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L48-123 NW.  
Lucky Strike Group.  
Miss Winnifred McLellan.  
Dolmage, Victor; Engineer.

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July 15, 1947.

THE LUCKY STRIKE GROUP  
OF  
MINERAL CLAIMS

19

The Lucky Strike group of mineral claims is situated about 5 miles north of Duncan and about  $\frac{3}{4}$  of a mile southeast of Westholm in the eastern part of Vancouver Island. The claims lie on the northwestern slope of Mount Richards and just 3 miles due east from Mount Sicker on which is situated the Tye and adjoining mines which between 1903 and 1907 produced about 22,000,000 pounds of copper together with considerable silver and gold.

The Lucky Strike claim was staked during that period to cover a deposit of copper which was discovered in one of the rock cuts made in the building of the narrow gage railway which was built to convey the ore from Mount Sicker to the smelter at Crofton, situated at tide water, seven miles east of the mines. A small amount of work was done on this property at that time and its title was made secure and independent of the Esquimalt and Nanaimo Railway land grant. However, with the closing down of the mines on Mount Sicker and the smelter at Crofton, interest in mining in this district died down and the Lucky Strike deposit was lost sight of.

In the same locality and also near the narrow gage railway a deposit of zinc copper ore was found and partly developed.

The present Lucky Strike group of claims includes the original Lucky Strike claim and five other claims, one of which covers the above mentioned zinc-copper showings.

Two days, July 4th and 5th, were spent by the writer in examining the zinc-copper showings and in an unsuccessful attempt to find the original Lucky Strike copper showing. Also the geology of the surrounding locality was examined.

The geology of a large section of Vancouver Island, including the area now covered by the Lucky Strike group of claims was studied and mapped in detail by C.H. Clapp, W.L. Uglow and H.C. Cook and the present writer was attached to the field parties of these geologists. The results of the investigation were published in 1918 by the Geological Survey of Canada in memoir as Memoir 96 and its accompanying geological maps.

The Tyee and the Lucky Strike copper deposits occur in a wide band of Lower and Middle Jurassic rocks from 2 to 6 miles wide, which extends for many miles in a north 65 degree west direction across Vancouver Island. This band of rocks was named by Clapp the Sicker series. It is bounded on the north and south by younger sedimentary rocks of Cretaceous age which to the north contain valuable seams of coal.

The Sicker series consists of volcanic flows and tuffs and siliceous and argillaceous sediments, all of which have been highly dynamically and thermally metamorphosed and intruded by many sill like bodies of quartz felspar, porphyrite and gabbro-diorite. The Tyee ore deposits occurred in quartz-

sericite and quartzose schists which represent the metamorphosed sediments and quartz-felspar porphyrite of the Sicker series. The ore body was confined to the south limb of a tight syncline and was bounded on both sides by bodies of gabbro-diorite. The ore body had a proven length of 2800 feet, a width of 20 feet and depth of 150 feet. The ore consisted of chalcopryite, zincblende, pyrite, pyrrhotite and a little galena in a gangue consisting mainly of barite, quartz, calcite and sericite.

The Lucky Strike zinc showings occupy a shear zone in a narrow band of the same quartz sericite schist, bounded on the south by a wide band of quartz-felspar porphyrite and therefore under conditions similar to those surrounding the Tye deposit. They are exposed by two small tunnels shown in the accompanying figure 1. The lower one extends for 50 feet in a south  $57^{\circ}$  east direction with a crosscut running 27 feet in a north  $37^{\circ}$  east direction from a point 38 feet from the portal. Extending 8 feet back from the face is a small winze about 12 feet deep from the bottom of which a cross cut extends northeast for about 10 feet. The upper tunnel is 40 feet northeast of and 24 feet higher than the lower tunnel and extends in a south  $70^{\circ}$  east direction for 33 feet, 16 feet of which is an open rock cut.

In the bottom tunnel are two irregular but roughly parallel shears mineralized with pyrrhotite, chalcopryite and zincblende. The north shear crosses the crosscut and also the small crosscut which extends from the winze. The shear is

irregular in width, averaging not more than one foot and carries solid lenses of the above named metallic sulphides. When the tunnel was being driven, the sulphide ore was put in a separate dump and a sample from this dump assayed zinc 6.7%, copper 0.9% with traces of gold and silver. The south shear is smaller than the above one and extends from the portal right through to the end of the tunnel and is exposed also in northeast and southwest sides of the winze, where besides the above minerals it contains quartz and calcite. In the upper tunnel two shears are exposed, the north one of which extends along the north side of the tunnel then passes into the wall. The south shear extends to the face. At the portal it contains a solid lens of ore 18 inches wide but at the face it consists of a narrow, tight shear with no metallic minerals. Sample No. 1 was taken from this 18 inch lense and sample No. 2 was taken from the ore dumps of the upper tunnel. Sample No. 4 represents picked material from the waste dump of the upper tunnel. The results of these samples are shown in the following table:

