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TO BE PHOTOCOPIED AND PRODUCED

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BATES NO. 0393

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DMEA
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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

November 6, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: John D. Bardill, Bureau of Mines

Subject: Routine inspection report, Docket No. DMEA-2879 (lead-zinc-copper-antimony), Polaris Mining Company, Polaris East Exploration Project, Shoshone County, Idaho, Contract No. Idm-E541

This project was inspected October 24, 1957, accompanied by Mr. James Jally, company geologist.

Diamond drill hole No. SS3295, drilled northwesterly from 337 crosscut north, intersected a vein between 4.5 and 10 feet containing siderite and minor amounts of tetrahedrite.

Hole No. SS3297, drilled about 25 feet east of Sta. SS3100, slightly west of north, intersected the vein at approximately 42 feet. Hole SS3296, drilled about 35 feet east of Sta. SS3100 to the northeast, cut the vein at roughly 50 feet.

The drift was driven farther to the northeast and cut the vein about 110 feet from Sta. SS3100. The vein at this point was about 9 feet wide but sparsely mineralized. The drift followed the structure about 90 feet roughly due east where a fault displaced the vein about 50 feet along the strike of the structure. The siderite vein in the structure exposed in the face of the drift was approximately 2 feet wide and estimated to assay about 5 ounces silver per ton. The drift had been advanced about 692 feet under Stage II.

The following survey data was taken from the company transit survey notes. The distances were checked and confirmed.

EXTRA COPY

Start of the contract under Stage II was 34.5 feet west of survey station SS3089.

Drifting		Work completed under contract Ft.
To SS3089		34.50
SS3089 - 3095	S 78°-31' -00" E	58.41
3095 - 3096	S 62°-27' -00" E	82.78
3096 - 3099	S 86°-42' -00" E	60.83
3099 - Pe-1	N 71°-08' -30" E	199.37
Pe-1 - Pe-2	N 53°-23' -00" E	107.22
Pe-2 to face		149.00
		692.11

Crosscutting	
334 crosscut north	17.3 ft.
337 " "	60.9
	78.2

Diamond Drilling	
Hole No. SS3294	888.8 ft.
Hole No. SS3295	217.8 "
Hole No. SS3296	86.6 "
Hole No. SS3297	58.2 "
Hole No. SS3298	140.0 "
	1,391.4 ft.
Less footage remaining in Stage I	756.4
	635.0 ft.

Status of the contract as of October 24, 1957, was as follows:

Date of contract: November 1, 1953
Termination date: June 1, 1958
Amount of contract: Stage I - $726,838.94 (completed)
Stage II - 147,000.00
Rounded to: $873,840.00

Amount spent: Stage II $ 35,262.82 (thru Sept. 1957)

	Authorized	Completed
Drifting and/or crosscutting		
Drifting)	2,500 ft.	692 ft.
Crosscutting)		78
Sideswipes	100	80
Diamond drilling	5,000	635

Distribution:
DMEA (4) Docket
USGS (2) Bardill
USBM (AD)

John D. Bardill

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 29 1957

DATE	INITIALS	CODE
11/29	gb	
"	Cbr	220
12/2	[illegible]	100
	g	500.

November 25, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: D. R. MacLaren and R. D. Sample, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-2879 (lead-zinc), Polaris Mining Company, Polaris East Exploration Project (Silver Summit Mine), Shoshone County, Idaho, Contract No. Idm-E541

The above sited project was inspected November 20, 1957, by the writers, accompanied by Mr. James Jally, company geologist.

The Polaris East Drift has been extended along the structure for a distance approximately 850 feet beyond the south crosscut. The drift follows a weakly mineralized faulted zone which contains patches and blebs of siderite. Along its strike the fault pinches and swells from a few inches to a few feet. About 40 feet from the face the zone appears to horsetail with minor fractures and slips branching off into the walls, most of the splits going into the south wall. At the east face diamond drilling into the north and south walls is now underway. The hole to the north has been drilled with EX bit to a depth of 68.5 feet. No important structure or mineralization was disclosed in this hole. The core recovery was good. The hole in the south wall has just been started. Mr. Jally stated the south hole may be drilled for a hundred feet or more unless a distinct structure was found at a closer distance. Drifting on the east drift will continue as soon as the drilling has been completed.

Work on the mineralized body in the south drift continues. A raise has now been driven on company account in the body up to about 150-160 feet. The first 100 feet of the raise appears to have ore of commercial grade, but in the last 50-60 feet there are only occasional pods of sulfides, mostly below ore grade. The values are mostly in silver. The mineralized body is about 100 feet long and averages about $8\frac{1}{2}$ feet in thickness.

Distribution:
DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Docket
Sample

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~Stage II~~

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August 1958 Docket No. DMEA 2079 Contract No. IDM-1541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)

Address Box 320, Wallace Idaho

Contract Amount, $ ~~147,000.00~~ 873,840.00 Government Participation: 50 % Amount, $ ~~73,500.00~~ 436,920.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
Stage II						
(1) Independent Short Form Contracts:				1/21/59	W.P.K.	
Drilling: Core		21,666.60	21,666.60		21666.60	21666.60
Bulldozing						
Crosscutting		37,853.28	37,853.28		37853.28	37853.28
Drifting 68.4 @ 40.70	4117.03	79,979.70	84,096.73	4117.03	79979.70	84096.73
Sidoswipe		2,550.00	2,550.00		2550.00	2550.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I					726838.94	726838.94
TOTALS	4117.03	142,049.58	146,166.61	4117.03	868888.52	873005.55

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 9-4-58 *Payee Polaris Mining Company

Per John R. Matthews Title Secretary

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2058.51

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 1/15/59 Vou. No. 2271

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 9-541 in accordance with the terms of the contract.

Signature /s/ John D. Bardill Title Metallurgist Date Sept. 7, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ D. A. Weissenborn Title Exec. Officer Date Jan. 13, 1959

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported" and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Stage II

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 195 0 Docket No. DMEA 2075 Contract No. [illegible]
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and Incidental Silver)
Address Box 320, Wallace, Idaho

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet	$ 4217.03	84.4	$ 84096.73	2724.0	$ 40.70	2500	$ 40.700
Crosscutting				37853.28	776.0			
Raising								
~~Shafts~~ Sideswipe	"			2550.00	100.0	25.50	100	25.500
Winzes								
Drilling: Core	"			21666.60	4824.0	4.50	5000	4.500
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 9-4-50 Operator Polaris Mining Company

Per John R. Matthews Title Secretary

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by contract

/s/ John A. Bardill

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

September second
1958

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
August - 1958
Docket No. DMEA - 2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of August included 85.2 feet of drifting and 20.3 feet of crosscutting.

The 347 East Drift was advanced 85.2 feet to Station PE3025 plus 112.0 feet and two diamond drill crosscuts (361 North crosscut and 361 South crosscut) were driven 10.3 feet and 10.0 feet respectively. This completes the DMEA contract for drifting and crosscutting with 185.2 feet of diamond drilling remaining to be done under the contract.

No significant mineralization was exposed in either the drifting or crosscutting during July. Short diamond drill holes will be driven in both the north and south walls of the drift to explore the extensions of the northeasterly - southwesterly striking veins which were exposed during the month of July.

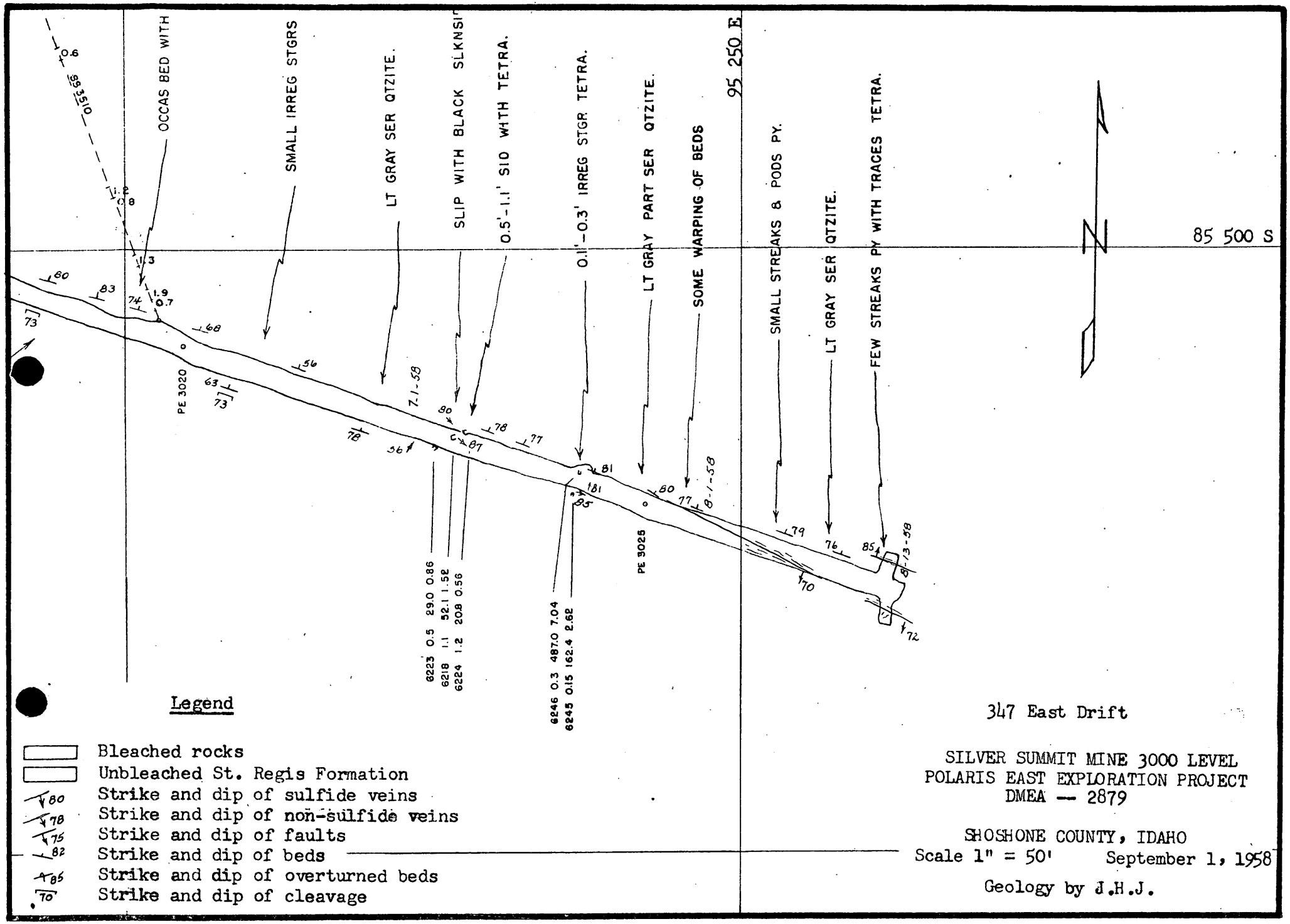
Hole No. 3512 which is being drilled southerly from 329 Southwest drift advanced 696.0 feet and had reached a depth of 721.0 feet by the end of August. 331-A Raise from 329 Southwest drift was driven 31.2 feet and has now reached the sill of 2900 level 331-B North drift.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH/hdh/fl


95 250 E
85 500 S
OCCAS BED WITH
SMALL IRREG STGRS
LT GRAY SER QTZITE.
SLIP WITH BLACK SLKNSI
0.5'-1.1' SIO WITH TETRA.
0.1'-0.3' IRREG STGR TETRA.
LT GRAY PART SER QTZITE.
SOME WARPING OF BEDS
SMALL STREAKS & PODS PY.
LT GRAY SER QTZITE.
FEW STREAKS PY WITH TRACES TETRA.
PE 3020
PE 3025
7-1-58
8-1-58
8-13-58
6223 0.5 29.0 0.86
6218 1.1 52.1 1.52
6224 1.2 208 0.56
6246 0.3 487.0 7.04
6245 0.15 162.4 2.62
Legend
Bleached rocks
Unbleached St. Regis Formation
Strike and dip of sulfide veins
Strike and dip of non-sulfide veins
Strike and dip of faults
Strike and dip of beds
Strike and dip of overturned beds
Strike and dip of cleavage
347 East Drift
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879
SHOSHONE COUNTY, IDAHO
Scale 1" = 50'
September 1, 1958
Geology by J.H.J.

EXTRA COPY
O. M. E.
RECEIVED JAN 19 1959

DATE	INITIALS	CODE

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

Final Report

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

~~Stage II~~

Month of September, 1958 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental silver)

Address Box 320, Wallace, Idaho

Contract Amount, $~~147,000.00~~ 873,840.00 Government Participation: 50 % Amount, $~~73,500.00~~ 436,920.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
Stage II				1/21/59 W.P.K.		
(1) Independent Short Form Contracts:						
Drilling Core 185.2 @ $4.50	$ 833.40	$ 21666.60	$ 22500.00	833.40	21666.60	22500.00
Bulldozing						
Crosscutting		37853.28	37853.28		37853.28	37853.28
Drifting	84096.73	~~79979.70~~	84096.73		84096.73	84096.73
Sideswipe		2550.00	2550.00		2550.00	2550.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage II					72683894	72683894
		146166.61				
TOTALS	$ 833.40	$ ~~142049.58~~	$ ~~147000.00~~	833.40	873005.55	873838.95

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 10-3-58 *Payee Polaris Mining Company

Per John R. Matthews Title Secretary

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

416.70

$ 416.62

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 1/15/59 Vou. No. 2271

(See other side)

416.70
-.08
Adj. to audit 416.62

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 2541 in accordance with the terms of the contract.

Signature /s/ John D. Bardill Title Metallurgist Date Oct. 29, 1958

APPROVAL BY ~~DMEA~~ ONE EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Jan. 13, 1959

MONTHLY REPORT OF OPERATOR

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(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Final Report

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Stage II

OPERATOR'S UNIT COST AND PROGRESS REPORT

JAN 19 1959 O.M.E.

Month of September 1958 Docket No. DMEA 2879 Contract No. IDM-E541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental silver)
Address Box 320, Wallace, Idaho

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet			$ 84096.73	1724.0	$ 48.78	2500	$ 48.78 *
Crosscutting				37853.28	776.0			
Raising								
~~Xcuts~~ Sideswipe	"			2550.00	100.0	25.50	100	25.50 *
Winzes								
Drilling: Core	"	$ 833.40	185.2	22500.00	5000.0	4.50	5000	4.50 *
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 10-3-58 Operator Polaris Mining Company

Per John R. Montana Title Secretary

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

REMARKS:

(For Government use only)

*Maximum allowed by contract.

/s/ John D. Bardill

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. Box 320
WALLACE, IDAHO

October fourth
1958

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
September - 1958
Docket No. DMEA 2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of September included 185.2 feet of diamond drilling to complete the DMEA contract and 824.1 feet of drilling which was not under DMEA. All exploration under the DMEA contract has now been completed in this project and a final report will be prepared within a few weeks.

As shown on the attached progress map, Hole No. 3513 was drilled 170.3 feet northwesterly from 347 East drift to explore the extensions of the two veins exposed in the drift during the month of July. No significant mineralization was encountered in this hole.

Hole No. 3514 was started easterly from the east face of 347 East drift and had reached a depth of 554.0 feet by the end of the month. The first 14.9 feet of this hole completed the DMEA contract for diamond drilling.

Hole No. 3512 which was drilled southerly from 329 Southwest drift advanced 285.0 feet to a completed depth of 1006.0 feet. Logs of holes 3512 and 3513 are included with this report and the log of Hole No. 3514 will be submitted with the final report.

No. 331-A Raise from 329 Southwest drift was driven 33.0 feet to a point 124.9 feet above 3000 level and was still in ore at the end of September.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH/hdh/dv

Encs.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 8-5-58
Finished 9-11-58
Hole Size AX
Depth 1006'
% Core Rec. 87%

Mine SILVER SUMMIT
Location Polaris E. Area - 329 S. X-Cut
PE3024 + 28.0 = Collar of Hole.
Logged by M.W.H. Date 9-9-58
Drilled by Pearson, Hauser & Madsen

Hole No. SS3512
Level 3000
Grid 321
Latitude 85 497 S.
Departure 93 342 E.
Elevation -263.0
Bearing S 10° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-50.0	4.5		E5200	0 - 50	50.0			
54.0	1.0		01	55	5.0			
70.5	2.7		02	60				
80.0	1.0		03	65				
95.0	0.5		04	70				
99.0	1.0		05	75				
100.5	0.2		06	80				
102.0	1.3		07	85				
103.0	1.6	0.0' - 138.0'	08	90				
105.5	0.6	Crushed and broken lt grnish gry arg	09	95				
106.0	1.0	qtzite & lt gry qtzite. - (blchd St. Regis).	10	100				
110.0	1.5	Characterized by irreg streaks & blotches	11	105				
End Box 1		slickensided chlorite from 0.0 to 80.0.						
111.0	1.0	Some diss sid at approx 70.0.	12	110				
112.4	1.0	Core is badly broken w/much ser, gg and						
113.3	0.7	crushed rock. (HW of Polaris fault).	13	115				
114.5	1.0		14	120				
116.0	0.8		15	125				
135.0	1.2		16	130				
138.5	1.8		17	135				
			18	140				
141.9	3.4							
143.4	1.4		19	145				
145.0	1.5							
147.5	2.0		20	150				
150.0	2.5							
152.0	2.0							
End Box 2								
154.5	2.2		21	155				
156.0	1.5							
158.0	2.0							
159.4	1.2		22	160				
161.5	2.1							
163.0	1.2		23	165				
164.5	1.5							
166.7	2.0							
167.2	0.5	138.0' - 219.0'	24	170				
170.7	3.5	About equal amts grnish gry to gry arg	25	175				
171.9	1.2	qtzite & qtzite (Blchd St. Regis). Mostly						
173.4	1.5	broken w/numerous zones gg, crushed & broken						
End Box 3		rock. The larger pieces of core are hd qtzite.						
176.0	2.6	Prominent shear zones w/gg & crushed arg	26	180				
178.0	2.0	rock from 173.0 to 174.5, 181.0, 189.0, 192.0,						
181.0	3.0	195.8.						
183.0	2.0		27	185				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Area - 329 S. X-Cut

Logged by Date
Drilled by

Hole No. SS3512
Level 3000
Grid 321
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
185.0	1.4							
187.0	1.6	138.0' - 219.0' (Cont'd)						
190.5	4.4	Irreg masses diss py at 175.2.	E5228	185-190	5.0			
192.5	2.0	Badly broken core from 198.0 to 219.7.						
194.2	1.2	Large zone ggy finely brecciated rock	29	195				
196.2	2.0	from 198.2 to 201.8 & from 204.1 to 207.0.						
End Box 4		0.4 ggy zone at 218.0.						
198.0	1.8							
200.7	2.3		30	200				
203.2	2.5		31	205				
207.0	3.8							
210.2	2.8		32	210				
212.1	1.7							
215.0	2.0		33	215				
216.4	1.3							
218.2	1.4							
219.7	1.5		34	220				
End Box 5								
222.0	2.0							
226.1	3.5		35	225				
227.6	1.4							
230.0	2.3		36	230				
233.0	3.0		37	235				
238.0	4.5		38	240				
242.5	4.5		39	245				
End Box 6			40	250				
247.7	4.3							
249.1	1.3		41	255				
253.5	3.9		42	260				
257.5	3.7		43	265				
263.0	4.2		44	270				
266.0	3.2							
268.0	2.0		45	275				
End Box 7								
274.0	5.6							
276.0	2.0							
278.0	2.0		46	280				
283.0	4.8		47	285				
287.0	3.9	219.0' - 376.0'						
291.0	4.0	Hd lt gry qtzite, some grnish arg qtzite.	48	290				
294.7	3.5	Small fractures in the qtzite have pencil	49	295				
End Box 8		line streaks of py 222.0 to 227.0						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris E. Area - 329 S. X-Cut

Logged by
Date
Drilled by

Hole No. SS3512
Level 3000
Grid 321
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
301.0	5.8		E5250	295-300	5.0			
302.5	1.4		51	305				
305.0	2.8	219.0' - 376.0' (Cont'd)	52	310				
313.5	7.0	Very good core.	53	315				
319.5	6.0	Some qtzite is very lt gry w/some diss	54	320				
End Box 9		sid.						
322.5	3.0	Fault w/½" gg at 286.9.	55	325				
326.4	3.9							
328.3	1.5		56	330				
331.5	3.2							
334.8	3.3		57	335				
340.7	4.1		58	340				
349.5	8.8		59	345				
End Box 10			60	350				
356.4	6.9		61	355				
360.9	4.3		62	360				
370.5	8.6		63	365				
377.7	7.0		64	370				
End Box 11			65	375				
			66	380				
386.7	9.0		67	385				
394.2	7.1		68	390				
End Box 12			69	395				
404.0	9.4		70	400				
408.2	4.0		71	405				
412.0	3.3		72	410				
413.5	1.0		73	415				
415.6	2.0		74	420				
419.1	3.5		75	425				
422.8	3.7		76	430				
425.2	2.3		77	435				
427.8	2.5							
End Box 13			78	440				
434.3	6.1		79	445				
443.0	8.7	376.0' - 559.7'						
447.0	3.8	Mostly hd lt gry qtzite - some grnish and	80	450				
449.5	2.5	lt gry arg qtzite zones. From 407.0 to 413.5 is	81	455				
End Box 14		quite broken w/parts showing semi-brecciation	82	460				
459.5	9.5	and slickensides. Qtzite appears finely striped	83	465				
466.7	7.2	and somewhat mottled from 465.0 to 475.0.						
470.8	4.1	Small slip at 392.5.	84	470				
473.1	2.1		85	475				
End Box 15								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Area - 329 S. X-Cut

Logged by Date
Drilled by

Hole No. SS3512
Level 3000
Grid 321
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description
482.9	9.6	
492.4	9.5	376.0' - 559.7' (cont'd)
502.0	9.1	2" sid w/silicification at 411.8.
End Box 16		Broken wht qtz w/diss sid and broken
511.9	9.1	qtzite from 412.0 to 413.5.
520.0	8.0	3" wht qtz w/diss sid at 413.2.
527.2	7.2	Small strgrs qtz w/sid more or less paral
End Box 17		hole at 448.5.
536.6	9.4	
542.3	3.5	
551.6	9.3	
559.7	8.0	
End Box 18		
568.4	8.5	
571.0	2.5	559.7' - 588.5'
580.5	9.4	Blchd lt grnish gry to nearly wht qtzite.
End Box 19		Occasional band nearly pure quartz.
588.5	8.0	
594.4	5.9	
598.0	3.5	
600.3	2.2	
602.0	1.7	588.5' - 671.0'
605.0	3.0	Mostly lt gry blchd St. Regis quartzite.
607.0	1.9	Few tan bands with diss sid - occasional
End Box 20		thin gry to purp arg bands 594 to 612.
614.8	7.8	Slip at 617.0.
617.0	2.0	Very lt gry quartzite 648 to 671 with
623.5	6.3	bands quartz at 649, 650, 652, 655 and 669
632.6	9.1	to 670.5.
End Box 21		
641.3	8.7	
646.5	5.2	
655.7	9.0	
665.3	9.6	
675.3	10.0	
End Box 23		
684.0	8.6	671.0' - 695.7'
689.0	4.9	Blchd med gry, more arg qtzite.
695.7	6.6	Numerous thin tan bands with diss sid.

Sample Data

No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
E5286	475-480	5.0			
87	485				
88	490				
89	495				
90	500				
91	505				
92	510				
93	515				
94	520				
95	525				
96	530				
97	535				
98	540				
99	545				
5300	550				
01	555				
02	560				
03	565				
04	570				
05	575				
06	580				
07	585				
08	590				
09	595				
10	600				
11	605				
12	610				
13	615				
14	620				
15	625				
16	630				
17	635				
18	640				
19	645				
20	650				
21	655				
22	660				
23	665				
24	670				
25	675				
26	680				
27	685				
28	690				
29	695				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Area - 329 S. X-Cut

Logged by Date
Drilled by

Hole No. SS3512
Level 3000
Grid 321
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
704.3	8.6		E5330	695-700	5.0			
711.0	6.7		31	705				
End Box 24		695.7' - 760.0'	32	710				
720.3	9.3	Blchd lt gry to lt tan qtzite - abundant	33	715				
729.4	9.0	diss sid - few dker gry argillaceous bands.	34	720				
739.1	9.6	8" qtz, small amt py at 700.	35	725				
741.0	1.8	Slips with some wht gg at 704.3.	36	730				
End Box 25		6" qtz at 721.	37	735				
750.6	9.5		38	740				
755.0	4.3		39	745				
765.0	9.9		40	750				
End Box 26			41	755				
		760.0' - 774.0'	42	760				
		Altered grnish arg qtzite and tan qtzite	43	765				
774.3	9.1	bands. Some thin beds.	44	770				
		Slips at 763, 765 and 771.	45	775				
			46	780				
779.3	4.9		47	785				
788.6	9.2	774.0' - 821.0'	48	790				
793.8	4.8	Blchd lt gry to tannish qtzite - occas	49	795				
End Box 27		lt bluish more arg bands.	50	800				
798.9	5.2	Scattered diss py with some sidtzation	51	805				
807.0	8.1	773-774.	52	810				
816.4	9.4	Slip at 792 to 793.	53	815				
821.2	4.7	Slip zone 820 to 821.	54	820				
End Box 28			55	825				
			56	830				
829.5	8.2		57	835				
836.2	6.7		58	840				
841.1	4.8		59	845				
848.0	6.8	821.0' - 901.0'	60	850				
End Box 29		Blchd lt gry and lt gry grn qtzite, rather	61	855				
857.3	9.2	massive. Occas tan sidtzed band.	62	860				
859.6	2.2	Fault zone 847-848.	63	865				
869.0	9.3	Slip at 865 and 875.	64	870				
End Box 30			65	875				
875.3	6.2		66	880				
881.0	5.7		67	885				
891.0	10.0		68	890				
901.0	9.8		69	895				
End Box 31			70	900				
		901.0' - 906.0'	71	905				
906.6	5.6	Lt to med gry arg qtzite.	72	910				
		Slip at 904.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Area - 329 S. X-Cut

Logged by Date
Drilled by

Hole No. SS3512
Level 3000
Grid 321
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
915.0	8.4		E5373	910-915	5.0			
924.1	9.1		74	920				
End Box 32		906.0' - 1006.0'	75	925				
934.5	10.0	Blchd lt gry and tannish qtzite - rather	76	930				
940.0	5.5	massive small streaks sid paral to core	77	935				
944.0	4.0	924-925.	78	940				
952.9	8.8	6" irreg sid, small amt py at 924.	79	945				
End Box 33		Two inch strgr same 924.5 to 925.	80	950				
961.8	8.8	Slips at 940 & 944.	81	955				
969.5	7.7	More bluish arg bands 961 to end of hole.	82	960				
979.5	10.0	Slips at 998 and 1006.	83	965				
End Box 34			84	970				
986.9	7.3		85	975				
993.0	7.0		86	980				
998.0	5.0		87	985				
1006.0	7.8		88	990				
End Box 35			89	995				
			90	1000				
			91	1006	6.0			
		END OF HOLE						

Note: All sludge assays are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 9-11-58
Finished 9-17-58
Hole Size EX
Depth 170.3
% Core Rec. 93%

Mine SILVER SUMMIT
Location Polaris East Exploration Drift PE3025 + 30.0 East.
Logged by P.E.H. Date 9-25-58
Drilled by Madsen and Hauser

Hole No. 3513
Level 3000
Grid 359
Latitude 85 612 S.
Departure 95 240 E.
Elevation -257.0
Bearing N 28° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-3.0	3.0							
7.4	4.4		E5392	0 - 10	10.0			
11.2	3.8	0.0' - 33.4'	93	15	5.0			
14.2	3.0	Gry qtz w/diss sid and occas small strgr						
18.9	4.6	of sid.	94	20				
22.1	2.6	Broken near 22.0, probable fault.						
25.7	3.4		95	25				
28.8	3.1							
33.4	3.8		96	30				
End Box 1			97	35				
37.3	3.9							
42.2	4.8	33.4' - 37.0'	98	40				
47.1	4.8	Arg gry qtzite.	99	45				
50.7	2.9		5400	50				
55.3	3.9		01	55				
60.3	4.2		02	60				
62.1	1.2							
64.1	1.7		03	65				
67.5	3.4							
69.0	1.6		04	70				
73.0	4.0							
End Box 2								
75.2	2.0		05	75				
78.2	2.8		06	80				
82.8	4.3		07	85				
87.5	4.7		08	90				
92.2	4.5		09	95				
97.2	4.9							
100.0	2.6	37.0' - 170.3'	10	100				
103.3	3.3	Gry qtz w/diss sid and occas tiny strgrs	11	105				
107.0	3.7	of py and sid.	12	110				
End Box 3		1" sid at 62.2.						
111.8	4.6	Broken near 55.3, 64.1, 82.8, 111.8, 136,	13	115				
114.1	2.3	137.5, 142.3, 152, 155.4, and 170; probable	14	120				
119.0	4.3	small faults.	15	125				
123.6	4.6							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris East Exploration

Logged by Date
Drilled by

Hole No. 3513
Level 3000
Grid 359
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
128.4	4.8							
130.4	1.6		E5416	125-130	5.0			
131.7	1.3	37.0' - 170.3' (Cont'd)	17	135				
136.0	4.1	Heavily pyritized from 156.0 to 156.7.	18	140				
137.5	1.1							
142.3	4.7		19	145				
End Box 4								
147.0	4.7		E5420	145-150	5.0			
150.0	2.3							
151.4	1.4							
152.8	1.4							
155.4	1.0		21	155				
158.4	2.2		22	160				
161.1	2.5		23	165				
165.0	4.4		24	165-170.3	5.3			
170.3	4.5							
End Box 5								
		END OF HOLE						

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 18 1958

DATE	INITIALS	CODE
11/18	H.G.	225
		100
		110
11/18		800
11/19		500

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

1201 N. Division St.
Spokane 2, Washington

October 29, 1958

MEMORANDUM

To: OME Field Team, Region I

From: John D. Bardill, Bureau of Mines

Subject: Final inspection report, Docket No. DMEA-2879 (lead-zinc-copper-antimony), Polaris Mining Company, Polaris East Exploration Project, Shoshone County, Idaho, Amended Contract No. Idm-E541

A final inspection of this project was made September 24, 1958, accompanied by R. D. Sample, geologist, U. S. Geological Survey, and M. H. Hutchinson, company geologist.

The 347 east drift had been completed to a point 310 feet east of survey point 3020. Two diamond drill stations were excavated at the end of the drift, 361 north and 361 south crosscuts.

DDH-3508 was drilled flat to a depth of 88.3 feet, bearing N. 6° W. from a point near PE3012 + 132 ft. Sludge samples from 5 to 10 feet assayed 13.8 ounces silver, 22.3 ounces from 10 to 15 feet, and 18.1 ounces from 55 to 60 feet. The 347 east drift explored the section between 5 and 15 feet which was found to be a 7-foot pod which faded out going east.

DDH-3509 was drilled flat to a depth of 171 feet, bearing N. 37° E. from the same set-up as hole 3508. This hole showed several mineralized stringers but nothing significant.

DDH-3510, drilled horizontally to a depth of 201.1 feet and bearing N. 20° W. from the 347 east drift at PE3020 + 13.0 ft., showed only scattered stringers with minor amounts of tetrahedrite.

DDH-3511 drilled horizontally from PE3018 + 21 ft. to a depth of 113 feet, bearing N. 30° W., also showed insignificant mineralization.

DDH-3513 drilled flat from PE3025 + 30 ft., bearing N. 27° W. to a depth of 170.3 feet, was also a blank.

DDH-3514, also being drilled horizontally from the east end of the 247 east drift, had reached a depth of 554 feet at the end of September.

The company plans three long holes from the end of the drift; one each north, east and south.

The following company measurements were checked:

Southeast Crosscut

Previously reported to PE3011		293.16 ft.
PE3011 to PE3012	S 37° 08' E	259.52 "
PE3012 to face	S 38° 21' E	170.20 "
		722.88 ft.
Less distance from PE3099 to starting point		40.30 "
		682.58 ft.

347 East Drift

PE3014 to PE3016	S 82° 56' 30" E	48.35 ft.
PE3016 to PE3018	S 89° 56' E	190.76 "
PE3018 to PE3019	S 80° 17' E	35.52 "
PE3019 to PE3020	S 72° 00' E	117.14 "
PE3020 to face	S 70° 22' E	310.00 "
		701.77 ft.
Less distance from center of drift to start of crosscut		2.50 "
		699.27 ft.

Total 347 East drift and crosscut	1381.85 ft.
East drift (Amendment No. 1 to Amended Contract)	1118.43 ft.

Operator cut diamond drill stations and two short crosscuts for company account.

Diamond drilling

Previously reported through DDH SS-3507	4241.4 ft.
SS-3508	88.3 "
SS-3509	171.0 "
SS-3510	201.1 "
SS-3511	113.0 "
SS-3513	170.3 "
SS-3514	554.0 "
	5539.1 ft.

Final status of the contract at the completion of the work was:

Date of contract: June 3, 1953
Amended date: November 1, 1953
Termination date: November 1, 1958
Amount of contract: $873,840.00
Amount spent: 868,888.52 (thru July '58 and subject to audit)
(previous audit covered period of June 3, 1953 to February 28, 1955)

Stage I	Authorized	Completed to Feb. 28, 1955 *
Drifting	9,225 ft.	5,308.7 ft.
Crosscutting	1,500 ft.	218.5 ft.
Sideswiping	1,560 ft.	753.2 ft.
Raising	330 ft.	324.1 ft.
Diamond drilling	15,200 ft.	2,452.7 ft.

*Audit dated September 2, 1955, by C. A. Turner, DMEA Auditor, was for the period June 3, 1953 to February 28, 1955.

Stage I	Authorized **	Completed thru June 1957 ***
Drifting and/or crosscutting	11,618.4 ft.	11,618.4 ft. ✓
Sideswiping	1,175 ft.	1,175 ft. ✓
Raising	330 ft.	324.1 ft. ✓
Diamond drilling	19,788 ft.	19,788 ft. ✓

**Authorized under Amendment No. 4, dated December 7, 1956.
***Includes footages completed to February 28, 1955 and covered in DMEA audit of September 2, 1955.

Stage II	Authorized	Completed
3000 level East drift	1,120.30 ft.	1,118.43 ft.
347 East drift and crosscut	1,379.7 ft.	1,381.85 ft.
Sideswiping	100 ft.	100 ✓ ft.
Diamond drilling	5,000 ft.	5,539.1 ft.

DMEA ore mined from May 1954 through July 1958

10,857 tons averaging 18.46 oz. Ag/ton, 0.49% Cu

Distribution:
OME (4)
USGS (2)
USBM (AD)
Docket
Bardill

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED
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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1958 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)

Address Box 320 - Wallace, Idaho

Contract Amount, $ ~~147,000.00~~ ~~$873,840.00~~ Government Participation: 50 % Amount, $ ~~73,500.00~~ ~~436,920.00~~

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
Stage II				11/26/58	ORPK	
(1) Independent Short Form Contracts:						
Drilling Core 314.1 @ $4.50	$ 1413.45	$ 20253.15	$ 21666.60	1413.45	20253.15	21666.60
Bulldozing						
Crosscutting		37853.28	37853.28		37853.28	37853.28
Drifting 129.2 @ $48.78	6302.38	73677.32	79979.70	6302.38	73677.32	79979.70
Sideswipe		2550.00	2550.00		2550.00	2550.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I					72683.894	72683.894
TOTALS	$ 7715.83	$ 134333.75	$ 142049.58	7715.83	861172.69	868888.52

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 8-6-58 *Payee Polaris Mining Company

Per John R. Martin Title Secretary

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 385792

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 11/4/58 Vou. No. 2242
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 541 in accordance with the terms of the contract.

Signature /s/ John D. Bardill Title Metallurgist Date Nov 3, 1958

APPROVAL BY ~~DMEA~~ DME EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Nov 3, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

RECEIVED
NOV 10 1958
D.M.E.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Stage II

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1958 Docket No. DMEA 2879
Contract No. VDM-E541
Operator's Name Polaris Mining Company
Address Box 320 - Wallace, Idaho
Minerals Copper, Lead, Antimony (and incidental Silver)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet	$ 6302.38	129.2	$ 79979.70	1639.6	$ 48.78	2500	$ 48.78*
Crosscutting				37853.28	776.0			
Raising								
~~xxxxx~~ Sideswipe	"			2550.00	100.0	25.50	100	25.50*
Winzes								
Drilling: Core	"	1413.45	314.1	21666.60	4814.8	4.50	5000	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		7715.83		142049.58				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 8-6-58 Operator Polaris Mining Company

Per John R. Matthews Title Secretary

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

REMARKS:

(For Government use only)

*Maximum allowed by contract

/s/ John D. Bardill

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. Box 320
WALLACE, IDAHO

August fifth
1958

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
July - 1958
Docket No. DMEA - 2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of July included 280.2 feet of drifting, 9.0 feet of crosscutting and 339.1 feet of diamond drilling. 129.2 Feet of the drifting and 314.1 feet of the drilling were done toward completing the DMEA contract.

