March ind, 1973.

Mr. Frank Piper, 28 Thicket Road, Etobicoke, Ontario.<br>Dear Mr. Piper:

## Re: Prince Stewart Mines Ltd.

Referring to our telephone conversation on the above subject, I am sending you a brief report I made in 1953 on the property that was then owned by Dodge Copper Mines Ltd. This report appeared in the 1953 'Report of Minister of Mines'.

As you will note in my report, 145 drill holes had been drilled at the time of my examination. Mr. Percy Sheppard, P. Eng. mentions 154 drill holes, hence it would appear that I saw better than $90 \%$ of the drill core.

Dealing with Pomeroy No. 3 and No. 4 prospects, Mr. Sheppard states on page 7 of his report that there are 972,400 tons of proven ore grading $1.22 \%$ copper and 472,000 tons of indicated ore grading $1.62 \%$ copper; these tonnages constituting his greatest "reserve" of copper ore. The greater portion of this tonnage is in the Pomeroy No. 3 which, according to Dodge Copper (page 6 of Sheppard's report), was calculated to contain 50,000 tons of $2.2 \%$ copper. I consider this a realistic figure.

There are a number of other copper prospects in the vicinity of Pomeroy Nos. 3 and 4 but I would agree that these constitute the greatest concentration of copper mineralization. Moreover, I consider that all the showings have been unusually well tested by drilling, albeit shallow, with results that are not particularly encouraging. The tonnage figures mentioned by Mr. Sheppard are not realistic as they make a number of assumptions, particularly with regard to extent and continuity of mineralization, that are not justified.

In view of the above, I could not recommend Prince Stewart Mines Ltd, as an interesting speculation, let alone as an investment.

Respectfully submitted,
BACON \& CROWHURST LTD.

In 1953, 567,127 tons of magnetite ore was treated in the concentrator, the Prescott pit supplying 43 per cent, the Paxton pit 14 per cent, and the Lake pit 43 per cent; 373,046 tons of concentrate was shipped. Approximately 110 men were employed.

## QUADRA ISLAND*

## Copper

> Dodge Copper Mines Limited $\dagger$
( $50^{\circ} 125^{\circ}$ S.E.) Head office, 330 Bay Street, Toronto. DirecW. W. Weber; manager, J. MacBeth. Dodge Copper Mines Limited holds by record 130 mineral claims on the southwestern coast of Quadra Island, in the immediate vicinity of Gowlland Harbour. The property is 110 miles northwest of Vancouver.

The claims surround a number of copper prospects that have been known for forty years. A small quantity of copper ore was shipped years ago from some of these prospects, but the original claims had lapsed and all the present claims were recorded in 1950 or later. Dodge Copper Mines Limited commenced exploration in the autumn of 1952. Old trenches were cleaned out and deepened, new trenches were dug, and on November 24th diamond drilling was begun. By the middle of June, 1953, 145 holes had been drilled to an aggregate depth of 8,800 feet. The property was visited in June.

Fire has removed much of the forest cover around Gowlland Harbour and good rock exposures are plentiful. The area is underlain by volcanics that dip gently southward and southeastward. The rocks are chiefly flows of intermediate to basic composition that vary in colour from light bright green to dark greyish-green. The flows range in thickness from 1 foot to 12 feet and more. Many are highly amygdaloidal, the cavities being filled with such minerals as calcite, quartz, chlorite, actinolite, and prehnite. The rocks are all chloritized to some extent and are cut by numerous stringers and veinlets of epidote, calcite, and quartz. They are traversed by a complex system of steeply dipping joints and fractures. Slickensides are common on the walls of many of the fractures, indicating that there has been some movement on them.

Minor thin beds of sedimentary and tuffaceous material occur at various horizons in the volcanic sequence.

The location of the several prospects is shown in Figure 10. The northernmost showing, the Pomeroy No. 1, is the highest, at an approximate elevation of 700 feet.

Green copper stain occurs on or near the mineralized outcrops. Trenches that penetrate beneath the weathered surface and drill-holes have revealed exceedingly finegrained mineralization. Chalcocite is the most abundant copper mineral, and native copper and chalcopyrite are present in lesser amounts. Bornite and pyrite are rare. Malachite and azurite are confined to weathered surfaces.

