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REPORT on

SOOKE COPPER DEPOSITS

East Sooke Peninsula Vancouver Island

British Columbia

COPY

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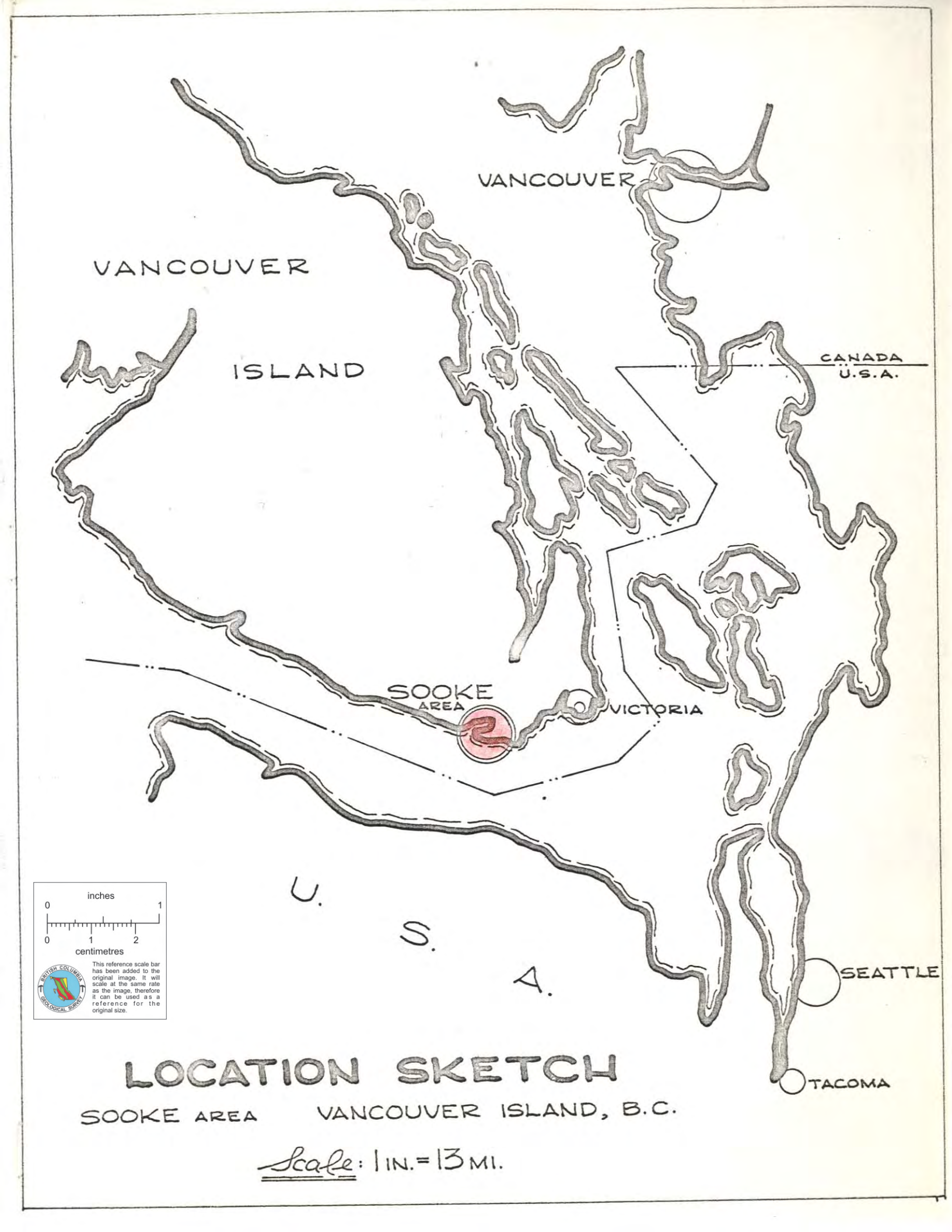
July 17th, 1968



LOCATION SKETCH

SOOKE AREA VANCOUVER ISLAND, B.C.

Scale: 1 IN. = 13 MI.

INTRODUCTION

The East Sooke Peninsula, which is located on the south coast of Vancouver Island, about 15 miles west of the city of Victoria, contains several copper deposits which have been known for many years.

These copper deposits do not appear to have been well explored. Small shipments of lump ore were made during the First War from two of them. Three of the other deposits appear to have large-tonnage possibilities.

This report makes a preliminary assessment of the three larger deposits.