The 347 East drift was advanced 129.2 feet to station PE3020 plus 224.8 feet, leaving 84.4 feet yet to be driven under the DMEA contract. As shown on the attached 50-scale progress maps, two small north and northeasterly striking siderite-tetrahedrite veins were exposed. The best assay obtained was 0.3 feet of 487.0 ounces silver and 7.04 percent copper from the most easterly of these two veins.

Two diamond drill holes were driven northwesterly from 347 East drift. Hole No. 3510 was drilled to a depth of 201.1 feet and No. 3511 to 113.0 feet. These holes showed only small scattered siderite stringers with minor amounts of tetrahedrite. The logs of both holes are included with this report.

The 329 Southwest drift was continued after crosscutting an additional 9.0 ft. northwesterly in an effort to expose the offset portion of the vein previously followed in this drift. The drift advanced 150.8 feet and was stopped after having passed through a strong fault structure which is presumed to be the Polaris fault. A diamond drill hole (No. 3512) has now been started to explore the area to the south of this fault. It had reached a depth of 25 feet by the end of July.

No. 331-A raise was started from 329 Southwest drift at a point approximately 65 feet north of 331-B raise to facilitate the mining of the ore in the 331-B to 331-A section. This raise had been driven 30.6 feet by the end of the month.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH/hdh/dv
Encs.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 7-10-58
Finished 7-16-58
Hole Size EX
Depth 201.1
% Core Rec. 94.8%

Mine SILVER SUMMIT
Location Pol. E. Expl. Dr. - 347 E. Dr.
PE3020 + 13.0 W.
Logged by J.H.J. Date 7-24-58
Drilled by Pearson and Hauser

Hole No. 3510
Level 3000
Grid 355
Latitude 85 530 S.
Departure 95 015 E.
Elevation -257
Bearing N 20° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	5.0		E5136	0 - 5	5.0			
9.7	4.3							
11.5	1.8	0.0' - 68.0' Relatively hd bluish gry qtzite	37	10		0.7		
14.8	3.0	w/much diss sid and py and w/numerous sid	38	15		1.9		
19.3	4.3	strgrs and pods and masses py. Many small	39	20		0.4		
21.0	1.6	irreg sid strgrs thruout.						
24.5	3.2	¼" strgrs sid w/py at 8.6, 14.0, 20.2 24.8	40	25		1.3		
27.4	2.8	and 26.5.						
29.5	2.1	Small slips at 14.6, 20.6 & 21.3.	41	30		0.2		
31.5	2.0	1" irreg sid w/py at 25.1.						
33.8	2.2	1" irreg sid w/py paralleling hole at 32.6.						
End Box 1		¼" sid at 46.5, 47.2.						
36.1	2.3	Fault at 48.1.	42	35		0.4		
40.8	4.7	Larger irreg strgrs sid w/py and some	43	40		0.1		
45.5	4.7	tetra more or less paralleling the hole	44	45				
47.5	2.0	occur at 48.9, 53.0 and 57.0.						
49.4	1.8	9" massive py w/pods sid at 67.8.	45	50		0.1		
52.0	2.5							
55.0	2.9							
60.0	4.8		46	55		0.8		
62.2	2.2		47	60		1.2		
67.7	5.2							
End Box 2			48	65		0.5		
72.7	4.0	68.0' - 76.7' About equal amts grnish gry	49	70		0.2		
74.5	1.8	arg qtzite and lt gry qtz, some tan appearing	50	75		0.1		
77.3	2.9	due to diss sid. Some small strgrs py, some						
		diss.						
		Fault at 70.4.						
79.7	2.2		51	80				
81.7	1.7	76.7' - 81.7' Bluish & lt gry qtzite w/diss						
		py and occasional sid strgrs to 81.7.						
83.0	1.3	4" massive but diss py w/several sid strgrs	52	85		0.1		
86.0	2.4	at 80.7.						
90.0	3.9		53	90				
94.5	4.2	81.7' - 109.2' Lt gry qtzite and arg qtzite	54	95				
98.0	3.3	with some bands diss sid.	55	100				
103.0	4.8							
End Box 3			56	105		0.2		
105.5								
107.0	1.5		57	110		0.2		
109.2	1.6							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Pol. E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3510
Level 3000
Grid 355
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
111.3	2.0	109.2' - 122.0' Hd bluish and lt gry qtzite	E5158	110-115	5.0			
113.3	2.0	w/much diss py and numerous small sid strgrs.						
114.2	0.9	4" sid w/py and traces of tetra at 116.7.						
122.2	7.7	Much diss py, some massive from 116.4 to 121.7 - Some white qtz and tetra (?).	59	120		0.6		
124.0	1.7		60	125				
126.6	2.2							
129.9	3.3		61	130				
132.8	2.5							
135.4	2.6	122.0' - 147.9' Hd lt gry qtzite - some	62	135		0.4		
138.9	3.5	mottled due to diss sid occasional pod or						
End Box 4		zone diss py.						
140.4	1.4		63	140				
145.1	3.6		64	145				
147.9	2.8							
149.6	1.6		65	150		0.2		
154.5	4.9	147.9' - 201.1' Very lt gry & lt bluish gry	66	155		0.1		
158.0	3.3	qtzite w/more or less broken core that appears						
161.0	2.9	to have been somewhat shattered in certain	67	160		0.2		
164.8	3.7	places which have subsequently been filled	68	165				
166.8	1.6	w/py, white qtz & traces of tetra - core is						
167.3	0.5	good from 169.0.						
169.6	2.3	Broken wht qtz w/numerous pods and strgrs	69	170				
174.1	4.4	py and pods sid from 148.6 to 149.6.						
End Box 5		2" fractured wht qtz w/py strgrs at 150.7.						
176.0	1.9	Many irreg py strgrs in fractured qtzite	70	175				
179.3	3.1	from 147.9 to 154.9.	71	180				
181.3	1.9	6" broken wht qtz & qtzite at 165.9.						
184.3	3.0	Fault w/gg at 154.2.	72	185				
186.7	2.3	Small sid strgrs occur sparsely throughout						
191.7	4.8	the rock to 201.1.	73	190				
194.5	2.8	1" massive (diss) py at 187.1.	74	195				
197.5	3.0	Fault w/somewhat brecciated qtzite - some						
201.0	3.4	qtz and gg at 187.0.	75	200				
End Box 6		Zone softer arg rocks w/py from 178.5 to 190.7 interbedded w/qtzite.						

END OF HOLE

Note: All sludge assays are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

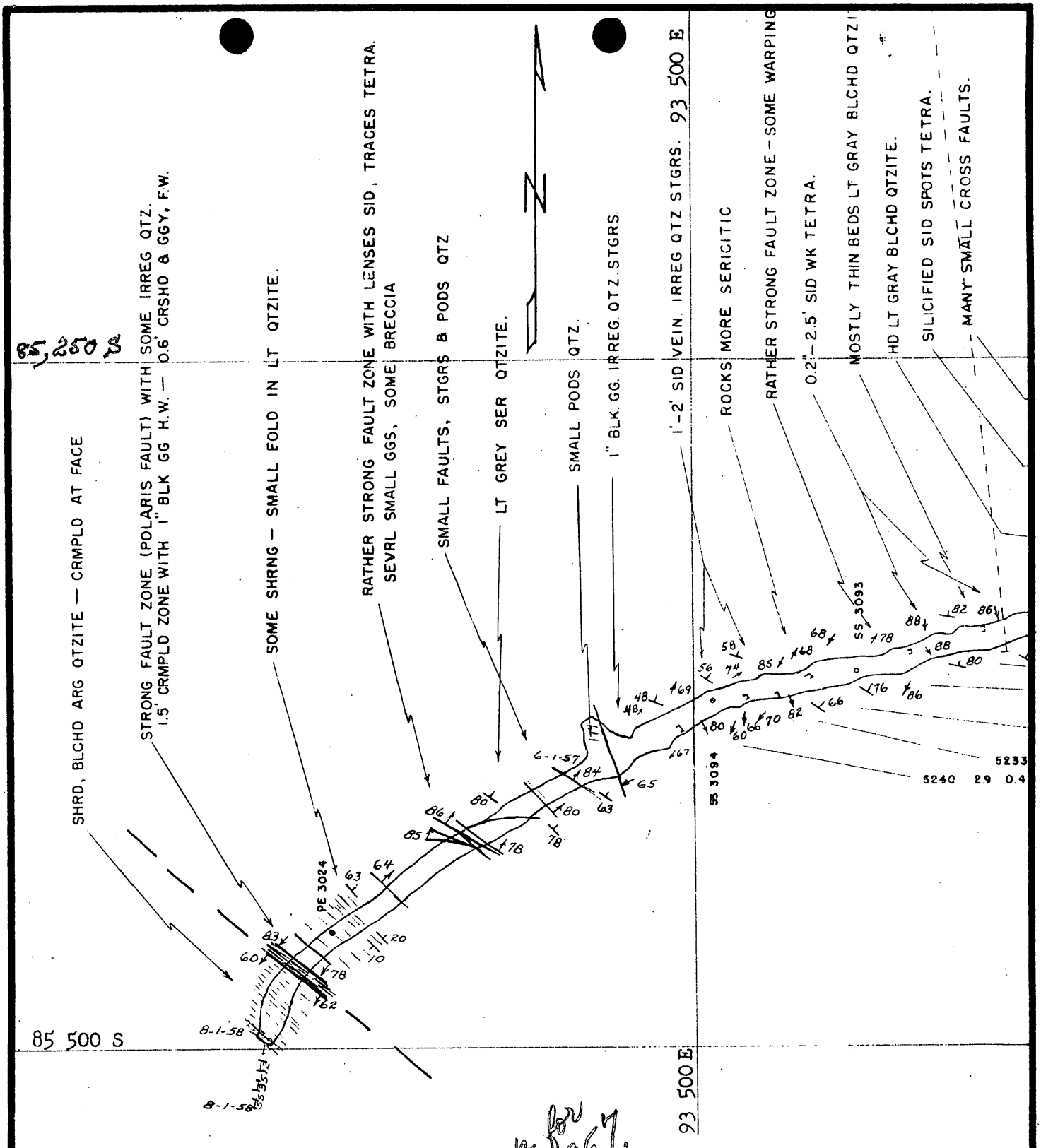
Started 7-17-58
Finished 7-22-58
Hole Size EX
Depth 113.0
% Core Rec. 94%

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr. - 347 E
P.E. 3018 + 21.0 E.
Logged by J.H.J. Date 7-30-58
Drilled by Pearson and Hauser

Hole No. 3511
Level 3000
Grid 351
Latitude 85 490 S
Departure 94 857 E
Elevation -257
Bearing N 30° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-3.0	3.0							
6.0	2.9		E5176	0 - 5	5.0	1.1		
7.5	1.3	0.0' - 41.7' Lt and med gry qtzite somewhat						
11.5	3.1	sericitic w/many small sid strgr, some diss	77	10				
12.8	1.0	py and sid - Occasional veinlet wht qtz.						
13.8	0.9							
16.8	2.9	1.0 sid w/qtz some tetra from 4.4 to 5.4.	78	15		2.4		
19.0	2.0	0.5 sid w/qtz some tetra at 12.5.						
21.0	2.0	¼" sid w/py & tetra at 19.8.	79	20				
22.2	1.1	Several sid strgrs w/py and tetra at 31.0.						
22.8	0.5							
23.3	0.9	2" zone diss py some sid at 34.7.						
25.6	1.8	½" sid w/py at 41.2.	80	25				
28.3	2.4							
30.5	2.2		81	30				
End Box 1 32.3	1.8							
34.6	2.1							
35.0	0.4		82	35				
40.0	4.9		83	40				
42.0	1.9							
47.0	5.0		84	45		1.2		
48.0	1.0	41.7' - 113.0' Lt bluish gry qtzite w/much						
49.4	1.4	py and many strgrs sid. Some wht qtz. Very	85	50		1.0		
51.0	1.5	few sid strgrs from 89.0 to end.						
54.3	3.3							
55.3	1.0	2" sid w/py at 45.8.	86	55				
59.0	3.6	½" sid & py at 47.8.						
60.6	1.6	½" wht qtz at 46.7.	87	60				
End Box 2 65.6	5.0	Very many small irreg sid strgrs and mass	88	65		2.2		
69.0	3.0	& diss py from 51.8 to 67.5.						
70.2	1.2		89	70				
72.0	1.6	5" zone sid py and qtz at 57.7.						
73.8	1.6	3" mass py at 59.8.						
74.7	0.8	1" sid w/py at 61.5.	90	75				
76.0	1.2	2" wht qtz, sid, py and tetra at 64.0.						
77.4	1.0	3" mass py w/sid at 64.4.						
78.3	0.8							
79.5	1.0	14" broken sid, py and wht qtz (some wall-	91	80		1.9		
82.0	1.8	rock mix with mineralization) at 66.0.						
85.0	3.0	2" sid, qtz, py and pods chalco and tetra.	92	85				
89.2	4.3	at 72.8 and 73.5.						
92.5	2.9	6" sid, qtz, and tetra at 74.7.						
96.0	3.2		93	90		1.7		
End Box 3 101.5	5.0	2" sid, qtz and tetra pods at 75.6.	94	95				
105.8	4.3	8" sid qtz and fair tetra at 87.0.	95	100				
106.0	0.2	1" sid at 95.4.	96	105				
109.3	3.3		97	110				
113.0	3.6		98	113	3.0			
		END OF HOLE						

FORM 127 1M 7-55



See note for Author 1957.

Triangle Project

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' August 1, 1958

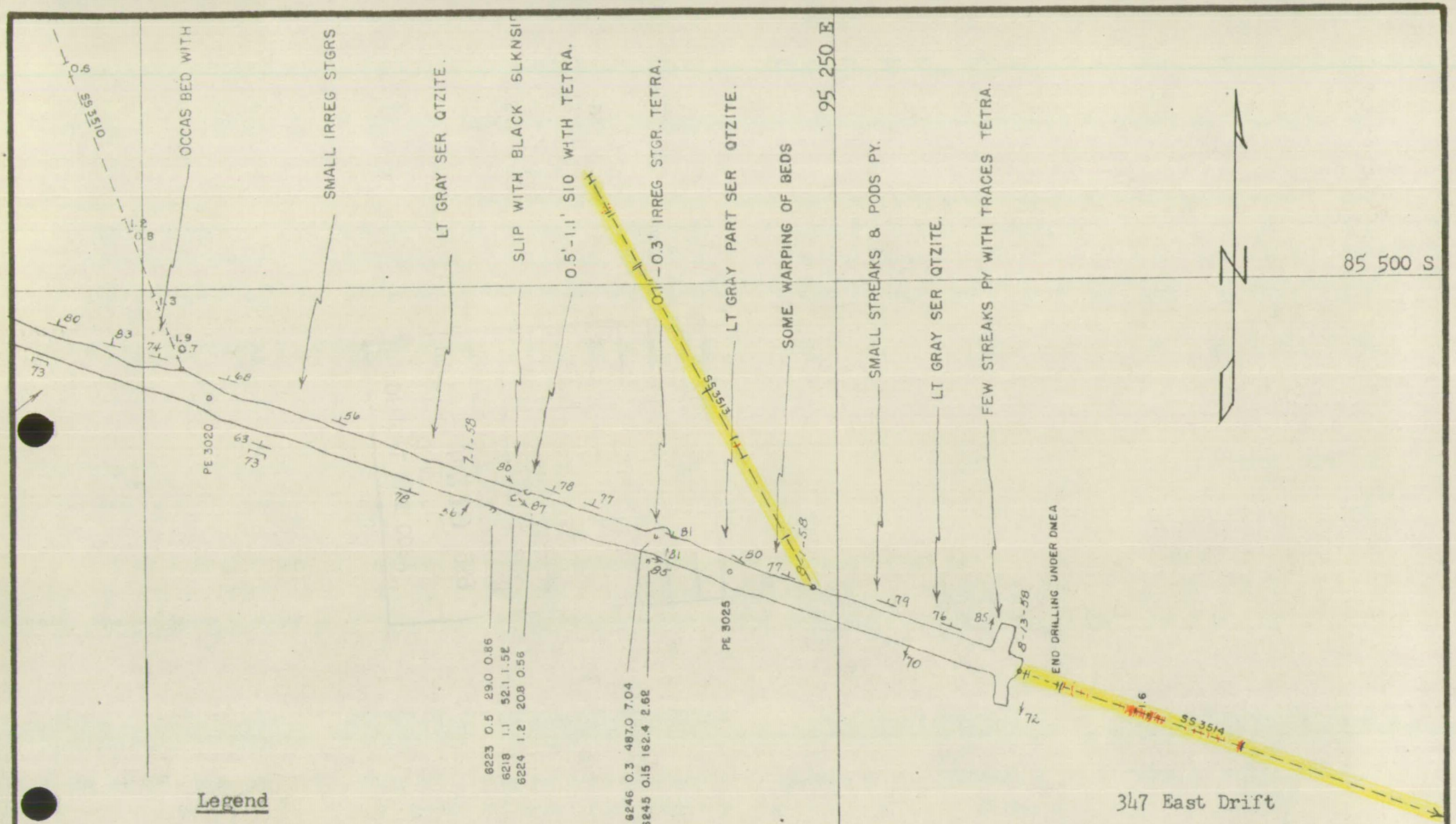
Geology by J. H. J.

Legend

- Bleached rocks
- Unbleached St. Regis formation
- 80 Strike and dip of sulfide veins
- 78 Strike and dip of non-sulfide veins
- 75 Strike and dip of faults
- 81 Strike and dip of beds
- 85 Strike and dip of overturned beds
- 70 Strike and dip of cleavage

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 12 1958

DATE	INITIALS	CODE



Legend

- Bleached rocks
- Unbleached St. Regis Formation
- Strike and dip of sulfide veins
- Strike and dip of non-sulfide veins
- Strike and dip of faults
- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of cleavage

347 East Drift

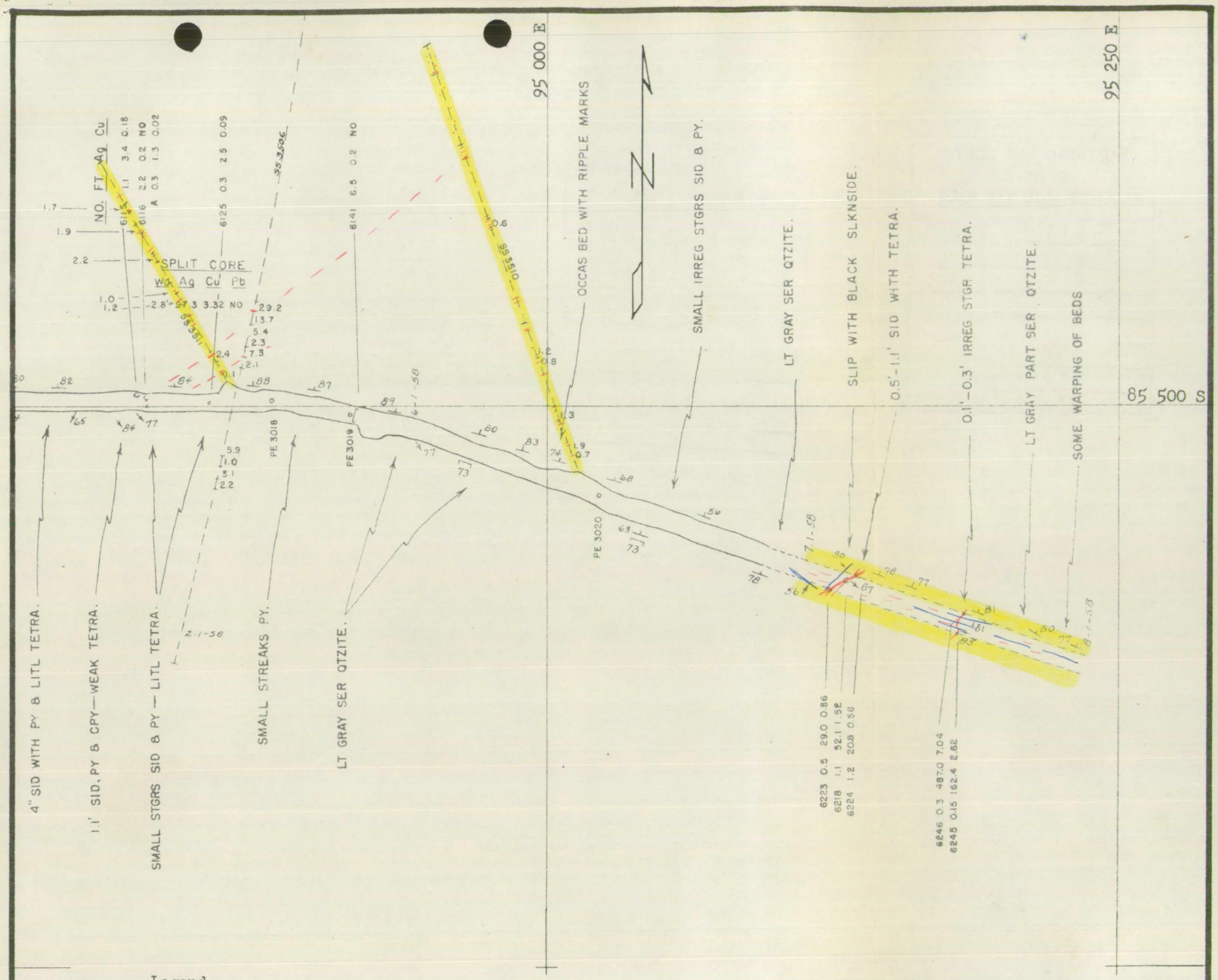
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' October 1, 1958

Geology by J.H.J.

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 19 1959

DATE	INITIALS	CODE



Legend

- Bleached rocks
- Unbleached St. Regis Formation
- Strike and dip of sulfide veins
- Strike and dip of non-sulfide veins
- Strike and dip of faults
- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of cleavage

347 East Drift

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' August 1, 1958

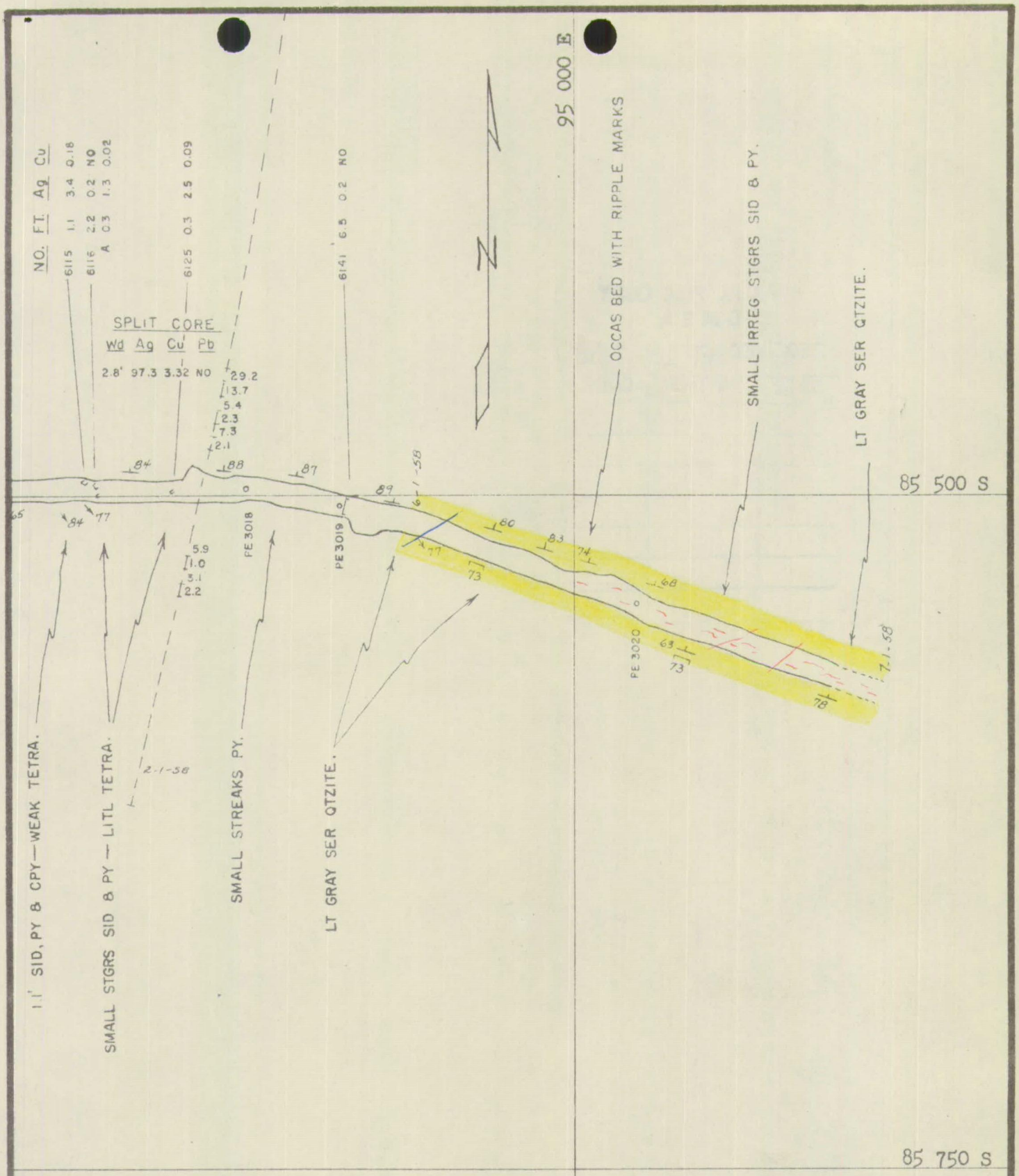
Geology by J.H.J.

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 12 1958

DATE	INITIALS	CODE

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 12 1958

DATE	INITIALS	CODE



Legend

- Bleached rocks
- Unbleached St. Regis Formation
- 80 Strike and dip of sulfide veins
- 78 Strike and dip of non-sulfide veins
- 75 Strike and dip of faults
- 82 Strike and dip of beds
- 85 Strike and dip of overturned beds
- 70 Strike and dip of cleavage

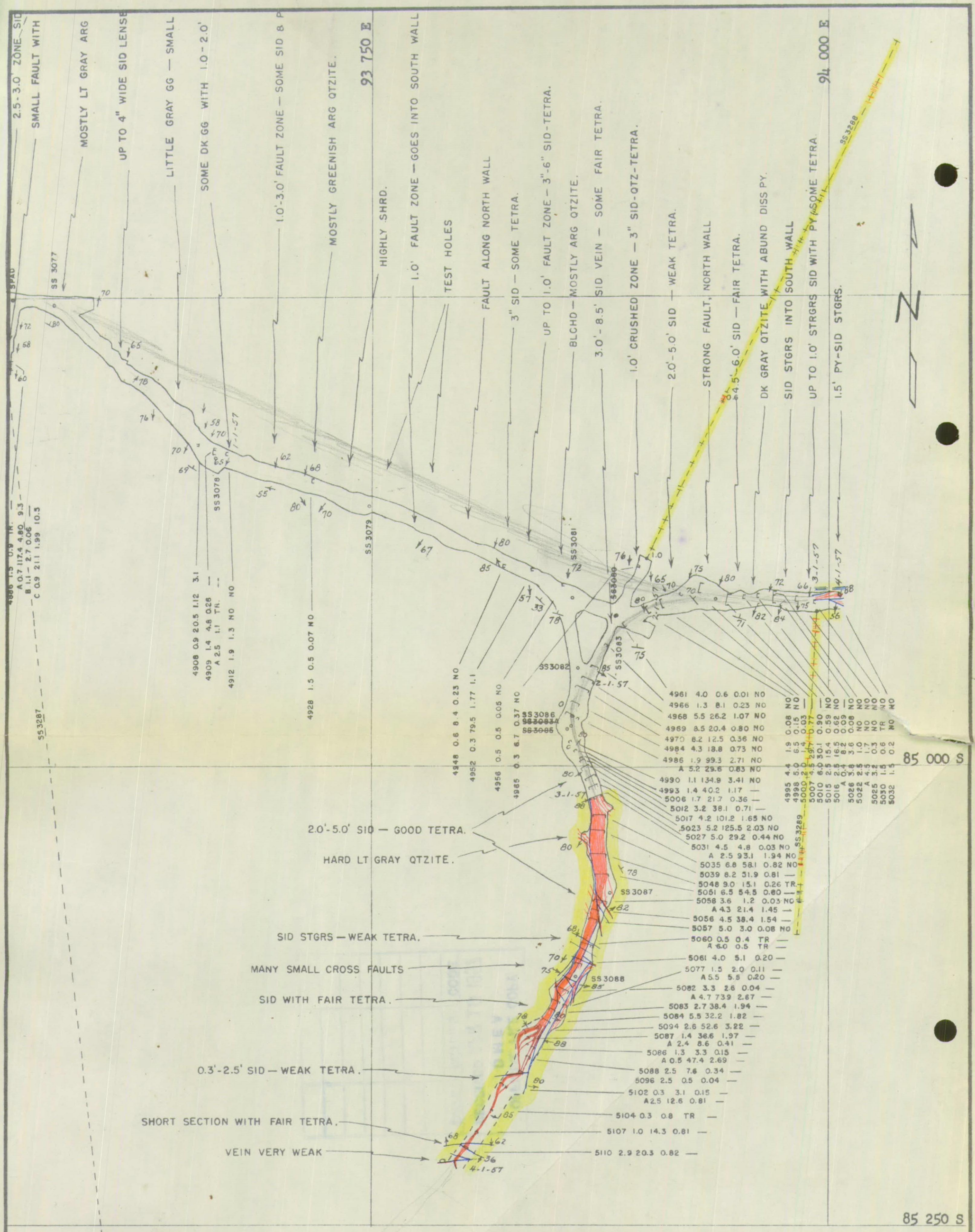
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' July 1, 1958

Geology by J.H.J.

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 18 1958

DATE	INITIALS	CODE



Legend

- Bleached Rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 70 Strike and dip of faults
- 83 Strike and dip of beds
- 81 Strike and dip of overturned beds
- 60 Strike and dip of cleavage

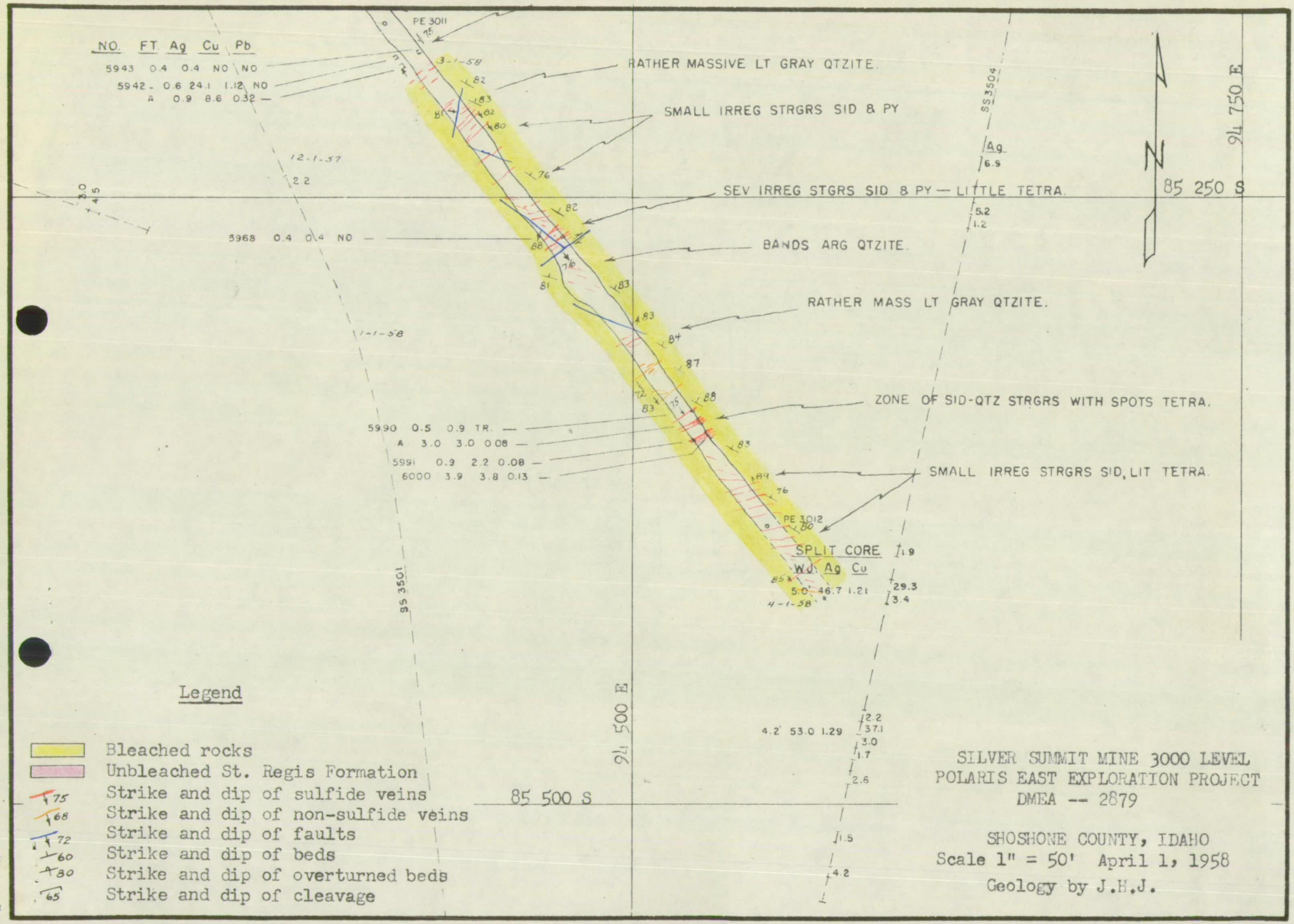
Plotted

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' April 1, 1957
Geology by J.G.S. & R.A.L.

OFFICIAL FILE COPY
D M E A
RECEIVED APR 19 1957

DATE	INITIALS	CODE


NO. FT. Ag Cu Pb
5943 0.4 0.4 NO NO
5942 0.6 24.1 1.12 NO
A 0.9 8.6 0.32
5968 0.4 0.4 NO
5990 0.5 0.9 TR.
A 3.0 3.0 0.08
5991 0.9 2.2 0.08
6000 3.9 3.8 0.13
PE 3011
PE 3012
RATHER MASSIVE LT GRAY QTZITE.
SMALL IRREG STRGRS SID & PY
SEV IRREG STGRS SID & PY — LITTLE TETRA.
BANDS ARG QTZITE.
RATHER MASS LT GRAY QTZITE.
ZONE OF SID-QTZ STRGRS WITH SPOTS TETRA.
SMALL IRREG STRGRS SID, LIT TETRA.
SPLIT CORE
W.D. Ag Cu
5.0' 46.7 1.21
4.2' 53.0 1.29
SS 3504
SS 3501
Ag
94 750 E
94 500 E
85 250 S
85 500 S
Legend
Bleached rocks
Unbleached St. Regis Formation
Strike and dip of sulfide veins
Strike and dip of non-sulfide veins
Strike and dip of faults
Strike and dip of beds
Strike and dip of overturned beds
Strike and dip of cleavage
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879
SHOSHONE COUNTY, IDAHO
Scale 1" = 50' April 1, 1958
Geology by J.H.J.

EXTRA COPY
D M E A
RECEIVED APR 28 1958

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane 4, Washington

September 26, 1958

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 7 1958

DATE	INITIALS	CODE
10/7	C	220
7	Comm	100
8	[illegible]	110
10/9	[illegible]	800
		500

MEMORANDUM

To: OME Field Team, Region I

From: R. D. Sample, Geologist, U. S. Geological Survey

Subject: Final Geologic Inspection Report, Docket No. DMEA-2879 (Lead-Zinc), Polaris Mining Company, Polaris East Exploration Project (Silver Summit Mine), Shoshone County, Idaho, Contract No. Idm-E541

An inspection of the above property was made jointly with John D. Bardill, Engineer, Bureau of Mines, on September 24, 1958. Mr. M. H. Hutchinson, geologist for the Hecla Mining Company, accompanied us to the DMEA workings on the 3000 level.

