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REPORT ON THE MICHAELY LEAD-ZINC MINE

SALMO RIVER, B. C.

BY

D. F. KIDD

INTRODUCTION

In March 1946, the Michaely lead-zinc property was offered to us. Available data consisting of reports by J. F. Walker, (1) Hartley Sargent (2) and Victor Dolmage (3) suggested the property was worth examination. A long day, April 15th, was spent on the ground.

SUMMARY AND RECOMMENDATION

The property lies one mile North of the Reeves-McDonald mine. A mineral bearing minor shear crosses a 20' to 30' limestone band in prevailing quartzites and here two lenses of replacement ore have formed. They are massive sharp bordered replacements with galena, sphalerite pyrite and siderite. The larger lense at surface has at least 15 tons to the vertical foot that averages 8.9oz. Ag. 19.5% Pb and 11.2% zinc. Net smelter return value at todays prices is estimated as $38. per ton allowing $5 per ton for freight. A crosscut 30' below the surface, cut much less ore, one 75 feet down cut ore from which 100 tons were mined, and one 200 feet below the surface cut the limestone but no ore. The junction of the mineralized shear and favorable limestone would rake West, and so should any downward extension of the ore. The weakness of the shear and narrowness of the limestone band discourages the idea of an important ore body being present. The present showings are too small for a company. The owners could ship ore in sight and pay for driving No. 3 adit drift southwest ahead along the limestone footwall at least 100 feet. This is not recommended for us.

CLAIMS

No attempt was made to check the claims pending a decision to undertake work. The showings are said to be on the Lucky Break claim (Record No. 653) owned by Steve Butorac of Trail.

LOCATION AND ACCESS

The property lies two miles North of the United States boundary North of Salmo River in the Nelson Mining division. It adjoins and lies one mile North of the Reeves - McDonald mine. It is about 28 miles by road from Trail. About half of this is good gravel highway the rest a lower

(1) G.S.C. Mem 172.P.64 (2) B.C. Min Dep. Ann.Rep. 1936 P E 28

(3) Report by V. Dolmage copy attached.

grade road. The whole road is usable most of the year for trucking.

HISTORY AND DEVELOPMENT

The property was located about 1929 and bonded shortly thereafter to the Mining Corporation of Canada. After preliminary development the option was dropped. The owners have since carried on spadmodic work. The showings are opened by surface cuts and 4 short adits (See Map).

GEOLOGY

The main showing is a massive replacement of marbleized limestone by sphalerite, galena, pyrite and siderite. The last probably manganiferous. The limestone forms a band 20 to 30 feet wide in prevailing quartzites and siliceous argillites. All strike North 50° to 60° East and dip Southeast at 50° to 70°. The limestone is cavernous. These rocks are cut by a minor shear striking N 30° E and dipping vertically to 70° Southeast. Minor galena - sphalerite mineralization occurs along this shear for 200 feet Northwest of the main deposit.

The ore body occurs where this shear crosses the limestone band. The limestone has been replaced by siderite and the sulphides mentioned. The walls with the limestone are sharp. While there is some intermixed galena and sphalerite much of it is segregated. The sphalerite is chestnut brown and is said to carry unusually high cadmium. This was not checked.

ORE BODY

The main ore body as stripped on surface is 45 feet long. To the Northeast it pinches out abruptly where the shear goes into quartzites. Southwest it pinches out with limestone on each side. It dips South at 50° and has an exposed maximum width of 9 feet.

Four feet in the footwall of the West end of the main ore body is a second ore lense, at the contact of the limestone with quartzose schist. This lense is exposed for 30 feet and is up to 5 feet wide. At its Northeast end it turns abruptly North and pinches out. At its Southwest end it goes into overburden and it is not clear whether or not it pinches out.

An Adit (No.1) 25 feet below the centre of the main ore body cut 18 inches of fair ore. A second adit (No.2) 55 feet lower cut ore. This ore has been stoped up 20 feet for a length 15 feet and underhand stoped a reported 15 feet. This section is full of water and neither it nor the adit beyond can be seen. The back of the stope has up to 12" of irregular ore. The drift East along the zone shows 2 feet of partly oxidized ore which pinches in 20 feet to nothing. A third adit (3) almost under No. 2 adit and 135 feet lower cut the limestone band but no ore.

