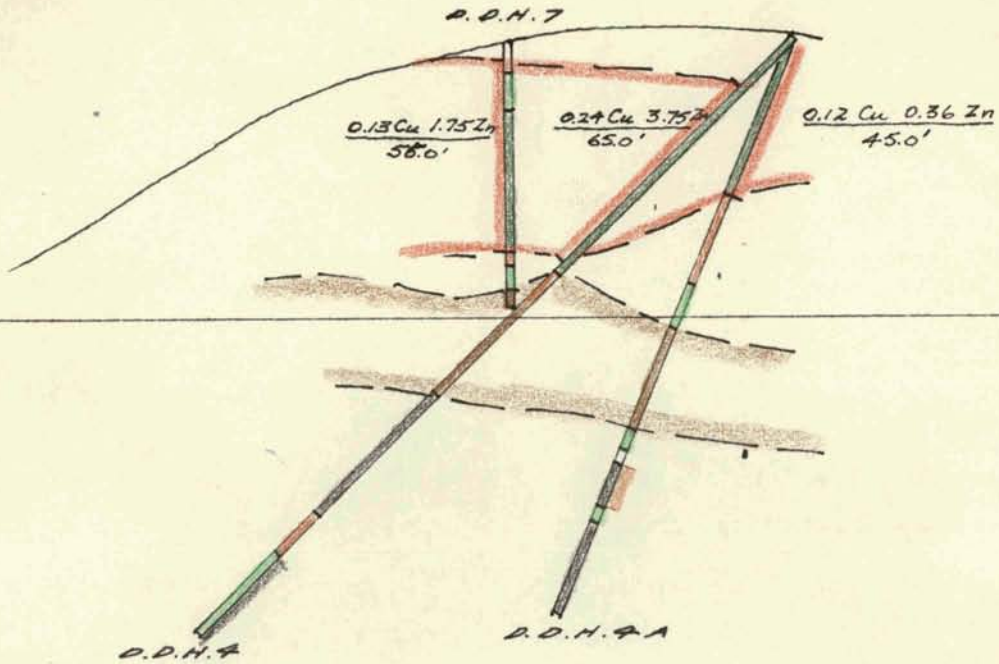
352°W

N52°E

600

500

400

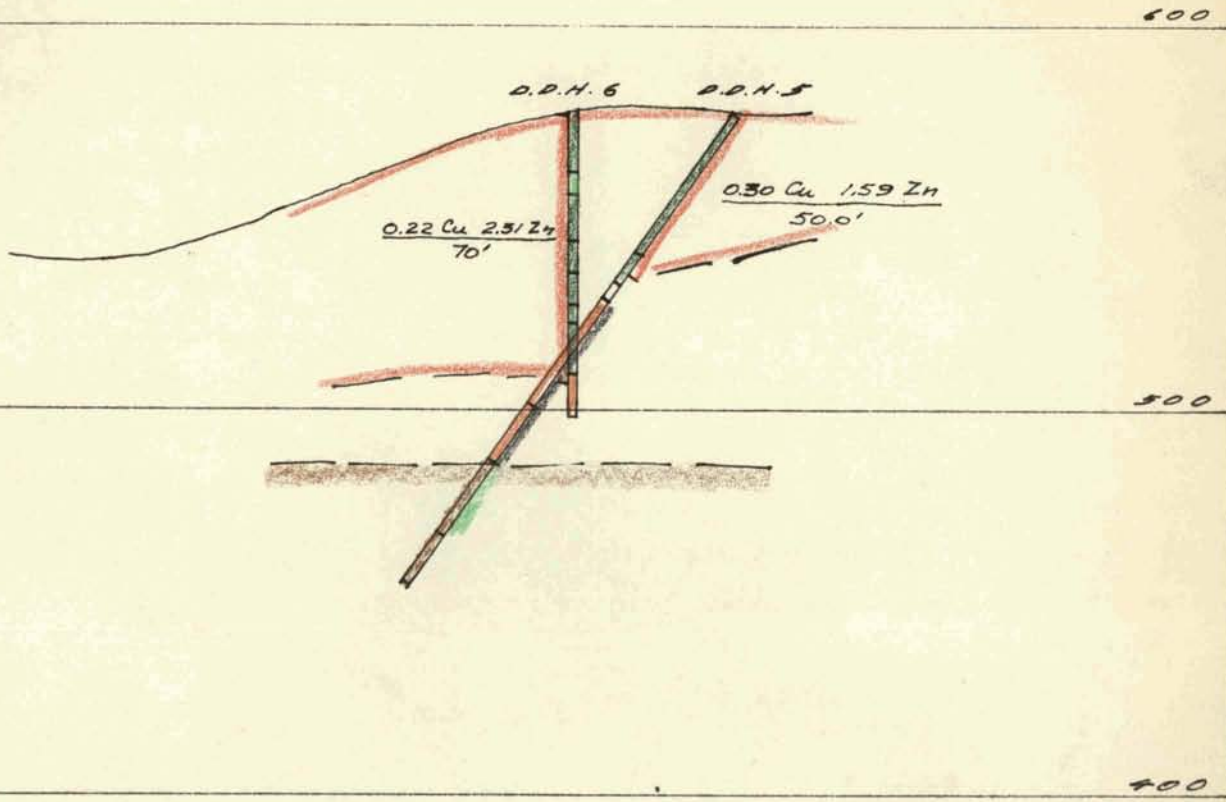


NOTE - D.D.H. 7 IS 10' S38°E  
OF SECTION THROUGH  
D.D.H. 4 & 4A

AHOUSAT COPPER ZINC  
(VANWEST)  
SECTION THROUGH D.D.H. 4, 4A & 7  
SCALE 1" = 50' JAN 1967

321°W

N21°E



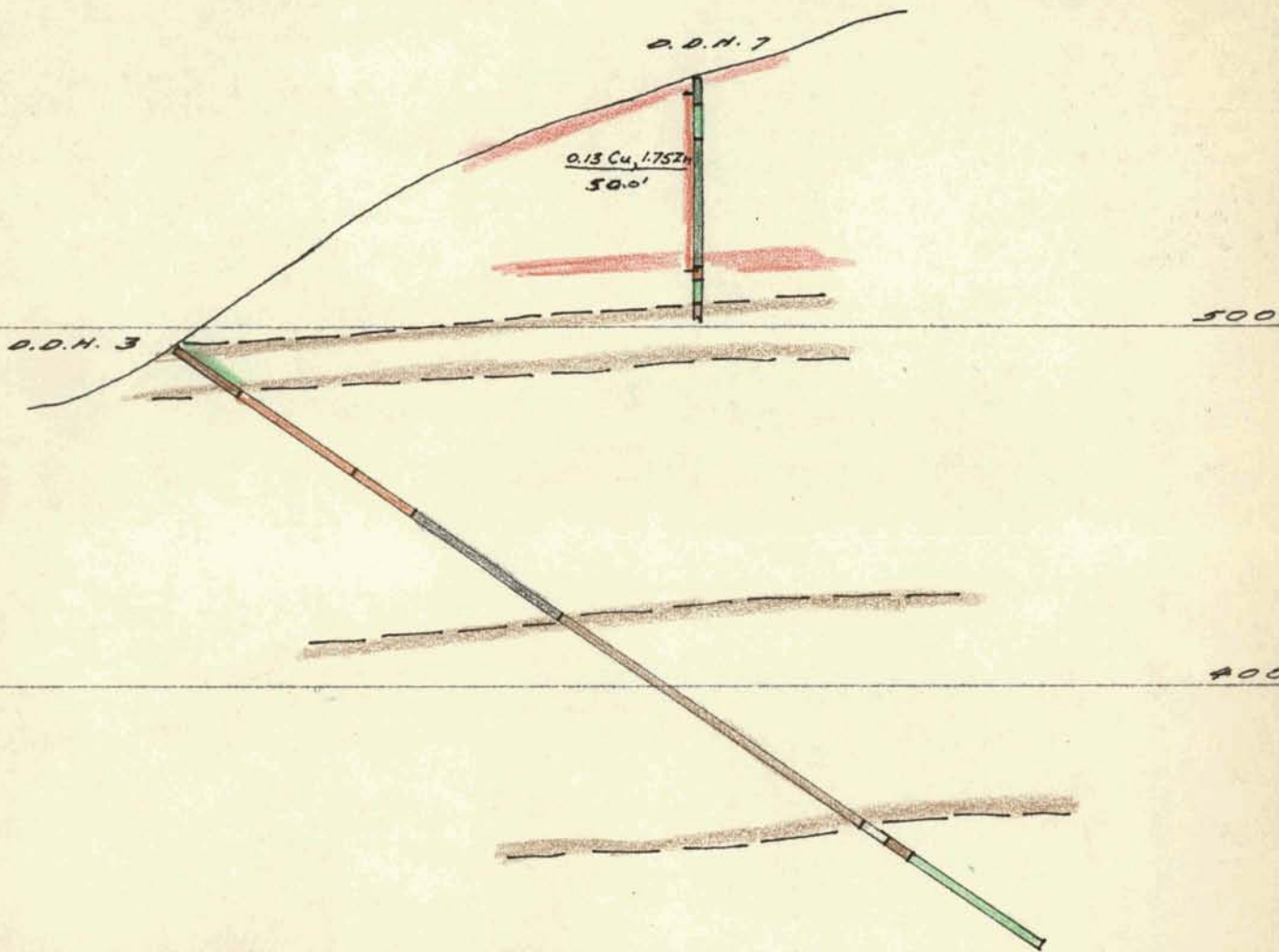
NOTE - D.D.H. 6 IS 29° N 69° W  
OF SECTION THROUGH  
D.D.H. 5

AHOUSAT COPPER ZINC  
(VANWEST)  
SECTION THROUGH D.D.H. 5 & 6  
SCALE 1" = 50' JAN 1967



N 89° W

S 89° E

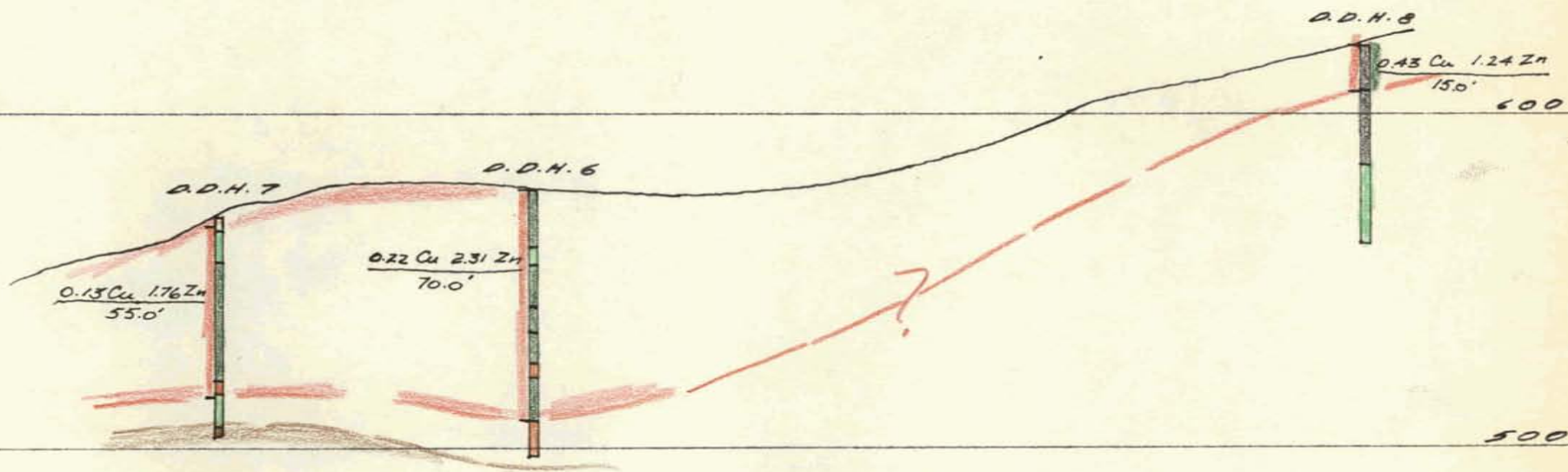


NOTE - D.D.H. 7 IS 16' S 1° W  
OF SECTION THROUGH  
D.D.H. 3

ANDUSAT COPPER ZINC  
(VANWEST)  
SECTION THROUGH D.D.H. 3 & 7  
SCALE 1" = 50' JAN 1967

N 55° W

S 55° E



AHOUSAT COPPER ZINC  
(VANWEST)

SECTION THROUGH D.D.H. 6, 7 & 8

SCALE 1" = 50' JAN 1967

IX

Box 208,  
Tofino,  
B.C.

A Report of Van-West Minerals Limited, N.P.L.  
to the shareholders and prospective buyers

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The holdings comprise 34 mineral claims located at Matilda Bay, Flores Island on the west coast of Vancouver Island.

The directors are Lorne Hansen, President; Elida Burchett, Secretary-treasurer; Frank Bottos, First vice-president; Dr. H.R. McDiarmid, Second vice-president and J.H. McLeod, all of Tofino, B.C. except Frank Bottos who resides in Toronto, Ontario, also added to the board Gawn Moffett and Rueben Parker.

The original owners Lorne Hansen and Elida Burchett signed over to Van-West Minerals Limited, N.P.L. the exclusive option to develop or make any deal on the above mentioned mineral claims for (\$1.00) one dollar. This property was staked by Lorne Hansen in 1954 acquiring more claims and doing work.

Albert Carlson has been in charge of exploration and development for the last ten months thereby entitling him to participate with the vendors on the escrowed stock.

The Van-West Minerals Limited, N.P.L. is a 3,000,000 share private company with a 50¢ par value stock, registered in Victoria, B.C.

With only <sup>92,000</sup>50,000 treasury shares sold. At present the shares are selling at 25 per share, with no brokerage fees deducted, company expenses only.