Drifting to the east on the DMEA project has been completed and Mr. Bardill made the final measurement on the drift. No mineralization of commercial value was found along this east drift, which was in the St. Regis formation of thin-bedded argillites and quartzites. The company plans three diamond drill holes at the face of the east drift of 1,000 feet each. One hole will be horizontally eastward, another horizontally southward, and another horizontally northward. The eastward hole has already been started and is beyond the 200 feet remaining in the DMEA contract. The last 800 feet will be on company account, as well as the 2,000 feet for the north and south holes. From the southward hole it is hoped that the Polaris fault will be encountered. This fault was found by the extension of the south drift as a southwesterly crosscut to the Polaris fault which appears to be striking in a southeasterly direction.

The stopes in the south drift have been extended for approximately 220 feet and the ore is assaying about $30 of silver per ton. About 20-30 tons per day are being mined from these stopes on the 3000 level.

Pillars and spots of ore are being mined from the higher levels in the mine and the mill continues to process about 200 tons per day. However, the known reserves of the mine are running low.

Distribution:

OME (4)
USBM(2)
USBM(AD)
Docket
Sample

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington
July 19, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 4 1958

DATE	INITIALS	CODE
8/4	J. g.	225
4		100
"		110
8/5		800
		500

MEMORANDUM

To: DMEA Field Team, Region I

From: R. D. Sample, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-2879 (Lead-Zinc), Polaris Mining Company, Polaris East Exploration Project (Silver Summit Mine), Shoshone County, Idaho, Contract No. Idm-E541

A conference was held regarding this property at the Hecla Engineering Office at Burke, Idaho, between John D. Bardill, Mining Engineer, Bureau of Mines, R. D. Sample, Geologist, Geological Survey, and M. W. Hutchinson, geologist for the Hecla Mining Company. Maps were reviewed and the present status of workings was discussed.

At the present time only one shift per day is working on the DMEA eastward drifting. The other shift is working to extend the southwest drift (on company time) to the projected Polaris Fault zone. Because of ventilation problems it is almost impossible to run more than two shifts per day. The company hopes to encounter the projected Polaris Fault within 50 to 100 feet. It also expects to drill some diamond drill holes southward from this drift.

Mr. Hutchinson stated that a small vein of siderite had been found in the east workings which showed good silver values. Further exploration along this vein may show encouraging results. There is about 200 feet more of drifting on the DMEA contract and the time of completion has been extended to November 1, 1958 (Amendment No. 2, June 18, 1958).

Distribution:
DMEA (Orig. & 3)
USBM(2)
USBM(AD)
Sample
Docket

Klay. W

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

~~Stage II~~

RECEIVED SEP 18 1958 D.M.E.A.

Month of June, 1958 Docket No. DMEA-2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Mineral Copper, Lead, Antimony (and incidental Silver)

Address Box 320, Wallace, Idaho

Contract Amount, $~~147,000.00~~ 87,840.00 Government Participation: 50 % Amount, $~~73,500.00~~ 43,920.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
Stage II				9/25/58 WRK		
(1) Independent Short Form Contracts:						
Drilling Core		$ 20253.15	$ 20253.15		20253.15	20253.15
Bulldozing						
Crosscutting		37853.28	37853.28		37853.28	37853.28
Drifting 182.9 @ $48.78	$8921.86	64755.46	73677.32	8921.86	64755.46	73677.32
Sideswipe		2550.00	2550.00		2550.00	2550.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I					726838.94	726838.94
TOTALS	$8921.86	$125411.89	$134333.75	8921.86	852250.83	861172.69

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 7-3-58 *Payee Polaris Mining Company

Per John R. Murchison Title Secretary

*When voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

4460.93

$ 4460.93

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 9/11/58 Vou. No. 2220

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 541 in accordance with the terms of the contract.

Signature /s/ John A. Bardill Title Metallurgist Date July 11, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Sept. 11, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

RECEIVED SEP 18 1958 DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT Stage II

Month of June 1958 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company

Address Box 320, Wallace, Idaho

Minerals Copper, Lead, Antimony (and incidental Silver)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet	$8921.86	182.9	$ 73677.32	1510.4	$ 48.78	)2500	$ 48.78*
Crosscutting				37853.28	776.0		)	
Raising								
~~Drifts~~ Sideswipe	Feet			2550.00	100.0	25.50	100	25.50*
Winzes								
Drilling: Core	Feet			20253.15	4500.7	4.50	5000	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		8921.86		134,333.75				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Stage I				726,838.94				
TOTAL COSTS				861,172.69				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 7-3-58 Operator Polaris Mining Company

Per John R. Martin Title Secretary

REMARKS:

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

/s/ John D. Bardill

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

July eighth
1958

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration
Project - June, 1958
Docket No. DMEA - 2879
Contract No. IDM - E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of June included 182.9 feet of drifting and 5.0 feet of sideswiping.

The 347 East drift advanced 182.9 feet to station PE3020 plus 95.6 feet. As shown on the attached 50 scale progress map, no mineralization of significance was exposed in this drift during the month.

Stoping continued in the 331-B to 331-A section above 2900 level.

Yours sincerely,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH:nn

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED 21 1958 D.M.E.A.

~~Stage II~~

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May 1958 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company

Address Box 320 Wallace, Idaho

Minerals Copper, lead, antimony (and incidental silver)

Contract Amount, $ ~~147,000.00~~ 873,840.00 Government Participation: 50 % Amount, $ ~~73,500.00~~ 436,920.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
Stage II						
(1) Independent Short Form Contracts:				8/11/58		
Drilling Core		$ 20253.15	$ 20253.15		20253.15	20253.15
Bulldozing						
Crosscutting		37853.28	37853.28		37853.28	37853.28
Drifting 260.6 @ 48.76	$12712.07	52043.39	64755.46	12712.07	52043.39	64755.46
Sideswipe		2550.00	2550.00		2550.00	2550.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I					726838.94	726838.94
TOTALS	$12712.07	$112699.62	$125411.69	12712.07	839538.76	852250.83

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 6-4-58 *Payee Polaris Mining Company

Per John R. Mattimore Title Secretary

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 6356.04

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 7/15/58 Vou. No. 2197

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 54 in accordance with the terms of the contract.

Signature /s/ John S. Bardell Title Metallurgist Date June 16, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ Wing L. Agnew Title Acting Exec. Date 7-15-58

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED JUL 21 1958

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Stage II

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 1958 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company

Address Box 320 Wallace, Idaho

Minerals Copper, lead, antimony (and incidental silver)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	feet	$12712.07	260.6	$64755.46	1327.5	($48.78)	2500	$48.78*
Crosscutting				37853.28	776.0	)		
Raising								
~~Shafts~~ Sideswipe	"			2550.00	100.0	25.50	100	25.50*
Winzes								
Drilling: Core	"			20253.15	4500.7	4.50	5000	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 6-4-58 Operator Polaris Mining Company

Per John R. Matthews Title Secretary

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by contract.

/s/ John D. Bardill

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. Box 320
WALLACE, IDAHO

June seventh
1958

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
May - 1958
Docket No. DMEA - 2879
Contract No. IDM - E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of May included 260.6 feet of drifting and 21.7 feet of sideswiping.

347 East drift advanced 260.6 feet to station PE3019 plus 29.8 feet. This drift exposed a 1.1 foot wide siderite pyrite vein with some chalcopyrite and minor tetrahedrite, striking N45° E and probably representing the southwesterly extension of the best zone of mineralization in hole No. 2506. The drift is continuing easterly, and short diamond drill holes will be driven in the north wall to explore the extension of the above mentioned vein.

Preparation of the ore section north of 331-B Raise on 2900 level for mining has been completed and stoping above 2900 level is proceeding.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson

MWH/hdh/dm

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

~~Stage II~~

Month of April, 1958 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)

Address Box 320 Wallace, Idaho

Contract Amount, $ ~~147,000.00~~ $873,840.00 Government Participation 50 % Amount, $ ~~73,500.00~~ $436,920.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:				7/11/58		
Drilling Core 259.3 @ $4.50	$1,166.85	$19,086.30	$20,253.15	1166.85	19086.30	20253.15
Bulldozing						
Crosscutting 133.7 @ $48.78	6,521.89	31,331.39	37,853.28	6521.89	31331.39	37853.28
Drifting 40.0 @ $48.78	1,951.20	50,092.19	52,043.39	1951.20	50092.19	52043.39
Sideswipe		2,550.00	2,550.00		2550.00	2550.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I	✓		✓		726838.94	726838.94
TOTALS	$9,639.94	$103,059.88	$112,699.82	9639.94	829898.82	839538.76

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 5-5-58 *Payee Polaris Mining Company

Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 4819.97

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 7-3-58 Vou. No. 2187

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-541 in accordance with the terms of the contract.

Signature /s/ John A. Boraill Title Metallurgist Date May 16, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ Wing L. Agnew Title Acting Exec. Date 7-2-58

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED JUL 19 1958 D.M.E.A.

OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage II

Month of April 195 8 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company

Address Box 320 Wallace, Idaho

Minerals Copper, Lead, Antimony (and incidental Silver)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet	$1,951.20	40.0	$52,043.39	1066.9	$48.78)	2500	$48.78 *
Crosscutting		6,521.89	133.7	37,853.28	776.0	)		
Raising								
Shafts								
xxxx Sideswipe				2,550.00	100.0	25.50	100	25.50 *
Winzes								
Drilling: Core	feet	1,166.85	259.3	20,253.15	4500.7	4.50	5000	4.50 *
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		9639.94						TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 5-5-58 Operator Polaris Mining Company

Per J. A. Bardill Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

/s/ John A. Bardill

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. Box 320
WALLACE, IDAHO
May seventh
1958

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
April - 1958
Docket No. DMEA - 2879
Contract No. IDM - E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of April included 133.7 feet of crosscutting, 97.2 feet of drifting, 98.9 feet of sideswiping and 259.3 feet of diamond drilling. Of the drifting, 40.0 feet was done towards completing the DMEA contract.

337 Southeast crosscut advanced 133.7 feet to station PE3012 plus 170.2 feet. This crosscut exposed a northeasterly-southwesterly striking siderite vein showing minor tetrahedrite mineralization. As shown on the attached 50 scale progress map, 347 Northeast and Southwest drifts were driven a total of 57.2 feet on this structure, exposing an irregular siderite vein with spotty tetrahedrite mineralization. 347 East drift was started easterly to explore the mineralized zones encountered near the collars of diamond drill holes No. 3508 and 3509. This drift had advanced 40.0 feet by the end of April showing irregular pods of siderite and pyrite with mostly weak tetrahedrite. 347 East drift is now continuing easterly towards the mineralized zones shown in diamond drill hole No. 3506.

Holes No. 3508 and 3509 were drilled northerly 88.3 feet and 171.0 feet respectively from points near station PE3014. Sludges from hole No. 3508 assayed 13.8 ounces silver from 5.0 to 10.0 feet, 22.3 ounces from 10.0 to 15.0 and 18.1 ounces from 55.0 to 60.0. The section from 5.0 to 15.0 feet was explored by 347 East drift and found to represent a 7.0 foot wide pod of siderite and pyrite with spots of tetrahedrite which weakened to only small streaks of siderite and pyrite with very little tetrahedrite going east. The 55.0 to 60.0 foot section showed 2.6 feet of siderite, quartz and pyrite with some tetrahedrite which is probably the northeasterly extension of the vein exposed in 347 Northeast and Southwest drifts. Hole No. 3509 showed several siderite and pyrite veins but no significant mineralization. Logs of these two holes are included with this report.

The 2900 level southerly drift from 331-B raise was extended to a point 70.2 feet from the raise exposing only weak mineralization. The ore section north of the raise on this level is being prepared for stoping.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH:dm
Encls.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 4-17-58
Finished 4-18-58
Hole Size EX
Depth 88.3
% Core Rec. 82.5%

Mine SILVER SUMMIT - Pol. E. Expl.
Location PE 3012 + 132.0 South in North East Wall of 337 S. X-Cut.
Logged by MWH & JHJ Date 4-30-58
Drilled by Pearson - Hauser - Madsen

Hole No. 3508
Level 3000
Grid 347
Latitude 85 493 S
Departure 94 642 E
Elevation - 264
Bearing N 06° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Cu.	% Zn
0-2.0	2.0	0.0' - 59.6' Blchd lt grnish gry qtzt.	E5083	0 - 5	5.0	0.2	No	
3.0	0.7	Slightly arg in spots and occas darker band						
4.0	0.9	due to diss.pyrite, arsenopyrite from 8.0						
6.0	1.1	to 21.8.						
8.0	1.3	Mostly sid and py from 8.0 to 14.5 with some						
11.8	2.5	dark frgmts of brecciated qtzt and with	84	10		13.8	1.21	
14.5	2.0	several irreg spots and streaks of tetra	85	15		22.3	1.54	
17.5	2.2	from 9.0 to 11.8.						
18.5	0.8	Outlines of vein irregular. Slips or faults						
20.5	1.9	at 11.5, 14.5 (1.5 core lost between 8.0 &	86	20		1.2	.08	
21.3	1.1	11.8).						
24.0	1.5	Several small sid streaks and stringers,						
25.0	0.8	some with py, 14.5 to 21.8.	87	25		0.4		
26.0	0.9	3" sid strgr at 17.0, 18.8 & 21.2.						
27.2	1.2	6" irreg sid and py at 19.5.						
28.5	1.2	3" qtz at 20.7.						
30.7	2.0	Slips at 17.5, 21.5 and 24.0. (Core mostly	88	30		0.5		
34.2	3.3	in small frgmts 8.0 to 30.7)						
36.9	2.7	Small fault at 49.8.	89	35		0.2		
39.5	2.5	Numerous small strgrs sid from 50.9 to 68.5.	90	40		0.2		
End Box 1		1½" sid w/py & tetra at 51.5, 56.5, 57.1.						
42.4	2.4	Mostly sid w/qtz and py, some spots w/tetra						
45.7	2.9	from 57.5 to 60.1 - (Badly broken and poor	91	45				
49.7	3.6	core recovery).	92	50				
51.2	1.1							
55.0	3.0		93	55				
56.8	1.4							
59.6	1.5		94	60		18.1	0.54	
61.6	1.8	59.6' - 71.8' Lt bluish gry qtzite, many						
62.6	1.0	stringers.						
63.6	0.7	Many irreg and small sid strgrs w/py, trace	95	65		1.4		
67.6	3.7	of tetra, closely spaced, from 60.4 to 67.3.	96	70		1.1		
72.6	3.7	1" sid w/py and some tetra at 66.3.						
		6" wht qtz at 70.2.						
73.6	0.9		97	75		0.9		
77.3	2.6	71.8' - 88.3' Med gry arg qtzite (partially						
End Box 2		due to diss py) much diss py.						
80.2	2.9	Numerous small strgrs sid from 86.6 to 88.3.	98	80		0.2		
82.2	2.0	4" broken wht qtz at 72.8 w/frgmts sid.						
84.3	2.1	2" sid at 79.1.	99	85				
86.3	1.7							
88.3	1.3		100	88.3	3.3	0.4		
		END OF HOLE						

FORM 127 1M 7-55

DIAMOND DRILL RECORD

Standpipe
Casing

Started 4-18-58
Finished 4-24-58
Hole Size EX
Depth 171.0
% Core Rec. 78.6

Mine SILVER SUMMIT - Pol. E. Expl. Dr.
Location PE 3012 + 132.0 South East
on North Wall 337 South X-Cut.
Logged by PEH & JHJ Date 4-25-58
Drilled by Pearson and Hauser

Hole No. 3509
Level 3000
Grid 347
Latitude 85 493 S
Departure 94 647 E
Elevation - 264
Bearing N 37° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% ~~Pb~~ Cu	% Zn
0-1.0	1.0	0.0' - 4.5' Lt gry qtzite w/occasional small						
3.0	1.3	strgrs sid w/some py.						
4.5	0.8		C5101	0 - 5	5.0			
		4.5' - 13.3' Bluish gry qtzite w/much diss						
7.9	3.2	and massive py, numerous small sid strgrs w/						
9.3	1.5	qtz and some tetra.						
10.3	1.0	Mostly massive py w/occas strgrs sid w/qtz	02	10		1.7	0.6	
12.5	2.0	py & tetra from 6.2 to 9.3.						
		1" sid w/qtz and py with some tetra at 10.5.						
		Numerous irreg strgrs sid from 10.5 to 13.3.						
14.6	1.6		03	15		0.3		
16.0	1.3							
17.0	0.8							
19.4	1.9		04	20				
21.1	1.5							
23.6	1.8	13.3' - 73.0' About equal amts lt gry and						
End Box 1		grn gry ser qtzite. Occasional small strgrs						
24.7	0.9	sid w/py thruout.	05	25				
26.1	1.2	¼" sid strgr at 9.8, 22.0.						
28.8	1.7	0.4 massive py at 28.4.						
30.2	0.8	1" sid w/qtz at 33.5 and 33.9.	06	30		0.6		
31.2	1.0	Small faults at 37.5, 38.1 and 47.1.						
33.8	2.0	Small sid strgr w/qtz and dk sulfide at						
35.2	1.5	48.1.	07	35		0.4		
35.8	1.4	Sid mineralized zone w/qtz and py from 56.5						
37.6	1.7	to 57.4.						
38.2	0.6	Sid strgr at 59.8.						
41.2	2.8	1.0 sid w/qtz, pods and minute strgrs tetra	08	40		0.2		
46.2	3.6	(poor to fair) and traces chalcopyrite						
47.2	1.0	from 60.2 to 61.2.	09	45		0.2		
48.0	0.8	Small strgrs sid, some w/arseno & py						
50.2	1.4	from 63.0 to 76.0.	10	50		0.2		
53.6	2.8	1" sid w/tetra at 64.9.						
55.5	1.4	4" broken sid/with chalco and some tetra	11	55		0.4		
57.5	1.9	at 65.1.						
60.0	3.5	Irreg sid strgrs w/arseno & py at 67.0.	12	60		0.4		
63.7	3.7	4" irreg sid strgrs at 71.4.						
65.5	1.8		13	65		2.1		
67.7	2.2							
68.8	1.1							
70.6	1.8		14	70		0.4		
73.1	2.5		15	75		0.2		

Standpipe
Casing

DIAMOND DRILL RECORD

Hole No. 3509
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT Pol. E. Expl. Dr.
Location
Logged by Date
Drilled by

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
78.0	4.9		5116	75-80	5.0	0.2		
81.7	3.7							
83.0	1.3	73.0' - 98.4' Mostly grn-gry arg qtzite -						
84.0	1.0	Some lt gry ser qtzite (Occasional small	17	85		0.2		
86.5	2.3	sid strgr).						
91.5	1.4	Fault at 82.8.	18	90		0.2		
92.2	0.7	Poor core recovery from 86.5 to 91.5.						
94.8	1.8	½" sid at 96.1 and 96.4.	19	95		1.1		
97.6	3.8							
End Box 3								
100.5	2.8	98.4' - 148.4' Mostly lt and med gry ser	20	100		0.5		
102.5	1.2	qtzite w/small py strgrs & diss and many						
104.1	1.6	small strgrs sid.	21	105		0.2		
106.0	1.9	2" wht qtz w/sid at 102.5.						
109.1	3.0	3" vuggy wht qtz at 105.0.	22	110		0.2		
111.4	1.6	6" cemented fault breccia at 109.1.						
112.5	1.0	Cluster of small sid strgrs at 114.0.						
115.7	2.5	1" sid w/qtz and py at 118.2 & 118.7.	23	115		0.2		
117.9	2.1	2" zone sid and py strgrs at 120.8.						
120.4	2.2	2" py at 125.3 and 126.7.	24	120		0.4		
122.0	2.8	½" wht qtz w/py and sid at 128.6.						
123.2	1.2	½" sid and wht qtz at 135.1.						
126.0	1.7	6" broken sid w/vugs from 136.3 to 136.8.	25	125		0.2		
127.5	1.5	2" sid w/qtz & py at approx 138.0. (Drill-						
128.8	1.3	er reports most of missing core to be sid						
131.3	1.5	from 136.3 to 139.2).	26	130		0.2		
136.3	1.2	2" sid w/wht qtz at 140.1.	27	135		0.3		
137.6	1.0	½" sid at 141.7.						
139.2	0.8	4" massive py and sid wh/has small pods	28	140		1.0		
End Box 4		tetra at 145.4.						
140.7	1.4	Numerous small strgrs sid w/tetra & py						
145.7	4.2	from 146.0 to 148.4.	29	145		0.2		
149.6	3.8		30	150		0.4		
154.7	1.3	148.4' - 171.0' Massive sid w/qtz & py appears						
157.4	1.0	somewhat dirty and in some spots carries	31	155		0.7		
161.5	1.2	tetra. (Very broken w/poor core recovery).	32	160				
164.7	1.8		33	165		0.6		
167.0	1.6							
171.0	2.5		34	170		0.2		
		END OF HOLE						

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

1201 N. Division St.
Spokane 2, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 26 1958

DATE		CODE
6/16		225
26		100
"		110
6/27		800
6/30		500

June 5, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: John D. Bardill, Bureau of Mines

Subject: Routine inspection report, Docket No. DMEA-2879 (lead-zinc-copper-antimony), Polaris Mining Company, Polaris East Exploration Project, Shoshone County, Idaho, Contract No. Idm-E541 (Amended)

A routine inspection was made of this project May 28, 1958, accompanied by R. D. Sample, geologist, U. S. Geological Survey, and James Jolly, company geologist.

The 3000 level 337 southeast crosscut had been driven about 667 feet of which 636 feet was DMEA footage to Sta. 3014. The 347 east drift had been driven approximately 287 feet from the crosscut. Near Sta. 3014 a small pod of good grade ore was cut. The drift is directed toward diamond drill hole SS3506 where a 2.8-ft. intersection assayed 97.3 ounces silver per ton and 3.8 percent copper.

The following company transit survey distances were checked:

Previously reported to Sta. PE3011		293.16 ft.
PE3011 - PE3012	S 37° 08' E	259.52
PE3012 - PE3014	S 38° 21' 30" E	134.11
PE3014 - PE3016	S 82° 56' 30" E	48.35
PE3016 - face	About due east	239.00
		974.14
Less starting point SM3099 + 40.3 ft.)		40.30
		933.84
Less footage on company account prior to effective date of contract		10.20
		923.64 ft.

Status of the contract at the time of the inspection was:

Date of contract: November 1, 1953
Termination d ate: June 1, 1958
Amount of contract: Stage I - $726,838.94 (completed)
Stage II - 147,000.00
Rounded to: $873,840.00
Amount spent: Stage II - 112,699.82 (thru April)

	Authorized	Completed
Drifting)		1,309.58 ft.
Crosscutting)	2,500 ft.	855.49 ft.
		2,165.07 ft.
Sideswiping	100 ft.	100 ft.
Diamond drilling	5,000 ft.	4,165.3 ft.

DMEA ore mined from May 1954 thru March 1958:

7,888 tons averaging 18.86 oz. Ag/ton, 0.46% Cu

John D. Bardill

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bardill

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

June 2, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: R. D. Sample, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-2879 (Lead-Zinc), Polaris Mining Company, Polaris East Exploration Project (Silver Summit Mine), Shoshone County, Idaho, Contract No. Idm-E541

On May 28, 1958, the above-cited project was inspected by R. D. Sample and John D. Bardill, Mining Engineer, U. S. Bureau of Mines. Jim Jolly, Geologist for the Hecla Mining Company, accompanied the inspectors to the DMEA work on the 3000 level. After the disappointing showing in the 337 southeast crosscut from the main east drift, the Operators have started a crosscut almost due east about 70 feet back of the 337 crosscut face. The target for this east crosscut is an area of mineralization indicated by diamond drill hole No. 3508 which was drilled southward from near the end of the main east drift. At the time of the inspection the crosscut had progressed through the shales and quartzites of the St. Regis formation for approximately 290 feet from the southeast crosscut. No structure or mineralization was encountered but whether or not the target zone has been reached is questionable. Crosscutting eastward will continue until a mineralized structure is found to drift on. Roof bolts are able to hold the backs and sides of this east crosscut. Mine work continues on a three-shift per day basis with each shift advancing about 5 feet.

The mill at the mine processed about 200 tons of ore per day. Most of the ore is coming from various levels above the 3000 level, but about eight cars of ore per day is coming from the south drift off the main east drift. This ore averages about 25 ounces of silver per ton with very low copper content. About 50 men are working underground at the mine.

Distribution:
DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Sample

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 9 1958
CODE
6/9 J.G. 225
" 100
" 110
6/10 800
6/12 500

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

May 19, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: R. D. Sample, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-2879 (Lead-Zinc), Polaris Mining Company, Polaris East Exploration Project (Silver Summit Mine), Shoshone County, Idaho, Contract No. Idm-E541.

The writer accompanied by John D. Bardill, Mining Engineer, U. S. Bureau of Mines, visited the Hecla Mining Company office at Burke, Idaho on May 16, 1958. There we conferred with M. W. Hutchinson, Geologist for the Hecla Mining Company, who is in charge of the exploration program of the Silver Summit mine. Mine maps were scanned and the present status of the exploration explained by Mr. Hutchinson.

The 337 Southeast crosscut has been driven approximately 700 feet southeasterly from the main east drift. This crosscut was driven to intersect an indicated mineralized zone found by diamond drilling southward from the main east drift (DDH No. SS3504). An encouraging mineralized zone containing silver, copper, and lead was encountered by the crosscut at about 630 feet. The crosscut was continued southeastward another 70 feet until it had passed well beyond any mineralization shown in the drill holes. The Operators then backed up 70 feet and started drifting to the southwest and northeast along the silver, copper, lead mineralized structure until it feathered out at both ends. This drifting which totaled about 50 feet to the southwest and 10 feet to the northeast was done on company account. Two diamond drill holes were drilled northerly from a station about 30 feet back from the southeast face. Hole No. SS3508 was driven 88 feet. Sludges from this hole assayed 13.8 ounces of silver from 5 to 10 feet, 22 ounces of silver from 10 to 15 feet, and 18 ounces of silver from 55 to 60 feet. Hole No. 3509, drilled in a northeasterly direction for 171 feet, showed some iron mineralization but no significant ore minerals.

An east drift was started to explore the mineralization found by hole No. 3508 but the mineralized zone showed only irregular pods of siderite and pyrite with weak tetrahedrite. The east drift is now continuing eastward toward the mineralization indicated by hole No. SS3506. This east drift, being driven with DMEA participation, had advanced about 160 feet at the time of the visit. The indicated mineralized zone should be reached in a few days.

R. D. Sample

Distribution:
DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Docket
Sample

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED APR 28 1958

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Stage II

Month of March, 1958 Docket No. DMEA 2079 Contract No. IDM-E 941

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)

Address Box 320, Wallace, Idaho

Contract Amount, $ ~~347,000.00~~ 873,840.00 Government Participation: 50% Amount, $ ~~73,500.00~~ 436,920.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:				5/5/58		
Drilling Core		$ 19086.30	$ 19086.30		19,086.30	19,086.30
Bulldozing						
Crosscutting 278.5 ~~140.78~~	$13585.23	17746.16	31331.39	13,585.23	17,746.16	31,331.39
Drifting		50092.19	50092.19		50,092.19	50,092.19
		2550.00	2550.00		2550.00	2550.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I					726838.94	726838.94
TOTALS	$13585.23	$ 69474.65	$ 103059.68	13,585.23	816,313.59	829,898.82

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 4-8-58 *Payee Polaris Mining Company

Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 6792.62

Signature [signature] (Authorized Certifying Officer)

Date 4/21/58 Vou. No. 2150

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 541 in accordance with the terms of the contract.

Signature /s/ John A. Bordill Title Metallurgist Date April 14, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date April 17, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED APR 28 1958

OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage II

Month of March 1958 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company

Address Box 320, Wallace, Idaho

Minerals Copper, Lead, Antimony (and incidental Silver)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet			$ 50092.19	1026.9	$ 48.78	2500	$ 48.78 *
Crosscutting		$13585.23	278.5	31331.39	642.3			
Raising								
~~Sinking~~ Sidewipe				2550.00	100.0	25.50	100	25.50 *
Winzes								
Drilling: Core	feet			19086.30	4241.4	4.50	5000	4.50 *
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		13585.23		103,059.88				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 4-8-58 Operator Polaris Mining Company

Per [signature] Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

/s/ John A. Lardill

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

April fourth
1958

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
March - 1958
Docket No. DMEA - 2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of March included 278.5 feet of crosscutting and 8.0 feet of sideswiping.

337 Southeast crosscut advanced 278.5 feet to station PE3012 plus 36.5 feet. As shown on the attached 50 scale map, this crosscut exposed numerous small irregular stringers of siderite and pyrite with only minor amounts of tetrahedrite. No mineralization has yet been disclosed comparable to that shown in Hole 3504.

The 2900 level northerly drift from 331-B raise was extended 44.9 feet to a point 141.5 feet from the raise, exposing only spotty tetrahedrite beyond 90 feet from the raise. The southerly drift from 331-B raise on this level advanced 43.8 feet showing mostly weak mineralization.

Yours very truly,

M W Hutchinson
M. W. Hutchinson
Geologist

MWH/hdh

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

1201 N. Division St.
Spokane 2, Washington

February 3, 1958

2/10	C	220
/11	Com	100
"	JG	110
2/11	[illegible]	800
2/12	Kluf	500

MEMORANDUM

To: DMEA Field Team, Region I

From: John D. Bardill, Bureau of Mines

Subject: Routine inspection report, Docket No. DMEA-2879 (lead-zinc-copper-antimony), Polaris Mining Company, Polaris East Exploration Project, Shoshone County, Idaho

This project was visited January 22, 1958, accompanied by R. D. Sample, geologist, U. S. Geological Survey, and M. W. Hutchison, company geologist.

Diamond drill cores of holes SS3504 and SS3506 were examined. Sludge samples from SS3506 had been assayed with the following results:

Depth - ft.	Oz. Ag/ton
310-315	4.4
595-600	29.2
600-605	13.7
605-610	5.4
610-615	2.3
615-620	7.3

Copper assays had not been completed. The hole was about 635 feet deep and will be drilled to 800 feet.

Split core of hole SS3504 assayed 46.7 oz. silver and 1.21 percent copper between 562 and 567 feet and 53.0 oz. silver and 1.29 percent copper between 621 and 628.9 feet. The hole was bottomed at 695 feet.

Hole SS3501 was deepened to 826 feet and intersected no significant mineralization.

The structure had terminated abruptly in the 3000 level east drift and the Operator discontinued work there in December and probed the south wall with diamond drill holes.

Since drill holes SS3504 and SS3506 cut two favorable mineralized structures the Operator requested the Field Team for authority to change the project program and crosscut from a point near survey station SS3098 bearing about S 39° E approximately 700 feet to explore the area of the structures. This crosscut and subsequent drifting will explore the structures eastward from the intersection of hole SS3504. It is more desirable to start the crosscut at SS3098 instead of at the end of the east drift because the tramming distance will be shortened and ventilation facilities better.

The 3000 level east drift and crosscuts footages reported in my inspection report of January 6, 1958 remain unchanged.

The diamond drilling footages have been increased as follows:

Footages previously reported	2242.7 feet
Deepening SS3501 from 292.2 to 826 ft.	533.8
" SS3504 from 392.0 to 695.1 ft.	303.1
" SS3506 from 77.6 to 635 ft.	557.4
	3637.0 ft.

Status of the contract at the time of the inspection was:

Date of contract: November 1, 1953
Termination date: June 1, 1958
Amount of contract: Stage I $726,838.94 (completed)
Stage II 147,000.00
Rounded to: $873,840.00

Amount spent: Stage II $ 70,148.79 (thru December 1957)

	Authorized	Completed
Drifting) Crosscutting)	2,500 ft.	1,022.23 ft.
		96.20 ft.
Sideswiping	100 ft.	80 ft.
Diamond drilling	5,000 ft.	3,637.0 ft.

DMEA ore mined from May 1954 thru December 1957:

5,817 tons averaging 18.60 oz. Ag/ton, 0.43% Cu

John D. Bardill

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bardill

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

DMEA
RECEIVED FEB 10 1958

DATE	INITIALS	CODE
2/10	C	220
11	COM	100
"	[illegible]	110
2/11	[illegible]	800
2/12	[illegible]	500

January 28, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: R. D. Sample, Geologist, U. S. Geological Survey

Subject: Interim Inspection Report, Docket No. DMEA-2879 (lead-Zinc), Polaris Mining Company, Polaris East Exploration Project (Silver Summit Mine), Shoshone County, Idaho, Contract No. Idm-E541

The above property was visited on January 28, 1957 by R. D. Sample, Geologist, U. S. Geological Survey, and John D. Bardill, Mining Engineer, U. S. Bureau of Mines. The examiners met with Mr. M. W. Hutchinson, Assistant Chief Geologist, Hecla Mining Company. Mr. Hutchinson explained that there had been no further DMEA drifting on the east drift since the December 13, 1957 inspection by Mr. Bardill, and that all the DMEA work had been concentrated on diamond drilling southward from the Polaris East Drift. The maps were then inspected and the results of the diamond drilling were tabulated.

Diamond drill hole No. SS3501 was completed at a depth of 826 feet to the south with only scattered showings of mineralization and low assays of silver (see monthly progress map for December 1957). Diamond drill hole No. SS3504, about 470 feet east of SS3501 on the east drift, was completed at a depth of 695.1 feet into the south wall. This hole intersected several siderite-tetrahedrite veins showing silver and copper values. Two assays of sludge, and two assays of core from this hole, shown in the following table, are of special interest:

Type of Assay	Interval (ft.)	Width (ft.)	Oz. silver	% copper
Sludge	560-565	5	29.3	0.83
Split core	562.0-567.0	5	46.7	1.21
Sludge	620-625	5	37.1	0.82
Split core	621.7-625.9	4.2	53.0	1.29

Diamond drill hole No. 3506 not yet completed, has reached some very interesting intercepts beginning at a depth of 595 feet. Five consecutive five-foot sludge samples show the following:

Type of assay	Interval (ft.)	Width (ft.)	Oz. silver	Other minerals
Sludge	595-600	5	29.2	Not completed
Sludge	600-605	5	13.7	Do.
Sludge	605-610	5	5.4	Do.
Sludge	610-615	5	2.3	Do.
Sludge	615-620	5	7.3	Do.

It is planned to continue hole No. 3506 to 800 feet. Assays of the split core have not been completed but, in view of the higher values found in the split cores of hole No. 3501 over the sludge assays, it is logical to expect an increase in values for split cores in hole No. 3506.

Because of the possibility of finding a potentially sizable ore body indicated by holes No. 3504 and 3506, the Operators have started a crosscut southeastward from the east drift, about 350 feet east of the south drift. The crosscut is expected to reach the favorable showings in hole No. 3504 within 600 to 700 feet.

The Operators have requested authorization from the DMEA to discontinue the east drift, where all evidence of a structure has disappeared, and to drive instead the southeast crosscut to intercept and drift on the structure indicated in holes No. 3504 and 3506.

The examiners concur that the plan for crosscutting directly from station SS3098 to the ore indicated by the drill holes is logical. They recommend that the Field Team act with favor upon the Operator's new venture.

Distribution:
DMEA (Orig. & 3)
USBM (2)
USBM (AD)
Docket
Sample

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED JAN 27 1958 D.M.E.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Stage II

Month of December 1957 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and Incidental silver)

Address Box 329, Wallace, Idaho

Contract Amount, $~~147,000.00~~ 853,840.00 Government Participation: 50 % Amount, $~~73,500.00~~ 426,920.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
				1/28/58	WPK	
(1) Independent Short Form Contracts:						
Drilling Core 860.6@$4.50	$3872.70	$ 9077.85	$ 12950.55	3872.70	9077.85	12950.55
Bulldozing						
Crosscutting		4556.05	4556.05		4556.05	4556.05
Drifting 55.6@$48.78	2712.17	47380.02	50092.19	2712.17	47380.02	50092.19
Sideswipe-10.0@$25.50	255.00	2295.00	2550.00	255.00	2295.00	2550.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I					726 838.94	726 838.94
TOTALS	$ 6839.87	$ 63308.92	$ 70148.79	6839.87	790 147.86	796 987.73

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 1-7-58 *Payee Polaris Mining Company

Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 3419.94

Signature [signature] (Authorized Certifying Officer)

Date 1/21/58 Vou. No. 2106

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 541 in accordance with the terms of the contract.

Signature /s/ John D. Bardill Title Metallurgist Date Jan. 17, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Jan. 20, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED JAN 27 1958 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT Stage II

Month of December 1957 Docket No. DMEA 2879 Contract No. KDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony

Address Box 320, Wallace, Idaho (and incidental silver)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet	$2712.17	55.6	$50092.19	1026.9	$48.78	2500	48.78*
Crosscutting				4556.05	93.4			
Raising								
~~Stoping~~ Sideswipe		255.00	10.0	2550.00	100.0	25.50	100	25.50*
Winzes								
Drilling: Core	feet	3872.70	860.6	12950.55	2877.9	4.50	5000	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		6839.87		70148.79				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Stage I				126838.94				
TOTAL COSTS				196987.73				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

REMARKS:

Date 1-7-58 Operator Polaris Mining Company

Per J. D. Bardill Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract.