The ore plainly highly selectively and somewhat irregularly replaces the limestone band in the vicinity of the minor shear. As the junction of the shear with the limestone rakes West so should the ore if it goes down. The No. 3 adit lies East of the favorable locus for ore deposition.

SAMPLING

The property had previously been sampled by O'Grady and Dolmage. Only two check samples were taken. (See Map.) The best showings are the surface exposures. Combining all results the main lense averages 8.9 oz Ag. 19.5% Pb and 11.2% zinc over a width of 4.3' for a sampled length of 35'. Only one sample by me has been taken on the footwall lense. A sample across the best width and apparent best grade gave 6.5 oz Ag. 14.2% Pb and 22.3% Zn across 4.0'.

Production from the property is probably the best record of what was taken from the stope. Available records indicate 95.8 tons averaging 11.2 oz Ag 23.2 % Pb and 19.6% Zn were shipped. This was I think likely selected or cobbed ore.

AMOUNT AND VALUE OF ORE

There are at least 15 tons per vertical foot in the main lense and perhaps half as much in the footwall lense. Some ore occurred in the 2 level stopes in roof and floor 80 feet below. It is reasonable to expect ore between these points but due to its being an irregular replacement body tonnage cannot be estimated. On the basis of average assays from the main lense of 8.9 oz Ag, 19.5% Pb and

11.2% zinc the ore has a net smelter return value today of:

Silver @ 75¢ oz	6.35
Lead @ 15¢ lb.	42.00
Zinc @ 10.5¢ lb.	5.05
	53.40
Smelter charge plus iron penalty - (silica - lime credit) estimated as	10.00
Freight to Trail	5.00
Net Smelter return	$38.40

May 8, 1947

Edward J. Bush

	W	Au	Ag	Pb	Zn
O'Grady	4.0	Tr.	18.2	4.70	39
Dolmage	4.0		5.9	1.74	30.0
O'Grady	6.0	Tr.	5.5	92	8.2
"	2.5	Tr.	22.0	4.00	44
"	2.5	.005	18.4	1.19	20.0
Dolmage	6.0		18.4	0.3	1.1

Adit No 3

Adit No 2

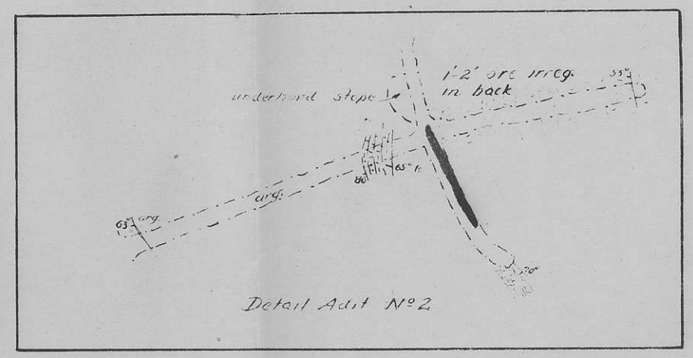
Stope

Stope

	W	Au	Ag	Pb	Zn
Dolmage	2.6		3.2	8.1	6.8
"	3.0		10.2	2.89	5.4
"	5.0		13.9	3.48	9.6
"	3.0		7.1	1.73	16.0
"	1.0		6.0	4.27	19.1
"	3.0		2.2	4.8	7.1
			3.4	8.3	7.5
D.F.K. 6760	5.0		2.9	7.3	9.3