<u>SAMPLE NO.</u>	<u>GOLD</u>	<u>SILVER</u>	<u>COPPER</u>	<u>ZINC</u>
1.	Tr.	Tr.	0.3	4.9
2.	Tr.	Tr.	0.6	11.0
3.	Tr.	Tr.	0.9	6.5
4.	Tr.	Tr.	0.9	6.7

These samples show that the deposit contains zinc in appreciable amounts, with a little copper but no precious

metals. Zinc ore of this grade would have to be mined on a large scale to be profitable. The possibility of finding sufficient quantities of this ore to mine profitably rests upon the fact that large valuable deposits occur under similar geological conditions on Mount Sicker 3 miles to the east, and on the fact that in the small area so far developed, four zinc bearing shears occur within a width of 40 feet. The deposit is very conveniently situated and could be easily and cheaply explored by diamond drilling.

Respectfully submitted,

*V. Golmager*

July 15, 1947.

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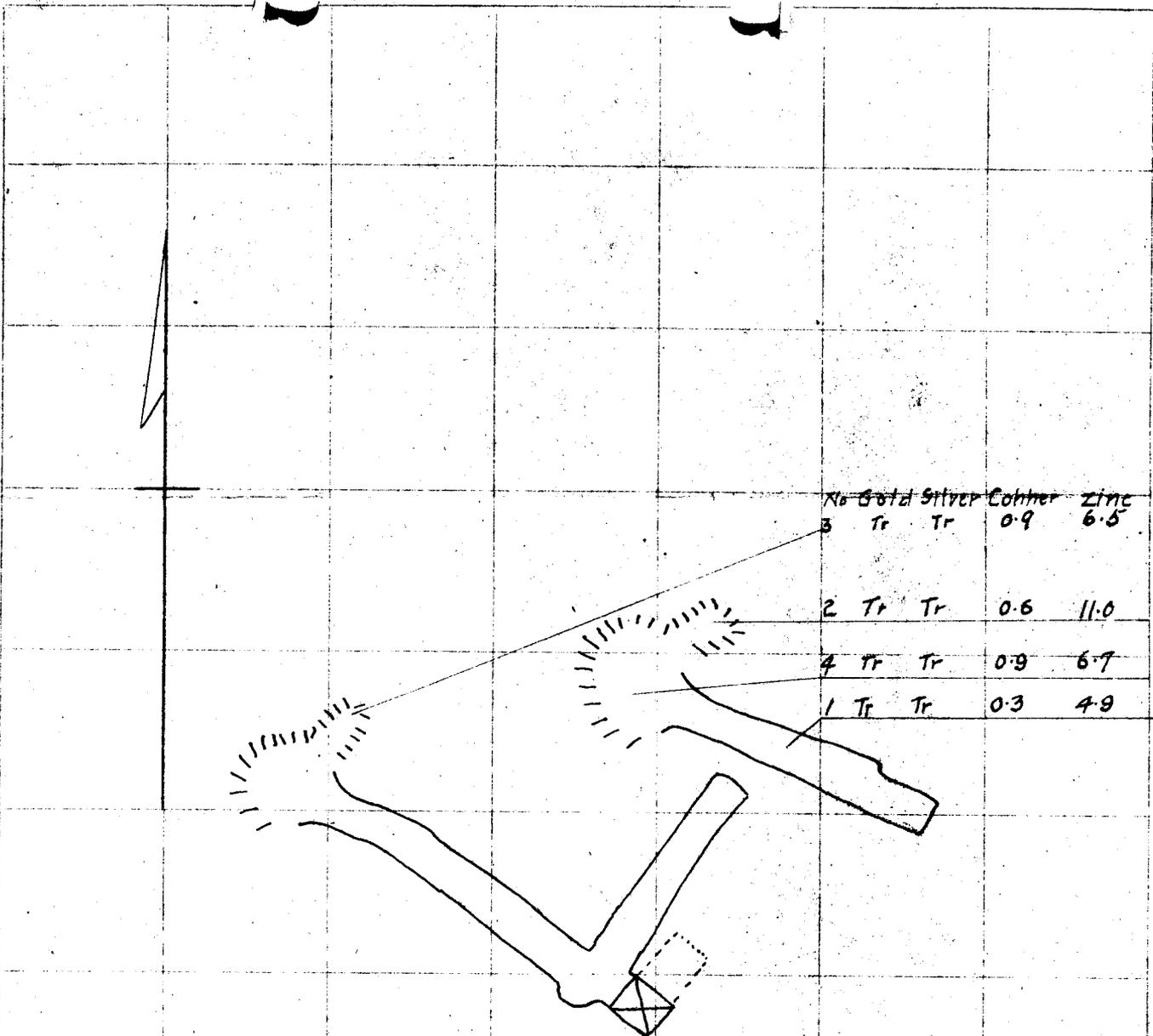
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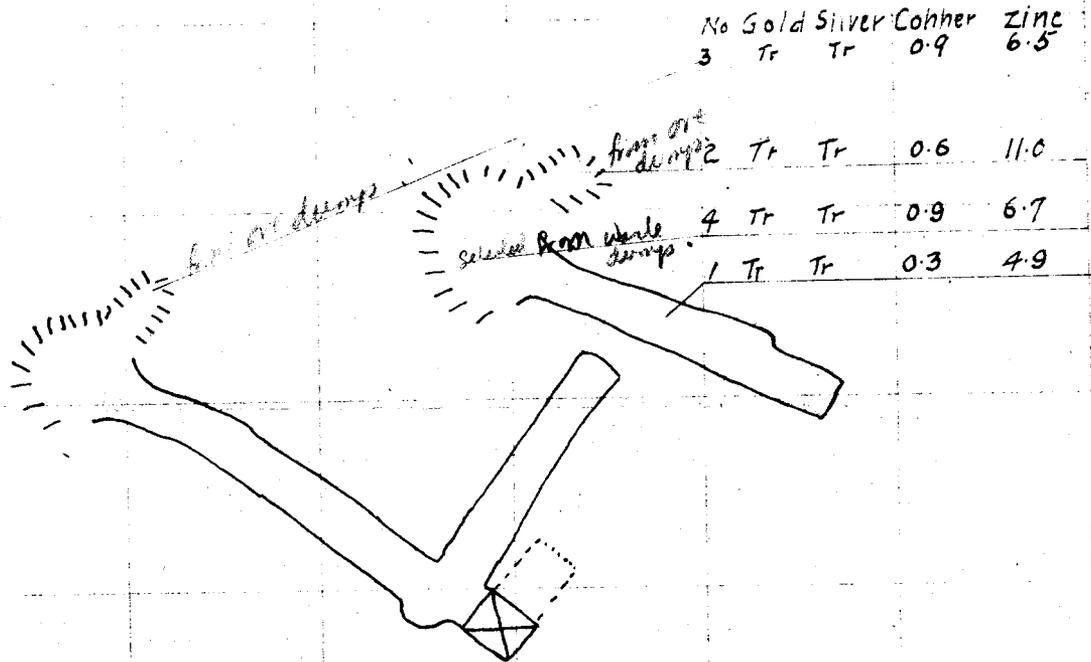
No	Gold	Silver	Copper	Zinc
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4	Tr	Tr	0.9	6.7
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ZINC SHOWINGS  
~~LUCKY STRIKE GROUP~~  
 DUNCAN  
 VANCOUVER ISLAND  
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Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 19 MAP #1