/s/ John D. Bardill

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 87 2894

POLARIS MINING COMPANY

P. O. Box 320
Wallace, Idaho

January tenth
1958

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
December - 1957
Docket No. DMEA - 2879
Contract No. IDM - E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of December included 55.6 feet of drifting, 14.0 feet of sideswiping and 860.6 feet of diamond drilling.

337 East drift advanced 55.6 feet to station PE3007 + 14.6 feet where it has been stopped while the south wall is being explored by diamond drilling. None of the diamond drill holes either to the north or to the south showed a continuation of the fault-vein structure previously followed by 337 East drift, but hole No. 3504 has exposed two or more interesting structures further out in the south wall.

Diamond drill hole No. 3504 was completed to 695.1 feet for an advance of 426.7 feet. As shown on the attached geologic map this hole intersected siderite-tetrahedrite veins, the sludges from which assayed 29.3 ounces silver and 0.83 percent copper from 560 feet to 565 feet and 37.1 ounces silver and 0.82 percent copper from 620 feet to 625 feet. Split core from 562.0 feet to 567.0 feet assayed 46.7 ounces silver and 1.21 percent copper and from 621.7 to 625.9 feet assayed 53.0 ounces silver and 1.29 percent copper. Several smaller veins with lesser values were also exposed in this hole.

Hole No. 3505 was drilled 100.1 feet northerly from near the face of 337 E. drift without exposing any structures of significance. The logs of holes 3504 and 3505 are included with this report.

Hole No. 3506 was started southerly from near the end of the drift and had reached a depth of 254.8 feet at the end of December.

Hole No. 3501 was started again for the purpose of establishing a strike on the veins exposed in hole No. 3504. This hole was advanced 79.0 feet and had reached a depth of 371.2 feet at the end of the month.

331-B Raise advanced 35.0 feet to a height of 222.9 feet, exposing a siderite vein with mostly weak mineralization. Drifts were started northeasterly and southerly from this raise at 2800 level, exposing spotty mineralization. The northeasterly drift advanced 21.4 feet and the drift to the south, 6.1 feet.

Very truly yours,

M. W. Hutchinson

DIAMOND DRILL RECORD

Standpipe
Casing

Started 11-23-57
Finished 12-29-57
Hole Size EX
Depth 695.1
% Core Rec. 83

Mine SILVER SUMMIT
Location 337 Pol. E. Dr. PE 3005 + 28.0 E.
Logged by J.H.J. Date 12-30-57
Drilled by Pearson, Hauser & Kinnick

Hole No. 3504
Level 3000
Grid 346
Latitude 84 855 S
Departure 94 683 E
Elevation - 261
Bearing See Survey
Inclination Last Page

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	4.5		E 4565	0 - 5	5.0			
6.8	1.7							
11.3	8.8		66	10		0.2		
14.3	2.9	0.0' - 54.7' Hd lt gry qtzite mostly	67	15				
16.5	2.1	massive w/some ser sms.						
20.8	4.1	1.5 zone of fractured qtzite at 37.2.	68	20				
23.9	2.5	1" py in discontinuous strgrs & blebs						
25.2	1.3	at 45.6.	69	25				
27.9	2.7	Fault at 47.2 w/½" fractured rock & seam	70	30				
32.8	3.1	gg.						
37.1	4.1		71	35				
End Box 1								
41.5	4.7		72	40				
45.2	2.3		73	45				
47.7	2.2		74	50				
52.7	3.3							
54.1	1.3		75	55				
55.4	1.2							
58.6	3.0	54.7' - 86.2' Lt bluish gry qtzite w/zones						
60.6	0.9	of diss sid - poor core recovery and more or	76	60				
64.8	4.2	less broken core.	77	65				
66.2	1.3	Small faults at 56.8, 62.9, 63.8, 64.1						
70.8	3.6	and 69.5.	78	70				
75.8	1.8	Very poor core recovery between 70.8 and	79	75				
79.1	3.3	84.1.	80	80				
84.1	1.0		81	85				
End Box 2								
89.3	4.6	86.2' - 104.5' About equal amts lt gry	82	90				
92.5	1.2	qtzite and softer somewhat yellowish grn						
95.4	3.9	arg qtzite and arglite. Some sms sericite.	83	95				
98.3	7.1	½" wht gg at 86.2.						
101.0	2.6		84	100				
		104.5' - 155.6' Lt grnish gry arglite and						
106.0	5.0	arg qtzite - Some beds are thin but most	85	105				
112.1	4.6	are ½" or more in thickness. Numerous small	86	110				
116.6	4.1	strgrs py, some sid and qtz strgrs. Diss	87	115				
118.8	2.2	sid occurs in bands nearly at right angles	88	120				
End Box 3		to core.						
123.8	4.5	Fault w/¼" gg at 128.0.	89	125				
128.8	4.5	0.9 ser zone w/numerous slips at 130.0						
133.7	4.9	to 130.9.	90	130				
136.6	2.6	Small fault at 133.0.	91	135				
141.4	4.4		92	140				

Standpipe
Casing

DIAMOND DRILL RECORD

Hole No. SS 3504
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Dr.

Logged by Date
Drilled by

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		104.5' - 155.6' (Cont'd)						
146.2	4.3	½" gg at 144.5	E 4593	140-145	5.0			
150.5	4.3	2" grn arg w/py and tetra (?) at 143.3.	94	150				
155.6	4.9	Small faults at 151.0 and 152.3.	95	155				
End Box 4								
160.3	4.2							
164.6	4.3	155.6' - 202.0' Mostly lt and med gry qtzite	96	160				
169.3	4.7	Numerous py strgrs and blebs.	97	165				
174.3	5.0	1.3 diss sid zone from 173.0 to 174.3.	98	170				
175.6	1.2	2.3 diss sid w/strgrs & pods py from	99	175				
180.6	4.6	177.7 to 180.0	4600	180				
183.0	2.3	½" crushed rock at 179.3.	01	185				
187.0	3.7	Very lt gry blchd qtzite w/much diss sid						
189.8	2.6	(coarse surface finely spotted) from	02	190				
191.1	1.1	185.7 to 186.5.						
194.0	2.4	2" wht qtz at 187.5.	03	195				
End Box 5		Small fault at 201.8.						
197.0	2.3		04	200		0.2		
202.0	4.8							
204.5	1.4		05	205				
206.7	2.2							
210.5	3.8		06	210				
214.9	3.5		07	215				
220.2	3.9	202.0' - 240.2' Mostly lt gry and med gry	08	220				
221.8	1.1	arg qtzite - some lt gry qtzite. Banded						
225.5	3.1	diss sid and some py.	09	225		0.2		
230.0	4.5	Small fault at 205.5.	10	230				
231.2	1.2	Fault at 227.3.						
End Box 6								
233.5	1.8							
235.4	1.4		11	235				
238.7	0.8							
240.2	1.5		12	240				
241.8	1.5	240.2' - 266.4' Gry and grn gry arg qtzite						
244.2	2.2	Some qtzite beds.	13	245				
246.8	2.1	Fault at 241.6 and 251.2.						
257.5	2.8	Poor core recovery and badly broken from	14	250		0.2		
255.4	2.4	235.4 to 239.0	15	255				
258.3	2.9	1" crushed rock and gg at 252.2.						
260.1	0.6		16	260				
266.4	4.7		17	265				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Expl. Dr.

Logged by Date
Drilled by

Hole No. SS 3504
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		266.4' - 297.5' Very lt gry blchd qtzite w/py & sid strgrs - some w/tetra (?) Some						
271.2	3.2	wht qtzite.	E4618	265-270	5.0			
272.7	1.3	¼" strgr py and sid w/tetra (?) at 268.0.						
275.0	2.0	6" very lt tan qtzite which is fractured	19	275				
End Box 7		sms parallel across the core at small						
278.3	2.8	irregular intervals.	20	280		0.2		
282.8	4.1	1" sid w/py and tetra (?) at 275.4.						
286.5	3.4	½" sid strgr w/py at 276.0.	21	285				
291.5	4.5	2" wht qtz w/sid py and tetra at 279.0	22	290				
293.4	1.9	(makes low angle w/hole direction.						
295.7	2.3	½" sid & py w/tetra (?) at 285.4.	23	295				
297.5	1.7	Zone of qtzite wh/is spotted with diss sid and py from 285.8 to 287.1 and somewhat so to 297.5.						
300.6	1.8		24	300				
302.0	1.4	297.5' - 314.5' Lt gry & grnish gry arg						
304.5	2.5	qtzite w/some diss sid and py.	25	305				
306.7	2.2	Small fault at 300.4.						
310.0	3.1		26	310				
End Box 8								
311.4	0.8							
314.5	2.7		27	315				
318.8	4.2		28	320				
322.6	2.3	314.5' - 342.2' About equal amts lt gry and						
323.8	1.2	med gry qtzite and grnish gry arg qtzite.						
325.5	1.5	Some strgrs py.	29	325				
328.0	1.9	1" py at 332.4.	30	330				
332.8	3.8	Small fault at 332.6.						
336.0	3.2	Fault w/wht gg at 336.2.	31	335				
336.7	0.7							
339.2	2.2		32	340		0.2		
341.5	2.1							
345.2	2.8		33	345				
347.9	1.8							
End Box 9								
350.2	2.3		34	350				
353.9	2.7	342.2' - 440.0' Lt grnish gry and lt gry						
355.5	1.6	arg qtzite.	35	355				
357.2	1.4	Small fault at 350.2 and 353.4.						
359.0	1.5	Core from 359.0 to 390.7 is badly broken	36	360				
361.0	0.7	with poor core recovery from 361.0 to 389.5.						

Standpipe
Casing

DIAMOND DRILL RECORD

Hole No. SS 3504
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Dr.

Logged by Date
Drilled by

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		342.2' - 440.0' (Cont'd)						
365.0	1.4	Small sid strgr w/tetra at 367.4.	E 4637	360-365	5.0			
367.6	1.2	7" sid w/good tetra and qtz (only core						
369.2	1.3	recovered between 381.5 and 385.0.)	38	370				
374.2	3.6	Sid fragments (Only core recovered between						
375.6	1.0	385.0 and 387.6) w/qtz and poor tetra.	39	375				
376.8	0.8	½" sid strgr at 387.5.					%	
381.5	1.5	Sid strgr w/py at 389.6 (has 45° angle	40	380			Cu.	
385.0	1.0	with core.	41	385		6.9	0.40	
387.0	1.1	Small sid strgr at 390.8.						
388.3	0.9	1" sid w/qtz at 391.5.						
389.5	1.0	2" (broken) sid w/qtz and pods tetra at						
390.7	0.8	392.5.	42	390		0.2		
End Box 10		½" sid w/py at 399.1 (approx. 45° angle						
392.5	2.2	to core)						
394.5	1.1	6" (broken) sid w/qtz py and pods tetra	79	395		0.7		
397.8	2.1	from 401.7 to 402.2.						
399.0	0.9	8" sid w/qtz py & tetra from 403.1 to	80	400		0.5		
402.2	2.2	404.6. (poor core recovery)						
404.6	1.1	1" massive py w/some tetra at 403.2.	81	405		5.2	0.34	
409.0	2.9	½" sid at 408.0.						
410.9	1.7	Small fault at 410.7.	82	410		1.2		
415.0	3.1	¼" sid strgr at 418.2	83	415		0.3		
418.0	1.1	Poor core recovery between 415.0 & 433.8.						
421.8	0.7	2" zone small solution cavities at 432.1.	84	420		0.2		
426.8	3.1	Fault w/sm wht gg at 437.6.	85	425		0.2		
430.0	1.9	Small py strgrs occur between 436.3 to	86	430		0.2		
431.6	0.7	437.8.						
433.8	1.1		87	435		0.2		
437.8	2.4							
End Box 11			88	440		0.2		
		440.0' - 477.0' Lt gry qtzite w/some gry						
442.8	4.9	arg qtzite with many strgrs & pods py. Diss	89	445				
446.5	2.3	sid and strgrs sid.						
449.0	2.0	½" sid strgr at 464.0.	90	450		0.2		
453.0	3.9	Small fault at 469.7.						
454.9	1.9	Sm qtz vein at 469.8.	91	455		0.2		
458.8	3.2	Numerous small sid strgrs in bluish gry						
461.2	2.1	qtzite from 271.0 to 475.5.	92	460		0.2		
465.0	3.8	Fault at 476.1.	93	465		0.2		
467.2	1.4	Massive py & irregular sid strgrs in						
469.0	1.7	blusih qtzite from 476.3 to 477.7 (last	94	470		0.2		
471.1	2.5	1" is pyrite).						
473.8	1.1		95	475		0.2		
477.6	3.8		96	480				
End Box 12								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Dr.

Logged by Date
Drilled by

Hole No. SS 3504
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		477.0' - 491.3' Mostly lt & med gry qtzite w/some lt gry arg qtzite. Numerous pods & strgrs py and strgr sid - much diss sid and py						
		2" massive py at 479.0.						
		Pod sid w/py strgrs at 479.7.						
		6" zone of broken qtzite w/diss sid and some strgrs, small fractures are filled with py from 481.7 to 482.2.						
480.0	1.1	Fault w/blk py slickened sides at 482.8.						
481.0	0.8	10" diss py & sid from 482.6 to 483.5.						
486.0	4.8	Some pods and massive py strgrs from	E 4697	480-485	5.0	0.2		
490.2	4.2	483.8 to 486.0 in qtzite.	98	490		0.2		
492.0	2.0	Fault at 484.0.						
		½" massive py strgr at 486.5.						
		1" sid & py at 487.1.						
		Small fault at 487.7.						
		3" broken rock zone (Fault?) w/small solu cavities diss sid and py.						
		4" irregular sid w/py strgrs and tetra (?) at 489.3.						
		Fault at 490.1.						
		½" sid w/py at 490.2.						
		2" zone of small pods py in lt qtzite.						
496.6	3.8	491.3' - 525.8' Lt gry qtzite w/diss sid and	99	495				
501.3	4.6	occasional sericitic zones.	4700	500				
502.4	0.8	Faults at 501.6, 509.1 & 509.4.						
504.6	2.2		4700A	505				
507.4	2.4							
510.8	3.4		01	510				
End Box 13								
516.8	4.0		02	515				
520.8	3.3		03	520				
521.8	0.9							
525.8	1.9		04	525				
527.4	0.6							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Dr.

Logged by Date
Drilled by

Hole No. SS 3504
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		528.5' - 554.0' Hd bluish gry qtzite with numerous irregular sid strgrs. Some diss & massive py (Sid strgrs make approx. 45° angle						
531.0	3.6	with core.)	E 4705	525-530	5.0			
534.6	2.9	½" irreg sid strgr w/vugs & py at 527.4.	06	535				
538.9	4.3	Zone of irreg sid strgrs w/py from 528.9						
543.6	4.4	to 530.4.	07	540				
546.7	3.1	½" wht qtz at 545.8.	08	545		0.2		
551.4	4.7	1" bluish gg at 547.5.	09	550		1.9		
End Box 14		3" sid and massive py at 548.0.						
		2" sid w/py at 548.7.						
		Zone irregular strgrs from 549.0 to 550.5.						
		½" sid and py at 551.4.						
		½" sid w/tetra (?) at 552.8.						
556.2	4.2		10	555		0.8	% Cu.	
557.0	0.8	554.0' - 602.5' Lt grnish gry qtzite w/numer-						
562.0	4.9	ous bands diss sid.	11	560				
567.0	4.8	Several ¼" strgrs sid 557-563.	12	565		29.3	0.83	
568.5	1.5	1.2 sid, fair tetra at 564.0-565.3 appears						
572.3	3.5	to cut core axis at 70° to 90°.	13	570		3.4		
578.0	4.7	Several ½"-1" sid strgrs 565-567.	14	575		0.7		
583.1	4.7	Core mostly sid, little tetra, 567.0-569.2	15	580		0.2		
585.6	2.5	Strgrs cut core at angles from 45° to 75°,	16	585		0.2		
End Box 15		very irreg pattern. Occasional small sid						
591.5	4.8	sid strgr 570-588.	17	590		0.2		
594.5	2.9	Fault at 556.5-557.0.	18	595		0.2		
599.5	4.7	Smaller faults at 572 and 583.	19	600		0.2		
602.5	2.4							
607.5	3.4	602.5' - 624.0' Med gry qtzite with numerous	20	605				
610.5	2.0	sid strgrs.	21	610				
613.8	3.0	Faults at 602.5, 608.0, 613.8.	22	615		0.2		
617.6	2.3	Much loss of core 602.5 to 617.6.	23	620		2.2		
618.6	1.0	0.3 sid at 613.5.						
619.9	1.3	Broken with some sid-tetra 621.4-621.7.	24	625		37.1	0.82	
621.7	1.8	Sid py, good tetra 621.7-624.0.						
625.9	4.1	(Looks to be mostly approx at right angles						
		to core with some streaks py at 45°-60°						
		to core).						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol E. Dr.

Logged by Date
Drilled by

Hole No. SS 3504
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
630.6	4.7	624.0' - 695.1' Lt gry grn ser qtzite.	E 4725	625-630	5.0	3.0		
632.6	2.0	Fault at 632.4.	26	635		1.7		
637.5	1.6	6" sid w/qtz and some tetra from 637.5						
642.0	3.2	to 638.0.	27	640		0.6		
643.0	0.5	6" sid w/qtz and tetra from 638 to 638.5-						
646.6	2.3	Some lt gry qtzite between.	28	645		2.6		
650.1	4.5	3" sid w/qtz & some tetra from 639.5 to	29	650		0.8		
655.0	4.9	639.8.	30	655		0.5		
659.9	4.8	Numerous small irregular sid strgrs w/py	31	660		0.2		
664.2	4.3	and tetra (?) at all angles to core. Occur	32	665		0.2		
End Box 17		between 640.0 and 654.1.						
668.7	4.4	Small faults at 646.0, 649.0 and 649.8.	34	670		1.5		
672.0	3.1	Fault w/4" gg and crushed rock at 652.2 -						
675.0	3.0	Ser on both sides.	35	675		0.7		
679.5	4.5	Fault w/1" crushed rock at 656.1.						
682.0	2.5	10" sid w/qtz py & tetra (?) from 659.9	36	680		0.2		
684.2	2.2	to 660.8.	37	685		4.2		
690.6	6.1	1" sid w/qtz at 661.5.	38	690		0.2		
692.6	2.0	1" crumpled rock at 662.2.						
695.1	2.7	Numerous small bedding slips from 665.0 to 695.1.	39	695		0.2		

END OF HOLE

Split Core Assays

Interval	Width	Oz.Ag..	% Pb	% Cu.
562.0-567.0	5.0	46.7		1.21
621.7-628.9	4.2	53.0		1.29

Tropari Survey

Depth	Bearing	Inclination
0'	S 03° W	Flat
500'	S 12° W	+ 1°

DIAMOND DRILL RECORD

Standpipe
Casing

Started 12-10-57
Finished 12-11-57
Hole Size EX
Depth 100.1
% Core Rec. 91

Mine SILVER SUMMIT
Location 337 Pol. E. Drift PE 3006
+ 164.0 E.
Logged by J.H.J. Date 12-13-57
Drilled by Pearson & Hauser & Kinnick

Hole No. SS 3505
Level 3000
Grid 351
Latitude 84 850 S
Departure 94 942 E
Elevation -261'
Bearing N 02° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-2.4	2.4							
3.8	1.4		E 4643	0 - 5	5.0			
8.3	4.5	0.0' - 35.1' Massive hd lt gry qtzite w/	44	10				
13.2	4.9	some zones of arg and ser from 18.1 to 20.7,						
15.8	1.6	from 22.0 to 22.5.	45	15				
20.7	4.3	Small fault at 29.0.	46	20				
25.0	4.3		47	25				
27.0	2.0							
29.8	2.8		48	30				
34.8	4.7							
End Box 1			49	35				
39.8	3.3		50	40				
42.5	2.7							
43.5	0.8							
45.5	1.9	35.1' - 75.3' About equal amts lt gry	51	45				
48.4	2.9	qtzite and arg qtzite w/ yellowish grn ser.	52	50				
53.4	4.5	Some small strgrs black pyrite.						
56.5	3.1	Small faults at 39.0, 43.2, 56.5 & 57.8.	53	55				
58.0	1.4	Fault w/sm gg at 57.5.	54	60				
63.0	5.0	1" zone of py strgrs at 64.1.						
64.8	1.5	Fault w/sm wht gg at 70.0.	55	65				
66.1	0.9							
67.6	1.7							
70.4	2.0		56	70				
72.2	1.5							
End Box 2								
74.7	1.5		57	75				
77.0	1.9	75.3' - 100.1' Mostly lt gry qtzite w/diss sid						
81.7	4.2	and some strgrs py.	58	80				
84.4	1.9	Faults at 83.9.						
86.8	2.4	Badly broken core from 88.0 to end.	59	85				
88.8	1.5	Poor core recovery from 93.0 to 101.0.						
90.4	1.6	1" py strgrs and sid at 95.0	60	90				
93.1	2.2	Fault w/crushed rock and gg at 95.1.	61	95				
97.5	1.9							
100.1	1.8		62	100.1	5.1			
		END OF HOLE						

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

January 6, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: John D. Bardill, Bureau of Mines

Subject: Routine inspection report, Docket No. DMEA-2879 (lead-zinc, copper-antimony), Polaris Mining Company, Polaris East Exploration Project, Shoshone County, Idaho, Contract No. Idm-E541 (Amended)

This project was inspected on December 13, 1957, accompanied by Mr. James Jolly, company geologist.

The 3000 level east drift had been extended 1,022 feet under the amended contract. The vein structure had pinched out so the Operator discontinued the drift temporarily, pending results of diamond drilling. The drift is in bleached St. Regis formation.

Two diamond drill stations were cut at Sta. SS3005 + 28 ft.; crosscut 346N is 11 feet long and 346S is 7 feet deep.

DDH SS3505 was drilled to a depth of 100.0 ft., bearing about N. 3° E. from a drill station at Sta. SS3006 + 164 ft. DDH SS3506, bearing S. 3° W., was drilled from the same location to a depth of 77.6 feet. This hole will be deepened.

Two diamond drill holes were drilled from stations at SS3006 + 55 feet. Hole SS3503, bearing S. 4° W., was drilled to a depth of 164 feet. Hole SS3502, bearing N. 4° E., was 68 feet deep.

DDH SS3299, located at SS3088 + 40 ft., bearing S. 89° E., was drilled to a depth of 473.2 feet.

DDH SS3501, drilled from Sta. SS3098, bearing S. 4° E., was 292.2 feet deep.

DDH SS3500, located at SS3002 + 107 ft., bearing S. 5° W., was only 40.6 feet deep.

DDH SS3501 and SS3504 each encountered siderite structures. A 5-ft. siderite structure was cut in SS3504 at 382 feet but was practically barren of silver-lead-copper mineralization.

Drilling will be continued to more clearly define the structure indicated to the south of the drift.

The following survey data was taken from the company transit survey notes. The distances were checked and confirmed.

3000 Level East Drift		Work completed under contract, Stage II
To SS 3089		34.50 ft.
SS 3089-3095	S 78° 31' 00" E	58.41
3095-3096	S 62° 27' 00" E	82.78
3096-3099	S 86° 42' 00" E	60.83
3099-3001	N 71° 08' 30" E	199.37
3001-3003	N 51° 57' 30" E	93.86
3003-3004	N 82° 07' 00" E	46.88
3004-3005	N 85° 52' 00" E	138.43
3005-3006	S 87° 17' 30" E	124.17
3006-face		183.00
		1022.23 ft.

Sta. SS 3001 was formerly designated Pe-1.

3000 Level East Drift Crosscuts

334 crosscut north		17.3 ft.
337 " "		60.9
346 " "		11.0
346 " south		7.0
		96.2 ft.

Diamond Drilling

Previously reported through Hole SS 3298	1,391.4 ft.
Hole No. SS 3299	473.2
Hole No. SS 3500	40.6
Hole No. SS 3501	292.2
Hole No. SS 3502	68.0
Hole No. SS 3503	164.0
Hole No. SS 3504	392.0
Hole No. SS 3505	100.1
Hole No. SS 3506	77.6
	2,999.1 ft.
Less footage remaining in Stage I	756.4
	2,242.7 ft.

Status of the contract at the time of the inspection was:

Date of contract:	November 1, 1953		
Termination date:	June 1, 1958		
Amount of contract:	Stage I	$726,838.94	(completed)
	Stage II	147,000.00	
	Rounded to:	$873,840.00	
Amount spent:	Stage II	49,091.28	(thru October '57)

	Authorized	Completed
Drifting)	2,500 ft.	1,022.23 ft.
Crosscutting)		96.20 ft.
Sideswiping	100 ft.	80 ft.
Diamond drilling	5,000 ft.	2,242.7 ft.

John D. Bardill

John D. Bardill

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
USBM (2)

Form ATE-104 (Rev.) (April 1952)

RECEIVED DEC 26

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Stage II

Month of November, 1957 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, lead, antimony(and incidental silver)

Address Box 320 - Wallace, Idaho

Contract Amount, $ ~~147,000.00~~ 873,840.00 Government Participation: 50 % Amount, $ ~~73,500.00~~ 436,920.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:				1/9/58 WPK		
Drilling 840.8 @ core $4.50	3783.60	5294.25	9077.85	3783.60	5294.25	9077.85
Bulldozing						
Crosscutting 11.5 @ 48.78	560.97	3995.08	4556.05	560.97	3995.08	4556.05
Drifting 202.4 @ $48.78	9873.07	37506.95	47380.02	9873.07	37506.95	47380.02
Sidesnipe		2295.00	2295.00		2295.00	2295.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I					726838.94	726838.94
TOTALS	14217.64	49091.28	63308.92	14,217.64	775930.22	790,147.86

I certify that the above bill is correct and just and that payment therefor has not been received.

Date December 6, 1957 *Payee Polaris Mining Company

Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 7108.82

Signature [signature] (Authorized Certifying Officer)

Date 12/20/57 Vou. No. 2090

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 6541 in accordance with the terms of the contract.

Signature /s/ John A. Bardill Title Metallurgist Date Dec. 16, 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. B. Weissenborn Title Exec. Officer Date Dec. 16, 1957

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

RECEIVED DEC 26 '57 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage II

Month of November 1957 Docket No. DMEA 2879 Contract No. IBM-E 541

Operator's Name Polaris Mining Company

Address Box 320 - Wallace, Idaho

Minerals Copper, lead, antimony (and incidental silver)

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting	feet	9873.07	202.4	47380.02	971.3 (1064.7)	48.78	2500	48.78*
Crosscutting		560.97	11.5	4556.05	93.4			
Raising								
Shafts ~~xxxx~~ Sideswipe				2295.00	90.0	25.50	100	25.50*
Winzes								
Drilling: Core	feet	3783.60	840.8	9077.85	2017.3	4.50	5000	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		14,317.64						Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date December 6, 1957 Operator Polaris Mining Company

Per [signature] Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

Remarks:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract.

/s/ John D. Pardee

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

December fourth
1957

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
November - 1957
Docket No. DMEA - 2879
Contract No. IDM - E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of November included 202.4 feet of drifting, 11.5 feet of crosscutting and 840.8 feet of diamond drilling.

337 East drift advanced 202.4 feet to station PE3006 plus 63.6 feet. As shown on the attached geologic map the fault-vein structure previously followed by the drift pinched out or was offset by faulting. Diamond drill holes in the north and south walls have thus far failed to show a continuation of this structure.

346 North Diamond Drill crosscut advanced 5.4 feet and 346 South crosscut was driven 6.1 feet.

Diamond drill hole No. 3299 was completed to 473.2 feet for an advance of 48.2 feet. This hole exposed a zone of siderite and pyrite stringers from 448 to 455 feet, some of which contained minor amounts of tetrahedrite. The best sludge assays were 3.0 ounces silver from 445 to 450 feet and 4.5 ounces silver from 450 to 455 feet.

Hole No. 3501 was drilled 292.2 feet southeasterly from a point near station SS3098. Hole No. 3502 was drilled 68.0 feet northerly and No. 3503, 164.0 feet southerly, both from approximately 55 feet east of station PE3006. None of these holes intersected significant mineralization. The logs of holes 3299, 3501, 3502, and 3503 are included with this report.

Hole 3504 was started southerly from 346 south crosscut and had reached a depth of 268.4 feet at the end of November.

331-B Raise advanced 39.4 feet to a height of 187.9 feet, exposing rather weak mineralization early in the month but showing some improvement near the present back. This raise has now reached the elevation at which the north-south siderite vein would have been intersected by diamond drill hole No. 3293 which

was stopped in June during the installation of 24-inch fan line. Caved conditions at the collar of hole 3293 now prevent setting up again on this hole. It will probably not be extended so the log is now submitted.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH/hdh/jh

Note: All sludge assays are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 5-7-57
Finished 7-3-57
Hole Size EX
Depth 328.4
% Core Rec. 95.52

Mine SILVER SUMMIT
Location Polaris East Exploration Project SS 3077 + 126.0 E.
Logged by R.A.L. & J.H.J Date 7-4-57
Drilled by Hauser and Holten

Hole No. 3293
Level 3000 Pol. E. Dr.
Grid 326
Latitude 8484 S
Departure 93669 E
Elevation -267
Bearing S 33° E
Inclination + 30°

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	5.0	0.0' - 21.4' Mostly lt gry qtzite.	E4004	0 - 5	5.0			
7.2	2.1	1/8" strgrs pyrite at 16.0 and 16.5.						
12.2	5.0	1/8" strgrs pyrite w/specks tetra at	05	10				
End Box 1		20.0 and 22.8.	06	15				
17.3	3.7	Bedding makes a 22° angle w/core.						
21.4	3.8		07	20				
26.4	4.9	21.4' - 35.0' Soft lt gry arg qtzite w/specks	08	25				
29.5	3.1	and bands of diss sid.						
31.5	1.8	Fault w/white gg and ser from 20.0 to 21.4.	09	30				
33.5	1.9	Several small bedding slips from 29.5						
35.0	1.2	to 44.6.	10	35				
40.0	4.9		11	40				
44.6	4.3		12	45				
End Box2		35.0' - 80.0' Mostly lt gry qtzite w/much						
49.6	4.9	diss sid.	13	50				
53.1	3.4	0.7 soft lt gry arg qtzite at 73.5.	14	55				
57.2	3.7	Several very small strgrs sid and pyrite						
62.1	4.9	from 54.4 to 67.0.	15	60				
65.5	3.2	0.2 strgr sid and qtz at 59.5.	16	65				
70.5	4.9	Many small bedding slips from 70.5 to	17	70				
72.8	2.3	76.5.						
75.4	2.6		18	75				
78.5	3.0							
EndBox3								
81.1	2.6		19	80				
82.0	1.1							
84.8	2.5	80.0' - 115.0' About equal amts hd med gry	20	85				
87.0	2.2	qtzite and arg qtzite. Diss sid throughout.						
88.7	1.6	0.2 shear zone at 86.0.						
90.7	2.0	Small slip at 112.0.	21	90				
95.7	4.9		22	95				
100.0	4.8		23	100				
105.7	4.7		24	105				
110.7	4.8		25	110				
115.6	4.7		26	115				
End Box 4								

Page

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

DIAMOND DRILL RECORD

Mine SILVER SUMMIT
Location Polaris East Exploration Drift

Logged by Date
Drilled by

Hole No. 3293
Level 3000 Pol. E. Dr.
Grid 326
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
119.5	3.7		E4027	115-120	5.0			
124.5	5.0		28	125				
129.4	4.9		29	130				
134.4	5.0		30	135				
136.3	1.0							
139.4	3.1		31	140				
141.9	2.7							
143.5	1.2							
144.0	0.5		32	145				
146.0	1.8							
End Box 5								
148.0	2.0							
150.1	2.0	115.0' - 220.4' Mostly hd tan qtzite w/much	33	150				
152.5	2.4	diss sid. Some partically silicified arg						
154.7	1.9	qtzite cones. Core badly broken. Many small						
159.6	4.8	sid veinlets throughout.	34	155				
162.3	2.5	Bedding slip at 119.5.	35	160				
165.3	3.0	0.1 shear zone at 143.5.	36	165				
168.2	2.9	0.2 sid and pyrite at 148.5.						
170.2	2.0	0.2 gg and crushed qtzite pyrite and sid	37	170				
172.2	2.0	at 162.3.						
176.9	4.6	0.2 pyrite and sid at 165.3 and 174.0.	38	175				
180.4	2.4	Soft lt gry arg qtzite w/few small strgrs	39	180				
End Box 6		white carbonate from 210.4 to 211.5.						
183.0	2.6							
184.5	1.2		40	185				
186.8	2.3							
190.8	4.0		41	190				
193.2	2.4							
195.8	2.6		42	195				
196.4	0.6							
198.8	2.4							
200.6	1.7		43	200				
201.8	1.2							
203.0	1.3		44	205				
207.6	4.4							
208.6	1.0							
210.4	1.8		45	210				
End Box 7								
212.5	2.1							
215.7	3.2		46	215				
218.7	3.0							
220.4	1.7		47	220				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris East Exploration Project

Logged by Date
Drilled by

Hole No. 3293
Level 3000 Pol. E. Dr.
Grid 326
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		220.4' - 249.0' Hd lt gry qtzite w/little						
225.4	5.0	diss sid and w/a few strgrs sid and pyrite	E4048	220-225	5.0			
229.0	3.6	throughout. Core not so badly broken. Color	49	230				
233.0	4.0	of qtzite changes abruptly from tan to lt gry	50	235				
238.0	4.8	at 220.4.						
242.0	3.7	Small faults w/gg and crushed qtzite at	51	240				
247.0	4.7	233.0 and 238.0.	52	245				
End Box 8								
252.0	4.9		53	250				
253.0	0.9	249.0' - 276.0' Mostly soft lt gry arg qtzite	54	255				
258.0	4.9	w/some diss sid. Very good core. Some of	55	260				
262.0	3.8	the core appears to be very arg w/small	56	265				
267.9	5.5	solution cavities especially at 268.0 to						
272.9	4.8	270.0.	57	270				
End Box 9								
277.7	4.6	276.0' - 307.0' Lt gry qtzite w/much diss	58	275				
281.4	4.2	sid.	59	280				
286.9	5.2	Small sid strgrs from 279.0 to 307.0.	60	285				
290.9	4.0	0.5 sid strgrs at 279.0 and 306.0.	61	290				
295.5	4.5	Small faults w/gg at 295.3 and 300.2.	62	295				
300.5	4.8		63	300				
305.5	4.8		64	305				
309.0	3.3	307.0' - 328.4' Mostly soft gry arg qtzite	65	310				
End Box 10		w/diss sid. Core badly broken from 309.2						
310.0	1.0	to 328.4. Many small sid strgrs.						
314.3	4.3	0.1 sid at 312.5, 0.2 at 313.0. 0.3 at	66	315				
319.3	3.6	321.0 and 0.1 at 314.5.	67	320				
324.3	4.4	Faults at 310.0 and 314.3.	68	325				
328.4	4.0		69					

Note: All sludges are trace or no silver unless otherwise note

DIAMOND DRILL RECORD

Standpipe
Casing

Started 10-14-57
Finished 11-5-57
Hole Size EX
Depth 473.2
% Core Rec. 85.46

Mine SILVER SUMMIT
Location Polaris E. Exploration Project
SS 3088 + 40.0 S = Hole
Logged by J.H.J. Date 11-11-57
Drilled by Hauser and Pearson

Hole No. 3299
Level 3000
Grid 330 E
Latitude 85 149 S
Departure 93 845 E
Elevation - 270'
Bearing See Survey
Inclination Last Page

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	2.5	No	Sludge	0 - 5	5.0			
6.0	0.6							
7.2	1.2							
9.0	1.6	0.0' - 24.6' Lt gry qtzite w/some small						
10.8	1.5	sid strgrs. Some diss py along bedding	E 4365	10		0.2		
13.0	0.8	planes (Core splits parallel to hole).						
15.0	1.7		66	15		0.2		
17.0	1.6							
19.0	1.3							
20.9	1.7		67	20		0.2		
21.7	0.8							
24.1	2.1		68	25		0.2		
25.5	1.3							
27.7	2.2	24.6' - 35.6' Lt gry arg qtzite w/some diss						
30.9	1.3	sid.	69	30		0.1		
35.4	3.0		70	35		0.1		
36.9	0.9	35.6' - 41.7' Soft grnish gry sericitic						
41.7	1.8	beds (Cored well and breaks parallel to hole.)	71	40		0.1		
End Box 1								
47.0	1.9		72	45		0.1		
50.1	3.1		73	50				
52.2	2.0							
55.1	2.9	41.7' - 78.9' Mostly hd lt gry qtzite	74	55				
57.1	2.0	w/occassional small zones of softer lt gry						
58.9	1.8	arg qtzite (Bedding is nearly parallel to	75	60				
62.4	3.2	hole).	76	65				
67.4	4.9							
71.8	4.0		77	70				
75.3	3.4		78	75				
77.1	1.8							
End Box 2								
78.9	1.8							
81.0	2.1	78.9' - 85.2' Lt gry arg qtzite.	79	80				
85.9	4.8		80	85				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Exploration Project