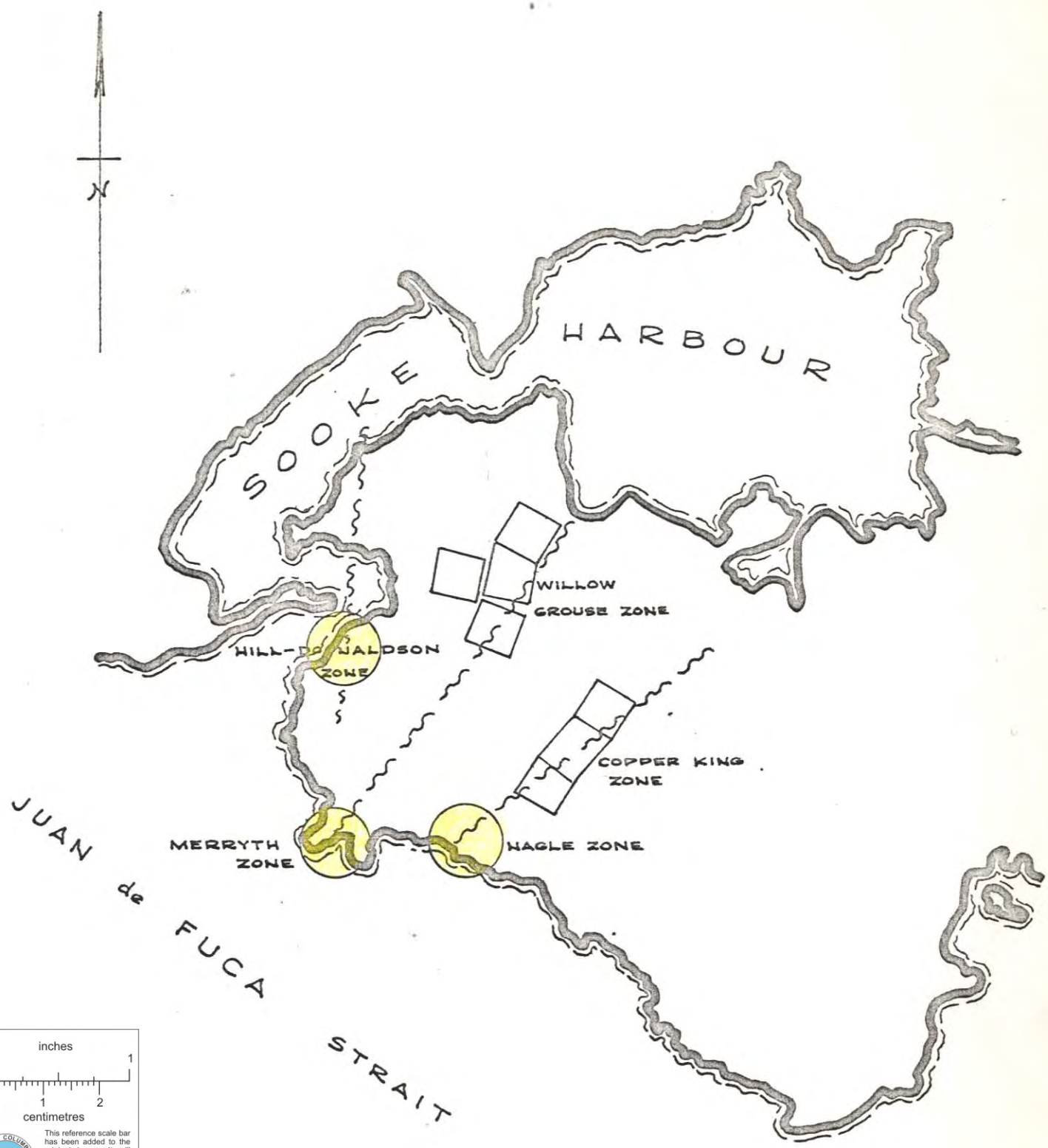
Two accompanying Location Maps show the location of the Sooke area, and the locations of the various copper deposits.

DESCRIPTION of COPPER DEPOSITS

The three larger deposits are named the Merryth, Hill-Donaldson, and Nagle zones. All three are on tide-water.

All three occupy sheared zones in a large gabbro mass which underlies the East Sooke Peninsula. This gabbro is of Tertiary age. It has differentiated into anorthositic and amphibolitized and hornblenditic phases. Little else is known about the general geology, which is described in Memoir 96, of the Geological Survey of Canada, by H. C. Cooke.

The Merryth and Hill-Donaldson deposits contain abundant pyrite and pyrrhotite, accompanied by chalco-



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centimetres

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LOCATION of MINERALIZED SHEARS

EAST SOOKE PENINSULA VANCOUVER ISLAND

Scale: 1 IN. = 1 MI.

JULY, 1968

Ross Kidd

pyrite and native copper in much lesser amount. There are references to molybdenum and nickel values in some earlier reports, but I did not see any in my examinations of the two deposits.