The distribution of the copper minerals is erratic. They are found along the walls of small fractures and within irregular quartz-calcite veinlets. Less commonly, they occur within amygdules or are otherwise disseminated locally in the rock. The mineralization is not confined to one horizon within the volcanic series, and at only two of the prospects (Copper Cliff adit and Pomeroy No. 3) is there any evidence of a mineralized zone conformable with the enclosing rocks. The Copper Cliff adit penetrates a flatlying zone for 92 feet in an easterly direction. There has been a limited amount of slashing along both walls of the adit, and the workings suggest that the mineralized zone had a maximum thickness of 7 feet. Ten vertical drill-holes have proved conclusively that most of the mineral in this small deposit has been mined.

The flat-lying Pomeroy No. 3 zone is partly exposed in two old trenches along its western border and one trench along its southern border. Here the upper part of a

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Figure 10. The Dodge Copper Mines Ltd.-prospects on Quadra Island.
massive fine-grained chloritized flow is sporadically mineralized. The overlying flow is quite distinct, being coarser grained and highly amygdaloidal. Forty-one closely spaced drill-holes, thirty-one of which are vertical, have indicated a slightly mineralized horizon extending for 700 feet in a northerly direction and 150 feet in an easterly direction. In only fourteen of the forty-one drill-holes, however, was a grade obtained of 2 per cent copper (or better) over a true width of 5 feet (or more).

Diamond drilling and trenching at the Pomeroy No. 1, Pomeroy No. 2, Pomeroy No. 4, Beaver, Doe, and Butte showings have indicated very limited amounts of copper mineralization that appear to have been controlled by small fractures. Likewise, drilling along the east shore of Gowlland Harbour has failed to disclose a commercial deposit of copper.

Dodge Copper Mines Limited has largely confined its attention to a number of widely separated copper prospects, some of which were worked in a small way forty years ago. Some of the deposits explored to date might be suitable for leasing operations. ( $50^{\circ} 125^{\circ}$ S.W.) The Copper Road group of eight claims is held

## Copper Road

 by record by Messrs. Adams and Bestwick, of Granite Báy P.O. It is on Quadra Island, about $21 / 2$ miles by truck-road from Deep Bay. The showing is a quartz vein which dips almost 80 degrees south. A sample taken across a vein width of 60 inches assayed 11.2 per cent copper.In 1953 the property was under option to Golden Contact Mines Limited, which drilied a total of 946 feet in seven holes spaced at approximately 150 -foot intervals. These intersected the vein at depths of as much as 120 feet. The owners shipped to the Tacoma smelter 178 tons of ore, which contained 1.3 ounces of silver per ton and almost 10 per cent copper.

## FISH EGG INLET*

## Tungsten

## Promise Well

( $51^{\circ} 127^{\circ}$ N.W.) This mineral claim at the north side of the in August, 1951, by Agnes Moore, of Namu. The showing, which is at tide-water and upon which a limited amount of stripping and shallow blasting has been done, consists of a breccia of altered to highly altered sedimentary fragments in a granite-granodiorite matrix. The breccia is veined by quartz veins as much as 6 inches wide, in which, with the aid of an ultraviolet lamp, a few grains of scheelite may be seen. The attitude of the breccia is not apparent, although it passes into massive granodiorite to the north. The principal quartz veins strike north 35 degrees east and dip 50 degrees northwest.

## KING ISLAND*

Molybilenite
( $52^{\circ} 127^{\circ}$ S.W.) This mineral claim is on the east side of King
Last Chance Island, across Burke Channel from Mapalaklenk Point of Kwatna Peninsula. It was recorded by Joseph H. Moore, of Namu, in July, 1953. The showing, in exposures about 300 feet long by 50 feet wide at tide-water, consists of a 1 -foot bed of garnet-epidote skarn in sandy schists having thin (one-quarter inch) limy bands. The schistosity and bedding both strike north 50 degrees west and dip 60 degrees northeast. The sediments are cut by granodiorite dykes trending north 15 degrees east and dipping 45 degrees northwestward, which in turn are cut by pegmatite dykes which follow two sets of fractures, of which one set strikes north 50 degrees west and dips 30 degrees southwest and the other strikes north 75 degrees east and dips 65 degrees southward.

Mineralization consists of molybdenite at and near the intersection of two pegmatite dykes with the skarn. It is exposed for a length of about 10 feet chiefly in sandy schist at

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[^0]:    * By R. B. King, except as noted.
    $\dagger$ By W. R. Bacon.

[^1]:    * By N. D. MeKechnie.