Logged by Date
Drilled by

Hole No. 3299
Level 3000
Grid 330 E
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
90.7	4.8		E4381	85 - 90	5.0			
93.2	1.9							
96.0	2.7		82	95				
98.5	2.5							
102.5	4.0		83	100				
105.0	2.5	85.2' - 125.0' Hd lt gry qtzite -(breaks	84	105				
106.4	1.4	splintery as beds are nearly parallel to						
End Box 3		hole).						
107.4	1.0							
112.2	4.6		85	110				
113.6	1.4		86	115				
116.1	1.9							
118.5	1.5							
120.5	1.4		87	120				
122.2	1.7							
125.7	3.5		88	125				
130.5	4.8	125.0' - 133.7' Lt gry arg qtzite.	89	130				
135.3	4.8		90	135				
137.0	1.7							
139.2	1.0		91	140				
End Box 4								
142.2	2.6							
147.2	2.8	133.7' - 171.0' Hd lt gry qtzite w/occas	92	145				
150.5	2.4	seams ser from 163.0 to 167.2.	93	150				
155.2	4.5	Diss py at 162.0	94	155				
159.8	4.6	Fault w/1" gg at 160.5.						
160.6	0.7		95	160				
161.7	1.0							
163.7	2.0							
164.9	0.8		96	165				
168.1	1.7							
171.6	3.5		97	170				
End Box 5								
176.6	4.8	171.0' - 179.3' Lt yellowish grn sericitic	98	175				
179.8	3.2	arg qtzite.	99	180				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Exploration Project

Logged by Date
Drilled by

Hole No. 3299
Level 3000
Grid 330 E
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
184.8	5.0	179.3' - 200.2' Lt gry qtzite w/much	E 4400	180-185	5.0	0.2		
187.7	2.9	diss sid.						
191.7	4.0		01	190				
195.5	3.8		02	195				
198.8	3.3							
199.7	0.9							
201.8	1.9		03	200				
203.8	1.4	200.2' - 205.5' Lt grn sericitic arg qtzite						
205.5	1.3	(Badly broken core).	04	205				
208.4	2.9	205.5' - 208.4' Lt gry arg qtzite w/diss						
End Box 6		sid paralleling core.						
209.9	1.5		05	210				
211.6	1.7							
215.2	4.4		06	215				
216.5	1.2							
221.0	4.0		07	220				
224.5	3.5							
226.0	1.5		08	225				
228.3	2.1		09	230				
233.0	4.7		10	235				
238.0	5.0							
240.0	2.0		11	240				
End Box 7								
241.3	1.3							
242.3	1.0		12	245				
247.3	5.0	208.4' - 288.2' Lt gry qtzite w/diss sid						
250.8	3.5	w/some small ser seams.	13	250				
252.3	1.5	Small sid strgr at 254.6. which cuts						
254.6	1.6	core at 30° angle.	14	255				
257.6	3.0	Much diss sid from 242.0 to 257.0.						
259.4	2.7	2" diss sid with massive py at 256.9						
260.2	0.7	and ½" at 275.0.	15	260				
261.4	1.2							
263.6	0.6							
264.7	0.9		16	265				
266.5	1.9							
267.5	1.0							
269.8	2.1							
270.9	0.9		17	270				
272.7	1.8							
274.0	1.3		18	275				
End Box 8								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Exploration Project

Logged by Date
Drilled by

Hole No. 3299
Level 3000
Grid 330 E
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
276.0	0.9							
279.4	3.1							
281.6	1.4		E4419	275-280	5.0	0.2		
286.6	4.9		20	285				
288.2	1.6							
291.1	2.7	288.2' - 292.2' Med gry arg qtzite.	21	290		0.2		
291.8	0.7	Small fault at 291.6.						
296.8	5.0		22	295		0.2		
301.6	4.0		23	300		0.2		
305.5	2.7		24	305				
311.0	4.5	292.2' - 395.2' Lt gry qtzite w/diss sid	25	310				
315.2	2.9	which occurs in bands more or less parallel-	26	315				
End Box 9		ing the core.						
320.8	4.7	Fault w/ser and some gg at 329.5.	27	320				
325.0	4.3	Small sid strgrs at 332.5, 333.0, 334.7	28	325				
330.8	4.2	and w/py at 341.2.	29	330				
335.8	4.8	Zone of small solution cavities from	30	335				
340.8	4.3	341.4 to 342.2.	31	340				
345.8	3.7	4" sid, wht qtz and py (nearly parallels	32	345				
350.7	4.0	core) at 349.1.	33	350				
354.6	3.1	Several small sid w/py strgrs from 349.4	34	355				
End Box 10		to 395.2.						
360.5	3.9	2" mass of small sid strgrs w/py and	35	360		0.2		
363.3	2.8	tetra (?) at 402.2.	36	365		3.3		
268.2	4.6	2" vein sid w/py and tetra (?) at 402.4.	37	370		0.2		
373.3	4.8	Py strgrs from 360.0 to 361.3, ½" at	38	375				
377.9	1.1	363.5 and small strgrs at 383.0 and at						
384.9	3.1	394.0.	39	380				
389.4	4.5		40	385				
392.4	3.5		41	390				
397.4	4.7		42	395				
		395.7' - 400.9' Gry qtzite, some of which						
		is very hard.	43	400				
401.1	2.0	1" wht qtz at 396.3.	44	405		0.2		
EndBox 11		3" white qtz at 398.3.						
		Fault at 400.0.						
406.1	4.0	400.9' - 429.0' Mostly hd lt gry qtzite w/	45	410		0.2		
411.1	2.0	some softer lt gry and gry arg qtzite and	46	415				
415.0	2.4	yellowish diss sid aligned in the direction	47	420				
420.0	2.1	of hole. Some sid strgrs and scattered	48	425		0.2		
425.0	3.5	spots and pods py. The core breaks parallel	49	430				
430.0	5.0	to hole along ser sms. Fault w/some gg at 412.0						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Exploration Project

Logged by Date
Drilled by

Hole No. 3299
Level 3000
Grid 330 E
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		429.0' - 470.2' Hd lt gry qtzite w/much diss and massive strgrs py and numerous strgrs sid.						
435.0	5.0	7" sid w/wht qtz, wall rock, py and tetra	E4450	430-435	5.0			
440.0	5.0	at 448.8.	51	440		0.2		
445.0	4.5	2.2 sid w/wht qtz, tetra and py from	52	445				
End Box 12		451.0 to 453.2.						
450.0	5.0	9" wht qtz w/sid py and some tetra from	53	450		3.0	No	
455.0	4.5	454.1 to 455.0.	54	455		4.5	No	
460.0	5.0	½" sid strgr at 455.6, 455.8, 556.8,	55	460		1.6		
465.0	5.0	463.7 and 469.0.	56	465				
470.2	5.1	3" sid w/wht qtz and py at 466.3.	57	470		0.7		
473.3	0.0	470.2' - 473.3' No core recovery.	58	473.2	3.2	0.4		
End Box 13								

END OF HOLE

TOPARI SURVEY

Depth	Bearing	Inclination
Collar	S 89° E	0° (Brunton)
325.0	S 70° E	+2°

DIAMOND DRILL RECORD

Standpipe
Casing

Started 11-6-57
Finished 11-18-57
Hole Size EX
Depth 292.2
% Core Rec. 91%

Mine SILVER SUMMIT
Location 337 Pol. E. Drift.
SS 3098 + 10.0 E.
Logged by J.H.J. Date 11-24-57
Drilled by Hauser and Pearson

Hole No. 3501
Level 3000
Grid 337
Latitude 84 967 S.
Departure 94 235 E.
Elevation -264'
Bearing S 40° E.
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4.0	4.0	0.0' - 13.0' Lt gry qtzite w/small sid	E 4459	0 - 5	5.0			
9.0	4.7	stgrs and occassional py pods and strgrs.	60	10				
11.1	1.9	Small slips at 10.2 and 10.7						
14.2	2.1	13.0' - 14.9' Med gry arg qtzite. Bedding slip at 14.9.	61	15				
19.0	4.5	14.9' - 20.9' Lt gry qtzite w/much diss sid.	62	20				
23.0	3.8	20.9' - 23.8' Med gry arg qtzite. Bedding makes about a 45° angle w/core.	63	25				
28.0	4.7	23.8' - 36.5' Lt gry qtzite w/small	64	30				
33.5	4.5	solution cavities and diss sid - Core has						
End Box 1		small white strgrs thru-out the rock (appears brecciated).	65	35				
38.0	4.2							
43.0	4.3	36.5' - 69.0' About equal amts lt gry qtzite	66	40				
45.1	2.1	and grnish and med gry arg qtzite. - Diss	67	45				
48.2	2.8	sid is mainly in the hard qtzite and py						
49.4	1.1	pods and strgrs in the arg qtzite.	68	50				
52.6	2.9	3" ser zones at 52.8 and 67.7 w/small						
55.9	2.6	slips.	69	55				
58.1	2.2							
59.8	1.4		70	60				
64.7	4.6		71	65		0.2		
68.0	3.2							
End Box 2			72	70				
72.8	4.8		73	75				
77.8	4.3							
81.8	3.8		74	80				
83.8	1.9							
85.0	1.2		75	85				
87.0	2.0							
90.3	3.7		76	90				
93.4	2.4							
96.0	3.4		77	95				
98.7	2.4							
100.4	1.6	69.0' - 137.1' Mostly lt gry qtzite w/	78	100				
102.2	1.6	interbedded arg qtzite which are much thiner						
End Box 3		bedded.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Drift
SS 3098 + 10.0 E.
Logged by Date
Drilled by

Hole No. 3501
Level 3000
Grid 337
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
106.9	4.7	69.0' - 137.1' (Cont'd)	E 4479	100-105	5.0			
111.8	4.1	Fault w/2" broken rock and gg at 83.5.	80	110				
114.5	2.1	Occassional py strgr, some diss.	81	115		0.2		
116.0	1.3							
118.0	1.9							
119.0	0.7		82	120				
122.7	3.3							
125.5	1.8		83	125				
128.5	1.9							
131.5	2.1		84	130				
133.6	2.5							
135.0	1.4		85	135		0.2		
137.1	1.8							
139.1	1.8	137.1' - 144.1' Lt yellow-grnish gry arg	86	140		0.1		
End Box 4		qtzite w/much diss py and some py strgrs.						
144.1	4.3		87	145		0.2		
150.0	4.6		88	150		0.2		
155.0	4.5		89	155				
159.5	4.0	144.1' - 188.7' Hd med gry qtzite w/much						
161.3	1.8	diss py and py strgrs - Some small sid	90	160				
162.8	1.3	strgrs. - Many small slips.						
164.9	2.0	Fault at 16.0 w/some gg and broken rock.	91	165				
169.9	4.7	Fault at 162.6, 164.8 and 169.2.	92	170				
172.0	1.9	Fault at 175.4 w/1" gg and crushed rock.						
175.8	3.5		93	175				
178.0	2.1							
End Box 5								
180.5	2.9		94	180				
182.0	1.3							
187.0	4.8		95	185				
End Box 5								
192.0	4.9	188.7' - 249.0' Med gry qtzite w/much	96	190		0.2		
197.0	4.8	diss py, many strgrs sid and py and some	97	195		0.2		
202.0	4.5	tetra.	98	200		1.1		
205.8	3.6	1" py strgrs at 189.2.	99	205		0.5		
208.6	2.8	Fault at 189.7.						
211.4	2.5	1.5 py, sid, strgr zone from 189.8 to	4500	210				
215.0	3.5	191.3.	01	215				
End Box 6		1" py at 194.5.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Drift

Logged by Date
Drilled by

Hole No. 3501
Level 3000
Grid 337
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
218.7	4.0	188.7' - 249.0' (Cont'd)						
220.6	1.8	1" sid and py strgr w/tetra at 197.5.	4502	215-220	5.0			
223.7	3.0	9" massive py w/some sid and possible						
226.8	2.3	tetra? from 200.4 to 201.2.	03	225				
231.8	4.7	1" py sid strgr w/tetra at 203.2.	04	230				
235.6	3.5	Many py pod and strgr and some sid strgrs	05	235		0.2		
238.0	2.4	from 203.0 to 213.5.						
243.0	4.9	Fault w/black slicken sides at 207.8.	06	240				
245.5	2.5	Faults at 215.5 and w/gg at 216.0.	07	245				
248.0	2.4	Sid and py strgrs from 218.0 and 250.2.						
250.2	2.2	3" small py strgrs w/sid at 323.7.	08	250				
End Box 7		Fault w/6" hd broken rock partially						
		cemented (?) by py w/occurs in small						
255.2	5.0	strgrs through at 225.5.	09	255		0.2		
360.2	4.6	Sid strgrs w/py and tetra (?) at 235.7.	10	260		0.6		
362.8	2.5	2" irregular shaped sid strgrs w/py						
265.0	2.2	at 249.1.	11	265		0.2		
268.0	2.8							
270.3	2.1	249.0' - 280.3' Hd almost wht qtzite w/num-	12	270		0.2		
272.6	1.3	erous strgrs and massive py and much diss						
273.9	0.8	py and many strgrs sid w/py.						
274.7	1.7	2.0 massive py from 254.1 to 256.1.	13	275				
276.4	1.7	½" py w/sid at 256.9 and 257.4.						
280.3	3.8	1" wht qtz vein w/diss sid at 272.8.	14	280		0.2		
283.5	3.3	280.3' - 285.0' Lt bluish gry qtzite w/much						
End Box 8		diss py, numerous strgrs sid & py to 284.7.						
285.2	1.6	1.0 zone w/many irregular strgrs sid w/py	15	285		0.2		
		& py w/tetra (?) Some para the core others						
287.0	1.5	cross it.						
288.5	1.3	Small sid strgr w/py & tetra(?) at 284.7.						
290.3	1.4		16	290		0.1		
292.2	1.3	285.0' - 292.2' Lt gry qtzite w/bedding	17	292	2.0	0.2		
End Box 9		slips in sericitic zones.						
		END OF HOLE						

DIAMOND DRILL RECORD

Standpipe
Casing

Started 11-18-57
Finished 11-19-57
Hole Size EX
Depth 68.5
% Core Rec. 86

Mine SILVER SUMMIT
Location 337 Polaris E. Drift
PE 3006 + 55.5 E.
Logged by J.H.J. Date 11-21-57
Drilled by Pearson and Hauser

Hole No. SS 3502
Level 3000
Grid 349
Latitude 84 847 S
Departure 94 833 E
Elevation -262'
Bearing N 04° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-2.0	1.0							
4.0	1.3		E4518	0 - 5	5.0	0.2		
6.3	1.2							
8.0	1.6							
10.6	1.5		19	10				
11.9	1.3							
13.1	0.9							
13.9	0.7							
15.6	1.6	0.0' - 68.5' Hd lt gry qtzite w/some softer	20	15		0.2		
17.8	2.1	zones of sericitic rock w/small slips - Some						
21.0	3.1	tan qtzite bands - More or less massive qtzte	21	20				
22.2	1.2	but some appears thin bedded.						
23.5	1.3	Fault w/some gg at 13.4.						
25.6	2.1	Slips in sericite at 13.8.	22	25				
27.6	2.0	½" fault zone somewhat flaky w/each						
30.5	2.9	having shiny black slicken sides at	23	30				
32.4	2.0	28.1.						
33.6	1.2	Faults w/1" gg and crushed rock at 32.1.						
End Box 1								
36.8	2.7		24	35				
40.7	3.1		25	40				
44.4	3.2							
45.3	0.9		26	45				
46.6	1.1							
51.6	4.8		27	50				
56.6	4.6		28	55				
61.6	4.8		29	60				
66.6	2.5		30	65		0.6		
68.5	1.9		31	68.5	3.5			
End Box 2								
		End Of Hole						

DIAMOND DRILL RECORD

Standpipe
Casing

Started 11-20-57
Finished 11-22-57
Hole Size EX
Depth 164
% Core Rec. 94

Mine SILVER SUMMIT
Location 337 Polaris E. Drift
PE 3006 + 55.0 E.
Logged by J.H.J Date 11-23-57
Drilled by Pearson and Hauser

Hole No. SS 3503
Level 3000
Grid 349
Latitude 84 857 S.
Departure 94 834 E.
Elevation -262'
Bearing S 04° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-2.0	1.7	0.0' - 2.4' Yellowish grn sericitic qtzite.						
2.7	0.7							
4.3	1.4	2.4' - 24.9' Lt gry qtzite w/some beds tan	E4532	0 - 5	5.0			
6.7	2.3	due to diss sid and occasional ser seams.						
7.7	0.9	1.2 broken qtzite w/small strgrs sid						
10.5	2.8	and py from 12.8 to 14.0.	33	10				
12.5	1.4	About 1" finely crushed rock w/some gg						
15.3	2.3	at 13.0.	34	15				
18.1	2.4							
22.0	3.7		35	20				
25.2	2.9		36	25				
27.5	1.9							
30.8	3.3		37	30				
34.6	3.2		38	35				
End Box 1		24.9' - 65.6' Mostly thinly bedded lt gry						
36.0	1.4	sericitic arg qtzite w/many seams sericite.						
38.7	2.4	Some lt gry qtzite. - Numerous bedding						
40.7	2.0	slips.	39	40				
42.2	1.5	Fault at 49.1 and 49.5.						
44.7	2.1	½" sid strgr w/qtz at 60.0.	40	45				
49.7	4.5							
51.5	1.8		41	50				
55.8	2.7		42	55				
57.0	1.2							
62.0	4.8		43	60		0.2		
65.6	3.3	65.6' - 70.0' Whitish gry arg qtzite	44	65		0.2		
67.7	1.8	w/occasional ser seams.						
68.2	0.5	½" sid w/qtz at 65.8.	45	70				
End Box 2		1" wht qtz at 67.6.						
70.3	2.1	70.0' - 73.3' Lt tanish gry qtzite.						
73.3	3.0							
			46	75				
78.4	5.0		47	80				
83.3	4.9		48	85				
88.0	4.7							
92.0	4.0		49	90				
93.4	1.4							
94.6	1.0		50	95				
96.0	1.6							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Drift

Logged by Date
Drilled by

Hole No. 3503
Level 3000
Grid 349
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
101.8	2.9	73.3' - 129.1' Lt gry and gry qtzite	4551	95-100	5.0			
End Box 3		w/ser sms and small strgrs and pods py.						
105.3	3.5	Some beds quite thin.	52	105		0.2		
108.6	3.8	Fault w/black slicken sides at 79.7.						
110.7	2.1	1" irregular py at 118.9.	53	110				
113.6	2.9							
115.0	1.3		54	115				
118.8	3.4							
121.0	2.2		55	120				
124.0	3.0		56	125				
129.1	5.1		57	130				
134.1	4.7	129.1' - 133.2' Lt gry qtzite w/some	58	135				
End Box 4		diss py.						
		Small sid strgrs w/py at 132.3.						
137.2	3.1							
142.2	4.7	133.2' - 164.0' Med gry arg qtzite w/diss	59	140				
143.3	1.1	sid which occurs in bands. Also diss py	60	145				
147.8	4.5	cubes and small strgrs. Some hard beds						
150.2	1.8	of qtzite.	61	150				
153.0	2.5	Small sid strgr at 148.1.						
157.7	4.7	1" wht qtz at 150.2.	62	155				
162.4	4.7		63	160				
164.0	1.2		64	164	4.0			
End Box 5								
		END OF HOLE						

Form ME-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED NOV 15 1957 D.M.E.A.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Stage II

Month of October, 1957 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)

Address Box 320, Wallace, Idaho

Contract Amount, $ 147,000.00 Government Participation: 50% Amount, $ 73,500.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:				12/10/57 W.P.K.		
Drilling core 565.4 @ $4.50	2544.30	2749.95	5294.25	2544.30	2749.95	5294.25
Bulldozing						
Crosscutting 3.7 @ $48.78	180.49	3814.59	3995.08	180.49	3814.59	3995.08
Drifting 222.4 @ $48.78	10848.67	26658.28	37506.95	10848.67	26658.28	37506.95
Sidewipe 10.0 @ $25.50	255.00	2040.00	2295.00	255.00	2040.00	2295.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I					726838.94	726838.94
TOTALS	13828.46	35262.82	49091.28	13828.46	762101.76	775930.22

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Nov. 6, 1957 *Payee Polaris Mining Company

Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 6914.23

Signature [signature] (Authorized Certifying Officer)

Date 11/14/57 Vou. No. 2092

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 541 in accordance with the terms of the contract.

Signature /s/ Stephen W. Zoldok Title Mining Engr. Date 11-12-57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Nov. 13, 1957

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED NOV 18 1957 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage II

Month of October 195 7 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)

Address Box 320, Wallace, Idaho

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet	10848.67	222.4	37506.95	768.9	48.78	2500	48.78*
Crosscutting		180.49	3.7	3995.08	81.9			
Raising								
~~Shaft~~ Sideswipe		255.00	10.0	2295.00	90.0	25.50	100	25.50*
Winzes								
Drilling: Core	feet	2544.30	565.4	5294.25	1176.5	4.50	5000	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		13728.46						TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date November 6, 1957 Operator Polaris Mining Company

Per [signature] Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

REMARKS:

(For Government use only)

* Maximum allowed by contract.

/s/ Stephen W. Zolock, Mining Engr.
11-12-57

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY

P. O. Box 320
WALLACE, IDAHO

EXTRA COPY
DMEA
RECEIVED NOV 15 1957

DATE	INITIALS	CODE

November fifth
1 9 5 7

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
October - 1957
Docket No. DMEA - 2879
Contract No. IDM - E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of October included 222.4 feet of drifting, 10.0 feet of sideswiping, 3.7 feet of crosscutting and 565.4 feet of diamond drilling.

337 East drift advanced 222.4 feet to station PE3005 plus 48.4 feet. As shown on the attached geologic map this drift continued along an easterly striking fault-vein structure and showed a 0.5 foot to 8.0 foot wide siderite vein with spots and streaks of tetrahedrite. Both the vein and the tetrahedrite mineralization weakened going easterly toward the present face. A diamond drill crosscut (346 north crosscut) was started and had advanced 3.7 feet at the end of October.

Diamond drill hole No. 3298 was completed to 215.9 for an advance of 99.8 feet. Hole No. 3500 was drilled to 40.6 feet in the south wall of 337 East drift from a point 73.0 feet east of station PE3004. Neither hole showed significant mineralization. The logs of these two holes are included with this report.

Diamond drill hole 3299 was started easterly from a point near SS3088 in the southwesterly drift and had reached a depth of 425.0 feet at the end of the month. This hole will be completed at a depth of about 500 feet and the log will be included with the report for November.

331-B Raise was driven 32.4 feet to a height of 148.5 feet. The siderite vein in this raise is still quite strong at the present back, but the tetrahedrite mineralization is somewhat weaker.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH:jh

Note: All sludge assays are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 9-20-57
Finished 10-16-57
Hole Size EX
Depth 215.9
% Core Rec. 91.7

Mine SILVER SUMMIT
Location 334 N X-Cut, Polaris E. Drift
SS3095 + 15' N
Logged by J.H.J. Date 10-17-57
Drilled by Hauser

Hole No. SS 3298
Level 3000
Grid 334
Latitude 84 905 S
Departure 94 075 E
Elevation -266'
Bearing N 18° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4.0	3.9		E 4320	0 - 5	5.0	Tr.		
6.6	0.9							
7.5	0.8							
9.3	1.8		21	10		2.2		
11.0	1.7							
14.9	4.2	0.0' - 42.5' Lt gry arg qtzite w/small pods,	22	15		2.8		
19.1	4.5	strgrs py and diss py. Numerous small slips						
22.7	3.2	throughout.	23	20		0.7		
23.5	0.8	Small sid strgr at 6.8.	24	25				
27.4	3.9	Small fault at 34.1.						
30.4	3.0		25	30				
32.4	2.0							
33.5	1.1		26	35				
End Box 1								
36.4	2.9							
38.1	1.7		27	40				
42.0	3.9							
44.3	1.6							
45.8	1.5		28	45				
47.1	1.3							
48.1	0.9							
50.0	1.8	42.5' - 71.0' About equal amts lt gry qtzite	29	50				
50.9	0.9	w/diss py and strgrs py with some small sid						
52.8	1.6	strgrs.						
55.4	2.6	0.1 py at 42.7.	30	55				
59.1	4.1	Faults at 42.8 and 52.2.						
61.7	2.3	½" py strgr at 56.0.	31	60				
62.5	0.8	Core badly broken from 65.0 to 80.1.						
64.8	2.2		32	65				
65.8	1.0							
End Box 2								
68.0	2.1							
69.9	1.6		33	70				
71.0	1.1							
72.6	1.5							
74.3	1.7		34	75				
75.5	1.0	71.0' - 100.2' Lt gry arg qtzite w/some						
78.3	2.8	harder zones of lt gry qtzite. Some strgrs						
80.1	1.4	sid, diss py and strgrs py.	35	80				
83.2	1.8		36	85				
86.1	2.9							
91.0	4.9		37	90				

FORM 127 1M 7-55

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 334 N X-Cut, Polaris E. Drift

Logged by Date
Drilled by

Hole No. SS 3298
Level 3000
Grid 334
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
93.1	1.7							
96.3	3.1		E 4338	90 - 95	5.0			
100.7	3.9		39	100				
End Box 3								
104.7	4.0		40	105				
109.6	4.8		41	110				
113.1	3.5							
116.1	3.0		42	115				
119.8	2.8	102.0' - 137.5' Med gry arg qtzite w/some	43	120				
122.5	2.4	strgrs and some diss py.						
124.2	1.7	Small slips at 119.0 and 127.7.	44	125				
126.0	1.7							
128.3	2.8		45	130				
131.1	2.2							
135.6	4.5		46	135				
End Box 4								
139.7	4.1		47	140				
144.5	4.8		48	145				
149.5	4.9		49	150				
154.5	5.0		50	155				
158.1	3.3	137.5' - 190.0' Lt gry arg qtzite w/some						
161.0	3.8	harder lt gry qtzite. Much diss sid and	51	160				
165.8	3.6	both diss py and small strgrs py.	52	165				
169.0	3.2	4" zone pods and diss py w/diss sid at	53	170				
End Box 5		153.5.						
173.7	4.6		54	175				
178.3	3.1							
180.2	1.9		55	180				
181.9	1.5							
185.5	3.2		56	185				
		190.0' - 191.8' Sericitic zones w/badly						
190.6	2.5	broken core. Some gg and brecciated rock.	57	190				
195.6	2.5	191.8' - 203.2' Med gry arg qtzite and tan	58	195				
200.6	4.7	qtzite (due to diss sid) w/sid strgrs, white	59	200				
203.2	1.7	qtz and pods and strgrs py.						
		6" pods py and sid in arg qtzite at 194.0.						
204.8	1.6	3.0 sid vein w/white qtz and py at 195.0.	60	205				
206.6	1.5							
End Box 6		203.2' - 215.9' Lt gry qtzite w/diss and	61	210				
211.4	4.8	small pods py and some white qtz.	62	215				
215.9	4.5	2" gg at 204.4.						
End Box 7		END OF HOLE						

FORM 127 1M 7-55

DIAMOND DRILL RECORD

Standpipe
Casing

Started 10-21-57
Finished 10-21-57
Hole Size EX
Depth 40.6
% Core Rec. 95%

Mine SILVER SUMMIT
Location Polaris E. Exploration
PE 3002 + 107' E.
Logged by J.H.J. Date 10-22-57
Drilled by Hauser and Pearson

Hole No. SS 3500
Level 3000
Grid 344
Latitude 84 844 S
Departure 94 590 E
Elevation - 263'
Bearing S 05 W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-1.5	1.5							
2.5	0.9							
4.5	1.8	0.0' - 40.6' About equal amts lt gry qtzite	C7675	0 - 5	5.0	0.2		
7.7	3.2	and med gry arg qtzite. Some diss sid and	76	10				
12.3	4.5	many small strgrs pyrite.	77	15				
17.0	4.4	1" qtz vein at 6.9.						
22.0	4.2	Diss and strgrs sid and py from 22.3	78	20				
23.9	1.6	to 23.5.	79	25				
26.4	2.5							
31.0	4.6		80	30				
36.0	4.9		81	35				
End Box 1								
40.6	4.5		82	40.6				
		END OF HOLE						

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

March 24, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED APR 10 1958

DATE	INITIALS	CODE
4/10	B	220
10	Com	100
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~~4/11~~	~~[illegible]~~	~~[illegible]~~

MEMORANDUM

To: DMEA Field Team, Region I

From: John D. Bardill, Bureau of Mines

Subject: Routine inspection report, Docket No. DMEA-2879 (lead-zinc-copper-antimony), Polaris Mining Company, Polaris East Exploration Project, Shoshone County, Idaho, Contract No. Idm-E541 (Amended)

A routine inspection was made of this project on March 13, accompanied by Mr. James Jolly, company geologist.

Amendment No. 1, effective February 3, 1958, changed the description of the work in Exhibit "A", Stage I to read as follows:

1. (a) Extend the east drift previously driven in an easterly direction to Sta. PE3007 plus 14.6 feet, a total of not to exceed 1120.3 feet.

   (b) From approximately the intersection of coordinates 94,240E and 84,965S, drive a crosscut in a southeasterly direction to intersect drill hole SS3504 midway between the ore intercepts at 565 and 625 feet. It is estimated that the length of this crosscut will be 700 feet. Then drift in an easterly direction on the most favorable structure encountered in the crosscut. The crosscut and drift under item (b) shall not exceed an aggregate of 1379.7 feet.

The crosscut was started in a southeasterly direction from a point at Sta. SS3099 + 40.3 feet. The crosscut had been driven 10.2 feet before the effective date of the amendment so that this footage was disallowed.

The crosscut had been driven about 375 feet from the east drift. Several stringers bearing siderite were cut. Approximately 263 feet from Sta. PE3008 a 0.6-ft. stringer assayed 24.1 oz. silver and 1.12 percent copper. Nearby another 0.9-ft. stringer assayed 8.6 oz. silver and 0.32 percent copper.

DDH No. SS3506 had been deepened to 763.3 feet without encountering any mineralization of importance.

DDH No. SS3507, opposite SS3506, bearing N. 3° E., was drilled to a depth of 400 feet. No mineralization of consequence was cut.

The following company transit survey distances were checked:

Starting point of contract SM3099 + 40.3 ft.

Sta. SS3099 to Sta. PE3008	S 69° 15' E	29.57 ft.
Sta. PE3008 to Sta. PE3009	S 48° 25' E	22.71 ft.
Sta. PE3009 to Sta. PE3010	S 37° 09' E	104.29 ft.
Sta. PE3010 to Sta. PE3011	S 37° 08' E	136.59 Ft.
		293.16 ft.
Sta. PE3011 to face		123.00
		416.16 ft.
Less		40.30
		375.86 ft.
Less footage before effective date of Amendment No. 1		10.20
		365.66 ft.

The diamond drilling footages have been increased as follows:

Footage previously reported	3,637.0 ft.
Deepening SS3506 from 635 to 763.3 ft.	128.3 ft.
Hole SS3507	400.0 ft.
	4,165.3 ft.

Status of the contract at the time of the inspection was:

Date of contract: November 1, 1953 (Amended contract)
Termination date: Nune 1, 1958
Amount of contract: Stage I $726,838.94 (completed)
II 147,000.00
Rounded to: $873,840.00

Amount spent: Stage II $ 89,474.65 (thru Feb. 1958)

	Authorized	Completed
Drifting		1,022.23 ft.
Crosscutting	2,500 ft.	461.86 ft.
		1,484.09
Sideswiping	100 ft.	80 ft.
Diamond drilling	5,000 ft.	4,165.3 ft.

DMEA ore mined from May 1954 thru January 1958:

6,545 tons averaging 17.80 oz. Ag/ton, 0.42% Cu

John D. Bardill

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bardill

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED MAR 27 1958 D.M.E.A.

Stage II

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February, 1958 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)

Address Box 320 Wallace, Idaho

Contract Amount, $ ~~147,000.00~~ 873,840.00 Government Participation: 50 % Amount, $ ~~73,500.00~~ 436,920.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts				4/15/58		
Drilling Core 207.8 @ $4.50	$ 935.10	$18,151.20	$19,086.30	935.10	18,151.20	19086.30
Bulldozing						
Crosscutting 270.4 @ $48.78	13190.11	5,053.61	18,243.72	12692.55	5,053.61	17746.16
Drifting		50,092.19	50,092.19		50,092.19	50,092.19
Sideswipe		2,550.00	2,550.00		2,550.00	2,550.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I					726838.94	726838.94
TOTALS	$14125.21	$75,847.00	$89,972.21	13,627.65	802685.94	816,313.59

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 3-6-58 *Payee Polaris Mining Company

Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 6813.83

Signature [signature] (Authorized Certifying Officer)

Date 3/21/58 Vou. No. 2189

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 6541 in accordance with the terms of the contract.

Signature /s/ Stephen W. Foldok Title Mining Engr. Date 3-20-58

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date March 21, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED MAR 27 1958 DMEA

OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage II

Month of February 1958 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony
Address Box 320 Wallace, Idaho (and incidental Silver)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet	12,692.54	240.2	$50,092.19	1,026.9	$48.78	2,500	$ 48.78 *
Crosscutting		$13190.11	270.4	18,243.72	374.0			
Raising				17,746.10	363.8			
~~xxxx~~ Sideswipe				2,550.00	100.0	25.50	100	25.50 *
Winzes								
Drilling: Core	feet	935.10	207.8	19,086.30	4,241.4	4.50	5,000	4.50 *
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 3-6-58 Operator Polaris Mining Company

Per [signature] Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract.

/s/ Stephen W. Jocsak
Mining Engr., 3/21/58

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

March seventh
1958

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
February - 1958
Docket No. DMEA - 2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of February included 270.4 feet of crosscutting and 207.8 feet of diamond drilling.

337 Southeast crosscut advanced 270.4 feet to station PE3010 plus 154.1; exposing only small irregular streaks and stringers of pyrite and siderite with minor amounts of tetrahedrite.

Diamond drill hole No. 3506 was completed to 763.3 feet for an advance of 16.4 feet and hole 3507 advanced 191.4 feet to a completed depth of 400.0 feet. No further significant mineralization was exposed in either hole. Logs of both these holes are included with this report.