In 1951 a small work program was carried out on the East Sooke Peninsula by a syndicate which included Little Long Lac Gold Mines Limited. The work was supervised by Phil Chubb, and Watkin Samuel consulted on the program. Magnetic and electromagnetic surveys were done on the Merryth zone, and 12 drill holes were put down. Seven of these holes were put down on the Merryth zone, three on the Hill-Donaldson zone, and two on the Willow Grouse zone.

Holes 1 and 2 on the Merryth zone got 0.2%-0.3% copper across widths of 40-50 feet. Hole 3 got 0.46% copper across 140 feet. These three holes intersected the zone under the sea just off shore. Holes 4, 5, 11, and 12 were drilled on the expected extensions of the zone, both inland and farther out to sea, but apparently the zone was not cut. Records of these holes are scanty.

Holes 6, 7, and 8 were drilled under the Hill-Donaldson zone. I do not yet have any records of these holes. Presumably no important mineralization was intersected, although this is not at all certain, since copper values of less than 1% were apparently considered of no importance under the conditions of 1951, while such values may have considerable importance in 1968.

Holes 9 and 10 were drilled under the Willow Grouse zone. The logs state that these holes got no mineralization worth sampling.

Willow Grouse and Copper King are the two deposits from which shipments of copper ore were made during the 1914-18 period. They appear to be small lenses of chalcopyrite within shear zones, rather than extensive widths of sulfidization.

The Nagle zone is also in a shear, but it contains much less pyrite and pyrrhotite than the Merryth or Hill-Donaldson zones, and more native copper. It was discovered by Captain Jeremiah Nagle, a ship-captain, in 1863. It must be one of the first copper discoveries in British Columbia.

No work has been done on the Nagle zone since that era, so far as I can learn, until a drill hole was put down for assessment work purposes last year. This hole intersected copper values in the order of 0.90% copper across a core length in the order of 100 feet.

All three zones have been explored in past years by short adits and shallow pits and shafts. Some geophysical work has been done by the present owners, Macsan Explorations Limited, but none of the work has been complete enough to establish the dimensions of the various zones.

Lengths of mineralization are therefore unknown. Widths are certainly substantial.

I ran test traverses across the Merryth, Hill-Donaldson and Nagle zones with Ronka EM 16 electromagnetic equipment. As expected, the first two zones responded very strongly. The Nagle zone responds weakly, but in a probably recognizable manner. It seems clear that the method can be used to outline the dimensions of the zones.

OWNERSHIP

A large part of the East Sooke Peninsula is held by Macsan Explorations Limited, including the Merryth, Hill-Donaldson, and Nagle zones. The office of the company is at 620 Howe Street, Vancouver 1, B.C. The President and majority shareholder is Oswood G. MacDonald.

Macsan also hold claims covering the sea-covered extensions of the Merryth and Nagle zones to the south of the East Sooke Peninsula. These sea claims are registered both provincially and federally.

The crown-granted claims covering the Willow Grouse and Copper King zones are held by Peter A. Schwerdt, of Calgary, Alberta.

Mr. Schwerdt has also registered claims overlapping some of the Macsan claims, and there appears to be some disagreement as to ownership. The full details of this overlapping will require further investigation to learn.

CONCLUSIONS

1. The Merryth and Nagle zones contain important widths of low-grade copper mineralization.

2. The Hill-Donaldson zone appears on surface to be similar to the Merryth zone, but there are no work records to indicate widths or grade.

3. The lengths or depth extent of the three deposits is not yet known.

4. The indicated dimensions and grades are certainly interesting enough to warrant further investigation. The object of a new work program should be to find out how big the deposits are, and what their average grade might be.

5. The location of the deposits makes for low-cost mining. They are on tidewater, 15 miles from a deep-sea port and large city, the topography is gentle and low-elevation, the climate is mild the year-round and without snow, and a major power line passes through the peninsula.

RECOMMENDATIONS

1. Negotiations should begin with Macsan Explorations Limited on a deal whereby Cyprus financed exploration of the East Sooke claims.

2. The ensuing exploration work should take the form of geophysical detailing of the known deposits, followed by systematic drilling to establish average grades.

   It seems likely that 15,000 feet of drilling will be needed to properly sample the three zones. At $10 per foot overall costs, this work requires a $150,000 budget.
   The linecutting and geophysical detail work would require another $10,000.
   Some metallurgical test work should also be done, and this would require perhaps another $10,000.
   It appears, then, that a total budget of $200,000 should be foreseen for the initial sampling stage.
   If tonnages and grades are found to be in the profitable category, much more expenditure would of course be required.

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