The following report made by a Government engineer in 1916 on the Van-West Holdings comprising the Ormond and Contact Groups, on which to-day we have four times the mineralization over two miles in length; also finding outcrops of molybdenum, a grab sample assaying 2.68% MoS<sub>2</sub> in the shear zone reported in the 1917 Ormond Report:

Report By W.M. Brewer, Government Engineer

ORMOND GROUP. The rock formations in the region belong to Dawson's Vancouver series, composed chiefly of volcanic rocks interbedded with argillites and limestones.

The ore-bodies on the Ormond group occur in sheared zones in igneous rocks having a slight porphyritic structure, and apparently the most important occurrence fills a fissure in these rocks which has a breccia structure. The line of strike of this fissure is true north, the dip 70 degrees to the east. Judging from a series of open-cuts in which the most prominent ore-bearing body is exposed, the fissure is at least 500 feet long and about 150 feet wide. The ore in the fissure varies in width from about 4 to 8 feet.

The vein material is composed of chalcopyrite, mixed with iron pyrites and pyrrhotite in a gangue of brecciated country-rock, garnetite, epidote, calcite, and quartz. Samples from the various openings show marked uniformity in the copper and silver values carried by the ore. The ore averages about

3 oz. silver to the ton and about 5 per cent in copper. The mine workings are about 4,500 feet from the beach of a good deep-water harbour, and at an elevation of about 1,100 feet above sea-level.

The supply of timber on the property is ample for building, mining, and fuel for many years to come. The supply of water is ample for mining and domestic purposes, and if a small lake on the property is used for a reservoir a water-power can apparently be developed, but the capacity is undetermined.

Flores island was examined in 1902 by Arthur Webster, of the Canadian Geological Survey whose report is published in the Annual Report for that year, Vol. XV., page 70A and is as follows: "On the north-east and north-west sides of Flores island, including Steamer cove and Rocky passage and south to within two miles and a half from the mouth of Matilda creek, fine grained granites are met with. Thence southward, including Matilda creek and the shore to Ahousat Village, on the White Sand bay, only greenstones of the Vancouver series are exposed.

Geography. - Flores island has an area of about thirty-six square miles and is on the west coast of Vancouver island, on the north side of Clayoquot sound. It is separated from Vancouver island by the fiord called Sidney inlet. The west side of Flores island is open to the Pacific ocean and has no harbours; but on the south-east side Matilda creek affords a safe deep-water shelter and good anchorage.

Flores island is mountainous and thickly wooded, the shores are steep, rugged cliffs, except for a short distance in front of the Indian Village of Ahousat, where there is a white sandy beach.

Geology. - The rock formations on the west side of Matilda creek comprise traps, greenstones, and other igneous rocks of the Vancouver series. Some of these are sheared and also show a porphyritic structure, especially in the vicinity of the ore-bodies, where garnetite and opidote are found with the brecciated gangue material.

On the east side of Matilda creek is a narrow peninsula on which a belt of granite occurs that contacts with greenstone. On the contact about a quarter of a mile from the beach, bodies of magnetite occur.

Ore-deposits. - The history of prospecting on Flores Island dates back to the autumn of 1902, when James Beck discovered gossan outcropping on the beach between high and low-tide marks on the east side of Matilda creek. He also found a body of chalcopyrite which he attempted to work by an open-cut, but after sinking about 6 feet was driven out by the inflow of water. Prospecting on the west side of Matilda creek, in the mountain, about three-quarters of a mile north-west from the beach, he discovered bodies of magnetite, and later discovered the body of chalcopyrite that makes the property attractive.



The Character of the Ore deposits. - Flores island contains good illustrations of deposits of chalcopyrite and magnetite in sheared zones. On the Ormond No. 3 mineral claim such occur at a point about one mile and a half by the present trail from the beach camp in a north-west direction, but only about half that distance by an air-line. The ore-mineral is chalcopyrite, with pyrrhotite, iron pyrites, and magnetite associated, and they occur as large masses in a wide sheared zone in an igneous country-rock. Chalcopyrite unaccompanied by the associated mineral just mentioned also occurs as kidneys or lenses in the brecciated gangue material.

Development. - On the Ormond No. 3 mineral claim, along a ridge at an elevation of about 1,100 feet above sea-level, six trenches have been made, crosscutting the fissure in the sheared igneous rocks and carrying chalcopyrite. These cuts are in line from true south to north for a distance of about 500 feet; also an open-cut approach to a short adit, with a shallow winze at the face of the adit, has been made in the bank of a gulch at the south end of the ridge 100 feet below the level of the ridge. Another adit was commenced about 100 feet lower, but subsequently abandoned.

Available Ore. - The work described has exposed an ore-body that apparently maintains continuity along its strike to the north for a distance of about 500 feet. Seemingly the same body has been drifted on by the short adit, indicating that the ore has extended to that depth.

In each of the open-cuts on the ridge the brecciated zone shows an average width of about 15 feet, with chalcopyrite occurring in it in masses, lenses, and veinlets of varying widths, but the percentage of ore in the vein material can hardly be determined from the work done. In the open-cut, adit, and winze practically the same conditions are shown.

No well-defined walls are proved in any of the openings. At the lowest level the open-cut was made along a so-called wall on the west of the ore, but by continuing the cut to the west, across the formation, a body of sheared country-rock associated with considerable garnetite and epidote carrying a little ore was found, and for the next 5 feet the cut crossed the same material, but with a greater proportion of chalcopyrite.

Chas. H. Clapp, in Memoir No. 13, page 176, Canadian Geological Survey, says, with regard to the shear-zone type of ore deposits, as follows: "There is every reason to believe that these shear-zones extend to considerable depths."

To what depth the ore-body on the Ormond No. 2 claims may maintain its continuity is a question that work alone will solve; apparently it is found to have done so to a depth of 100 feet. No estimate of tonnage of available ore can be made from the data supplied by the work so far done, but apparently a considerable tonnage might be shown by further systematic work.



At a point about 160 feet north from the fifth open-cut on the ridge there is a bluff 20 feet higher than the average level, in which occurs an outcropping of more or less oxidized copper ore associated with chalcopyrite wider than is exposed in any of the open-cuts. This is practically in line with the other exposures. The bluff forms the south bank of a dry gulch, which affords a good opportunity to prospect for the ore at a considerable depth, and open mine workings nearer to the beach on Sidney inlet than if permanent workings were opened from the dry gulch at the south end of the ridge.

Samples and Assays. - Owing to the obvious uniformity of the copper content in the ore-body as exposed in the various open-cuts the writer took only one sample; this was fair average from the dump at the adit, and assayed: Gold, trace; silver, 3.4 oz.; copper, 5.2 per cent.

The following assay results were reported by Mr. Canavan: At the adit, silver, 3.2 oz.; copper, 4.61 per cent; at second crosscut, silver, 4.16 oz.; copper, 7.38 per cent; at the adit, silver, 3.6 oz.; copper, 6.5 per cent.; at second crosscut, silver, 3.6 oz.; copper, 3.4 per cent.; at the second crosscut, silver, 3 oz.; copper, 6.1 per cent.; at the dump at the adit, silver, 4.2 oz.; copper, 5.7 per cent.; at the face of the adit, silver, 1.2 oz.; copper, 6 per cent.; at the face of the adit, silver, 2 oz.; copper, 6.1 per cent.; at second crosscut, silver, 4 oz.; copper, 7 per cent.

Ormond No. 2 - Magnetite - deposits of the contact-metamorphic type occur on this mineral claim on the east side of Matilda creek, at an elevation of about 100 feet above sea-level and about a quarter of a mile from the beach. These outcroppings of magnetite occur along a contact-zone between granite on the south-west side and greenstone on the north-east; the zone strikes south-east and extends across a portion of the Ormond No. 2 claim on to the Ormond No. 2 Fraction.

The masses of magnetite occur at irregular intervals. Some open-cuts have been made to prospect the extent of some of the masses, but the work has been insufficient to determine the full width and length of the various outcrops.

A sample typical of the average grade of the ore assayed: Iron, 53.5 per cent.; sulphur, trace; phosphorus, nil; silica, 24.8 per cent.

On the Ormond No. 2 claim a wide outcrop of gossan occurs near the beach, striking N. 50° E. (mag.). This has been prospected by a trench about 30 feet long made across the outcrop at one point, but not deep enough to reach the unaltered material, the source of the gossan. About 200 feet from the trench, along the beach below high tide, is another trench, from which Mr. Beck stated 100 sacks of good copper ore was taken some years ago, but that the work was abandoned because of the inflow of water. Whether this occurrence has any connection with the gossan-outcrop has not been determined. The country-rock adjacent to the copper ore is greenstone

associated with epidote and garnotite. These occurrences of magnetite and gossan are of sufficient importance to warrant further prospecting, especially when the accessibility for shipping is considered.

In June of this year we had McPhar Geophysics of Toronto make an Induced Polarization Survey of the lower showings (adjoining the deep water) in which they recommend deep drilling, that particular zone was outlined by the newest electro methods as being 200 x 1600 feet. Another zone adjoining and running parallel seems to have wider mineralization. This work was under the supervision of Frank Bottos, who later became a major shareholder. We are going to put a Caterpillar on this zone to strip then drill.

There are also ten outcrops of magnetic iron and copper that need stripping with the Cat., one in particular a very high grade gold outcrop on the McNeill Peninsula where you can pan gold anyplace on bedrock - the assays going from 1.35 to 16 oz. in gold. This zone being traced by shallow pits for 700 feet up the hill.

We are endeavouring to raise \$30,000. to start with, \$10,000 for Cat. work, stripping and making roads, and \$20,000. for diamond drilling. We are anticipating after this work is done to go public and be listed on the stock exchange.

A minimum participation of \$500.00 by one person or a group under the one name, is necessary. As we are only allowed by the Securities Commission to have 35 more members making a total of 50 members. The stock certificates will be issued on receipt of the money, and where there is more than one participant the certificate will be issued in the name of one principal only. The division will be made after we go public.

Anyone wishing to participate, contact any member of the executive.

Yours sincerely,

L. Hansen

the section. The prospectors merely continued to hold their claims by either doing the annual assessment-work or restaking the ground, as it reverted to the Government.

Until the commencement of the war the Ptarmigan Mines, Limited, was engaged in building a wagon-road and bridges up the Bear River valley in order to reach the property of the company, which is situated about fifteen miles from the mouth of Bear river, at an elevation of about 5,300 feet above sea-level, but since then that company has suspended operations.

During 1916 there was some revival of interest by prospectors in the Bear River section and some new locations were made late in the season.

The surface ores found in the mountains adjacent to the river are usually of rather exceptional value. The outcroppings occur as gossan, under which ore-lenses of chalcopyrite mixed with magnetite are found, belonging to the contact-metamorphic replacement type of ore-deposit. The development-work done has not been sufficient to warrant the expression of an opinion as to the possibilities that may result from further development.

A selected sample from the *Galena* mineral claim, owned by Joe Drinkwater, situated about five miles above the mouth of Bear river, taken from the bottom of a shallow winze, assayed Gold, trace; silver, trace; copper, 21.4 per cent.

Another sample from same claim at the face of an open-cut approach to an adit assayed Gold, trace; silver, 0.2 oz.; copper, 3.1 per cent.

This group of mineral claims is on Flores Island, in the Clayoquot Mining Ormond Group, Division, on the west coast of Vancouver Island, and contains nine claims having a total area of approximately 375 acres. The property is owned by James Beck, of Victoria, but is under bond to H. W. E. Canavan, of Victoria, B.C. The rock formations in the region belong to Dawson's Vancouver series, composed chiefly of volcanic rocks interbedded with argillites and limestones.

The ore-bodies on the *Ormond* group occur in sheared zones in igneous rocks having a slight porphyritic structure, and apparently the most important occurrence fills a fissure in these rocks which has a breccia structure. The line of strike of this fissure is true north, the dip 70 degrees to the east. Judging from a series of open-cuts in which the most prominent ore-bearing body is exposed, the fissure is at least 500 feet long and about 15 feet wide. The ore in the fissure varies in width from about 4 to 8 feet.

The vein material is composed of chalcopyrite, mixed with iron pyrites and pyrrhotite in a gangue of brecciated country-rock, garnetite, epidote, calcite, and quartz. Samples from the various openings show marked uniformity in the copper and silver values carried by the ore. The ore averages about 3 oz. silver to the ton and about 5 per cent. in copper. The mine workings are about 4,500 feet from the beach of a good deep-water harbour, and at an elevation of about 1,100 feet above sea-level.

The supply of timber on the property is ample for building, mining, and fuel for many years to come. The supply of water is ample for mining and domestic purposes, and if a small dam on the property is used for a reservoir a water-power can apparently be developed, but the capacity is undetermined.

Transportation facilities for conveying ore from the mine to the beach can be installed with little difficulty and at a reasonable cost.

When the writer examined the *Ormond* group of mineral claims on June 27th, 1916, work was being carried on by a force of miners in the employ of Mr. Canavan. The writer was accompanied by James Beck, the owner, through whose courtesy a thorough examination was made possible.

Flores island was examined in 1902 by Arthur Webster, of the Canadian Geological Survey, whose report is published in the Annual Report for that year, Vol. XV., page 70A, and is as follows: "On the north-east and north-west sides of Flores island, including Steamer Cove and Rocky passage and south to within two miles and a half from the mouth of Matilda creek, the grained granites are met with. Thence southward, including Matilda creek and the shore near Ahousat village, on to White Sand bay, only greenstones of the Vancouver series are exposed."

*Geography.*—Flores island has an area of about thirty-six square miles and is on the west coast of Vancouver island, on the north side of Clayoquot sound. It is separated from Vancouver island by the fiord called Sidney inlet. The west side of Flores island is open to the Pacific and has no harbours; but on the south-east side Matilda creek affords a safe deep-water anchorage and good anchorage.

There is mail-steamer plying between Victoria and west coast ports as far as Clayoquot, about fourteen miles south from Flores island, four times each month during the summer and three times each month during the winter; this steamer continues beyond Clayoquot twice each month, the year through, and on these voyages calls at Ahousat, on Flores island, about two miles from the beach camp of the Ormond group, and would call at that camp to deliver supplies if sufficient work was being carried on.