The 2900 level northerly drift from 331-B raise was driven 92.6 feet showing fair tetrahedrite mineralization for most of that distance.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson

MWH:nn
Encs.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 12-11-57
Finished 2-27-58
Hole Size EX
Depth 763.3
% Core Rec. 87.5%

Mine SILVER SUMMIT
Location 337 Pol. E. Drift
PE 3007 + 5.0 W
Logged by J.H.J. Date 2-28-58
Drilled by Pearson, Hauser, Kennick & Madsen

Hole No. SS 3506
Level 3000
Grid 351
Latitude 84 863 S
Departure 94 942 E
Elevation - 261'
Bearing See Survey
Inclination Last Page

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-2.0	1.6		E 4663	0 - 5	5.0			
5.0	3.0							
10.0	4.9		64	10				
15.0	4.1		65	15				
18.3	3.3	0.0' - 46.7' Mostly lt gry and med gry						
19.5	1.2	qtzite w/some ser. Some diss py in ser.	66	20				
23.5	3.2	Fault w/crushed rock at 18.8.						
25.2	1.7	Small faults at 19.1, 23.3, 29.3.	67	25				
27.0	1.7	1" wht qtz at 37.0.						
31.4	1.9	Solution cavities at 41.0.	68	30				
35.0	2.3	Poor core recovery from 31.0 to 45.0.	69	35				
40.4	2.2	Fault at 46.6.	70	40				
45.0	6.8		71	45				
End Box1								
46.7	1.3							
47.4	0.6							
48.4	1.0		72	50				
52.2	1.7							
55.1	2.3		73	55				
57.4	1.2							
59.1	1.3		74	60				
62.4	2.8							
66.1	2.8	46.7' - 132.5' About equal amts lt gry	75	65		0.2		
67.6	1.2	qtzite and grn gry qtzite w/diss sid and	76	70				
72.6	4.5	some small strgrs py. Occasional zone of diss						
77.6	4.6	sid w/small blebs py which gives the rock a	77	75				
End Box 2		finely spotted appearance.	78	80				
82.5	4.5	Fault w/sm gg at 56.4.	4750	85				
87.5	4.5	Diss py zones (spotted) at 81.5, 82.0,						
92.5	4.6	82.7 & 84.8.	51	90				
96.3	3.1	1" py w/some sid at 96.9.	52	95				
101.3	4.4	Occasional solution cavity between 97.1	53	100				
106.3	4.5	and 102.5.	54	105				
110.4	3.9	Small fault at 131.1.	55	110				
113.4	2.7							
117.4	3.5		56	115				
End Box 3								
121.2	3.5		57	120				
123.7	2.4		58	125				
127.0	3.0							
131.5	3.9		59	130				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Drift

Logged by Date
Drilled by

Hole No. SS 3506
Level 3000
Grid ° '
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
			E4760	130-135	5.0			
135.3	3.4	132.5' - 167.5' Mostly lt and med gry qtzite						
139.8	3.0	some med gry arg qtzite. Occasional sid	61	140				
142.8	3.2	strgrs, some py.						
147.8	4.7	Small faults at 148.1 and 151.8.	62	145		0.2		
151.3	3.0	½" wht qtz at 148.5.	63	150		0.2		
154.3	2.6	Zone sm solution cavities from 157.4 to	64	155		0.2		
159.3	4.7	158.8.	65	160		0.2		
164.3	4.4	Fault at 158.9.	66	165				
168.2	3.8							
		167.5' - 187.1' Mostly gry arg qtzite with						
170.9	2.7	some med gry qtzite and small sericitic zones.	67	170				
175.6	4.4	Fault at 169.8.	68	175				
180.6	5.0	Fault w/¼" gg at 172.9.	69	180				
		Fault at 173.5, 179.3 and 179.5.						
		Sid strgr w/qtz at 185.9.						
		Small sid strgrs from 185.5 to 186.9.						
185.6	4.9		70	185				
188.3	2.7	187.1' - 218.3' Lt gry arg qtzite.						
191.6	3.3	Sid strgr w/tetra at 187.3.	71	190		0.2		
End Box 5		6" sid w/qtz chalco and tetra from 187.5						
195.9	3.5	to 188.6. - 1" sid w/py at 188.7.	72	195		0.2		
197.9	1.8	Small irreg sid strgrs from 188.9 to 190.6.						
202.1	3.6	2" fractured core (fault?) at 197.0.	73	200		0.2		
205.6	3.4	Small sid strgrs at 196.8, 201.4 202.1 and	74	205				
209.3	3.5	204.2. - ¼" sid strgr at 202.6.	75	210				
214.2	3.5	Small py strgrs at 206.0. - Fault at 209.4.	76	215		0.2		
218.3	3.0	½" wht qtz and sid at 210.6 and 211.0.	77	220		0.2		
		1" sid at 212.6 - 2" sid w/qtz at 217.8.						
221.4	2.8							
223.5	1.8	218.3' - 290.9' Relatively hd bluish gry arg	78	225		0.2		
228.5	4.7	qtzite w/mottled appearing diss sid and						
End Box 6		numerous sm pods & pencil line strgrs py.						
231.3	2.5	Some zones of yellowish-grn ser arg (Cored	79	230				
236.1	4.5	well).	80	235				
240.7	4.4	Core of py pods between 254.3 & 255.1.	81	240				
245.7	5.0	Lt gry qtzite w/occasional thin beds of	82	245				
250.7	4.8	arg and ser. Some pods and bands py.	83	250				
255.7	4.2	2" zone small pods & strgrs py w/diss	84	255				
260.7	4.7	sid at 264.9.	85	260				
265.7	4.9	Small faults at 265.9 and 266.2.	86	265				
270.7	4.8	Zone of sid strgrs from 266.9 to 268.5	87	270				
275.7	4.8	w/chalco, tetra, and some py. Some strgrs	88	275		0.4		
280.7	4.9	make low angle to core.	89	280		0.3		
285.7	4.8	Small pencil line sid strgrs common from 282.2 to 290.9.	90	285		0.4		

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Drift

Logged by Date
Drilled by

Hole No. SS 3506
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb % Cu	% Zn
290.7	4.4	290.9' - 299.9' Lt & dk wavy banded rock (mostly a cream color like opaline qtz) w/diss sid and pods py. Core badly broken	E4791	285-290	5.0	0.4		
294.9	3.5	from 290.9 to 299.9.	92	295		0.4		
299.9	3.8	1" sid w/wht qtz at 290.0.	93	300		0.6		
End Box 8								
302.0	1.7	299.9' - 337.0' Mostly lt gry qtzite w/lt						
307.0	4.5	gry qtzite. Numerous minute pods & strgrs	94	305		0.4		
309.2	2.0	py and tetra. Diss sid gives much of the	95	310		0.6		
314.2	4.7	core a mottled appearance.	96	315		4.4	0.17	
318.2	3.6	Small zone of minute py & tetra pods	97	320				
323.2	4.8	and several small sid strgrs at 309.4.	98	325		1.7		
328.2	4.9	Small tetra strgrs at 313.9.						
333.2	4.4	1" small tetra strgrs w/py at 315.5.	99	330		0.7		
End Box 9		1" small tetra strgrs w/py at 321.5.						
337.1	3.9	337.0' - 370.0' Hard lt gry qtzite with	4800	335		0.3		
342.1	4.9	darker bands of arg qtzite. Lighter bands	01	340		0.3		
347.1	4.8	have diss. sid giving mottled appearance	02	345		0.4		
352.1	4.9	upon oxid.	03	350		0.4		
357.1	4.4	Good core with broken zones at 345.0,	04	355		0.4		
362.1	4.9	349.0, 356.0, 363.5, 368.5, 370.0 & 372.0.	05	360		0.3		
367.1	4.7		06	365		0.3		
371.2	4.0	370.0' - 485.6' Very hd lt gry qtzite with	07	370		0.2		
End Box 10		few places of diss sid.						
373.6	1.2	Darker arg qtzite at 380.0 to 380.8 & from	08	375		0.4		
378.6	4.8	401.4 to 402.2.	09	380		0.3		
383.6	4.5	¼" sid - some sulfide at 374.2.	10	385		0.4		
388.6	4.5	Sid strgrs from 381.2 to 381.6.	11	390		0.4		
393.6	4.8	½" sid at 395.5 & 412.4. - ½" py at 397.6.	12	395		0.4		
398.6	4.9	Numerous small sid strgrs from 412.4 to	13	400		0.4		
403.6	4.2	414.0 & from 426.3 to 440.8.	14	405				
408.6	4.3	Zone of lt tan mineralization from 432.2	15	410				
End Box 11		to 433.3 banded para to core w/zones and						
413.5	4.9	pods py and dk sulfides appears to be in-	16	415				
418.5	4.5	complete repl of lt gry qtzite. Near	17	420		1.3		
423.5	4.6	periphery the qtzite is mottled appearing.	18	425		0.2		
428.5	4.9	2" sid w/py at 432.5. - 1" irreg sid strgr						
431.3	3.6	w/py & tetra (?) at 466.2. - 2" irreg	19	430		0.3		
436.3	4.9	sid w/chalco & tetra at 466.4. - Small sid	20	435		0.4		
441.3	4.8	strgrs w/chalco & tetra at 472.4, 473.3 &	21	440		0.4		
445.0	3.7	473.7. (About 30° angle to core). - Fault	22	445		0.4		
End Box 12		w/blk slicken sides at 479.2. 7" zone						
450.0	3.1	sid strgrs w/diss py from 479.2 - 479.7.	23	450		0.6		
453.5	2.7	Zone of wht, tan & gry mottled rock w/soln	24	455		0.3		
456.1	2.3	cavities from 481.4 to 483.8 (Appears to be	25	460		0.3		
		either a cemented breccia of partially repl qtzite (somewhat calcareous).						

FORM 127 1M 7-55

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Drift

Logged by Date
Drilled by

Hole No. SS 3506
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
461.1	4.8		E4826	460-465	5.0	0.4		
465.2	2.3							
470.2	3.1		27	470		0.2		
475.2	4.7		28	475		0.2		
478.8	2.5							
481.8	3.0		29	480				
485.0	3.4		30	485				
End Box13								
489.0	4.0	485.6' - 492.3' Med gry arg qtzite w/zone	31	490				
492.3	2.9	of grnish ser.						
496.4	3.7	492.3' - 525.5' Very lt gry qtzite w/numerous	32	495				
499.6	3.2	sid strgrs, some py and diss sid.	33	500				
501.0	1.4	Sm sid strgrs, some py and solution cavities						
502.5	1.1	from 496.5 to 498.8.						
504.4	1.9	Small sid strgrs at 499.4.	34	505				
506.5	2.1	2" sid w/qtz and blk rock at 505.9.						
508.0	1.2	Badly broken zone of numerous sm sid strgrs						
510.4	2.4	diss sid, some py and much mottled appearing	35	510				
572.9	2.1	qtzite from 506.3 to 508.0 and another less						
515.1	2.2	broken zone from 508.3 to 512.0 but w/less	36	515				
516.8	1.7	sid strgrs.						
519.4	2.6	Very lt gry qtzite zone w/numerous sid	37	520				
523.2	3.1	strgrs w/py from 513.1 to 514.6.						
End Box14		½" strgrs at 515.3, 513.4, 514.0.						
		6" massive py, partially diss, from 519.1						
524.3	1.9	to 519.4. Sm veinlet wht qtz at 519.6.	38	525				
526.1	1.8							
530.6	3.7		39	530				
533.0	2.4	525.5' - 559.0' About equal amts lt gry and						
536.7	3.7	med gry ser qtzite.	40	535				
538.1	1.4	Faults at 531.1 and 532.8.						
543.1	4.6		41	540				
543.7	0.6							
548.7	5.0		42	545				
553.9	5.1		43	550				
End Box15			44	555				
558.9	4.8		45	560				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Drift

Logged by Date
Drilled by

Hole No. SS 3506
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
							% Cu.	
		559.0' - 595.4' Lt gry ser qtzite and some grnish bluish gry qtzite w/numerous irregular strgrs sid, diss py and smears sid. Occasional	E4846	560-565	5.0			
563.9	4.8	zone of sericite.						
566.4	1.8	2" zone diss py some sid at 566.0.						
571.4	4.4	Small strgrs at 559.0, 566.2 & from 567.0	47	570				
574.5	3.0	to 568.5.	48	575				
578.6	3.3	Numerous irreg strgrs sid & py w/diss py.	49	580				
583.2	4.1	Sm wht gg at 583.9.						
586.7	2.6	Zone slightly grnish very lt gry ser rock	50	585				
589.4	2.1	from 585.3 to 586.4.						
590.5	1.0	1" py at 587.6.	51	590				
594.2	2.6	Small faults at 589.1 and 590.4.	52	595				
		Irreg sid & py strgrs and diss py from 591.2 to 592.8.						
		¼" sid & qtz at 594.0.						
		½" sid qtz at 595.2.						
		Sid strgrs and py at 595.5.						
597.1	2.8		53	600		29.2	9.00	
602.1	4.9	595.4' - 667.0' Grnish gry to bluish gry						
607.1	4.7	slightly arg qtzite w/numerous narrow bands	54	605		13.7	0.43	
610.3	3.2	darker gry with diss arsenpyrite and tan	55	610		5.4		
615.3	4.9	bands with diss sid from 595.4 to 620.0.	56	615		2.3		
620.0	4.6	Several ¼" to 1" sid strgrs 595.4 to 597.1	57	620		7.3		
624.0	3.8	and 599.0 to 619.0, with occasional strgr	58	625		2.1		
626.0	1.8	py and small streaks tetra.						
629.2	3.2	Mostly sid with fair tetra some cpy 597.2-	59	630		0.4		
631.0	1.3	599.2.						
636.0	3.8	0.8 sid some spots tetra 619.2-620.0.	60	635		0.4		
640.5	4.5	Core broken 595.4-597.1 and 601.6-602.1	61	640		0.2		
645.3	3.3	(Probable faults)	62	645		0.4		
646.1	0.8							
648.2	1.4		63	650		0.4		
653.2	4.7							
656.1	2.6	SPLIT CORE	64	655				
660.8	4.7		65	660				
662.0	1.0	Depth Width Ag Cu Pb	66	665		5.9		
End Box 18								
667.0	5.0	597.1-599.9 2.8 97.3 3.82 No	67	670		1.0		

FORM 127 1M 7-55

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Drift

Logged by Date
Drilled by

Hole No. SS 3506
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
667.0	5.0	667.0' - 763.3' Hd lt gry qtzite w/some						
670.0	2.0	qtzite due to diss py - numerous py strgrs	E4868	670-675	5.0	3.1		
672.9	2.2	some massive. Occasional qtz vein. Poor						
676.3	3.4	core recovery between 686.0 and 711.0.						
677.8	1.5	2" wht qtz w/sid some py at 667.7 (diss	69	680		2.2		
683.0	3.4	py and small strgrs border vein).						
684.7	1.5	1" massive py w/½" wht qtz in middle (about	70	685				
686.2	1.5	35° angle w/core at 669.0.						
691.2	3.0	1" massive py w/qtz at 669.9.	71	690		0.4		
695.6	1.3	½" sid & py at 670.3.	72	695		0.4		
700.5	2.9	1" py at 670.9.	73	700				
703.7	3.2	1½" sid w/qtz py and specks of tetra at	74	705		0.4		
708.8	2.9	671.6.						
711.0	1.3	3" heavily diss py at 672.9.	75	710		0.2		
End Box 22		2" massive py, some qtz at 673.6.						
716.0	5.0	Small sid strgrs w/py & tetra at 674.0.	76	715		0.2		
719.0	3.0	½" wht qtz at 674.1.	77	720		0.2		
724.0	3.1	Fault at 677.1.	78	725		0.4		
728.9	3.4	½" sid w/py & tetra at 678.5.						
730.6	1.7	Small sid strgrs w/py from 679.0 to 682.6.	79	730		0.4		
735.1	4.5	Small sid strgrs at 704.1 and 711.5.	80	735		0.2		
740.9	2.4	Small wht qtz vein at 717.3.	81	740		0.2		
742.5	1.6	½" sid w/chalco & py at 719.0.						
746.9	4.3	3" sid w/py at 726.6.	82	745		0.4		
751.3	3.2	½" sid strgr at 729.9.	83	750		0.6		
753.9	3.2	2" dk gry at 730.1.						
756.5	2.4	1" wht qtz at 732.2.	84	755		0.4		
757.6	0.9	½" sid w/py & tetra (?) at 736.3.						
760.6	2.0	0.6 sid, qtz & py from 746.7 to 747.3.	85	760				
763.3	2.4	Small fault at 757.8.						

END OF HOLE

TROPARI SURVEY

Distance	Bearing	Inclination
200.0'	S 8° W	- 2°
400.0'	S 7° W	- 2°
600.0'	S 12° W	- 0°

DIAMOND DRILL RECORD

Standpipe
Casing

Started 1-21-58
Finished 2-18-58
Hole Size EX
Depth 400.0
% Core Rec. 90.5%

Mine SILVER SUMMIT
Location 337 Pol. E. Drift
PE 3005 + 27.0 East.
Logged by J.H.J. Date 2-28-58
Drilled by Pearson, Hauser and Madsen

Hole No. SS 3507
Level 3000
Grid 346
Latitude 84 831 S
Departure 94 684 E
Elevation - 262'
Bearing N 03° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-3.0	3.0		E4998	0 - 5	5.0			
4.4	1.1							
7.6	2.7							
10.5	2.2		99	10		0.2		
13.6	2.1							
16.8	2.7		5000	15				
19.0	2.2		01	20				
22.3	2.8							
24.7	2.3	0.0' - 65.5' Lt gry qtzite with some ser	02	25				
27.4	2.7	qtzite. Occasional py strgrs.						
30.2	2.6	Very good core from 35.0 to 64.0 .	03	30				
34.0	3.6							
End Box 1			04	35				
36.0	2.0							
40.8	4.7		05	40				
45.5	4.5		06	45				
49.1	3.5		07	50				
54.0	4.8		08	55				
59.0	5.0		09	60				
64.0	5.0		10	65				
66.7	2.7							
68.7	2.0							
End Box 2								
71.3	2.3		11	70				
74.9	3.2	65.5' - 99.1' Lt gry (slighly grnish) ser	12	75				
77.8	2.7	qtzite w/some diss sid and an occasional						
82.6	4.6	pencil line strgr of py.	13	80				
84.9	2.3		14	85				
89.8	4.9		15	90				
92.1	2.4							
96.4	3.8		16	95				
97.7	1.3							
101.4	3.5		17	100				
103.0	1.4							
End Box 3			18	105				
109.7	4.9		19	110				
111.3	3.0	99.1' - 150.7' Hd lt gry qtz w/occasional						
115.3	3.4	small strgr sid.	20	115				
119.2	3.4	Small sid strgrs at 104.1, 105.0 & 105.5.	21	120				
124.4	4.9		22	125				
129.2	5.0							
130.8	1.5		23	130				
134.3	3.2		25	135		0.2		

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: 337 Pol E. Drift

Logged by _____ Date _____
Drilled by

Hole No. SS 3507
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
139.3	4.3		E5026	135-140	5.0			
End Box 4		¼" white qtz w/sid at 116.1.						
143.8	4.2	½" white qtz w/sid at 121.5.	27	145				
148.8	4.3	Numerous small blk py (pencil line) strgrs						
150.9	1.8	from 127.5 to 128.8.	28	150				
155.9	4.2	150.7' - 207.0' Mostly hd lt gry qtzite	29	155				
159.0	3.0	w/occasional beds of lt gry ser qtzite.	30	160				
161.8	2.6	Occasional strgr of py and small bedding slips.						
166.9	4.2	½" wht qtz at 155.9.	31	165				
171.9	4.2	Small sid strgr at 158.0.	32	170				
174.8	2.3	Fault w/¼" chlorite & gg at 161.1.	33	175				
End Box 5		½" qtz w/sid at 164.0 & 164.5.	34	180				
178.9	3.3	1" sid & qtz at 169.4.						
183.9	4.7	½" white gg at 170.7.	35	185		0.2		
188.9	4.6	½" wht qtz w/sid at 171.9.	36	190				
193.9	5.0							
196.0	2.0		37	195				
199.8	3.7		38	200				
202.6	2.6							
207.1	4.2		39	205				
210.8	2.5		40	210				
214.1	3.3		41	215				
End Box 6			42	220				
219.1	3.1							
220.8	1.4							
225.6	4.8		43	225				
230.0	4.4		44	230				
232.5	2.5	207.0' - 252.8' Hd lt gry qtzite occasional						
237.5	4.9	small zone ser.	45	235				
242.5	4.2	Fault at 237.3 & 243.0	46	240				
246.5	3.5		47	245				
251.5	4.5		48	250				
End Box 7								
252.2	1.8							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol E. Drift

Logged by Date
Drilled by

Hole No. SS 3507
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
254.3	1.8		E5049	250-255	5.0			
256.2	2.5							
259.3	0.6							
260.5	1.8		50	260				
262.1	1.2							
264.0	1.8		51	265				
266.5	1.3	252.8' - 288.1' Mostly lt gry ser qtzite						
267.8	1.2	w/occasional small pods py. Some hd lt gry						
270.6	2.6	qtzite.	52	270				
275.6	4.8	3" wht (fine sand) gg at 270.6.	53	275				
278.4	2.6	1" wht (fine sand) gg at 271.5.(Apparently						
281.3	2.9	crushed qtzite).	54	280				
285.3	3.9	2" zone pod py at 276.9.	55	285				
End Box 8								
289.3	4.0		56	290				
290.6	1.3							
292.2	1.7							
294.0	1.7		57	295				
297.1	3.1							
300.0	2.0		58	300				
303.1	2.1							
306.6	3.4		59	305				
309.7	3.1		60	310				
312.2	2.5							
314.2	2.0		61	315				
317.9	2.5	288.1' - 335.0' Hd lt gry qtzite w/some						
319.8	2.8	diss py.	62	320				
321.8	1.8							
323.3	1.2							
324.7	1.3		63	325				
327.0	2.3							
329.3	2.3		64	330				
331.4	2.0							
336.1	3.9		65	335				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Drift

Logged by Date
Drilled by

Hole No. SS 3507
Level 3000
Grid
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
338.7	2.6							
340.7	2.0		E5066	335-340	5.0			
342.0	0.8							
343.0	0.8							
345.0	2.1		67	345				
346.7	1.2	335.0' - 370.0' Grnish gry arg qtzite						
348.7	2.0	(very sericitic) Some lt gry qtzite.						
350.9	2.0	Occasional zone of diss py Xls. (Very	68	350		0.2		
353.6	1.0	badly broken core).	69	355				
358.6	3.2		70	360				
End Box	10							
360.8	1.8							
364.1	2.8		71	365				
367.9	2.8							
370.6	2.6		72	370				
375.0	4.0		73	375				
377.6	2.6		78	380				
379.6	2.0							
381.8	1.8		79	385				
383.6	1.8	370.0' - 400.0' Mostly lt (some grnish)						
387.4	2.9	gry qtzite. Some softer ser qtzite (Badly						
391.1	2.8	broken core).	80	390				
394.0	2.3		81	395				
397.2	3.0							
400.0	2.8		82	400				
		END OF HOLE						

Form MF-104 (Rev.)
(April 1952)

RECEIVED
FEB 19 1958
D.M.E.A.

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Stage II

Month of January 1958 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental silver)

Address Box 320, Wallace, Idaho

Contract Amount, $ ~~147,000.00~~ 873,840.00 Government Participation: 50% Amount, $ ~~73,500.00~~ 436,920.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:				2/24/58		
Drilling Core 1155.7@$4.50	$5200.65	$12950.55	$18151.20	5200.65	12950.55	18,151.20
Bulldozing						
Crosscutting 102@$48.78	497.56	4556.05	5053.61	497.56	4556.05	5,053.61
Drifting		50092.19	50092.19		50092.19	50,092.19
Sideswipe		2550.00	2550.00		2550.00	2550.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I					726838.94	726838.94
TOTALS	$5698.21	$70148.79	$75847.00	5698.21	796987.73	802685.94

I certify that the above bill is correct and just and that payment therefor has not been received.

Date FEB 10 1958 *Payee Polaris Mining Company

Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2849.10

Signature [signature] (Authorized Certifying Officer)

Date 2/13/58 Vou. No. 2119

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-541 in accordance with the terms of the contract.

Signature /s/ Stephen W. Zolock Title Mining Engr. Date Feb. 12, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Feb. 12, 1958

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

RECEIVED FEB 19 1958 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT Stage II

Month of January 1958 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental silver)

Address Box 320, Wallace, Idaho

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet			$50092.19	1026.9	($48.78)	2500	$48.78*
Crosscutting		$497.56	10.2	5053.61	103.6	( )		
Raising								
~~Sinking~~ Sideswipe				2550.00	100.0	25.50	100	25.50*
Winzes								
Drilling: Core	feet	5200.65	1155.7	18151.20	4033.6	4.50	5000	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
TOTAL COSTS		5,698.21						

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

REMARKS:

Date 2-7-58 Operator Polaris Mining Company

Per [signature] Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract.

/s/ Stephen W. Goldsoe, Mining Engr.

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

February seventh
1958

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
January - 1958
Docket No. DMEA - 2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of January included 10.2 feet of crosscutting, 35.0 feet of sideswiping and 1155.7 feet of diamond drilling.

337 South crosscut was started to further explore the mineralized zones exposed in diamond drill holes Nos. 3504 and 3506, and had advanced 10.2 feet by the end of January. Exposures in this crosscut will determine the direction of future easterly drifting or lateral work.

Diamond drill hole No. 3501 was completed to 826.2 feet for an advance of 455.0 feet. Numerous siderite and pyrite veins were exposed in this hole but showed no mineralization comparable to that in hole No. 3504. The log of hole No. 3501 is included with this report.

As shown on the attached geologic map hole No. 3506 advanced 492.1 feet and had reached a depth of 746.9 feet by the end of the month.? This hole also has exposed numerous siderite and pyrite veins. The best showing thus far in this hole was at 597.1 to 599.9 feet. The sludge from 595.0 to 600.0 feet assayed 29.2 ounces silver and 0.99 percent copper and split core from 597.1 to 599.9 feet assayed 97.3 ounces silver and 3.32 percent copper.

Hole 3507 was started northerly from near station PE3005 and had reached a depth of 208.6 feet by the end of the month. Logs of hole 3506 and 3507 will be included with next month's report.

The northerly drift from 331-B raise on 2800 level advanced 5.2 feet and preparations were made to start drifts northerly and southerly from this raise approximately 80 feet above 3000 level.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

DIAMOND DRILL RECORD

Standpipe
Casing

Started 11-6-57
Finished 1-19-58
Hole Size EX
Depth 826.2
% Core Rec. 82%

Mine SILVER SUMMIT
Location 337 Pol. E. Drift.
SS 3098 + 10.0 E.
Logged by J.H.J. Date 1-21-58
Drilled by Hauser and Pearson

Hole No. 3501
Level 3000
Grid 337
Latitude 84 967 S.
Departure 94 235 E.
Elevation -264'
Bearing S 40° E.
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4.0	4.0	0.0' - 13.0' Lt gry qtzite w/small sid	E 4459	0 - 5	5.0			
9.0	4.7	stgrs and occassional py pods and strgrs.	60	10				
11.1	1.9	Small slips at 10.2 and 10.7						
14.2	2.1	13.0' - 14.9' Med gry arg qtzite. Bedding slip at 14.9.	61	15				
19.0	4.5	14.9' - 20.9' Lt gry qtzite w/much diss sid.	62	20				
23.0	3.8	20.9' - 23.8' Med gry arg qtzite. Bedding makes about a 45° angle w/core.	63	25				
28.0	4.7	23.8' - 36.5' Lt gry qtzite w/small	64	30				
33.5	4.5	solution cavities and diss sid - Core has						
End Box 1		small white strgrs thru-out the rock (appears brecciated).	65	35				
38.0	4.2							
43.0	4.3	36.5' - 69.0' About equal amts lt gry qtzite	66	40				
45.1	2.1	and grnish and med gry arg qtzite. - Diss	67	45				
48.2	2.8	sid is mainly in the hard qtzite and py						
49.4	1.1	pods and strgrs in the arg qtzite.	68	50				
52.6	2.9	3" ser zones at 52.8 and 67.7 w/small						
55.9	2.6	slips.	69	55				
58.1	2.2							
59.8	1.4		70	60				
64.7	4.6		71	65		0.2		
68.0	3.2							
End Box 2			72	70				
72.8	4.8		73	75				
77.8	4.3							
81.8	3.8		74	80				
83.8	1.9							
85.0	1.2		75	85				
87.0	2.0							
90.3	3.7		76	90				
93.4	2.4							
96.0	3.4		77	95				
98.7	2.4							
100.4	1.6	69.0' - 137.1' Mostly lt gry qtzite w/	78	100				
102.2	1.6	interbedded arg qtzite which are much thiner						
End Box 3		bedded.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Drift
SS 3098 + 10.0 E.
Logged by Date
Drilled by

Hole No. 3501
Level 3000
Grid 337
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
106.9	4.7	69.0' - 137.1' (Cont'd)	E 4479	100-105	5.0			
111.8	4.1	Fault w/2" broken rock and gg at 83.5.	80	110				
114.5	2.1	Occassional py strgr, some diss.	81	115		0.2		
116.0	1.3							
118.0	1.9							
119.0	0.7		82	120				
122.7	3.3							
125.5	1.8		83	125				
128.5	1.9							
131.5	2.1		84	130				
133.6	2.5							
135.0	1.4		85	135		0.2		
137.1	1.8							
139.1	1.8	137.1' - 144.1' Lt yellow-grnish gry arg	86	140		0.1		
End Box 4		qtzite w/much diss py and some py strgrs.						
144.1	4.3		87	145		0.2		
150.0	4.6		88	150		0.2		
155.0	4.5		89	155				
159.5	4.0	144.1' - 188.7' Hd med gry qtzite w/much						
161.3	1.8	diss py and py strgrs - Some small sid	90	160				
162.8	1.3	strgrs. - Many small slips.						
164.9	2.0	Fault at 16.0 w/some gg and broken rock.	91	165				
169.9	4.7	Fault at 162.6, 164.8 and 169.2.	92	170				
172.0	1.9	Fault at 175.4 w/1" gg and crushed rock.						
175.8	3.5		93	175				
178.0	2.1							
End Box 5								
180.5	2.9		94	180				
182.0	1.3							
187.0	4.8		95	185				
End Box 5								
192.0	4.9	188.7' - 249.0' Med gry qtzite w/much	96	190		0.2		
197.0	4.8	diss py, many strgrs sid and py and some	97	195		0.2		
202.0	4.5	tetra.	98	200		1.1		
205.8	3.6	1" py strgrs at 189.2.	99	205		0.5		
208.6	2.8	Fault at 189.7.						
211.4	2.5	1.5 py, sid, strgr zone from 189.8 to	4500	210				
215.0	3.5	191.3.	01	215				
End Box 6		1" py at 194.5.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Drift

Logged by Date
Drilled by

Hole No. 3501
Level 3000
Grid 337
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
218.7	4.0	188.7' - 249.0' (Cont'd)						
220.6	1.8	1" sid and py strgr w/tetra at 197.5.	4502	215-220	5.0			
223.7	3.0	9" massive py w/some sid and possible						
226.8	2.3	tetra? from 200.4 to 201.2.	03	225				
231.8	4.7	1" py sid strgr w/tetra at 203.2.	04	230				
235.6	3.5	Many py pod and strgr and some sid strgrs	05	235		0.2		
238.0	2.4	from 203.0 to 213.5.						
243.0	4.9	Fault w/black slicken sides at 207.8.	06	240				
245.5	2.5	Faults at 215.5 and w/gg at 216.0.	07	245				
248.0	2.4	Sid and py strgrs from 218.0 and 250.2.						
250.2	2.2	3" small py strgrs w/sid at 223.7.	08	250				
End Box 7		Fault w/6" hd broken rock partially						
		cemented (?) by py w/occurs in small						
255.2	5.0	strgrs through at 225.5.	09	255		0.2		
360.2	4.6	Sid strgrs w/py and tetra (?) at 235.7.	10	260		0.6		
362.8	2.5	2" irregular shaped sid strgrs w/py						
265.0	2.2	at 249.1.	11	265		0.2		
268.0	2.8							
270.3	2.1	249.0' - 280.3' Hd almost wht qtzite w/num-	12	270		0.2		
272.6	1.3	erous strgrs and massive py and much diss						
273.9	0.8	py and many strgrs sid w/py.						
274.7	1.7	2.0 massive py from 254.1 to 256.1.	13	275				
276.4	1.7	½" py w/sid at 256.9 and 257.4.						
280.3	3.8	1" wht qtz vein w/diss sid at 272.8.	14	280		0.2		
283.5	3.3	280.3' - 285.0' Lt bluish gry qtzite w/much						
End Box 8		diss py, numerous strgrs sid & py to 284.7.						
285.2	1.6	1.0 zone w/many irregular strgrs sid w/py	15	285		0.2		
		& py w/tetra (?) Some para the core others						
287.0	1.5	cross it.						
288.5	1.3	Small sid strgr w/py & tetra(?) at 284.7.						
290.3	1.4		16	290		0.1		
292.2	1.3	285.0' - 292.2' Lt gry qtzite w/bedding	17	292	2.0	0.2		
End Box 9		slips in sericitic zones.						
293.0	0.8		4740	292-295	3.0			
295.8	2.8							
298.4	2.6							
299.6	1.0		41	300	5.0			
304.6	5.0		42	305	5.0	2.2		
307.2	2.3							
308.8	1.0							
310.1	1.3	292.2' - 392.0' Hd lt & med gry qtzite	43	310		0.7		
315.0	4.9	w/much diss & strgrs py & sid and some wht	44	315		0.5		
319.6	4.6	qtz veinlets.	45	320				
End Box 10								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Dr.

Logged by Date
Drilled by

Hole No. 3501
Level 3000
Grid 337
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		292.0' - 392.0' (Cont'd)						
		1.0 sid w/wht qtz py and some tetra from						
324.0	4.4	291.0 to 292.0.	E4746	320-325	5.0			
326.8	2.2	1½" sid strgr w/py at 392.4 w/small strgs						
328.0	1.1	to 293.0 which occur at large angles to	47	330				
333.0	4.7	the core.						
335.3	1.8	Small fault w/sm wht gg at 294.8.	48	335				
336.4	1.1	1" gg at 295.6.						
339.8	3.4	3" (broken) py w/sid at 299.3.	49	340				
341.2	1.4	1" massive py somewhat diss at 300.0.						
346.2	5.0	Irregular and discontinuous pod sid w/py	4900	345				
350.5	4.3	at 300.1.	01	350				
352.2	1.7	6" py w/sid from 300.9 to 301.4.						
End Box 11		Py & sid zone w/wht qtz from 301.5 to						
357.2	4.7	304.1 (somewhat mottled in appearance)						
361.6	4.7	8" massive py from 308.8 to 309.5.	02	355				
366.6	4.9	3" sid & massive py from 310.1 to 310.4.	03	360		0.3		
371.2	4.6	¼" wht qtz at 311.7.	04	365		0.2		
375.3	4.1	½" sid strgr w/py at 312.0.	05	370				
377.6	2.3	2" py at 312.2.	06	375				
382.4	4.8	8" diss py partially massive from 315.0	07	380				
387.2	4.8	to 315.7.	08	385		0.2		
End Box 12		Many small irregular sid strgrs w/py						
392.0	4.8	from 316.0 to 322.0.	09	390				
		392.0' - 430.0' Hd lt gry qtzite with						
396.7	4.3	numerous small strgrs py sid and qtz.	10	395				
400.5	3.8	Small strgrs sid and py from 392.3 to	11	400		0.3		
405.5	5.0	399.2. (They occur at low angles to	12	405		0.4		
408.5	3.0	direction to core)						
411.1	2.5	Fault at 400.1.	13	410				
415.1	3.9	Small irregular sid strgrs w/py & tetra	14	415				
420.1	4.4	(?) at 402.3.	15	420				
425.0	4.5	½" wht qtz vein at 403.2 - 1" at 403.6.	16	425				
End Box 13		Small fault w/sm wht gg at 404.0.						
		½" wht qtz at 424.0.						
		Irregular sid strgr w/py wh/more or less						
		follows core from 415.o to 415.7.						
		6" massive py w/some sid from 418.0 to						
		418.5.(Small sid strgrs border py)						
		Small fault at 419.7						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Dr.

Logged by Date
Drilled by

Hole No. 3501
Level 3000
Grid 337
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
430.0	3.2	430.0 - 463.0' Hd lt gry qtzite w/lightly	E4917	425-430	5.0			
431.8	1.8	but evenly distributed diss sid. Occasional						
434.3	2.5	sid strgr and some py. Good core.	18	435				
439.0	4.7	Sporadic and somewhat surficial appearing	19	440				
443.8	4.7	sid w/py from 430.6 to 431.3.	20	445				
448.2	4.4	Small sid strgr w/py at 436.5.	21	450				
453.1	4.8		22	455				
458.0	4.9		23	460				
463.0	5.0		24	465				
End Box 14								
468.0	4.8	463.0 - 485.1' About equal amts grn gry						
471.9	3.9	argilite and lt gry qtzite. Occasional ser	25	470				
476.1	4.2	zone.	26	475				
481.1	4.5	Faults at 476.3 and 485.0.	27	480				
485.1	3.9		28	485				
490.1	4.9	485.1 to 514.0 Lt grnish gry arg qtzite w/	29	490				
492.6	2.2	occasional sid strgrs. Some banded diss sid.						
496.2	3.2	Several small sid strgrs between 485.3 to	30	495				
End Box 15		496.0.						
500.9	4.7	Small fault at 498.0.	31	500				
505.1	4.2	Small sid strgrs w/py at 511.6.	32	505				
509.1	4.0		33	510				
514.0	4.0	514.0' - 530.6' Hd lt gry qtzite w/numerous	34	515				
518.0	3.7	small sid strgrs.	35	520				
522.6	4.6	Zone of small somewhat irregular sid strgrs	36	525				
527.2	4.6	w/py from 514.0 to 517.0.						
530.6	3.1	4" zone of qtzite w/small solution cavities	37	530				
End Box 16		at 520.6.						
		Sm sid strgrs at 526.3.						
		Fault at 527.1.						
535.6	4.9		38	535				
539.9	4.2		39	540				
544.9	2.7	530.6' - 572.0' Mostly lt gry arg qtzite	40	545				
548.0	1.8	w/some lt gry qtzite. Occasional sm solution						
552.0	4.0	cavities.	41	550				
554.6	2.6	Small sid strgrs at 533.3 & 533.6.	42	555				
559.0	4.4	Faults at 544.7 & 547.9 & 551.8.	43	560				
561.1	2.1	Faults at 568.7 and at 571.9.						
564.3	2.6		44	565				
566.3	1.5							
568.8	2.5		45	570		0.4		
End Box 17								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Dr.