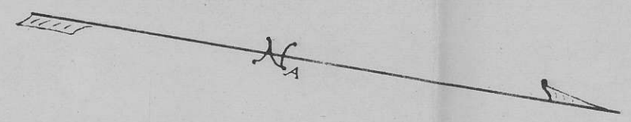
INSET SAMPLE MAP

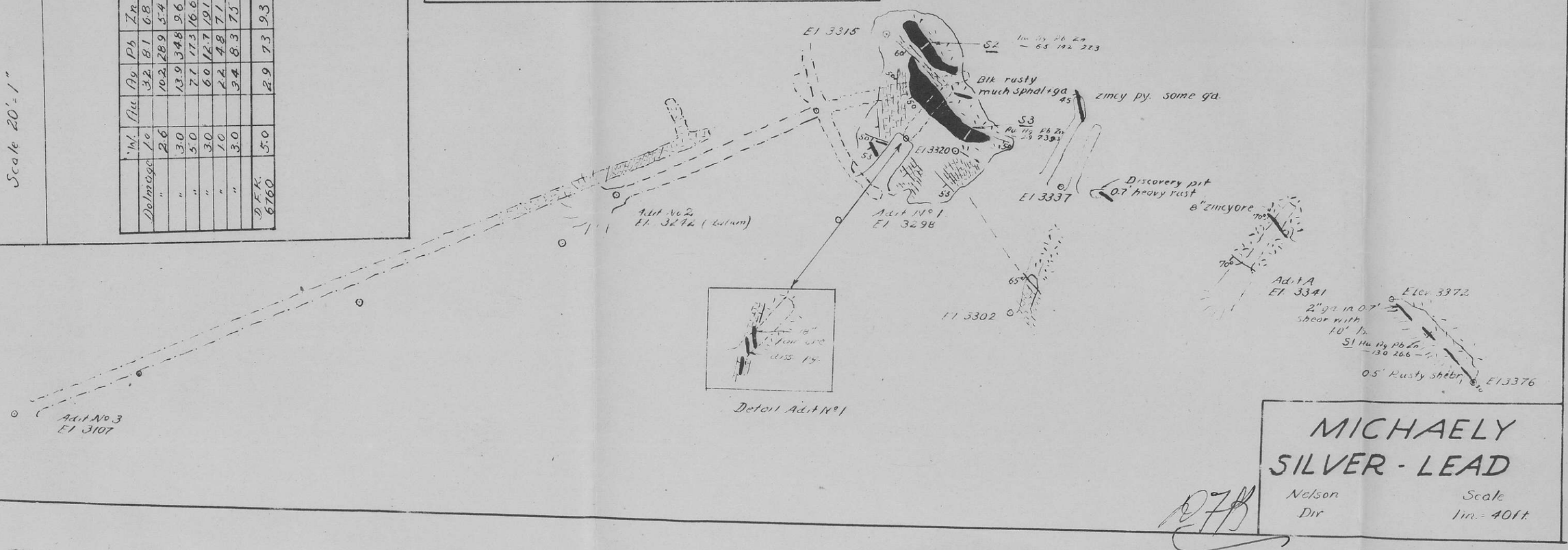
Scale 20'=1"



LEGEND

- open cut
- tunnel
- limestone
- glzite and sch
- sulfide





MICHAELY
SILVER - LEAD

Nelson
Dir

Scale
1in.= 40ft.

278

FILE No. 2829

CABLE ADDRESS: "ELDRICO"

HEAD OFFICE AND LABORATORIES:
567 HORNBY STREET
VANCOUVER, B.C.

PHONE PACIFIC 7034

Certificate of Assay

G. S. ELDRIDGE & CO. LTD.

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G. S. ELDRIDGE, B.Sc.
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AMERICAN CHEMICAL SOCIETY

We Hereby Certify *that the following are the results of assays made by us upon samples of* ore

herein described and received from Dr. D. F. Kidd April 18th 19 47

MARKED	GOLD		SILVER		LEAD		ZINC				TOTAL VALUE
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	VALUE PER TON	PER CENT.	VALUE PER TON	PER CENT.	VALUE PER TON		VALUE PER TON	PER TON (2000 LBS.)
		$		$		$		$			$
No. 6758			13.0		26.6						
6759			6.5		14.2		22.3				
6760			2.9		7.3		9.3				

Gold calculated at $ 35.00 *per ounce.* *Calculated at* ..... *cents per lb.*

Silver calculated at ..... *per ounce.* *Calculated at* ..... *cents per lb.*

NOTE.—Samples only retained 3 months unless otherwise specified

G S Eldridge *Provincial Assayer*