Flores island is mountainous and thickly wooded, the shores are steep, rugged cliffs, except for a short distance in front of the Indian village of Ahousat, where there is a white sandy beach.

*Geology.*—The rock formations on the west side of Matilda creek comprise traps, greenstones, and other igneous rocks of the Vancouver series. Some of these are sheared and also show a porphyritic structure, especially in the vicinity of the ore-bodies, where garnetite and epidote are found with the brecciated gangue material.

On the east side of Matilda creek is a narrow peninsula on which a belt of granite occurs that contacts with greenstone. On the contact about a quarter of a mile from the beach bodies of magnetite occur.

*Ore-deposits.*—The history of prospecting on Flores island dates back to the autumn of 1902, when James Beck discovered gossan outcropping on the beach between high- and low-tide marks on the east side of Matilda creek. He also found a body of chalcopryite which he attempted to work by an open-cut, but after sinking about 6 feet was driven out by the inflow of water. Prospecting on the west side of Matilda creek, in the mountain, about three-quarters of a mile north-west from the beach, he discovered bodies of magnetite, and later discovered the body of chalcopryite that makes the property attractive.

Four mineral claims were staked in the autumn of 1902 by Mr. Beck, two on the peninsula on the east side of Matilda creek and two in the mountains on the west side of that creek. Those on the east side are called the *Ormond No. 2* and *Ormond No. 2 Fraction*; those on the west side are called the *Ormond* and *Ormond No. 3*. During the summer of 1916 Mr. Beck staked five more claims, four of them adjoining the *Ormond* and *Ormond No. 3*; these are called the *Ormond Nos. 4, 6, 7, and 8*; the fifth claim, called the *Ormond No. 5*, is located on the beach and takes in the beach camp. This is located for a mill-site.

*The Character of the Ore-deposits.*—Flores island contains good illustrations of deposits of chalcopryite and magnetite in sheared zones. On the *Ormond No. 3* mineral claim such occur at a point about one mile and a half by the present trail from the beach camp in a north-west direction, but only about half that distance by an air-line. The ore-mineral is chalcopryite, with pyrrhotite, iron pyrites, and magnetite associated, and they occur as large masses in a wide sheared zone in an igneous country-rock. Chalcopryite unaccompanied by the associated mineral just mentioned also occurs as kidneys or lenses in the brecciated gangue material.

*Development.*—On the *Ormond No. 3* mineral claim, along a ridge at an elevation of about 1,100 feet above sea-level, six trenches have been made, crosscutting the fissure in the sheared igneous rocks and carrying chalcopryite. These cuts are in line from true south to north for a distance of about 500 feet; also an open-cut approach to a short adit, with a shallow winze at the face of the adit, has been made in the bank of a gulch at the south end of the ridge 100 feet below the level of the ridge. Another adit was commenced about 100 feet lower, but subsequently abandoned.

*Available Ore.*—The work described has exposed an ore-body that apparently maintains continuity along its strike to the north for a distance of about 500 feet. Seemingly the same body has been drifted on by the short adit, indicating that the ore has extended to that depth.

In each of the open-cuts on the ridge the brecciated zone shows an average width of about 15 feet, with chalcopryite occurring in it in masses, lenses, and veinlets of varying widths, but the percentage of ore in the vein material can hardly be determined from the work done. In the open-cut, adit, and winze practically the same conditions are shown.

No well-defined walls are proved in any of the openings. At the lowest level the open-cut was made along a so-called wall on the west of the ore, but by continuing the cut to the west; across the formation, a body of sheared country-rock associated with considerable garnetite and epidote carrying a little ore was found, and for the next 5 feet the cut crossed the same material, but with a greater proportion of chalcopryite.

Chas. H. Clapp, in Memoir No. 13, page 176, Canadian Geological Survey, says, with regard to the shear-zone type of ore deposits, as follows: "There is every reason to believe that these shear-zones extend to considerable depths."

To what depth the ore-body on the *Ormond No. 2* claim may maintain its continuity is a question that work alone will solve; apparently it is found to have done so to a depth of 100 feet. No estimate of tonnage of available ore can be made from the data supplied by the work so far done, but apparently a considerable tonnage might be shown by further systematic work.

At a point about 160 feet north from the fifth open-cut on the ridge there is a bluff 20 feet higher than the average level, in which occurs an outcropping of more or less oxidized copper ore associated with chalcopyrite wider than is exposed in any of the open-cuts. This is practically in line with the other exposures. The bluff forms the south bank of a dry gulch, which affords a good opportunity to prospect for the ore at a considerable depth, and open mine-workings nearer to the beach on Sidney inlet than if permanent workings were opened from the dry gulch at the south end of the ridge.

*Samples and Assays.*—Owing to the obvious uniformity of the copper content in the ore-body as exposed in the various open-cuts the writer took only one sample; this was a fair average from the dump at the adit, and assayed: Gold, trace; silver, 3.4 oz.; copper, 5.2 per cent.

The following assay results were reported by Mr. Canavan: At the adit, silver, 3.2 oz.; copper, 4.61 per cent.; at second crosscut, silver, 4.16 oz.; copper, 7.38 per cent.; at the adit, silver, 3.6 oz.; copper, 6.5 per cent.; at second crosscut, silver, 3.6 oz.; copper, 3.4 per cent.; at the second crosscut, silver, 3 oz.; copper, 6.1 per cent.; at the dump at the adit, silver, 4.2 oz.; copper, 5.7 per cent.; at the face of the adit, silver, 1.2 oz.; copper, 6 per cent.; at the face of the adit, silver, 2 oz.; copper, 6.1 per cent.; at second crosscut, silver, 4 oz.; copper, 7 per cent.

*Ormond No. 2.*—Magnetite-deposits of the contact-metamorphic type occur on this mineral claim on the east side of Matilda creek, at an elevation of about 100 feet above sea-level and about a quarter of a mile from the beach. These outcroppings of magnetite occur along a contact-zone between granite on the south-west side and greenstone on the north-east; the zone strikes south-east and extends across a portion of the *Ormond No. 2* claim on to the *Ormond No. 2 Fraction*.

The masses of magnetite occur at irregular intervals. Some open-cuts have been made to prospect the extent of some of the masses, but the work has been insufficient to determine the full width and length of the various outcrops.

A sample typical of the average grade of the ore assayed: Iron, 53.5 per cent.; sulphur, trace; phosphorus, *nil*; silica, 24.8 per cent.

On the *Ormond No. 2* claim a wide outcrop of gossan occurs near the beach, striking N. 50° E. (mag.). This has been prospected by a trench about 30 feet long made across the outcrop at one point, but not deep enough to reach the unaltered material, the source of the gossan. About 200 feet from the trench, along the beach below high tide, is another trench, from which Mr. Beck stated 100 sacks of good copper ore was taken some years ago, but that the work was abandoned because of the inflow of water. Whether this occurrence has any connection with the gossan-outcrop has not been determined. The country-rock adjacent to the copper ore is greenstone associated with epidote and garnetite. These occurrences of magnetite and gossan are of sufficient importance to warrant further prospecting, especially when the accessibility for shipping is considered.

#### SIDNEY INLET DISTRICT.

Sidney inlet is a fiord which penetrates the west coast of Vancouver island about twelve miles, with its entrance between the north-west corner of Flores island and Sharp point, about twelve miles south-easterly from the entrance to Hesquiat harbour. On the west side of Sidney inlet there are several mineral claims which have been worked at irregular intervals since 1860, and from which a considerable tonnage of copper ore has been shipped previous to 1911. Since then, until the autumn of 1916, after the writer had finished field-work, when the *Indian Chief* group of mineral claims was bonded, there had been practically no interest manifested in this section of the Clayoquot Mining Division; for which reason, also because of lack of time, the writer did not visit Sidney inlet.










Early in 1917 a shipment was made from the *Indian Chief* group, of about 400 tons of copper ore, carrying about 5 per cent. in copper.

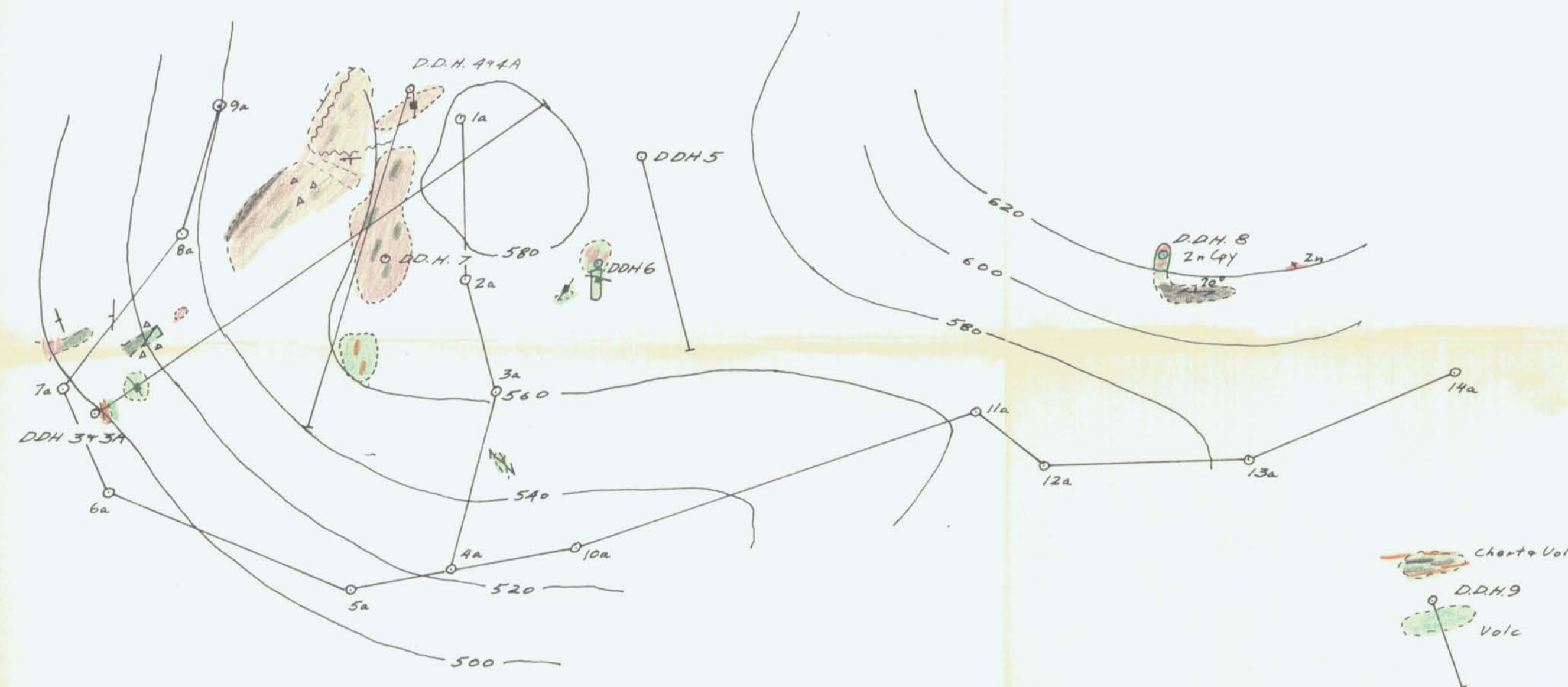
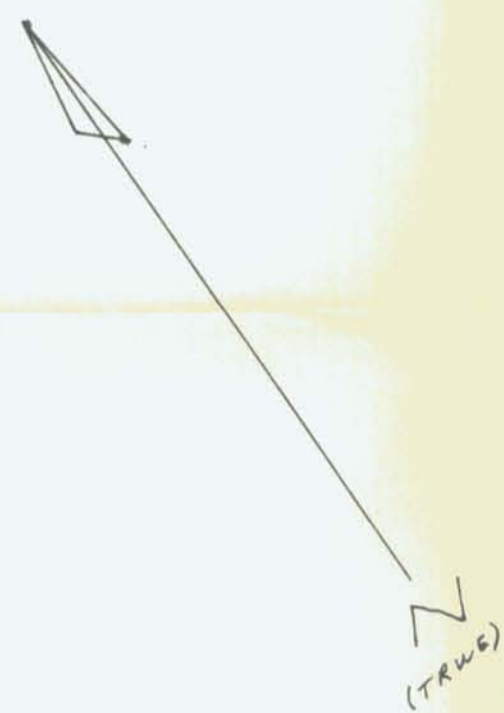


LEGEND

- ANDESITIC VOLCANIC
- VOLCANIC BRECCIA
- CHERT
- SKARN
- FOLIATED INTRUSIVE  
(Granodiorite - Diorite)
- CHALCOPYRITE, SPHALERITE  
PYRRHOTITE, PYRITE

SYMBOLS

-  STRIKE & DIP OF BEDDING or CONTACTS
-  STRIKE & DIP OF FRACTURES or JOINTS
-  FAULTS
-  OUTCROP
-  ADIT
-  TRENCH
-  DIAMOND DRILL HOLE  
VERTICAL
-  INCLINED
-  SURVEY HUB