Logged by Date
Drilled by

Hole No. 3501
Level 3000
Grid 337
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		572.0' - 603.7' Mostly lt gry qtzite w/some relatively hd lt gry arg qtzite. Numerous small pencil line sid strgrs.						
573.1	4.3	Small faults at 572.5 and 576.	E 4946	570-575	5.0			
576.4	3.1	Small sid strgr w/py at 582.6.	47	580		0.3		
580.4	4.0	Faults at 585.5 & 586.2.						
583.1	2.7	2" diag py at 585.4.	48	585				
586.8	3.7	Small sid strgr at 588.0.	49	590				
590.0	3.7	1" wht qtz at 590.2.	50	595				
594.5	3.6	3" to 4" sid (broken) w/qtz py and some tetra from 591.8 to 592.1.	51	600				
597.6	3.1	Small sid strgr w/py at 594.7.						
600.7	3.1	Small sid strgr at 596.4.						
End Box 18		Very small fracture fill of chalco & tetra at 598.5.						
605.0	3.4		52	605				
609.0	3.0							
610.3	1.3		53	610				
615.2	4.9		54	615		0.2		
617.0	1.6							
620.0	2.8		55	620		0.2		
621.0	0.8							
623.6	2.6							
625.6	2.0		56	625		0.2		
630.0	3.0		57	630		0.2		
632.3	1.3		58	635		0.2		
637.3	1.3							
638.4	1.1							
641.2	2.5	603.7' - 728.8' Very lt cloudy gry qtzite w/bluish tinge w/speckled diss sid and some py. Some sid strgrs. (Appears to be a fine grained relatively pure qtzite.	59	640				
642.6	1.3							
End Box 19								
644.1	1.9		60	645				
646.6	2.1	Sm irreg sid strgrs w/py and tetra (?) at 620.8.	61	650		0.2		
649.0	2.5	1" sid strgr w/qtz & py at 621.4.						
651.0	1.6	2" irreg sid strgrs w/py and tetra (?) at 623.0.	62	655				
653.8	2.5	½" wht qtz at 623.9 & 624.6.						
655.6	1.6	Small fault at 632.3.						
659.9	4.3	Small sid strgr w/py at 633.4	63	660				
662.2	2.2	3" somewhat brecciated, hd rock (broken) at 634.0 (Poor core recovery between 632.3 & 637.3).	64	665		0.2		
667.2	5.0		65	670				
672.2	5.0		66	675				
675.0	3.3							
End Box 20								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Dr.

Logged by Date
Drilled by

Hole No. 3501
Level 3000
Grid 337
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
678.8	1.2	603.7' - 728.8' (Cont'd)						
679.3	0.5	½" wht qtz and sid at 637.5.	E 4967	675-680	5.0			
681.1	1.0	Sm sid strgr w/tetra (?) at 639.1.						
685.0	2.8	Numerous small sid strgrs w/py & some with	68	685				
686.2	0.3	tetra from 639.1 to 642.4.						
687.4	0.7	1½" sid w/py & tetra at 643.3.						
691.7	4.3	Small sid strgrs at 669.4 & 663.9 (Approx	69	690				
694.4	1.0	45° to core).	70	695				
697.6	1.5	Qtzite is slightly darker, has banded diss						
699.0	1.4	sid and occasional ser from 656.2 to 691.7	71	700				
701.0	2.0	and then lighter gry from 697.6 to 703.2.						
703.0	2.0	Small sid strgrs 683.6, 689.5 & 690.9.						
703.8	0.8	Sid broken w/qtz & py from 692.0 to 697.6.	72	705				
708.8	4.3	(Mostly wht qtz from 694.4 to 697.6).						
710.0	1.2	Sid strgr at 713.0.	73	710				
711.4	1.0	Small fault w/slicken sides at 726.6						
713.0	1.5							
End Box 21								
716.4	3.6		74	715				
717.2	0.7							
719.6	2.5		75	720				
721.7	1.7							
726.3	1.2		76	725				
728.8	2.3	728.8' - 744.6' About equal amt lt gry						
731.0	1.9	qtzite and med gry arg qtzite w/sm grn banded	77	730				
733.0	1.9	alteration zones closer to the lamprophyre						
734.6	1.2	dike.	78	735				
738.2	3.6	6" diss py and massive py in dk grnish						
739.0	0.4	alteration zone from 741.1 to 741.6.	79	740				
742.0	1.3							
744.6	1.6							
745.8	1.2	744.6' - 750.2' Dk grn, fine grained, basic	80	745				
747.4	1.6	dike w/hematite (?) along cracks seams and as						
750.2	2.8	dissem. Some secondary qtz veins.	81	750		0.4		
755.7	3.3	750.2' - 754.8' Dk grn altered qtzite with patches of unaltered rock.	82	755		0.2		

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location 337 Pol. E. Dr.

Logged by Date
Drilled by

Hole No. 3501
Level 3000
Grid 337
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
757.2	1.2	754.8' - 797.0' Hd lt gry qtzite w/some	E4983	755-760	5.0			
761.7	2.6	sid & occasional py strgrs.						
762.5	1.1	Irregular sid strgrs w/py and tetra from						
767.3	1.8	769.9 to 772.4.	84	765				
769.0	1.7	Irregular sid strgr at 774.6.	85	770				
773.4	2.6		86	775				
778.4	4.5							
781.0	2.4		87	780				
785.1	4.2		88	785				
788.7	2.5							
792.9	3.6		89	790				
End Box 23								
797.0	2.2		90	795				
		797.0' - 836.2' Lt gry qtzite w/diss py						
		and strgrs py. Some ser qtzite.						
800.4	2.1	6" broken (Apparently crushed) qtzite	91	800				
802.6	1.0	w/sm blk lines showing the fractures						
807.2	3.2	from 797.4 to 797.9.	92	805				
812.2	3.6	3" zone sm py strgrs partially diss from	93	810				
815.6	2.0	808.3 to 808.6.	94	815				
817.9	1.9	Sm sid strgr at 816.1.	95	820		0.4		
820.9	2.0	6" wht qtz (broken) w/some sid from 825.7						
826.2	4.4	to 826.2.	96	825				
End Box 24								

END OF HOLE

TROPARI SURVEY

Depth	Bearing	Inclination
0	S 30° E	Flat
40'	S 25° E	Flat
100'	S 23° E	- 2°
200'	S 23° E	- 2°
300'	S 24° E	- 2°
500'	S 07° E	Flat

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED OCT 21 1957

OPERATOR'S MONTHLY REPORT AND VOUCHER

Stage II

Month of September, 1957 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony
Address Box 320, Wallace, Idaho (and incidental silver)
Contract Amount, $ 147000.00 Government Participation: 50% Amount, $ 73500.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:				10/31/57		
Drilling Core 478.7@4.50	2154.15	595.80	2749.95	2154.15	595.80	2749.95
Bulldozing						
Crosscutting		3814.59	3814.59		3814.59	3814.59
Drifting 241.7 @$48.78	11790.13	14868.15	26658.28	11790.13	14868.15	26658.28
Sideswipe 30.0 @25.50	765.00	1275.00	2040.00	765.00	1275.00	2040.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I					726 838.94	726 838.94
TOTALS	14709.28	20553.54	35262.82	14709.28	747,392.48	762 101.76

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 10-4-57 *Payee Polaris Mining Company

Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company of corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 735464

Signature Dorothy F. Long
(Authorized Certifying Officer)

Date 10/17/57 Vou. No. 2059

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Ec 541 in accordance with the terms of the contract.

Signature /s/ John D. Bardill Title Metallurgist Date Oct. 14, 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date Oct. 15, 1957

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage II

Month of September 1957 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)

Address Box 320, Wallace, Idaho

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	feet	11790.13	241.7	26658.28	546.5	48.78)	2500	48.78*
Crosscutting				3814.59	78.2	)		
Raising								
~~Shafts~~ Sideswipe		765.00	30.0	2040.00	80.0	25.50	100	25.50*
Winzes								
Drilling: Core	feet	2154.15	478.7	2749.95	611.1	4.50	5000	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		14,709.28						TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 10-4-57 Operator Polaris Mining Company

Per J. B. Randell Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only)

*Maximum allowed by contract

/s/ John A. Bardell

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

HECLA MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

October seventh
1957

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
September - 1957
Docket No. DMEA - 2879
Contract No. IDM - E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of September included 241.7 feet of drifting, 30.0 feet of sideswiping and 478.7 feet of diamond drilling.

337 East drift advanced 241.7 feet to station SS3100 plus 134.0. Near the end of the month as shown on the attached geologic map, this drift intersected a strong easterly striking fault-vein structure which is thought to be the same structure previously followed by 329 east drift. 337 East drift is now continuing along an 8.0 foot to 10.0 foot wide siderite vein which contains small streaks of tetrahedrite.

Diamond drill hole No. 3295 was drilled northerly from 337 north crosscut to a depth of 217.8 feet. This hole intersected a 5.5 foot wide siderite vein with minor tetrahedrite at 4.5 to 10.0 feet. Holes No. 3296 and 3297 were drilled northerly 86.6 feet and 58.2 feet, respectively from points a short distance easterly from station SS3100. These two holes each intersected a strong siderite vein with minor tetrahedrite. Hole No. 3298 is now being drilled northerly from 334 north crosscut and had reached a depth of 116.1 feet at the end of September. The logs of holes 3294, 3295, 3296 and 3297 are included with this report.

331-B Raise was driven 48.8 feet during the month to a height of 116.1 feet. The ore in this raise has weakened considerably near the present back.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH/hdh/jh

Note: All sludge assays are trace or no silver unless otherwise noted.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 7-8-57
Finished 8-23-57
Hole Size EX
Depth 888.8
% Core Rec. 95.0

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift.
SS 3023 + 18.0 S.
Logged by J.H.J. Date 8-26-57
Drilled by Madsen and Houser

Hole No. 3294
Level 3000
Grid 190
Latitude 82960 S
Departure 87070 E
Elevation -308'
Bearing See Survey
Inclination last page.

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-5.0	3.5		E4070	0 - 5	5.0			
9.6	4.6		71	10				
13.4	3.3		72	15				
16.2	2.6							
21.1	4.5		73	20				
25.4	4.0		74	25				
27.5	2.0		75	30				
32.4	4.8							
35.9	3.0		76	35				
End Box 1								
38.0	2.0							
40.6	2.5		77	40				
43.2	2.6							
44.8	1.6		78	45				
49.2	4.3		79	50				
52.2	2.8							
55.0	2.8		80	55				
59.6	4.5		81	60				
64.4	4.8		82	65				
69.2	4.6		83	70				
End Box 2								
73.9	4.6		84	75				
78.7	4.3		85	80				
83.4	4.7		86	85				
88.1	4.7							
92.8	4.5		87	90				
96.9	3.8		88	95				
99.5	2.4		89	100				
104.2	4.3	0.0' - 245.5' Mostly gry bleached arg	90	105				
End Box 3		qtzite having somewhat a greenish cast						
108.9	4.6	due to chlorite but has zones of harder	91	110				
112.8	3.9	lt gry qtzite. Diss sid occurs throughout						
116.7	3.8	core. Core is badly broken from 0.0 to	92	115				
119.0	1.0	245.0.						
120.9	1.7	Small slip at 9.0.	93	120				
122.5	1.6	Diss sid conc from 13.7 to 14.9.						
124.5	2.0	Sid strgrs w/qtz and py from 21.0 to 24.0.	94	125				
125.9	1.3	Small qtz veins from 13.4 to 27.0.						
127.3	1.3	Fault at 44.0.						
129.3	2.0	0.4 qtz veins at 38.0.	95	130				
130.9	1.5	0.5 qtz vein at 58.0.	96	135				
134.8	3.9	Diss sid conc w/tourmaline from 55.0						
End Box 4		to 56.5.						
138.6	3.0	Lt gry qtzite zone from 74.6 to 96.0.	97	140				
141.5	2.8							

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift

Logged by Date
Drilled by

Hole No. 3294
Level 3000
Grid 190
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
143.2	1.7							
146.6	3.3	0.0' - 245.5' (Continued)	E4098	140-145				
151.0	4.3	0.5 qtz veins at 83.2, 93.5 and 95.5.	99	150				
155.9	4.9	Sid strgr w/py at 103.8.	4100	155				
160.5	4.6	Lt gry qtzite zone from 106.0 to 119.6.	01	160				
165.5	5.0	Numerous bedding slips from 108.0 to	02	165				
170.4	4.8	130.9.	03	170				
End Box 5		Small slip at 135.5 and 186.2.						
175.1	4.6	Lt gry qtz zone from 160.0 to 165.0.	04	175				
180.1	5.0	Fault w/small slips from 180.0 to 180.7.	05	180				
185.1	5.0	Diss sid conc from 202.8 to 204.8.	06	185				
190.1	4.9	Small qtz vein w/sid and py at 223.5.	07	190				
195.0	4.8	0.2 qtz vein w/py at 225.3.	08	195				
200.0	4.8	Slips at 217.0 and 221.8.	09	200				
202.8	2.0	0.7 qtz vein w/py and sid at 242.1.						
End Box 6		0.2 qtz vein w/sid at 244.8.	10	205				
207.5	4.5	Small fault at 237.1.						
211.4	3.8		11	210				
213.3	1.7		12	215				
217.1	3.4		13	220				
222.1	4.6		14	225				
230.1	3.0		15	230				
234.0	3.4		16	235				
237.2	3.2							
239.2	1.7		17	240				
End Box 7								
240.1	0.9							
241.9	1.2							
245.5	3.1		18	245				
250.1	4.8	245.5' - 267.0' Lt gry arg qtzite w/much	19	250				
255.1	4.6	diss sid and w/qtz veins from 251.0 to	20	255				
261.0	4.6	267.0.	21	260				
265.0	4.4	Small faults at 265.0 and 265.5.	22	265				
270.2	5.0		23	270				
275.1	4.5		24	275				
End Box 8								
279.8	4.6	267.0' - 314.0' Mostly lt gry qtzite	25	280				
284.5	4.7	w/diss sid and w/some strgrs sid.	26	285				
289.5	4.7	0.5 qtz vein at 267.5, 0.1 at 214.5,	27	290				
294.2	4.7	0.4 at 293.6, and 0.2 at 300.0.	28	295				
298.9	4.6	Small faults at 269.5 and 298.7.	29	300				
303.9	4.3							
307.0	3.1		30	305				
311.6	4.6		31	310				
End Box 9								

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift.

Logged by Date
Drilled by

Hole No. 3294
Level 3000
Grid 190
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description
316.5	4.8	
321.4	4.5	
326.4	4.6	
331.2	4.1	
336.2	4.6	
341.2	4.9	
346.2	4.6	
351.2	4.6	
End Box 10		
355.7	5.0	
360.7	4.6	
365.7	4.9	
370.6	4.7	
372.8	1.8	
377.7	4.9	
382.8	4.9	
385.9	3.1	
End Box11		
388.5	3.2	
393.3	4.4	
398.3	5.0	
403.3	4.5	
407.2	3.1	
412.0	4.6	
416.0	4.0	
418.5	2.5	
420.6	2.0	
End Box 12		
424.8	3.7	
428.3	2.7	
429.9	1.2	
434.9	4.7	
439.9	4.6	
444.9	4.9	314.0' - 647.0' Hd lt gry qtzite w/diss sid
449.8	4.4	and pyrite. Some lighter silicified zones.
454.6	3.7	Mang qtz veins and veinlets throughout,
459.6	5.0	314.0 to 347.0.
End Box13		0.5 sid strgr at 348.0 and small strgr
464.6	3.9	sid at 319.3.
469.0	4.4	0.3 white qtz at 344.8 w/chlorite seams.
474.0	5.0	0.4 white qtz at 347.7.
479.0	4.7	Diss py cubes 0.1 to 0.2 in size from
483.8	4.8	336.0 to 358.0.
487.5	4.5	

Sample Data

No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
E4132	310-315	5.0			
33	320				
34	325				
35	330				
36	335				
37	340				
38	345				
39	350				
40	355				
41	360	5.0	0.9		
42	365				
43	370				
44	375				
45	380				
46	385				
47	390				
48	395				
49	400				
50	405				
51	410				
52	415				
53	420				
54	425				
55	430				
56	435				
57	440				
58	445				
59	450				
60	455				
61	460				
62	465				
63	470				
64	475				
65	480				
66	485				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift

Logged by Date
Drilled by

Hole No. 3294
Level 3000
Grid 190
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
492.5	5.0		E4167	485-490	5.0			
497.4	4.5	314.0' - 647.0' (Continued)	68	495				
End Box14			69	500				
502.3	4.4	Small slips at 360.0, 365.7 and 370.6.						
506.5	3.5	w/greenish ser and chlorite seams.	70	505				
510.2	2.3	Silicified zone from 355.2 to 386.5.	71	510				
515.2	4.7	0.1 white qtz at 360.0, 0.2 at 360.9,	72	515				
519.7	4.5	0.1 at 373.5, 0.2 at 398.2.	73	520				
524.6	4.8	Slip at 407.2.	74	525				
529.1	4.5	0.4 qtz at 425.0 w/0.1 vein pyrite.	75	530				
532.3	3.5	Strong fault w/good gg at 434.9.	76	535				
End Box15		0.5 white qtz at 439.0.						
537.3	5.0	Py cubes, widely separated, occur from	77	540				
542.3	4.9	464.0 to 532.5.						
546.6	4.3	0.4 qtz vein at 493.0.	78	545				
551.6	5.0	Faults at 510.0 and 521.2.	79	550				
556.2	4.6	Many small slips from 536.0 to 620.7.	80	555				
559.8	3.6	Faults w/gg at 610.7 and 638.5.	81	560				
564.8	4.6		82	565				
568.7	3.9		83	570				
End Box16								
573.4	4.6		84	575				
577.4	3.8							
581.0	3.6		85	580				
584.3	3.2		86	585				
589.5	4.9		87	590				
593.3	3.7		88	595				
598.1	4.6							
602.8	4.7		89	600				
605.9	3.1		90	605				
End Box17								
610.9	4.7		91	610				
616.2	4.7		92	615				
620.9	4.7		93	620				
623.9	2.7		94	625				
628.8	4.9		95	630				
633.5	4.4		96	635				
638.3	4.8							
642.5	4.3		97	640				
End Box18								
647.3	5.0		98	645				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift

Logged by Date
Drilled by

Hole No. 3294
Level 3000
Grid 190
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
649.7	2.2	647.0' - 686.0' Lt gry and gry qtzite	E4199	645-650	5.0			
653.4	3.6	with some small strgrs sid and small qtz	4200	655				
658.3	4.8	veins, occasional diss pyrite. Very good	01	660				
662.8	4.3	core.	02	665				
667.6	4.7	0.1 qtz vein at 649.0.	03	670				
672.6	4.8	Small zones of purplish qtzite.from 672.9	04	675				
677.5	4.9	to 686.0. Purple and reddish bedding						
End Box 19		bands occur at a steep angle to the core.						
682.2	4.6	Small qtz vein w/specular hematite at	05	680		0.2		
687.5	5.0	676.0.	06	685		0.2		
691.9	4.4		07	690		1.1		
696.7	4.7	686.0' - 715.0' Mostly lt greenish gry arg	08	695		1.2		
701.6	4.8	qtzite w/numerous seams chlorite and an	09	700				
706.4	4.8	occasional veinlet white qtz. Small bedding	10	705				
710.0	3.5	slips throughout.	11	710				
715.0	4.3		12	715				
End Box 20								
719.0	4.0		13	720				
724.0	4.8							
725.6	1.6	715.0' - 753.0' Lt gry qtzite w/some chl	14	725				
730.6	5.0	and very little diss sid.	15	730				
734.8	4.4	Arg qtzite from 715.0 to 719.0	16	735				
738.6	3.8	Veinlets white qtz from 717.0 to 719.2.	17	740				
743.6	4.9	Bedding slips at 728.6 and 734.1.	18	745				
748.4	4.8		19	750				
End Box 21								
753.0	5.0							
756.0	2.8	753.0' - 763.0' Lt gry qtzite w/some strgrs	20	755				
757.8	1.8	sid and veinlets white qtz.	21	760				
762.8	5.0							
768.1	4.2		22	765				
772.9	4.7		23	770				
777.8	4.6		24	775				
782.5	4.6		25	780				
End Box 22								
787.3	4.8		26	785				
790.0	2.3	763.0' - 820.0' Mostly greenish gry qtzite	27	790				
794.5	4.5	w/numerous qtz veinlets. Some zones appear	28	795				
799.5	4.9	to be silicified.	29	800				
802.2	2.7							
804.1	1.9		30	805				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Drift

Logged by Date
Drilled by

Hole No. 3294
Level 3000
Grid 190
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
805.8	1.4							
808.3	2.5	820.0' - 855.0' Mostly hd gry qtzite w/veins	E4231	805-810				
812.8	4.0	white qtz - occasionally shows lavender bands						
817.4	4.3	and a somewhat mottled bleached purple	32	815				
820.1	2.9	coloration.	33	820				
End Box 23		White qtz w/minute chl seams from 828.0						
824.7	4.5	to 829.6.	34	825				
829.6	4.9	Small faults at 829.6 and 830.2.						
830.2	0.5		35	830				
835.2	5.0		36	835				
840.1	4.8		37	840				
843.2	3.1		38	845				
848.2	4.6							
850.5	2.0		39	850				
854.6	4.1		40	855				
End Box 24								
858.5	3.7	855.0' - 884.0' Mostly drk gry arg qtzite	41	860				
863.5	4.6	w/lighter zones of gry qtzite. Some strgrs	42	865				
867.7	4.2	sid.	43	870				
870.2	2.5	Mottled purple and white qtzite from						
874.7	4.4	855.2 to 857.2.	44	875				
879.4	4.6	Faults at 863.0 to 867.2.	45	880				
884.4	4.5		46	885				
		884.0' - 888.8' Mostly a light purple to						
888.8	4.5	dark gry arg qtzite w/darker light purple						
End Box 25		bands - bands make a large angle to core.						

END OF HOLE

TROPARI SURVEY

Depth	Bearing	Inclination	
Collar	S 14° E	0°	(Brunton)
780'	S 11° W	+6°	

All Sludge Assays are Trace or No Silver unless otherwise indicated

DIAMOND DRILL RECORD

Standpipe
Casing

Started 9-6-57
Finished 9-17-57
Hole Size EX
Depth 217.8
% Core Rec. 86

Mine SILVER SUMMIT
Location Polaris East Exploration Project
337 N X-Cut - SS3098 + 61.5 N
Logged by J.G.S. Date 9-18-57
Drilled by Hauser

Hole No. 3295
Level 3000
Grid 337
Latitude -265
Departure 84901 S
Elevation -94224 E
Bearing N 15° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
		0.0' - 10.0'						
0 - 5	2.0	0.0 to 4.5 lt gry bleached qtzite.	E4248	0 - 5	5.0	3.2		
10.0	2.3	4.5 to 5.0 Sid w/some pyr and some tetra.	49	10		3.6		
		5.0 to 10.0 Sid w/qtz pyr and some tetra.						
12.1	1.1							
15.0	1.3		50	15		0.2		
16.6	1.4							
19.4	2.9		51	20				
24.1	4.0							
25.7	1.5	10.0' - 47.0' Lt gry arg qtzite w/occasional	52	25				
28.8	3.3	band of diss sid.						
30.3	1.2		53	30				
31.3	0.6							
33.0	1.8							
34.7	1.5		54	35	5.0	0.2		
36.3	1.5							
39.7	3.0		55	40				
End Box 1								
42.9	2.9		56	45				
45.1	2.4							
47.7	3.0							
49.6	1.7		57	50				
51.4	1.2							
55.7	4.6		58	55				
57.2	2.1	47.0' - 71.0' Softer lt greenish gry arg						
59.2	2.0	qtzite w/bands of diss sid.	59	60				
61.6	2.0							
66.6	3.5		60	65				
71.6	4.7		61	70				
75.1	2.2		62	75				
76.6	1.5	71.0' - 104.0' Mostly lt gry arg qtzite						
78.5	1.4	w/some hd lt gry qtzite.						
End Box 2		small pyr stringer at 79.5.	63	80				
81.8	2.6							
86.7	1.8		64	85				
89.7	4.8		65	90				
93.1	1.7							
95.8	2.6		66	95				
100.8	2.4		67	100				
104.1	2.9		68	105				

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris East Exploration Project

Logged by Date
Drilled by

Hole No. 3295
Level 3000
Grid 337
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
107.8	3.6							
109.3	1.8		E4269	105-110	5.0			
114.4	3.7							
117.6	3.2	104.0' - 152.0' Mostly lt gry qtzite w/some	70	115				
End Box 3		arg qtzite - occassional qtz veinlet. Darker	71	120				
123.0	4.7	gry from 130.0 to 152.0.						
124.8	1.0	½" white qtz at 116.0	72	125				
127.2	1.0	Small pyr stringer w/some sid at 117.0.						
132.4	4.3	Fault at 124.8.	73	130				
134.9	2.3	Small pyr band at 131.6.						
137.6	2.5							
140.7	3.4		74	135				
144.7	3.2		75	140				
149.5	3.4		76	145				
152.3	3.1		77	150				
154.9	2.4							
End Box 4			78	155				
157.5	2.1	152.0' - 166.0' Soft lt gry bleached arg						
160.5	2.3	qtzite. 2" fract, silicified zone at 159.0.	79	160				
163.7	2.6							
166.9	3.1		80	165				
169.7	2.7	166.0' - 176.0' Lt gry blchd arg qtzite.	81	170				
174.7	4.5							
176.5	1.9		82	175				
179.5	3.1							
181.4	2.0		83	180				
183.1	1.6		84	185				
187.8	4.6	176.0' - 204.0' Mostly softer lt gryish						
190.8	3.0	grn arg qtzite w/some harder lt gry qtzite.	85	190				
End Box 5		Small fault at 191.0'.	86	195				
195.4	4.5	Few bands dism sid.						
200.2	4.5		87	200				
204.5	4.0	204.0' - 217.8' Bluish gry arg qtzite with	88	205				
		little silicification.						
209.3	4.6	Fault with 6" lt gry gg and little blk	89	210				
213.2	3.7	gg at 207.0.						
217.8	4.6	Few small solution calvities at 210.0.	90	215				
End Box 6		Small fault with blk slick at 210.2.						
		END OF HOLE						

Note: All sludge samples are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 9-17-57
Finished 9-18-57
Hole Size EX
Depth 86.6
% Core Rec. 82.8

Mine SILVER SUMMIT
Location Polaris East Expl. Drift
SS3100 + 43.0 E
Logged by J.H.J. Date 9-19-57
Drilled by Houser and Pearson

Hole No. 3296
Level 3000
Grid 341
Latitude 84 895 S
Departure 94 394 E
Elevation -264
Bearing N 35° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-1.8	1.5		E4291	0 - 5	5.0			
4.5	2.5							
6.9	2.0							
8.8	1.7	0.0' - 28.1' Bluish gry arg qtzite w/darker						
10.3	1.5	bands of pyrite.	92	10				
14.8	2.5		93	15				
17.3	2.6							
21.4	4.6		94	20				
23.1	2.0		95	25				
28.1	4.9		96	30		0.2		
29.0	0.9							
32.8	2.9							
End Box 1								
35.0	2.8		97	35				
37.0	1.1							
37.6	0.6	28.1' - 62.6' Lt gry arg qtzite	98	40				
41.0	3.8	Some silicification from 46.0 to 62.0.						
44.5	2.5	Fault at 41.0.	99	45				
46.0	1.0	50.8 to 62.6 - broken and crushed sid,						
49.1	2.0	some bands of qtz pyr and tetra.	4301	50				
50.3	0.9	Some arg qtzite at 59.0 to 59.3.						
55.3	1.3		02	55		2.5		
56.9	0.4							
58.9	0.6		03	60		1.8		
62.6	0.9							
63.8	1.2							
64.9	1.1		04	65				
66.0	1.2	62.6' - 86.6' Lt gry blched qtzite w/many						
68.6	1.5	sid strgrs and several qtz veinlets. Core						
70.0	1.5	badly broken.	05	70				
71.6	1.2	0.9 sid vein at 65.1 to 60.0.						
74.3	3.6	3.0 sid vein w/qtz and pyr from 68.0 to	06	75				
77.2	2.8	71.0.						
78.8	1.6	0.1 sid strgr at 73.7.						
End Box 2		8.3 qtz vein at 84.5.						
80.5	1.6		07	80				
83.6	3.0							
86.6	2.7		08	85				
		END OF HOLE						

FORM 127 1M 7-55

Note: All sludge assays are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 9-18-57
Finished 9-19-57
Hole Size EX
Depth 58.2
% Core Rec. 75.4

Mine SILVER SUMMIT
Location Polaris East Expl. Drift
SS3100 + 30.5 E.
Logged by J.H.J. Date 9-25-57
Drilled by Hauser and Behm

Hole No. 3297
Level 3000
Grid 341
Latitude 84 898 S
Departure 94 393 E
Elevation -264
Bearing N 21° W
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-3.4	1.6	0.0' - 20.2' Mostly gry arg qtzite w/some gry	E4309	0 - 5				
8.2	4.7	hd qtzite - Some small strgr pyr.	10	10				
12.6	4.4		11	15				
16.6	4.0							
21.0	3.4	20.2' - 41.5' About equal amts gry arg qtzite	12	20				
End Box 1		and lt gry to gry qtzite.						
25.6	4.5		13	25				
30.6	5.0		14	30				
32.0	1.6	41.5' - 46.5' Sid w/some qtz, pyr and tetra.						
36.5	3.2	Badly broken - Poor core recovery	15	35				
41.5	1.4	0.1 qtz vein at 46.4.	16	40				
46.5	1.0		17	45				
47.4	0.7	46.5' - 58.2' About equal amts gry arg						
49.5	1.7	qtzite and lighter gry qtzite w/numerous	18	50		0.2		
51.9	1.3	strgrs sid w/some pyr.						
52.9	0.9	0.1 sid strgr at 47.3.						
55.4	1.8	0.5 sid strgr at 54.7.	19	55		0.2		
58.2	2.7							

END OF HOLE

FORM 127 1M 7-55

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT

Date 9-16

Referred to:

1. ~~Mr. Mittendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. Docket Control Mails and Files
5. ~~Division~~
6. ~~Docket Control Mails and Files~~
7. 500

Note comments in report regarding:

1. Note: Contract does not authorize addition to
2. Stage II drilling footage of unused footage under
3. Stage I. Talbert 9/17/57
4.

and take appropriate action.

- - - - - - - - - -

Action taken by Division:

Robert E. Adams

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 16 1957

DATE	INITIALS	CODE
9-16	C	220
9/17	Klug.	500

August 27, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: John D. Bardill, Bureau of Mines

Subject: Routine inspection report, Docket No. DMEA-2879 (lead-zinc-copper-antimony), Polaris Mining Company, Polaris East Exploration Project, Shoshone County, Idaho, Contract No. Idm-E541

This project was inspected August 22, 1957, accompanied by Mr. M. W. Hutchinson, company geologist.

The 3000 level east drift had been advanced approximately 270 feet under the amended contract. The face of the drift was at Sta. SS3089 + 235 feet at the time of the inspection. The fractured structure had swung to the north so approximately the last 75 feet of the drift was out of and south of the structure. Approximately 10 feet from the drift face 337 XCN had been driven 33 feet to locate the structure again. At the time there was some question whether the crosscut had cut the structure.

At Sta. 3089 + 55 feet 334 XCN had been driven 17 feet for a diamond drill station.

When work was resumed in the East drift in July the face was at Sta. 3089 + 47.5 feet. During the period February through June the drift had been driven 82 feet in excess of the authorized footage under the original contract so that 82 feet was charged to Stage II of the amended contract. Therefore, the start of the contract under Stage II was 34.5 feet west of Sta. 3089.

DD hole No. 3294 had been drilled to a depth of 850 feet without encountering any significant mineralization.

Raise 331-B in the south drift on company account had been driven about 45 feet. The ore shoot appears to be about 200 feet long with a 20-foot barren zone and about 10 feet wide averaging 30 ounces silver per ton.

Status of the contract as of August 22, 1957, was as follows:

Date of contract: November 1, 1953
Termination date: June 1, 1958
Amount of contract: Stage I - $726,838.94 (completed)
Stage II - 147,000.00
Rounded to: $873,840.00
Amount spent - Stage II: 7,829.19 (thru July '57)

Work Item	Authorized	Completed
Drifting and/or crosscutting		
Drifting - feet)	2,500	269.5
Crosscutting - feet)		50.3
Sideswipes, feet	100	none
Diamond drilling, feet (after deducting 756.4 ft. remaining in Stage I)	5,000	93.6

John D. Bardill

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bardill

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Stage I

Month of August, 1957 Docket No. DMEA 2879 Contract No.

Operator's Name Polaris Mining Company Minerals IDM-E541 Copper, Lead, Antimony (and incidental silver)

Address Box 320 Wallace, Idaho

Contract Amount, $ 726,838.94 Government Participation: 50 % Amount, $ 363,419.47

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:				10/17/57 O.P.K.		
Drilling						
Bulldozing	Core 327.6@$4.50 $1474.20	$ 87571.80	$ 89046.00	1474.20	87571.80	89046.00
Crosscutting	Raising	30248.26	30248.26		30248.26	30248.26
Drifting		45578.78	45578.78		45578.78	45578.78
		532003.40	532003.40		532003.40	532003.40
	Sideswipe	29962.50	29962.50		29962.50	29962.50
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$1474.20	$72364.74	$726838.94	1474.20	72364.74	726838.94

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 9-5-57 *Payee Polaris Mining Company

Per John R. Matthews Title Treasurer

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ —0—

Signature Dorothy F. Long (Authorized Certifying Officer)

Date 9/11/57 Vou. No. 2040

(See other side)

Carried to MF-104, Stage II
Payment made from same.

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 6541 in accordance with the terms of the contract.

Signature /s/ John D. Bardill Title Metallurgist Date 9/10/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ D. R. MacLaren Title Alternate Act. Exec. Officer Date 9/10/57

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage I

Month of August 1957 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company

Address Box 320 Wallace, Idaho

Minerals Copper, Lead, Antimony (and incidental silver)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	feet			$532003.40	10694.8	$49.74)	11618.4	$51.00**
Crosscutting				45578.78	923.6	49.35)		
Raising				30248.26	324.1	93.33	330	93.33*
~~Shafts~~ Sidewipe				29962.50	1175.0	25.50	1175	25.50*
Winzes								
Drilling: Core		$1474.20	327.6	89046.00	19788.0	4.50	19788	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 9-5-57 Operator Polaris Mining Company

Per John R. Williams Title Treasurer ~~President~~

REMARKS:

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

** 6199.5 @ 50.53
5418.9 @ 48.78
11618.4

/s/ John A. Bardill

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED SEP 16 1957 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER Stage II

Month of August, 1957 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental silver)

Address Box 320 Wallace, Idaho

Contract Amount $147,000.00 Government Participation: 50 % Amount, $ 73,500.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:				10/17/57 OWH		
Drilling Core 132.4 @4.50	$ 595.80		$ 595.80	595.80	—	595.80
Bulldozing						
Crosscutting 60.9@$48.78	2970.70	$ 843.89	3814.59	2970.70	843.89	3814.59
Drifting 161.60@$48.78	7882.85	6985.30	14868.15	7882.85	6985.30	14868.15
Sidewipe 50.00@$25.50	1275.00		1275.00	1275.00		1275.00
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I				1474.20	725,364.74	726,838.94
TOTALS	$12724.35	$7829.19	$20553.54	14198.55	733,193.93	747,392.48

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 9-5-57 *Payee Polaris Mining Company

Per John R. Matthews Title Treasurer

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 7099.28

Signature Dorothy T. Long (Authorized Certifying Officer)

Date 9/11/57 Vou. No. 2040

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E541 in accordance with the terms of the contract.

Signature /s/ John H. Bardill Title Metallurgist Date 9/10/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ D. R. MacLaren Title Alternate Act. Exec. Officer Date 9/10/57

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT Stage II

Month of August 195 7 Docket No. DMEA 2879 Contract No. IDM-E541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony

Address Box 320 Wallace, Idaho (and incidental silver)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	feet	$7882.85	161.6	$ 14868.15	304.8	$48.78	2500	$48.78*
Crosscutting		2970.70	60.9	3814.59	78.2			
Raising								
~~[illegible]~~ Sideswipe		1275.00	50.0	1275.00	50.0		100	25.50*
Winzes								
Drilling: Core		595.80	132.4	595.80	132.4		5000	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 9-5-57 Operator Polaris Mining Company

Per John R. Mattson Title Treasurer

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

/s/ John A. Bardill

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

September fourth
1957

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
August - 1957
Docket No. DMEA - 2879
Contract No. IDM - E541

Gentlemen:

Progress in the Polaris East Exploration Project during the month of August included 161.6 feet of drifting, 60.9 feet of crosscutting, 50.0 feet of side-swiping and 460.0 feet of diamond drilling.

