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TERRITORY OF ALASKA

DEPARTMENT OF MINES

COLLEGE, ALASKA

March 8, 1954

MEMORANDUM REPORT

KX49-117

TO: Phil R. Holdsworth, Commissioner of Mines

FROM: Robert H. Saunders, Associate Mining Engineer

SUBJECT: POLARIS LEAD-SILVER PROSPECT

INTRODUCTION

In January 1953, Mr. Fred Wackwitz requested assistance in filing an application for a DMEA loan to be used in exploring a lead-silver prospect that he owns on the north side of Cleary Summit. I visited the prospect with Lowell L. Patten on January 20, 1953 and again with William Kerns of the U. S. Bureau of Mines on August 27, 1953. Several times during 1953, Mr. Wackwitz called at the office to discuss the proposed exploration. He brought in smelter returns for ore shipments from the property and location certificates for the claims. The application for DMEA assistance was not filed because Mr. Wackwitz began work on other property and did not have time enough to work on the lead-silver prospect.

Mr. Wackwitz has not requested a report on his property. This Memorandum Report has a two-fold purpose: first; to combine and summarize the information obtained, and second; to provide a means for adding this information to the Department of Mines files in Juneau.

LOCATION AND ACCESSIBILITY

The Polaris prospect is on the north side of Cleary Summit at about 2,300 feet elevation. It is on the right limit side of Bedrock Creek, tributary to Cleary Creek, and it is near the crest of the ridge that lies between Bedrock Creek and the Chatham Creek drainage.

The prospect is only a few hundred yards from the fork where the Fairbanks Creek road joins the Steese Highway. A short access road to the prospect leaves the Fairbanks Creek road at the Alaska Road Commission camp about 200 feet from the Steese Highway. The access road is hardly more than a trail,

and it probably becomes impassable during spring thaws and after heavy rains.

PROPERTY AND OWNERSHIP

The Polaris prospect consists of seven contiguous lode claims designated Polaris Nos. 1 to 7. The claims all lie with their long axes approximately east- west. Fred Wackwitz is the locator for all the claims. Table I is a summary of the data given on the location certificates.

GEOLOGY AND MINERAL DEPOSITS

The most recent publication describing the geology of the Fairbanks District is USGS Bulletin 872, THE YUKON-TANANA REGION, ALASKA by J. B. Mertie, Jr.

The bedrock in the vicinity of the prospect is the pre-Cambrian Birch Creek Schist, which underlies most of the Fairbanks District. Within one mile of the prospect there are three known dikes of granite porphyry and/or quartz diorite porphyry of Mesozoic age. Two large intrusive masses, one of quartz diorite and one of granite porphyry, lie two to five miles south of the prospect; these intrusions also are of Mesozoic age. There are few bedrock outcrops in the vicinity.

The mineral deposit is a vein that strikes about N 80° W and dips 20° S. The vein-filling is mostly sulfides; the predominant minerals are galena and stibnite. The proportion of galena to stibnite varies from place to place in the vein, and, by careful hand-sorting, it is possible to separate the minerals into a lead product and an antimony product. The vein pinches and swells; its average width in present exposures is about eight inches.

The vein is exposed in two open-cuts that are about 1,300 feet apart; the east open-cut is on the Number 4 claim, and the west open-cut is on the Number 3 claim. Between the two open-cuts there are several hand-dug pits and a shaft; all of these have sloughed and are partly filled. There is little doubt that the two open-cuts are on the same vein.

PRODUCTION

About 34 tons of hand-picked lead-silver ore has been produced from the two open-cuts. The mining has been done by stripping the overburden and wallrock from the hanging wall side of the vein with a bulldozer; then the ore exposed has been broken by picking and blasting. Blast holes have been drilled by hand.

Table II is a summary of the ore shipments that have been made. The shipment received in 1952 was mined in 1951, and the shipments received in 1953 were mined in 1952.

Respectfully submitted,

Robert H. Saunders

Robert H. Saunders
Associate Mining Engineer

Fig 1. East open-cut.

TABLE I

Name of Claim	Instrument No.	Date Staked	Date Recorded	Volume No.	Page No.
Polaris No. 1	114 629	June 29, 1949	Aug 26, 1949	24	470
Polaris No. 2	114 628	June 29, 1949	Aug 26, 1949	24	470
Polaris No. 3	114 627	June 29, 1949	Aug 26, 1949	24	469
Polaris No. 4	128 055	Sept 24, 1951	Oct 24, 1951	25	180
Polaris No. 5	134 750	July 8, 1952	Sept 29, 1952	28	334
Polaris No. 6	136 337	Nov 8, 1952	Dec 16, 1952	25	388
Polaris No. 7	136 336	Nov 8, 1952	Dec 16, 1952	25	387

SMELTER RETURNS OF THE AMERICAN SMELTING
AND REFINING CO FOR ORE RECEIVED
FROM FRED WACKWITZ

Date Rec'd	Feb 5, 1952	Jan 20, 1953	Feb 19, 1953	Apr 6, 1953
No. Drums	5	10	10	61
Gross Weight	5290	10855	8708	60940
Net Weight	4910	10256	8203	57990
Net Dry Weight	4701	9400	7963	51559
Gold Oz/T	0.10	0.14	0.16	0.20
$/T	3.18	4.45	5.09	6.36
Silver Oz /T	98.95	59.75	21.10	16.97
$/T	82.72	51.09	18.04	14.37
Lead %	47.7	36.1	25.30	23.36
$/T	143.45	77.85	52.48	45.89
Misc. $/T	1.78	0.99	0.16	0.61
Smelter Chg. $/T	11.86	10.77	15.37	14.45
Net Value $/T	219.27	123.61	60.40	52.78
Value of Shipment $	515.39	580.97	240.48	1360.64
Sampling and Assaying	12.50	12.50	12.50	None
Freight	28.88*	343.05	273.39	1257.58
Net Proceeds	474.01	225.42	-45.41	103.06

*Freight from Fairbanks to San Francisco not included.