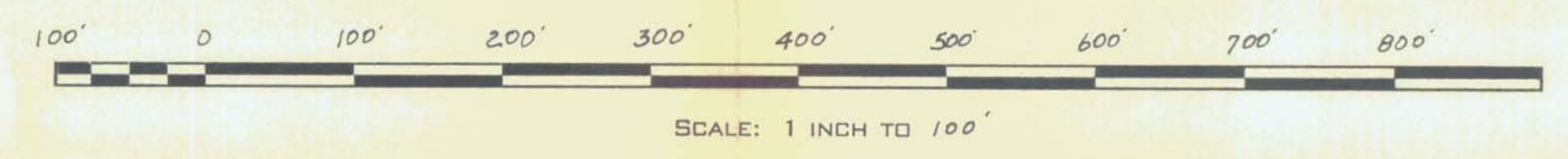
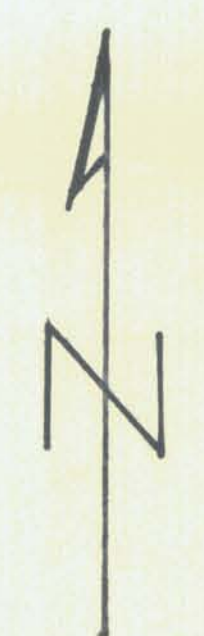
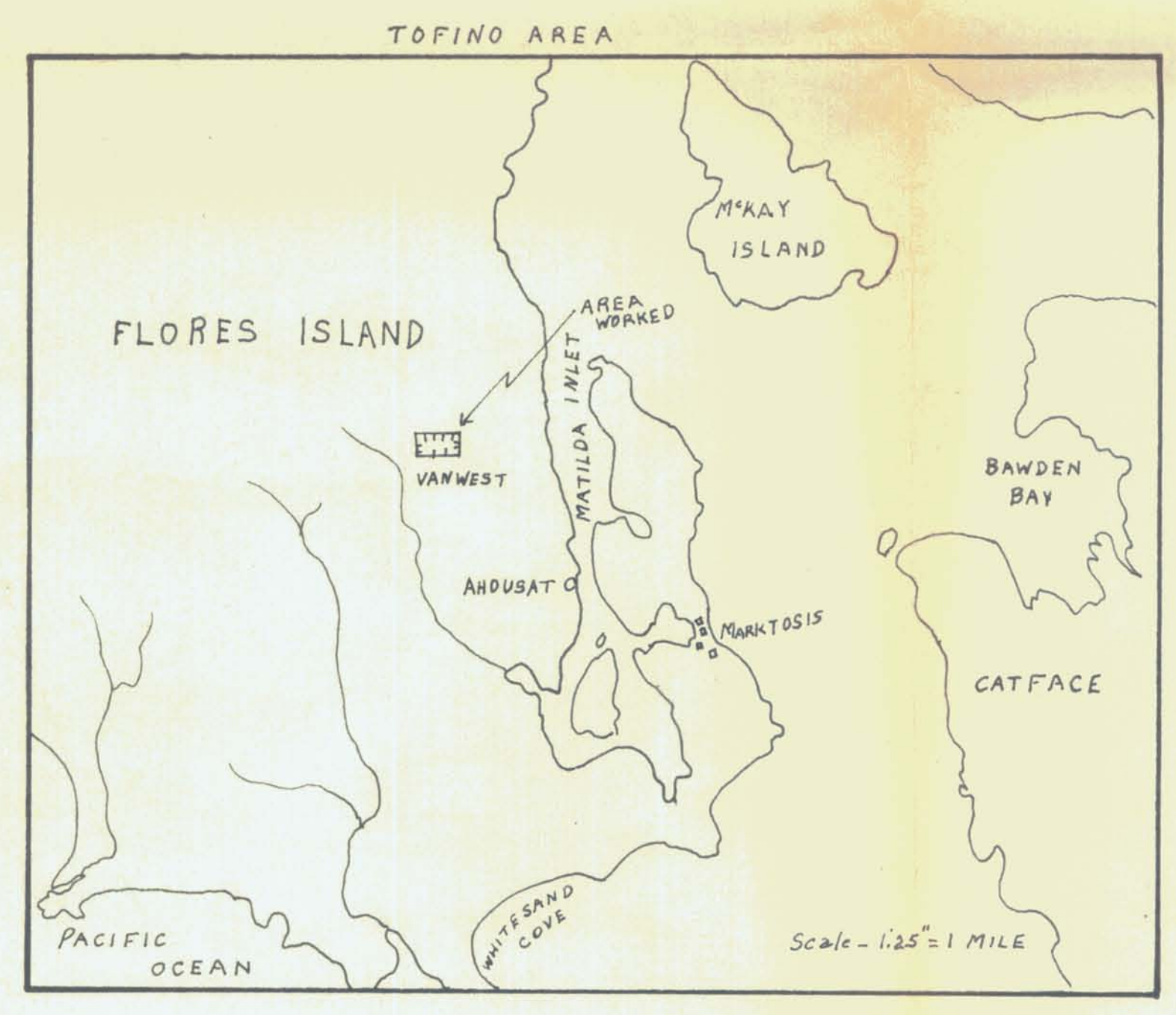


COMPANY . . . FALCONBRIDGE NICKEL MINES LTD.  
 PROPERTY . . . AHOUSAT COPPER ZINC  
 LOCATION . . . AHOUSAT V.I. B.C.

WORKING PLACE . . .  
 TYPE OF MAP . . . GEOLOGICAL  
 BASED ON . . . FIELD WORK - R.M.S.

DATE . . . JUNE 1966  
 DRAWN BY . . . R.M.S.  
 DATE OF WORK . . . JULY 1966





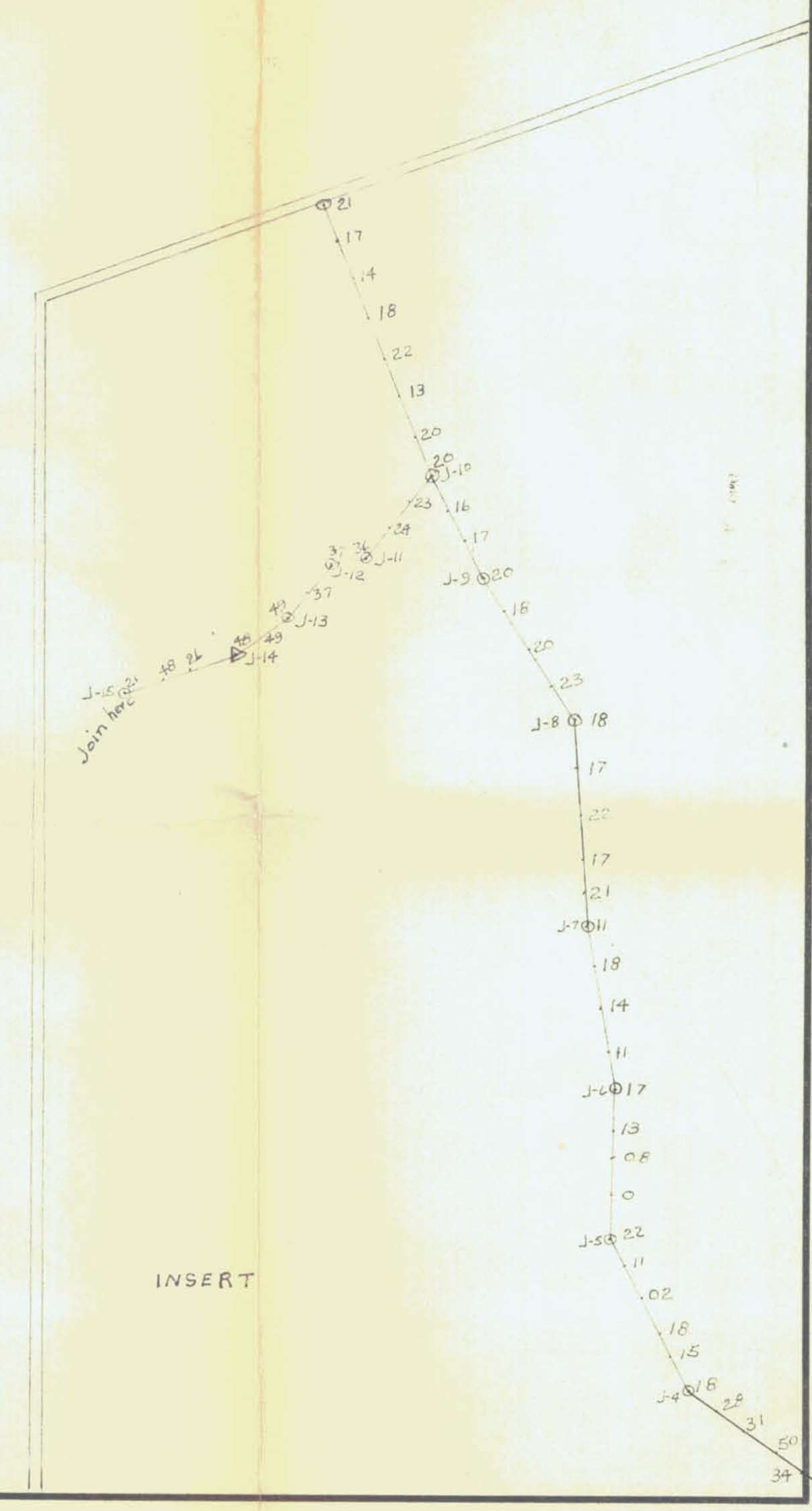
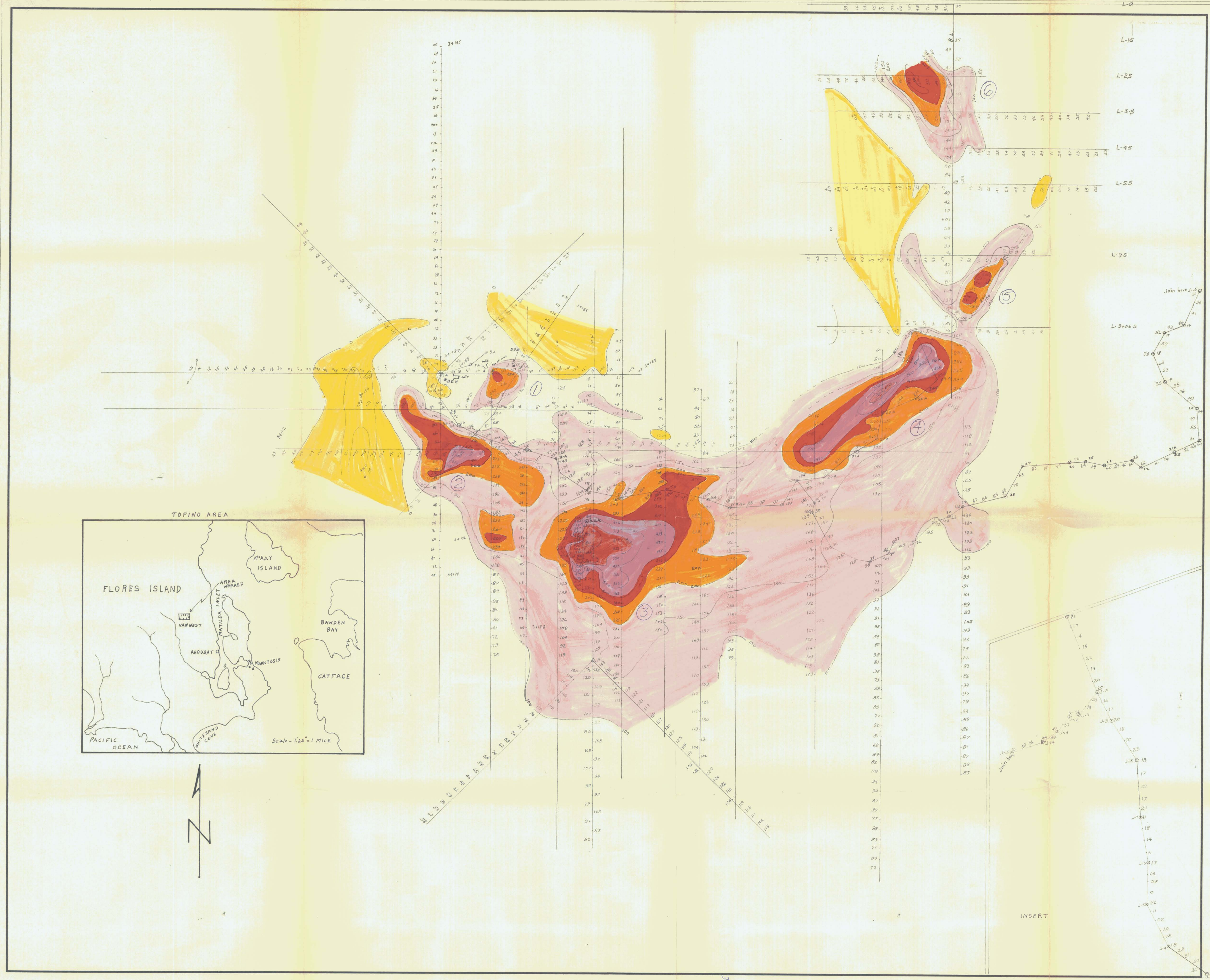
COMPANY . . . FALCONBRIDGE NICKEL MINES LTD.  
 PROPERTY . . . VAN WEST  
 LOCATION . . . FLORES ISLAND B.C.

WORKING PLACE . . . ANDUSAT  
 TYPE OF MAP . . . SELF POTENTIAL IN M.V.  
 BASED ON . . .