REPORT #19  
 MAP #1

Scale 20' = 1"



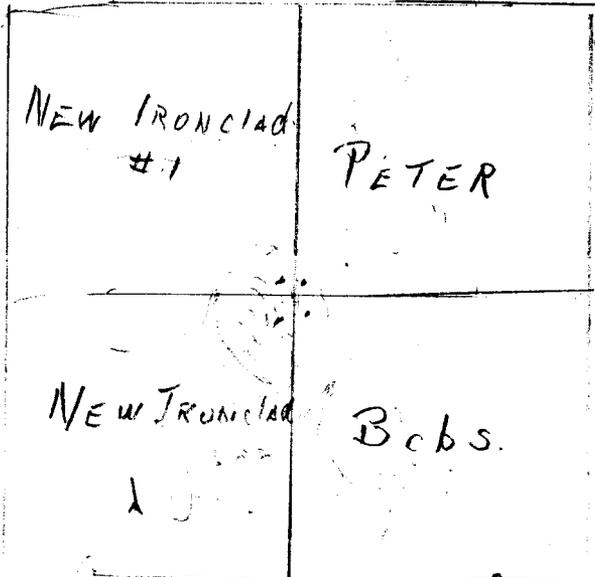
ZINC SHOWINGS  
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 B C

Department of  
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 ASSESSMENT REPORT  
 NO. **19** MAP **#2**

REPORT #19  
 MAP #2

Scale 20' = 1"

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Lucky STRIKE

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Department of  
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ASSESSMENT REPORT  
NO. **19** MAP **#3**

REPORT #19  
MAP #3