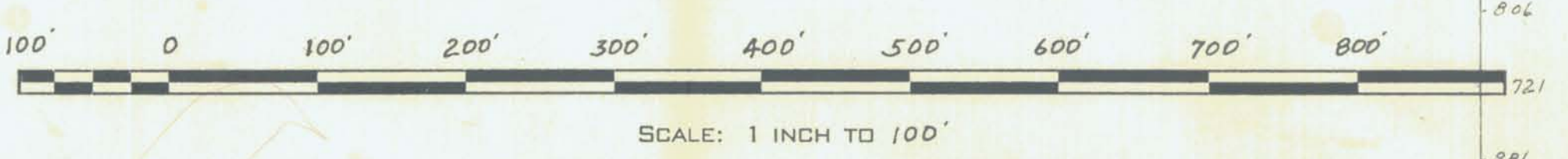
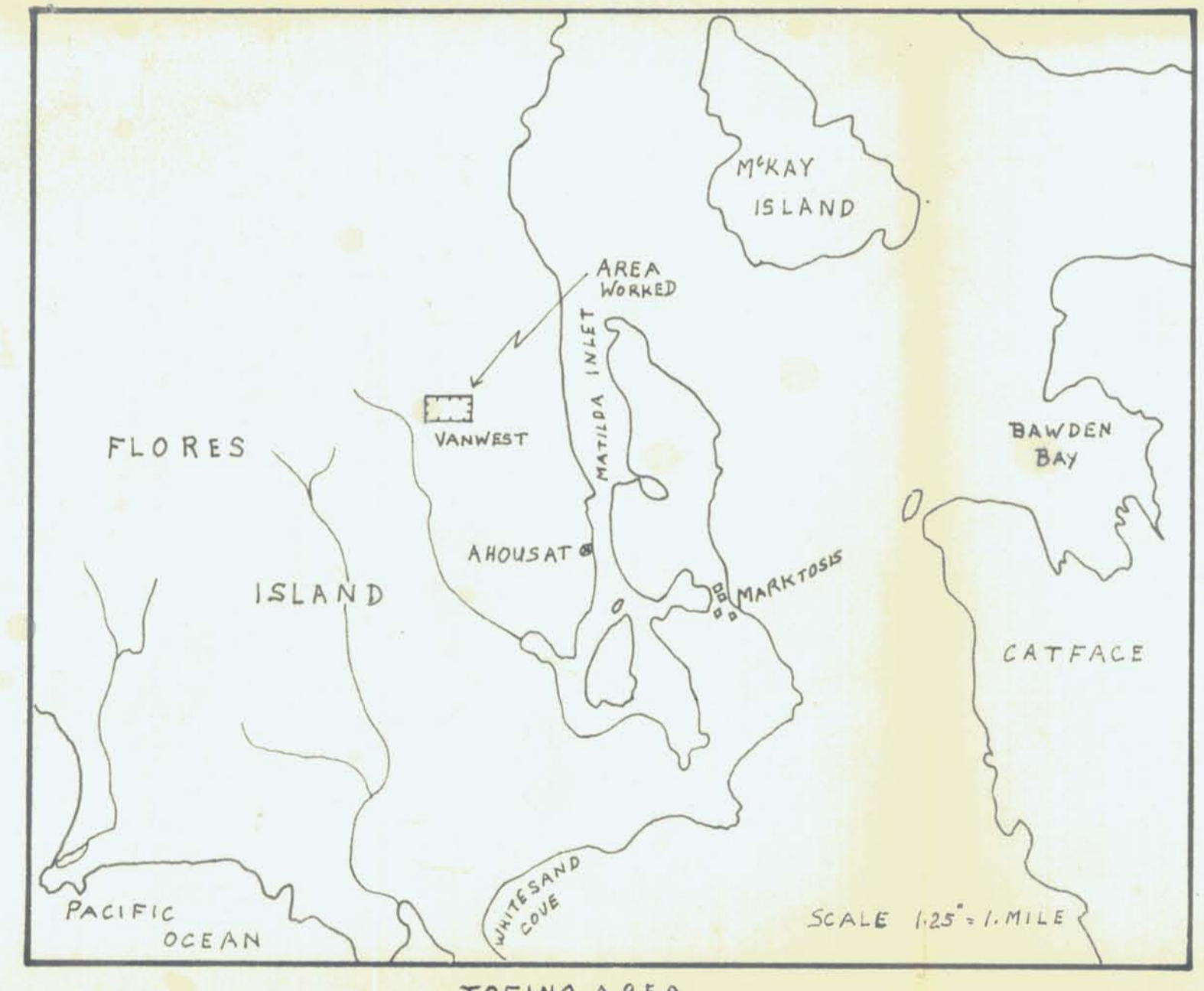
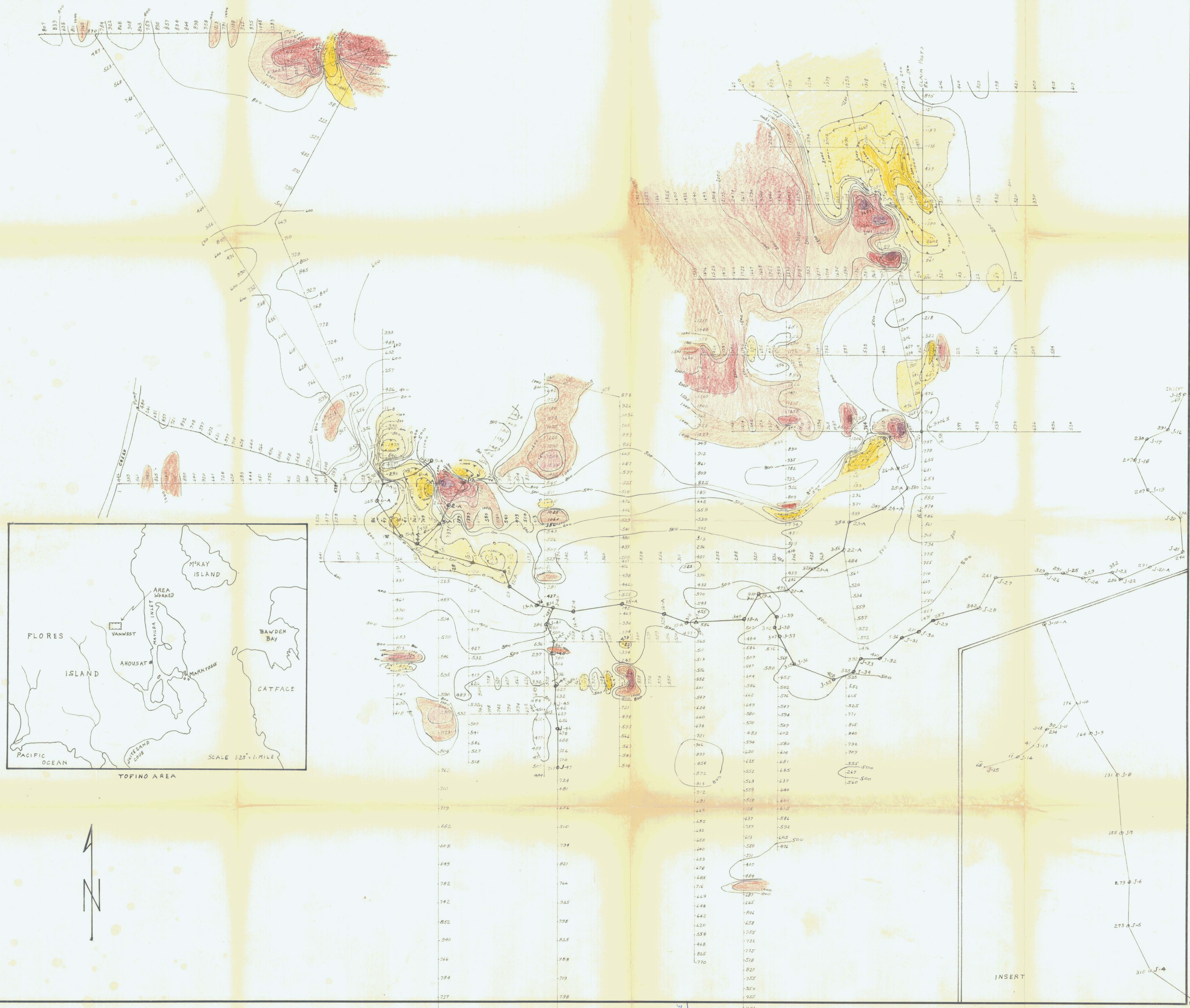
DATE . . . Oct. 1966  
 DRAWN BY . . . S.P.  
 DATE OF WORK . . . JULY 1966

LEGEND

600 AND OVER	PURPLE
400 TO 600	L. PURPLE
300 TO 400	D. RED
200 TO 300	RED
100 TO 200	L. RED
0 TO 100	CLEAR
+ TO 0	YELLOW







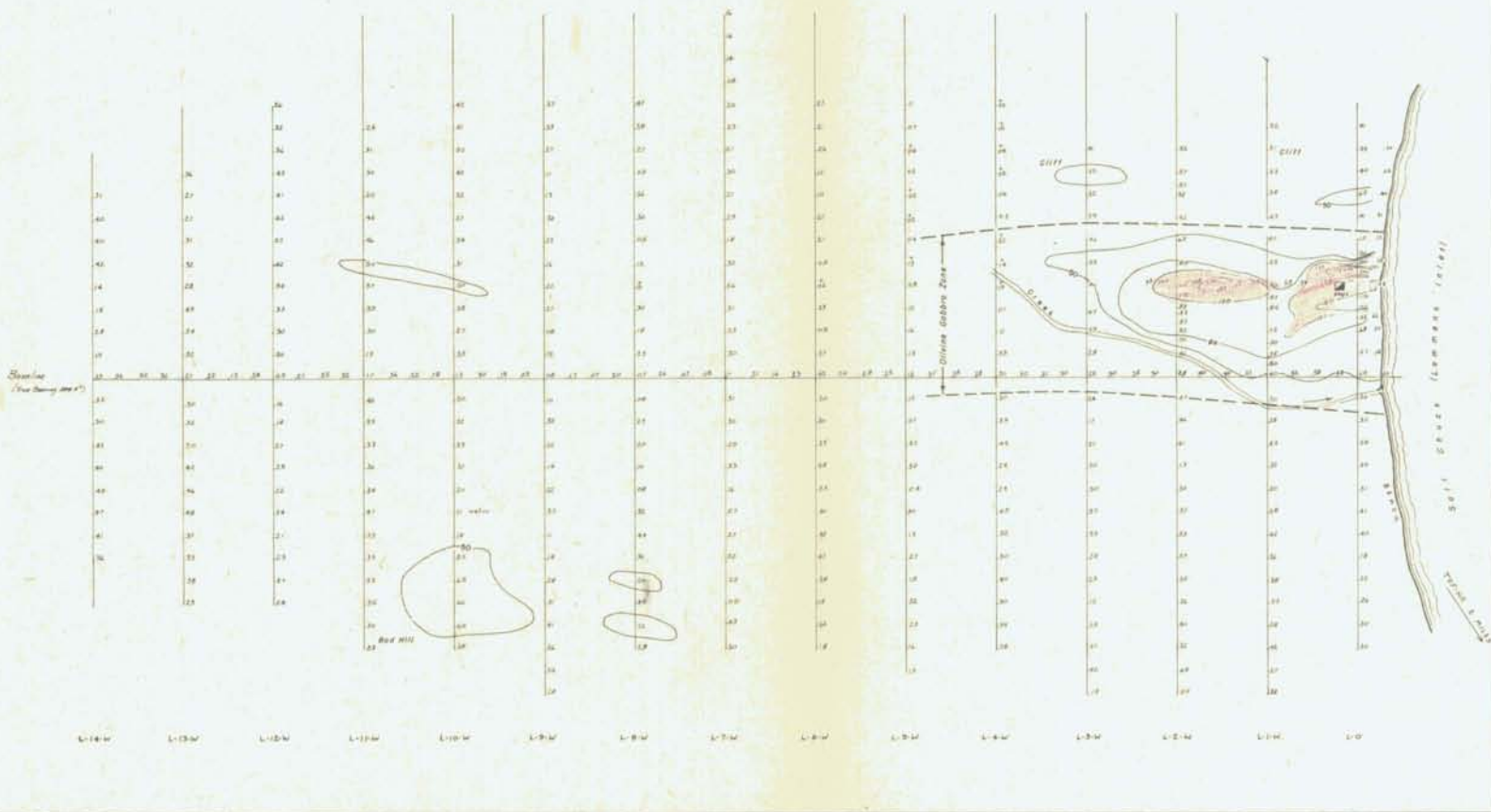
10000 purple  
 0 to 500 white  
 500 to 1000 Orange  
 1000 to 1500 Red  
 1500 to 2000 L. Red  
 2000 to 6000 H. Red

LEGEND

OVER 10,000	PURPLE
6,000 TO 10,000	D. RED
4,000 TO 6,000	RED
2,000 TO 4,000	L. RED
1,000 TO 1,500	ORANGE
0 TO 1,000	
0 TO MINUS	YELLOW

COMPANY . . . FALCONBRIDGE NICKEL MINES LTD.  
 PROPERTY . . . VANWEST  
 LOCATION . . . FLORES ISLAND B.C.  
 WORKING PLACE . . . AROUSAT  
 TYPE OF MAP . . . MAGNETOMETER SURVEY  
 BASED ON . . . ASKANIA  
 DATE . . . Feb. 1967  
 DRAWN BY . . . S.P.  
 DATE OF WORK . . . July 1966





Note: All readings are magnetic except where noted.  
 Bearing of center line 266° 45'  
 Magnetic 25° E  
 Readings in millivolts







OWNER: FALCONBRIDGE NICKEL MINES LTD.  
 PROPERTY: FALCONBRIDGE NICKEL  
 LOCATION: TOXIND, S.C.

WORKING PLACE: TOXIND, S.C.  
 TITLE OF MAP: SELF POTENTIAL  
 BASED ON:

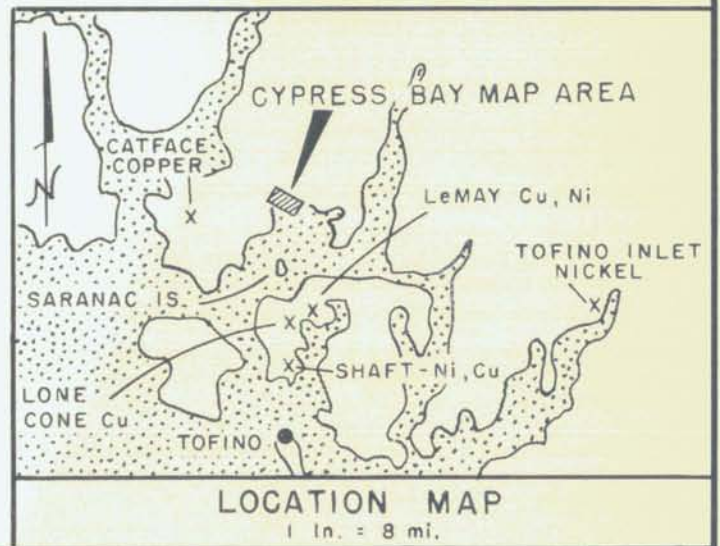
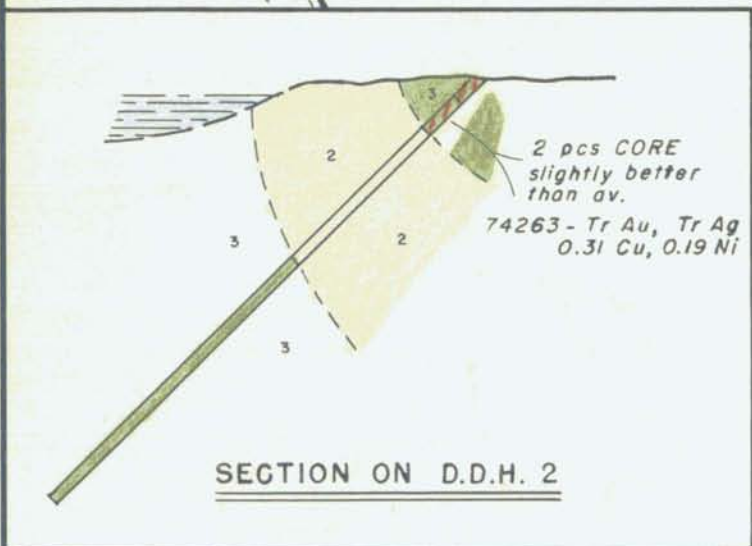
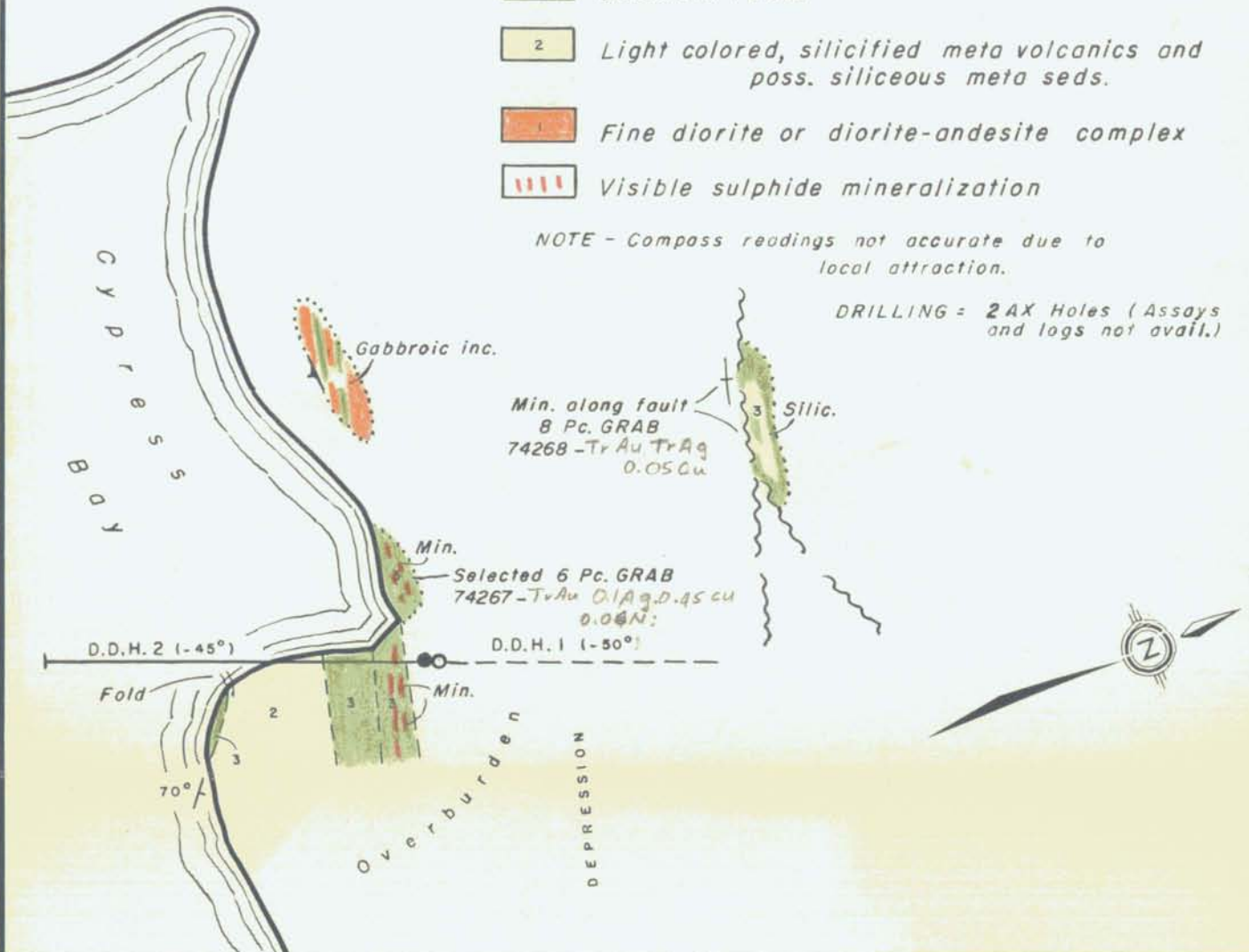
DATE: Oct - 1948  
 DRAWN BY: S. PREZURKA  
 DATE OF WORK:

LEGEND

-  Gabbroic rocks
-  Light colored, silicified meta volcanics and poss. siliceous meta seds.
-  Fine diorite or diorite-andesite complex
-  Visible sulphide mineralization

NOTE - Compass readings not accurate due to local attraction.

DRILLING = 2 AX Holes (Assays and logs not avail.)



SKETCH MAP - CB 1/65  
L.A. HANSEN DRILL AREA - CYPRESS BAY  
TOFINO AREA - VANCOUVER ISLAND - B.C.










1" = 50'

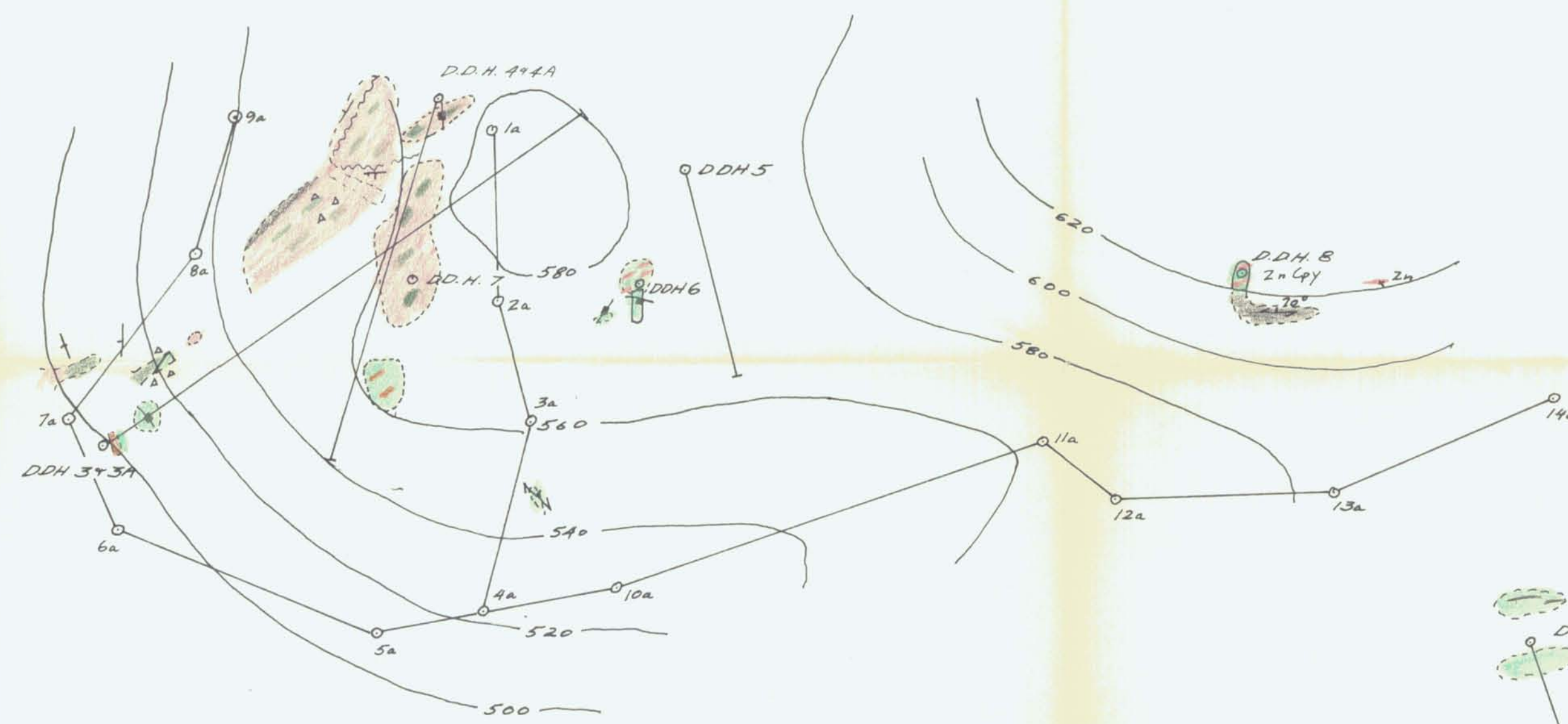


LEGEND

- ANDESITIC VOLCANIC
- VOLCANIC BRECCIA
- CHERT
- SKARN
- FOLIATED INTRUSIVE  
(Granodiorite-Diorite)
- CHALCOPYRITE, SPHALERITE  
PYRRHOTITE, PYRITE

SYMBOLS

-  STRIKE & DIP OF BEDDING or CONTACTS
-  STRIKE & DIP OF FRACTURES or JOINTS
-  FAULTS
-  OUTCROP
-  ADIT
-  TRENCH
-  DIAMOND DRILL HOLE  
VERTICAL
-  INCLINED
-  SURVEY HUB



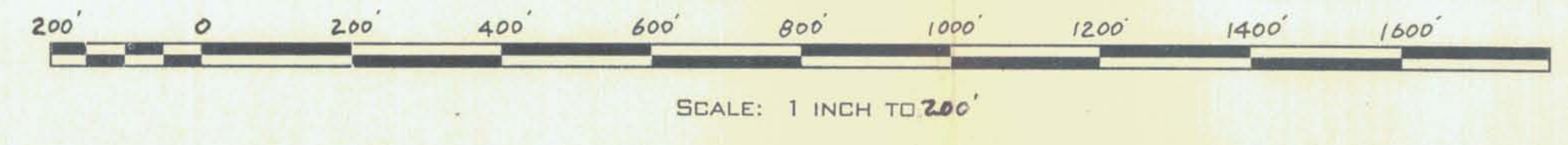
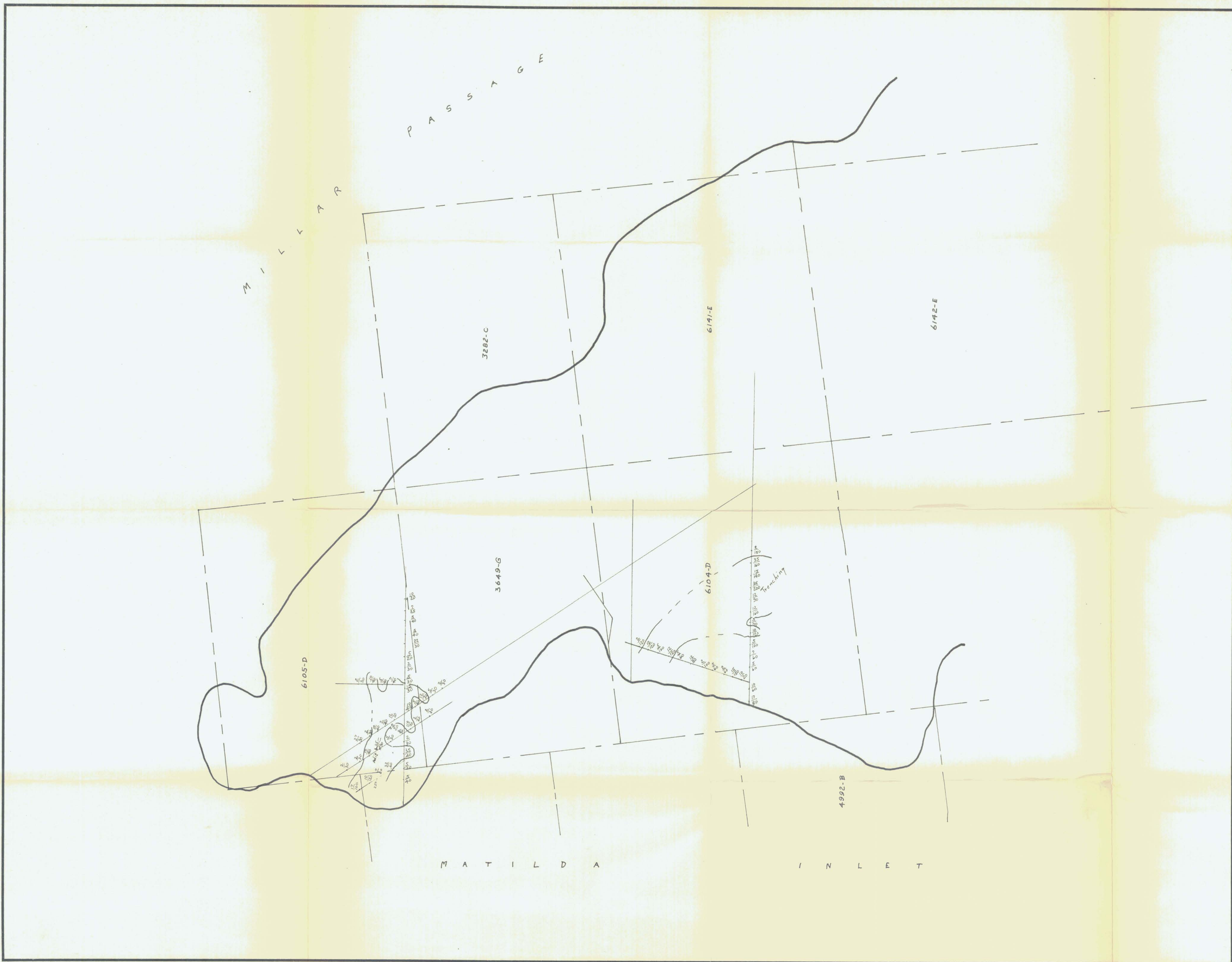
SCALE: 1 INCH TO 50 FEET

COMPANY . . . FALCONBRIDGE NICKEL MINES LTD.  
 PROPERTY . . . AHOUSAT COPPER ZINC  
 LOCATION . . . AHOUSAT V.I. B.C.

WORKING PLACE . . .  
 TYPE OF MAP . . . GEOLOGICAL  
 BASED ON . . . FIELD WORK - R.N.S.

DATE . . . JUNE 1966  
 DRAWN BY . . . R.N.S.  
 DATE OF WORK . . . JULY 1966





WORKING PLACE .. AHOU SAT  
TYPE OF MAP .. GEOCHEM SURVEY  
BASED ON .. HOT H.C.L. EXTRACTION

DATE .. July 1966  
DRAWN BY .. S. Presantke  
DATE OF WORK .. March-1967

FILE



LONE CONE UPPER SHOWINGS  
 3000' H.D. - ±2000' V.D.  
 2 Spec. (20' width reported)  
 Tr Au, 0.2 Ag, 1.75 Cu, 0.08 Co

500' TO CREEK

No. 1 SHOWING

6 pc - 1.46 Cu

6 pc. 2.0' - 0.01 Au }  
 0.2 Ag, 2.41 Cu }

Porph. - 0.01 Au }  
 0.1 Ag, 0.59 Cu }

3 pc. (O.D. & M.V.) }  
 0.01 Au, 0.1 Ag, 0.82 Cu }

9 pc. 1.54 Cu

30" - 0.63 Cu







5 pc. - 0.72 Cu

8 pc. - 0.41 Cu

OVERBURDEN 2-10'  
 Large Fir Trees

60pc Composite - 1.11 Cu

SUGGESTED CONTACT

- LEGEND
-  Copper-bearing quartz diorite
  -  Rusty weathering gabbroic rock
  -  Silicified or cherty meta-volcanic? copper bearing
  -  Overburden
  -  Schistosity - believed to parallel attitude of contact
  -  Sample

No. 2 SHOWING

OVERBURDEN

500' TO CREEK  
 GOUGE IN CREEK - Tr Au,  
 Tr Ag, 0.05 Cu

400' CONTOUR (±100')

Trail to Beach 0.3 mi

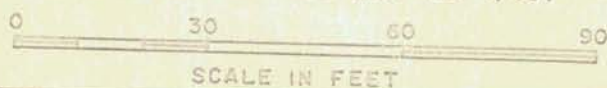
PORPHYRY ON BEACH  
 0.27 Cu - 0.07 Cu - 0.14 Cu

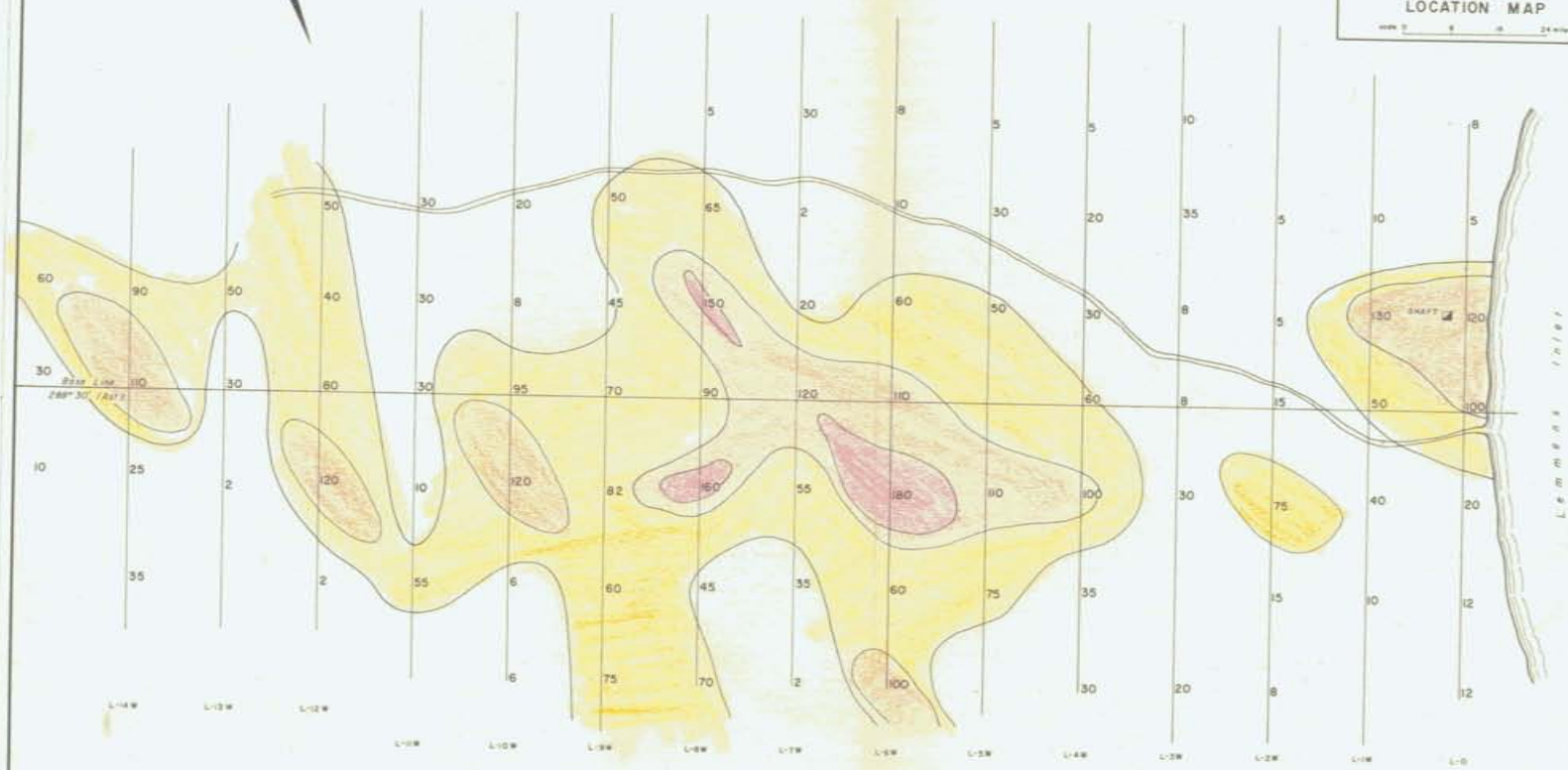
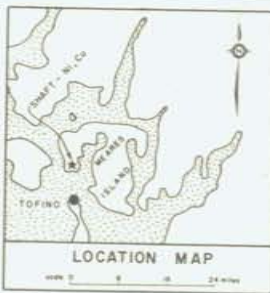
OLD ORE SACKS ON BEACH  
 BELIEVED TO HAVE ORIGINATED IN  
 THIS AREA - 2 pc. assay 0.60 Au,  
 3.20 Ag, 2.59 Cu, 1.66 Zn



MAP MI-6/65

SKETCH MAP OF  
 LONE CONE LOWER COPPER SHOWINGS  
 MEARS ISLAND - TOFINO AREA, B.C.  
 (FOR LOCATION SEE MAP MI-1/65)





NICKEL CONTENT IN SOIL (PPM)  
HOT EXTRACTION

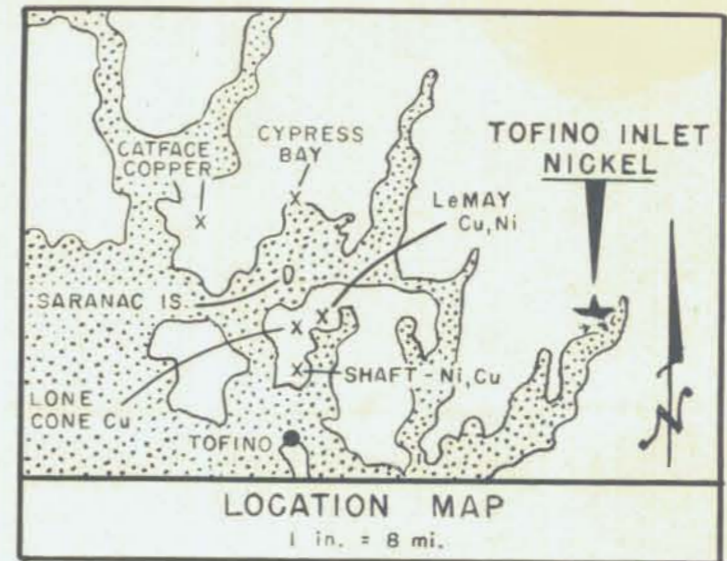
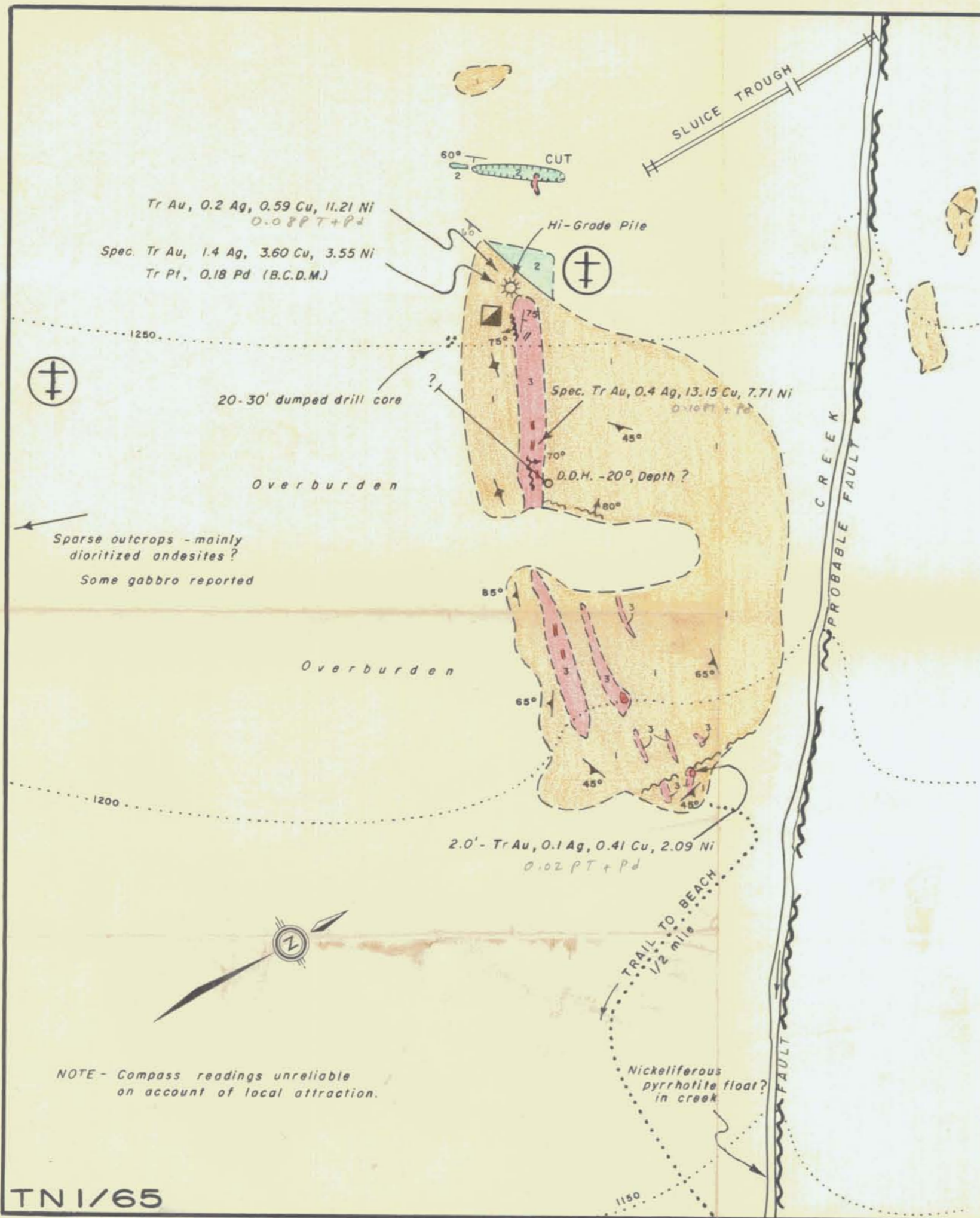


OWNER . . . FALCONBRIDGE NICKEL LINES LTD.  
PROPERTY . . . WEARE ISLAND  
LOCATION . . . TOFINO AREA - B.C.

WORKING PLACE . . . SHAFT SHOWING  
TYPE OF MAP . . . SOIL SAMPLE (NICKEL)  
BASED ON . . .

DATE . . . OCT. 1965  
DRAWN BY . . . S. WICKLE  
DATE OF WORK . . .





- LEGEND
- Sulphide-bearing gabbro
  - Sulphides, Hi-grade copper
  - Light colored, micaceous, schistose, volcanic rocks
  - Bleached, gneissic to schistose dioritic rock - May be closely related to 2 above.
  - Schistosity, banding
  - Old shaft
  - Possible heliport site
  - Form lines - approximating countours

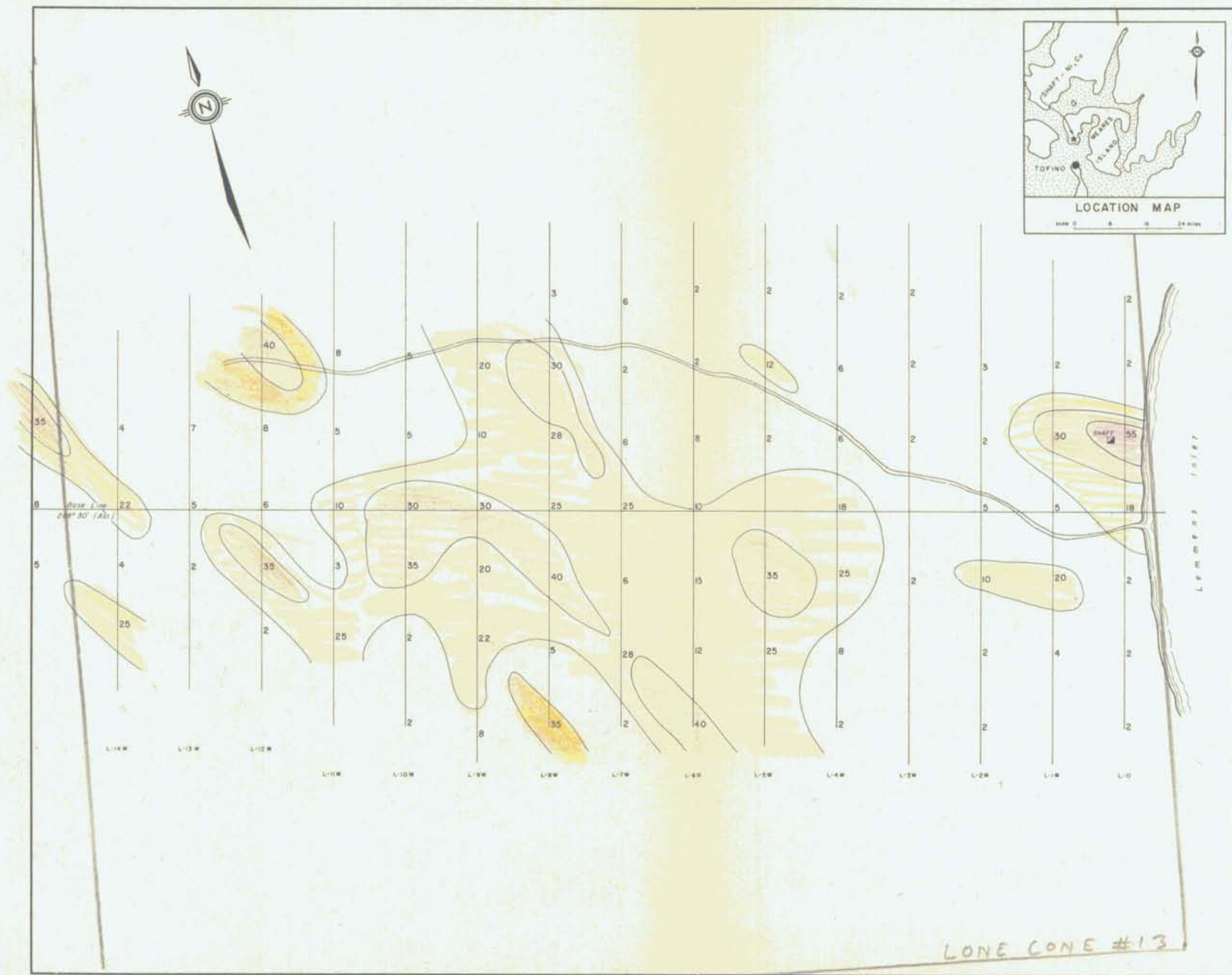
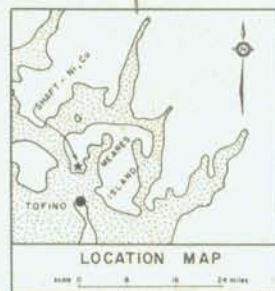
**SKETCH MAP - TN 1/65**  
(COMPASS SURVEY)

**TOFINO INLET NICKEL**  
TOFINO AREA - VANCOUVER ISLAND - B.C.

1" = 30'

NOTE - Compass readings unreliable on account of local attraction.



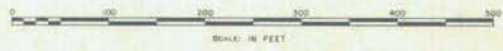


*James H. Douglas*

COPPER CONTENT IN SOIL (PPM)  
HOT EXTRACTION



LONE CONE #13

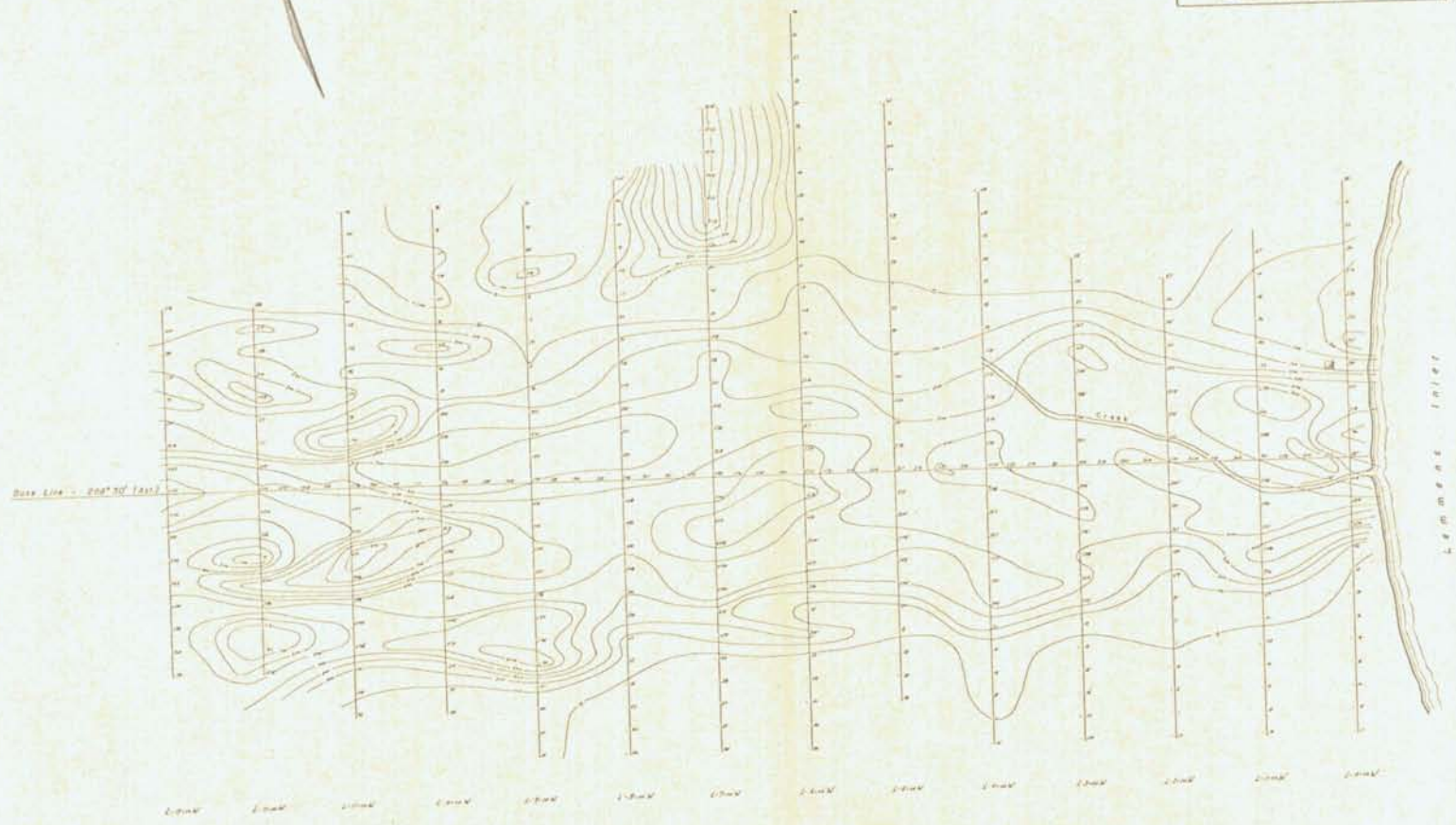
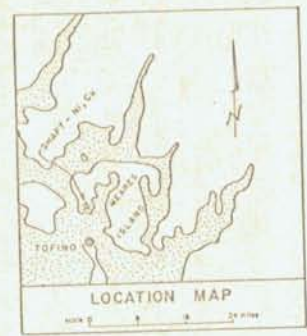


EMPLOYER: FALCONBERG MINERAL SERVICES LTD.  
PROPERTY: MEARES ISLAND  
LOCATION: TOFINO AREA - B.C.

WORKING PLACE: SHAFT SHOWINGS  
TYPE OF MAP: SOIL SAMPLE (COPPER)  
BASED ON:

DATE: OCT. 1965  
DRAWN BY: S. WICKLE  
DATE OF WORK:





*Wm. J. Boyce*

All readings are in feet unless otherwise noted  
 All readings are taken from a level  
 Center Interval - 100 feet  
 Bearing of level - True 200°  
 "Magnetic 20°"

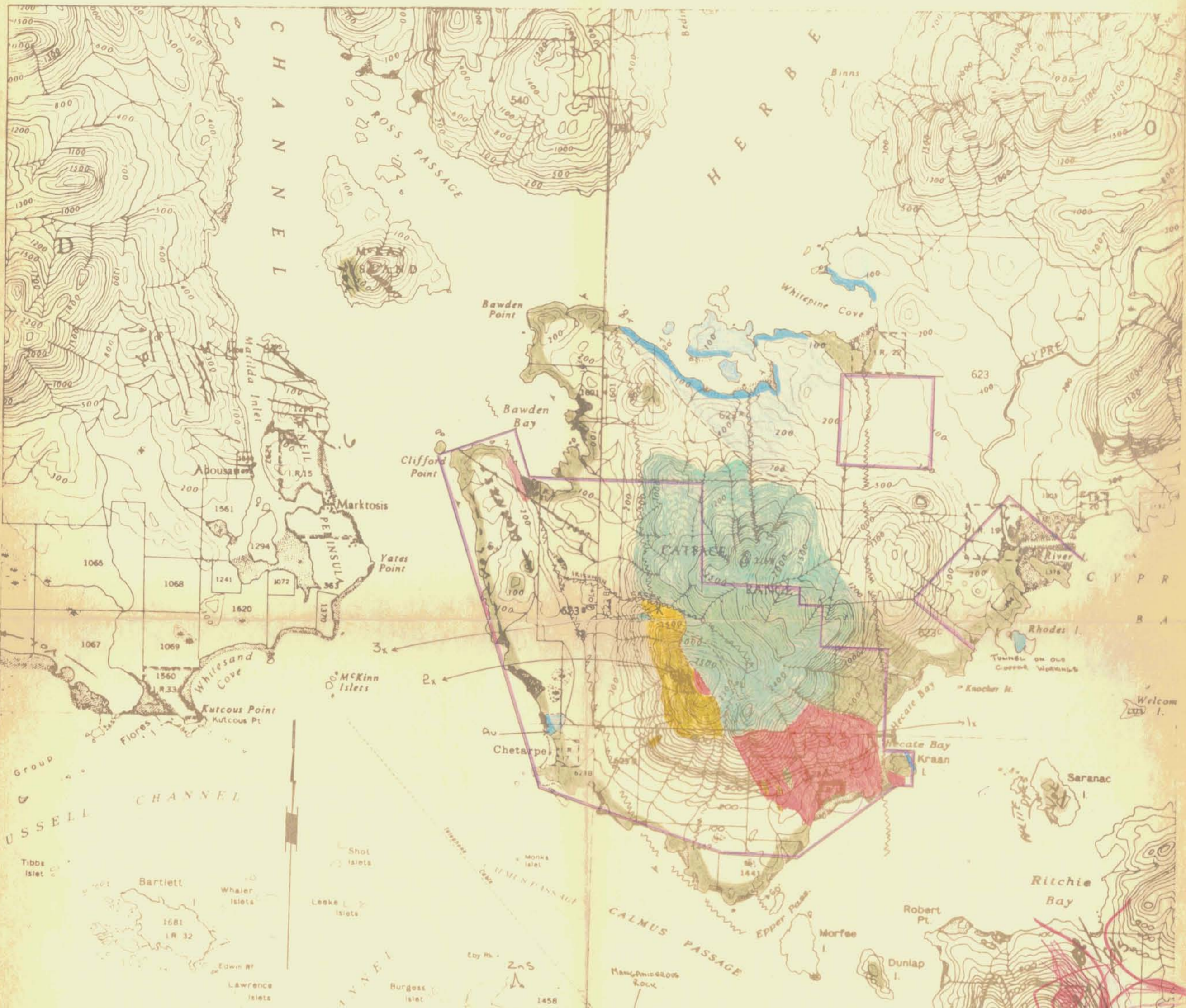


DRAWN BY: PACEWARRIOR SURVEYING LTD.  
 PROPERTY: Mervin Sur. Nels  
 LOCATION:

WORKING PLACE: Leth. BC  
 TYPE OF MAP: Topographic - ABEM  
 BASED ON: Survey by S. Roberts

DATE: October 1964  
 DRAWN BY: S.R.M.  
 DATE OF WORK:





**MAP C.F. 62-7**

**TOPOGRAPHIC AND GENERAL RECONNAISSANCE  
GEOLOGICAL MAP OF CATFACE AREA**

**SCALE: 1:25,000 = 1 MILE**

**LEGEND**

- TERTIARY SEDIMENTS
- DIORITE OR QUARTZ DIORITE
- COARSE GRAINED QUARTZ MONZONITE OR OLDER QUARTZ DIORITE (MINOR)
- VOLCANICS - UNQUARRIED
- LIMESTONE (MINOR SHAL., MATA SILICATES, ETC.)
- DIORITIZED GREENSTONE ETC. - PROBABLY EQUIVALENT OF #4 - INCLUDES AMPHIBOLITES, SCISTOSE IN PART.
- FAULTS - DEFINED, ASSUMED
- ROADS - COMPLETE, UNDER CONSTRUCTION
- BUILDINGS, DOCK
- CLAIM BOUNDARIES (APPROX.)
- MINERAL ZONES
- WILSON'S BAS.
- CLIFF DEPOSITS
- LUNARON CREEK