329 east drift advanced 129.0 feet and 337 east drift, 32.6 feet. 337 north crosscut was driven 60.9 feet.

329 east drift diverged southerly from the fault structure which previously has been followed, and for that reason 337 north crosscut was driven to check the position of this fault and to establish a diamond drill station. This crosscut showed the fault to have swung considerably further to the north than was expected. Because of this 337 east drift is now being driven to intersect and again follow the fault structure.

As shown on the attached geologic map, these two drifts and the northerly crosscut were in bleached St. Regis quartzites during the month and showed several small, irregular pyrite stringers. The northerly crosscut also exposed a 1.5 foot siderite-pyrite vein with a small amount of tetrahedrite and a rather strong fault structure near the face. This fault is thought to be the easterly extension of the structure previously followed by 329 east drift.

Diamond drill hole SS3294 was extended 460.0 feet to a depth of 888.8 feet. At that point the rods became stuck and thus far efforts to free them have not been successful. The log of this hole will be submitted when it has either been completed to the proposed 1000 foot depth or abandoned at the present 888.8 foot depth. This hole has shown no mineralization of significance.

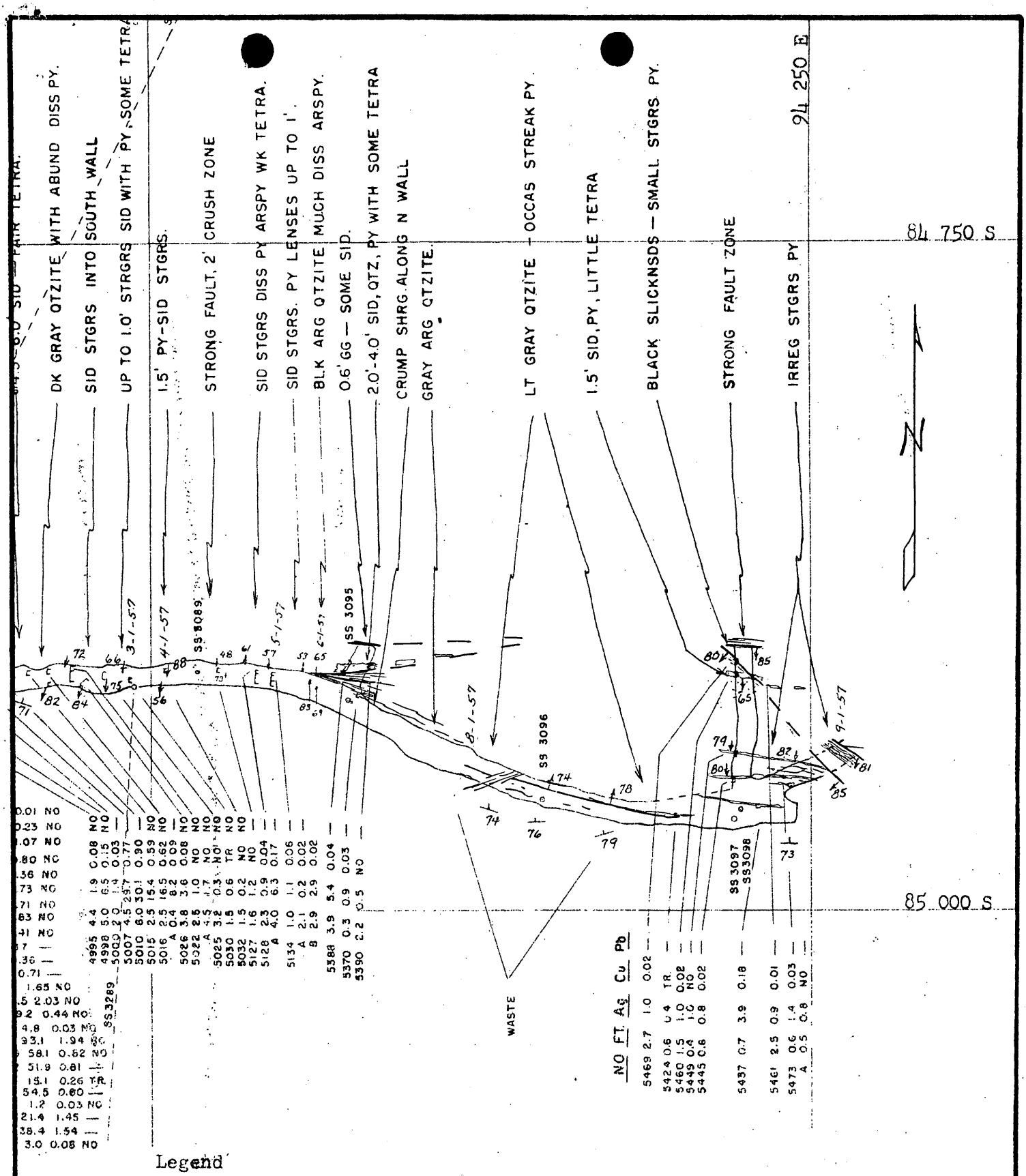
331-B Raise was driven 51.3 feet during the month and had reached a point 67.3 feet above the rail at the end of August. The north-south siderite vein in this raise averaged from 8.0 to 12.0 feet in width and continued to contain fair amounts of tetrahedrite.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH:nw



Legend

- Bleached rocks
- Unbleached St. Regis Formation
- Strike and dip of sulfide veins
- Strike and dip of non-sulfide veins
- Strike and dip of faults
- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' September 1, 1957

Geology by J.H.J.

Form MF 103 (Rev.) (April 1954)

RECEIVED AUG 26 1957 D.M.E.A.

W

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Stage II

Month of July, 1957 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& incidental Silver)

Address Box 320, Wallace, Idaho

Contract Amount, $147,000.00 Government Participation: 50 % Amount, $73,500.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:				8/30/57 WPK		
Drilling						
Bulldozing						
Crosscutting 17.3 @ $48.78	$ 843.89	$ - -	$ 843.89	843.89	—	843.89
Drifting 61.2 @ $48.78	2985.34	3999.96	6985.30	2985.34	3999.96	6985.30
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I				1929.60	723,435.14	725 364.74
TOTALS	$3829.23	$3999.96	$7829.19	5758.83	727 435.10	733 192.93

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 8-7-57 *Payee Polaris Mining Company

Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2879.47

Signature Dorothy F. Long (Authorized Certifying Officer)

Date 8/21/57 Vou. No. 2028

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E541 in accordance with the terms of the contract.

Signature /s/ John A. Bardill Title Metallurgist Date 8/19/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ W. E. Weissenborn Title Exec. Officer Date 8/20/57

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage II

Month of July 195 7 Docket No. DMEA 2879 Contract No. IDM-2541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)

Address Box 320, Wallace, Idaho

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet	$2985.34	61.2	$6985.30	143.2	48.78	2500	$48.78 *
Crosscutting		843.89	17.3	843.89	17.3			
Raising								
Shafts ~~Sink~~ Sideswipe							100	25.25 *
Winzes								
Drilling: Core							5000	4.50 *
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 8-7-57 Operator Polaris Mining Company

Per J. B. Bardell Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

REMARKS:

(For Government use only)

/s/ John A. Bardell

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

Form MF-194 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

OPERATOR'S MONTHLY REPORT AND VOUCHER

Stage I

Month of July, 1957 Docket No. DMEA 2879 Contract No. IDM-E 541
Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)
Address Box 320, Wallace, Idaho
Contract Amount, $ 726,838.94 Government Participation: 50 % Amount, $ 363,419.47

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:				8/30/57 [illegible]		
Drilling Core 428.8 @ $4.50	$ 1929.60	$ 85642.20	$ 87571.80	1929.60	85642.20	87571.80
Bulldozing Raising		30248.26	30248.26		30248.26	30248.26
Crosscutting		45578.78	45578.78		45578.78	45578.78
Drifting		532003.40	532003.40		532003.40	532003.40
Sideswipe		29962.50	29962.50		29962.50	29962.50
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$ 1929.60	$723435.14	$725364.74	1929.60	723435.14	725364.74

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 8-7-1957 *Payee Polaris Mining Company
Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ —0—

Signature Dorothy F. Ray
(Authorized Certifying Officer)

Date 8/21/57 Vou. No. 2078
(See other side)

Carried to Mg-10 of Stage II
Payment Made from Same.

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 541 in accordance with the terms of the contract.

Signature /s/ John A. Gardill Title Metallurgist Date 8/19/57

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date 8/20/57

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage I

Month of July 1957 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony

Address Box 320, Wallace, Idaho (and incidental Silver)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	feet			$532003.40	10694.8	$49.75)	11618.4	$51.00**
Crosscutting				45578.78	923.6	49.41)		
Raising				30248.26	324.1	93.33	330	93.33*
~~Shafts~~ Sideswipe				29962.50	1175.0	25.50	1175	25.50*
Winzes								
Drilling: Core		$1929.60	428.8	87571.80	19460.4	4.50	19788	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

REMARKS:

Date 8-7-1957 Operator Polaris Mining Company

Per J. D. Bardill Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

** 6,199.5 @ $50.53
5,418.9 @ 48.78
11,618.4

/s/ John D. Bardill

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

August seventh
1957

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
July - 1957
Docket No. DMEA - 2879
Contract No. IDM - E541

Gentlemen:

Progress in the Polaris East Exploration Project included 61.2 feet of drifting, 17.3 feet of crosscutting and 428.8 feet of diamond drilling.

The easterly drift was advanced 61.2 feet to station SS3089 + 108.7 feet. Mineralization shown in this drift continued to be weak.

No. 334 North Crosscut was driven 17.3 feet for a diamond drill station. This crosscut exposed a 2.0 foot to 4.0 foot wide siderite-quartz-pyrite vein with minor tetrahedrite, as shown on the attached map.

Diamond drill hole 3294 was advanced 428.8 feet showing no significant mineralization.

As shown on the attached map, 331-B Raise was started on the north-south siderite vein and was driven 2.0 feet during the month of July.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH:nn

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 19 1957

DATE	INITIALS	CODE
14	Com	100

August 9, 1957

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: John D. Bardill, Bureau of Mines

Subject: Routine inspection report, Docket No. DMEA-2879 (lead-zinc-copper-antimony), Polaris Mining Company, Polaris East Exploration Project, Shoshone County, Idaho, Contract No. Idm-E541

This project was inspected July 11, 1957, accompanied by Mr. M. W. Hutchinson, company geologist.

Both the south and east drifts on the 3000 level had been stopped late in May because of poor ventilation. During June, 18-inch vent pipe was being installed and at the time of the inspection the installation was almost completed. Mr. Grissmer, mine superintendent, expected to resume drifting east within a few days.

While an amendment to the contract to increase the drifting and/or crosscutting and drilling footage was being considered in Washington, the Operator continued work on the 3000 level and submitted monthly narratives of the work completed through May 1957. The Operator did not submit "Operator's Monthly Report and Voucher" and "Operator's Unit Cost and Progress Report," forms MF-104 and MF-104A for work done for the period January thru May 1957.

The amended contract, dated June 20, 1957, excluded the south drift from the new contract footage so that any footage allowed for the south drift could come only from the old contract. Consequently, the company lost considerable footage for work done in the south drift and for extra sideswiping.

The matter was discussed with the Operator on July 9, 1957, and the following equitable settlement was agreeable to the Operator and was within the terms of the contract.

Work Item	Authorized	Completed thru 12/31/56	Remaining 12/31/56	Completed Jan. thru June 1957	Remaining 6/30/57
Drift & crosscut, ft.	11,618.4	11,123.4	495.0	420.2 East 780.1 South	0
Sideswipes, ft.	1,175.00	1,175.00	0	269	0
Diamond drilling ft.	19,788	15,942	3,846	3,089.6	756.4
Raising, ft.	324.1	324.1	0	0	0

Footage remaining as of December 31, 1956 495.0

January progress:	East drift, ft.	244.0	
	South X-cut, ft.	35.0	
	North X-cut, ft.	27.6	306.6
			188.4
February progress:	East drift, ft.	103.0	94.2
	South X-cut, ft.	104.2	94.2

Since footage of each is about equal, allow 1/2 of 188.4 ft. to each, thereby completing drifting and crosscutting under Stage I.

Pay for under Stage I:

East drift, ft.	244.0 + 94.2	338.2
South X-cut, ft.	35.0 + 94.2	129.2
North X-cut, ft.	27.6	27.6
		495.0

Disallow under Stage I:

South X-cut, ft.	752.5 - 129.2	623.3
Sideswipe, ft.		269.0

Transfer from Stage I to Stage II:

East drift, ft.	420.2 - 338.2	82.0

Status of Stage II as of June 1, 1957

	Authorized	Completed thru June 1957	Remaining June 30, 1957
Drifting and/or crosscutting	2,500 ft.	82.0	2,418.0
Sideswipes, ft.	100	-	100.0
Diamond drilling, ft.	5,000	-	5,000.0

No further work had been done from the end of June to the time of my inspection because ventilation pipe was being installed.

Status of contract as of July 11, 1957:

Date of contract: November 1, 1953
Termination date: June 1, 1958
Amount of contract: Stage I $726,838.94 (completed)
Stage II 147,000.00
Rounded to: $873,840.00

Amount spent - Stage II: $ 3,999.96

Work item	Authorized	Completed
Drifting and/or crosscutting	2,500 ft.	82 ft.
Sideswipes, ft.	100	none
Diamond drilling, ft.	5,000	none

John D. Bardill

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Bardill

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Stage I

Month of February thru June 7 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (& incidental Silver)

Address Box 320, Wallace, Idaho

Contract Amount, $ 726,838.94 Government Participation: 50 % Amount, $ 363,419.47

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts $4.50				8/20/57 W.P.K.		
Drilling Core 2189.4 @	$ 9852.30	$ 75789.90	$ 85642.20	9852.30	75,789.90	85,642.20
~~Bulldozing~~ Raising	-	30248.26	30248.26		30,248.26	30,248.26
Crosscutting 94.2 @ $48.78	4595.08	40983.70	45578.78	4595.08	40,983.70	45,578.78
Drifting 94.2 @ $48.78	4595.08	527408.32	532003.40	4595.08	527,408.32	532,003.40
Sideswipe	-	29962.50	29962.50		29,962.50	29,962.50
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$19042.46	$704392.68	$723435.14	19042.46	704,392.68	723,435.14

Betty

RECEIVED AUG 5 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 7-12-1957 *Payee Polaris Mining Company

Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ -0-

Signature Dorothy F. Lang (Authorized Certifying Officer)

Date 8/1/57 Vou. No. 2009

(See other side)

Carried to MF-104, Stage II Payment made when funds are.

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E541 in accordance with the terms of the contract.

Signature /s/ John D. Garsill Title Metallurgist Date July 17, 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date July 24, 1957

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage I

Month of February thru June 7 195 7 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)

Address Box 320 Wallace, Idaho

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet	$ 4595.08	94.2	$ 532003.40	10694.8	$49.75)	11618.4	$ 51.00**
Crosscutting		4595.08	94.2	45578.78	923.6	49.41)		
Raising		-	-	30248.26	324.1	93.33	330	93.33*
~~XXXX~~ Sideswipe		-	-	29962.50	1175.0	25.50	1175	25.50*
Shafts		-	-	-	-	-	-	-
Winzes		9852.30	2189.4	85642.20	19031.6	4.50	19788	4.50*
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
TOTAL COSTS								

RECEIVED AUG 5 1957 D.M.E.A.

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 7-12-1957 Operator Polaris Mining Company

Per [signature] Title President

REMARKS:

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

** 6199.5 @ $50.53
5418.9 @ 48.78
11618.4

/s/ John D. Bardill

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Stage II

Month of February thru June, 1957 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental Silver)

Address Box 320 Wallace, Idaho

Contract Amount, $ 147,000.00 Government Participation: 50 % Amount, $ 73,500.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling				8/20/57	W.H.K.	
Bulldozing						
Crosscutting						
Drifting 82.0 @ $48.78	$3999.96		$3999.96	3999.96	✓ —	3999.96
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Stage I				19042.46	704,392.68	723,435.14
TOTALS	$3999.96		$3999.96	23042.42	704,392.68	727,435.10

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I certify that the above bill is correct and just and that payment therefor has not been received.

Date 7-12-1957 *Payee Polaris Mining Company

Per [signature] Title President

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 11,521.21

Signature [signature] (Authorized Certifying Officer)

Date 8/1/57 Vou. No. 2009

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 541 in accordance with the terms of the contract.

Signature /s/ John D. Bardill Title Metallurgist Date July 17, 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /s/ A. E. Weissenborn Title Exec. Officer Date July 24, 1957

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage II

Month of February thru June 1957 Docket No. DMEA 2879 Contract No. IDM-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony

Address Box 320 Wallace, Idaho (and incidental Silver)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet	$3999.96	82.0	$3999.96	82.0	$48.78	2500	$48.78*
Crosscutting								
Raising								
~~xxxx~~ Sideswipe		-	-	-	-	-	100	25.50*
Winzes								
Drilling: Core		-	-	-	-	-	5000	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 7-12-1957 Operator Polaris Mining Company

Per [signature] Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only)

* Maximum allowed by contract

/s/ John A. Bardill

RECEIVED AUG 5 1957 D.M.E.A.

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO

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DATE	INITIALS	CODE
7/29	C	220
"	FJ	110
7/29	Klug	500

July second
1957

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
June - 1957
Docket No. DMEA - 2879
Contract No. IDM - E541

Gentlemen:

Progress in the Polaris East Exploration Project during June consisted of 79.7 feet of diamond drilling.

Neither the main easterly heading nor the southwesterly drift was advanced during the month. Work in these headings has been suspended while approximately 3400 feet of 24" fan line is being installed to improve ventilation.

Diamond Drill hole 3293 was advanced 79.7 feet to a depth of 332.5 feet as shown on the attached map. This hole has not yet intersected the upward extension of the north-south siderite vein. While the larger fan line is being installed, hole 3294 will be drilled southerly from a point near station SS3023. Hole 3293 will be completed after hole 3294 has been drilled.

Advance in the main easterly will be resumed as soon as ventilation alterations are completed.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

MWH:nn

POLARIS MINING COMPANY

P. O. Box 320
WALLACE, IDAHO

June sixth
1957

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DATE	INITIALS	CODE
6/27	C	220
"	FEJ	110
~~6/27~~	~~WDK~~	~~500~~

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
May - 1957
Docket No. DMEA - 2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during May included 206.7 feet of drifting, 15.0 feet of sideswiping and 279.8 feet of diamond drilling.

The easterly drift was advanced 18.5 feet to station SS3089 plus 47.5 feet. The fault-vein structure in this drift continued to show only weak mineralization.

The southerly drift was extended to station SS3093 plus 109.0 feet for an advance of 188.2 feet. As shown on the attached 50 scale map the siderite vein in this drift continued southwesterly to a point just back of the present face where it appears to have been offset by a minor fault. The probable continuation of this vein will be explored by diamond drilling before further southwesterly drifting is done. No mineralization of importance was exposed in this vein during the month.

A portion of the southerly drift in the area of the 143 foot long ore shoot was timbered in preparation for raising on this shoot. A preliminary estimate shows 160 tons of ore assaying 28.4 ounces silver and 0.41 percent copper per ton were produced.

Diamond drill hole 3292 was completed at a depth of 281.5 feet, showing no further mineralization of importance beyond the vein as described in the April report. The log of this hole is enclosed.

Hole 3293 is now being drilled southeasterly from a point near station SS3078 at a vertical angle of plus 32° to further explore the area over the more interesting portion of the north-south siderite vein. At the end of May it had reached a depth of 252.8 feet.

Hole 3287 did not intersect the vein exposed in the southwesterly drift as would have been the case if the hole had continued S. 6° E. as started. This hole was evidently deflected westerly approaching a course more nearly normal to the general strike and dip of the beds in this locality. It will be surveyed after hole 3293 is completed and the results of this survey will be included along with the log of hole 3293 in next month's report.

Yours very truly,

M. W. Hutchinson

M. W. Hutchinson
Geologist

Rept

MWH:mm

All Sludge Assays are Trace or No Silver unless otherwise indicated

DIAMOND DRILL RECORD

Standpipe
Casing

Started 4-16-57
Finished 5-3-57
Hole Size EX
Depth 281.5
% Core Rec. 97

Mine SILVER SUMMIT
Location Polaris East Exploration
Drift. SS 3077 + 126.0 E.
Logged by R. A. L. Date 5-6-57
Drilled by Holten and Hauser

Hole No. SS 3292
Level 3000 Pol. E. Dr.
Grid 326
Latitude 84842 S
Departure 93669 E
Elevation -267
Bearing See Survey-Last Page
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-4.5	4.5		E3948	0 - 5	5.0	0.2		
9.5	4.5	0.0' - 90.0' Mostly hard lt gry blchd qtzite.	9	10		0.3		
14.5	4.8	Little med gry slightly arg qtzite.	50	15		0.2		
19.5	4.8	3" qtz some ser at 4.5.	1	20				
24.5	5.0	1" qtz w/little sid spot tetra at 10.0.	2	25		0.5		
29.5	5.0	7" qtz at 11.0.	3	30		1.9		
34.5	5.0	Dark gry arg qtzite w/much very fine	4	35				
End Box 1		grained diss py from 22.0 to 22.5.						
39.5	5.0	Same from 23.5 to 24.5 but with small	5	40		1.1		
44.5	5.0	sid strgrs.	6	45		0.5		
49.4	4.7	Mostly py some sid from 24.5 to 25.5.	7	50		0.4		
54.4	5.0	Mostly sid some py 25.5 to 27.5.	8	55		0.2		
59.4	5.0	Small fault at 34.0.	9	60		0.2		
64.4	5.0	Sid some py from 36.5 to 38.5.	60	65				
End Box 2		Dism py few small sid strgrs 38.5 to 39.5.						
69.4	4.8	Some diss sid and occasional small sid strgrs						
70.4	1.0	50.0 to 70.0.	1	70		0.4		
75.4	5.0	Bands diss sid parallel to core at 80.0.	2	75		0.4		
78.4	3.0	Fracture planes parallel to core also.	3	80		0.4		
81.5	3.1	Small fault at 88.0						
83.4	1.8		4	85				
88.0	4.0		5	90				
93.0	5.0	90.0' - 110' Med gry hard qtzite mottled	6	95				
97.7	4.6	w/ diss py some diss sid.						
102.5	4.8	3" med gry gg at 110.0	7	100				
End Box 3								
107.5	5.0	110.0' - 135' Mostly lt gry qtzite few	8	105		0.7		
112.5	5.0	zones bluish gry qtzite.	9	110		0.6		
117.5	5.0	Bedding slip parallel to core at 118.0.	70	115				
119.4	1.8	Small sid strgrs w/some diss py at 121.0.						
120.4	1.0	3" py at 121.5.	1	120				
124.3	3.7	Dark gry qtzite w/much fine grain py	2	125				
126.0	1.3	from 123.0 to 124.0.						
129.8	3.8	Diss sid, py at 125.5.						
130.6	0.6	½" gg at 126.0.	3	130				
131.6	0.8	3" gry gg at 131.5.						
135.2	2.5	In general badly broken core from 124.0	4	135				
End Box 4		to 135.0.						

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DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris East Exploration Drift

Logged by Date
Drilled by

Hole No. SS 3292
Level 3000 Pol. E. Dr.
Grid 326
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
			E2875	135-140	5.0			
138.4	3.2							
141.4	2.3		6	145				
146.3	4.7		7	150				
149.8	3.2		8	155				
154.8	5.0							
158.0	3.0		9	160				
159.0	0.8		80	165				
164.0	5.0							
166.3	2.6	135.0' - 204.0' Lt greenish gry blchd arg						
End Box 5		qtzite. Many thin ser sms.						
168.6	2.2	Badly broken core, some gg from 157.0	1	170				
173.5	4.8	to 158.0.	2	175				
174.8	1.3	Bedding parallel to core.	3	180				
179.8	5.0	Small faults at 175.0, 186.0 and 188.0.						
183.3	3.4		4	185				
186.3	3.0							
188.0	1.7		5	190				
189.2	1.2							
191.4	2.4		6	195				
196.4	4.8							
199.8	3.3		7	200				
End Box 6								
204.5	4.7		8	205				
209.5	5.0		9	210				
214.4	4.9		90	215				
219.2	4.8		1	220				
221.2	2.0							
226.0	4.8		2	225				
227.8	1.8		3	230				
231.6	4.8							
End Box 7								
233.1	1.5	204.0' - 281.5' Mostly lt gry hard blchd	4	235				
238.0	4.9	qtzite, few bands soft lt gry blchd					%	
240.7	2.7	sericitic, arg qtzite.	5	240			Cu	
245.7	5.0	0.3 sid & white qtz at 212.0.	6	245				
249.0	3.3	Several small bedding slips from 226.0 to	7	250		0.6		
251.0	2.0	249.0	8	255				
256.0	5.0	Core is nearly parallel to bedding and is	9	260		17.9	0.53	
260.5	4.5	badly broken and split.						
End Box 8		Many small (0.1 to 0.3) strgrs sid,						
		py and some dk material from 243.5						
		to 256.0.						

DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine: SILVER SUMMIT
Location: Polaris East Exploration Drift
Logged by: Date:
Drilled by:

Hole No. SS 3292
Level 3000 Pol. E. Dr.
Grid 326
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
							Cu	
265.5	5.0	8.2 sid, py, white qtz with specks and	E4000	260-265	5.0	4.0	0.08	
270.4	4.0	blebs tetra from 255.5 to 263.7.	1	270		0.7		
272.0	1.1	Sid contains much dk material; poss	2	275		0.7		
273.7	1.6	py or arsenopy.						
276.9	3.0	0.2 gg at 266.5.						
278.9	1.7	0.6 sid at 265.5.						
281.5	1.8		3	280		0.7		
End Box 9								

END OF HOLE

HOLE SURVEY BY TROPARI

Depth	Inclination	Bearing
100	+ 25	S 55° E
180	+ 23	S 53½° E
250	+ 17	S 53° E
Collar	+ 33	S 56 ° E

Narrative Only

POLARIS MINING COMPANY

P. O. BOX 320
WALLACE, IDAHO

May seventh
1957

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RECEIVED JUN 10 1957

DATE	INITIALS	CODE
6/10	C	220
6/11	Ryf	110
6/14	Klug	500

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
April - 1957
Docket No. DMEA - 2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during April included 245.5 feet of drifting, 67 feet of sideswiping and 429.5 feet of diamond drilling.

The easterly drift was extended to station SS3089 plus 29.0 feet east for an advance of 40.9 feet. As shown on the attached 50-scale maps, the fault-vein structure in this drift is quite strong in siderite-pyrite veining, but contains only minor amounts of tetrahedrite and chalcopyrite.

The southerly drift was started again and advanced 204.6 feet during April to station SS3091 plus 142.0 feet. After a small fault offset, the siderite vein in this drift continued southwesterly, but is only weakly mineralized.

Diamond drill hold No. 3291 was extended 175.0 feet to a completed depth of 273.0 feet. Several small quartz-pyrite-siderite stringers were intersected, but the highest sludge assay was 4.2 ounces silver at 85-90. The log of this hole is enclosed.

Diamond drill hole 3292 is now being drilled southeasterly from a point near station SS3078 at a vertical angle of plus 35°. At the end of April, it had reached a depth of 245.5 feet. Since the end of the month, this hole intersected the north-south siderite vein at 255.5 to 263.0 feet, approximately 105 feet vertically above former station SS3083A. Sludge samples from 255-260 feet and 260.265 feet assayed 17.0 ounces silver, 0.53 percent copper and 4.0 ounces silver and 0.08 percent copper respectively. The location of this hole is shown on the enclosed map.

Yours very truly,

M.W. Hutchinson

M. W. Hutchinson
Geologist

Reports

MWH:mm
Enclosures

Note: All sludge samples are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

Standpipe
Casing

Started 3-27-57
Finished 4-10-57
Hole Size EX
Depth 253.0'
% Core Rec. 98

Mine SILVER SUMMIT
Location Polaris E. Exploration Drift
SS 3073 + 214' East
Logged by R.A.L. Date 4-10-57
Drilled by Holten and Hauser

Hole No. 3291
Level 3000 Polaris E. Dr.
Grid 317
Latitude 84858
Departure 93296 E
Elevation -274'
Bearing N 4° E
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-3.5	3.2							
4.5	1.0	0.0' - 34.0' Mostly soft to med. hard lt.	E-3897	0 - 5	5.0			
9.5	5.0	gray arg. qtzite with few bands hard lt. gray	98	10	"			
14.4	4.9	qtzite. Some diss. sid. Arg. qtzite slightly	99	15	"			
19.4	5.0	darker. 0.5' white qtz. from 3.5' to 4.0'.	3900	20	"			
24.2	4.8	Good core.	1	25	"			
29.2	5.0		2	30	"			
34.2	5.0		3	35	"			
End Box 1								
39.2	5.0	34.0' - 113.0' Mostly hard lt. gray qtzite.	4	40	"			
44.1	4.9	Some med. hard lt. gray to med. gray arg.	5	45	"			
48.9	4.8	qtzite with considerable diss. sid.						
53.9	5.0	0.2' white qtz. at 46.4'.	6	50	"			
58.7	4.6	Small slips at 58.0' and 62.8'.	7	55	"			
63.7	5.0	Small slips at 73.7' and 78.2'.	8	60	"			
68.7	5.0	Several thin seams of sid. and py. from	9	65	"			
End Box 2		80.0' to 81.5'.	10	70	"			
73.7	5.0	0.5' white qtz. with some sid. and specks	1	75	"		%	
78.5	4.8	and blebs tetra at 83.0'.	2	80	"		Cu	
83.4	4.9	Core has many small strgrs. py. and sid.						
86.1	2.6	from 83.0' to 113.0' which vary from knife	3	85	"	0.8		
90.3	4.1	edge to 0.2' wide.	4	90	"	4.2	0.07	
95.3	5.8	The core is a lt. purple hard qtzite with	5	95	"	0.4		
100.0	4.3	strgrs. py. and sid. from 87.1' to 90.2'.	6	100	"			
105.0	4.8	Small fault at 110.0'.	7	105	"			
End Box 3		Good core.						
110.0	5.0		8	110	"			
115.0	5.0	113.0' - 148.9' Mostly soft or med. soft	9	115	"			
119.0	4.0	lt. gray to med. gray arg. qtzite. Several	20	120	"			
122.0	3.1	small slips. Some sericite near slips.	1	125	"			
124.2	2.0	0.2' white qtz. at 117.3'.	2	130	"			
126.4	2.2	Small faults at 119.9', 121.8', 122.4' and						
128.6	2.2	124.2'.						
133.6	5.0	0.8' gg. and crushed core (Fault) at 128.1'.	3	135	"			
138.6	5.0	0.2' white qtz. with little sid. at 128.1'.						
143.6	5.0	0.8' gg. and crushed core (Fault) at 133.0'	4	140	"			
148.0	4.4	0.4' gg. and crushed core (Fault) at 136.5'	5	145	"			
148.9	0.8			150	"			
End Box 4								

RECEIVED JUL 10 1957 D.M.E.A.

Standpipe
Casing

DIAMOND DRILL RECORD

Hole No.
Level
Grid

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location
Logged by Date
Drilled by

Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
150.5	1.0	148.9' - 253.0' Mostly hard lt gry qtzite.	E-3927	150-155	5.0			
153.8	3.8	Few small bands soft arg qtzite. Arg qtzite						
154.8	1.0	is slightly darker.						
159.8	5.0	2.0' white qtz at 151.0'.	8	160	"			
164.6	4.8	Small fault at 159.8'.						
167.6	3.0	0.1' white qtz at 167.6'.	9	165	"			
169.0	1.4	Several large bands brownish gry qtzite with						
174.0	5.0	diss sid.	30	170	"			
End Box 5		173.9' fault with 6" crushed and gg material.						
		0.9' white qtz at 174.1'.						
		0.3' gg and crushed material at 178.0'.						
175.2	1.1	0.4' gg and crushed material at 184.9'.	1	175	"			
180.2	5.0	0.3' gg and crushed material at 188.4'.	2	180	"			
185.2	5.0	0.2' gg and crushed material at 192.0'.	3	185	"			
190.2	5.0	0.2' crystaline py. at 193.8'.	4	190	"			
195.2	5.0	0.8' white qtz and sid at 194.0'.	5	195	"			
196.9	1.7	0.6' fault with gg and crushed material at						
200.0	2.9	196.9'.	6	200	"			
End Box 6		Large fault with 1.8' gg and crushed mat-						
		erial at 201.0'.						
		Fault with 0.5' gg at 204.9'.						
205.0	5.0	Fault with 1.3' gg and crushed py and	7	205	"			
209.0	4.0	qtzite at 208.9'.	8	210	"			
212.6	3.6	Few hair line strgrs py from 209.0' to 210.4.						
215.2	2.6	1.9' crushed py and qtzite from 210.5' to	9	215	"			
220.2	4.9	212.4'. The py total is 0.4' wide.	40	220	"			
225.2	5.0	Small fault at 215.0'.	1	225	"			
230.0	4.8	0.2 sid at 216.0', 216.9', and 217.6'.	2	230	"			
233.0	3.0	Fault with 1.0' gg and crushed qtzite at	3	235	"			
238.0	5.0	220.0'.						
End Box 7		Small fault with 0,3' gg at 225.0'.	4	240	"			
		Fault with 1.3' crushed qtzite, and little						
		py and qtz.						
243.0	4.4	Fault with 0.6' crushed qtzite and gg at	5	245	"			
248.0	4.7	233.0'.						
253.0	4.3	Fault with 0.5' crushed qtzite and gg at	6	250	"			
End Box 8		239.0'.	7	255	"			
		Fault with 0.5' gg at 244.0'.						
		0.4 py and sid at 244.5'.						
		Core badly broken from 245.0' to 248.0'.						
		Probable fault, no gg.						
		END OF HOLE						

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

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DMEA
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DATE	INITIALS	CODE
4/19	C	220
4/19	Klug	500
	uRG.	

April 17, 1957

Air Mail

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-2879 (Pb-Zn-Cu)
Polaris Mining Company
Polaris East Exploration
Shoshone County, Idaho
Contract No. Idm-E541

Dear Mr. Selfridge:

I am enclosing the monthly summary reports for February and March 1957 on the Polaris East Exploration Project of the Polaris Mining Company. The map accompanying the March report showing the work done to April 1 is attached. The Operator's 104's which these reports normally accompany have been held up pending a decision on the proposed amendment now under consideration. In order to keep us cognizant of current developments I have requested the Operator to submit copies of the February and March reports and the March map, and because of their bearing on the proposal now under consideration I am forwarding a copy to you. The March map shows only the March advance colored, but other maps previously sent to you should show the remaining geology in color.

As shown on the map, in the south drift an ore shoot 143.5 feet in length has been opened up. The width is 6.8 feet and the ore averages 33.2 ounces silver and 0.72 percent copper. South of this is a 36-foot stretch of weak mineralization and then ~~by~~ another 37.5 feet of ore 4.5 feet wide averaging 35.2 ounces silver and 1.50 percent copper.

MacLaren and Erickson visited the property April 12. They were informed Monday (April 15) that the South drift has been advanced 55 feet beyond its position on April 1. A sample of the east side of the face assayed 22.7 ounces silver and 0.84 percent copper over a width of 2.1 feet. Thus the mineralization continues, although the vein south of the second ore shoot is too narrow to be mineable.

The East face has been advanced 40 feet since April 1. Five to six feet of siderite stringers are exposed on the hanging wall of a strong fault. The showing is regarded as encouraging.

The ground in the east face is heavy, consequently the south heading is being advanced while the timbering in the east heading is being caught up.

In considering the results of the project to date, it should be borne in mind that Polaris 3000 level is in an area that has had no deep exploration; in fact, very little exploration of any kind has been done. After a long dry spell recent results are most encouraging. The project has found a strong easterly-trending structure which has been mineralized over a considerable distance. In general, mineralization seems to be improving as it is followed eastward. The south-trending vein that hooks into the easterly vein is ore-bearing. Values so far are largely in silver with some copper (0.7 to 1.0 percent) but the proposed extension will be approaching the Galena-Vulcan area where base metals predominate in much of the ore.

Another factor that should be borne in mind is the possible significance of the north-south vein hooking into the easterly vein. The resemblance to the "hook" on the Chester vein in the productive Robart area is very striking. I have talked this over with Quinlan who formerly was geologist at the Sunshine mine and I am attaching a sketch that I have made from Quinlan's mapping of the Sunshine stopes. Note that although the Chester vein filling is predominantly siderite-tetrahedrite and the value is predominantly in silver, the stoped area inside the "hook" consists of irregular veins and replacements of galena and tetrahedrite, and lead contributes significantly to the value of the ore. Both the silver and the lead content are higher than anything found in the Polaris to date but the parallel of the Polaris to the Chester "hook" is interesting, if not exciting. It suggests to me, at least, that the Polaris project well justifies the additional work proposed.

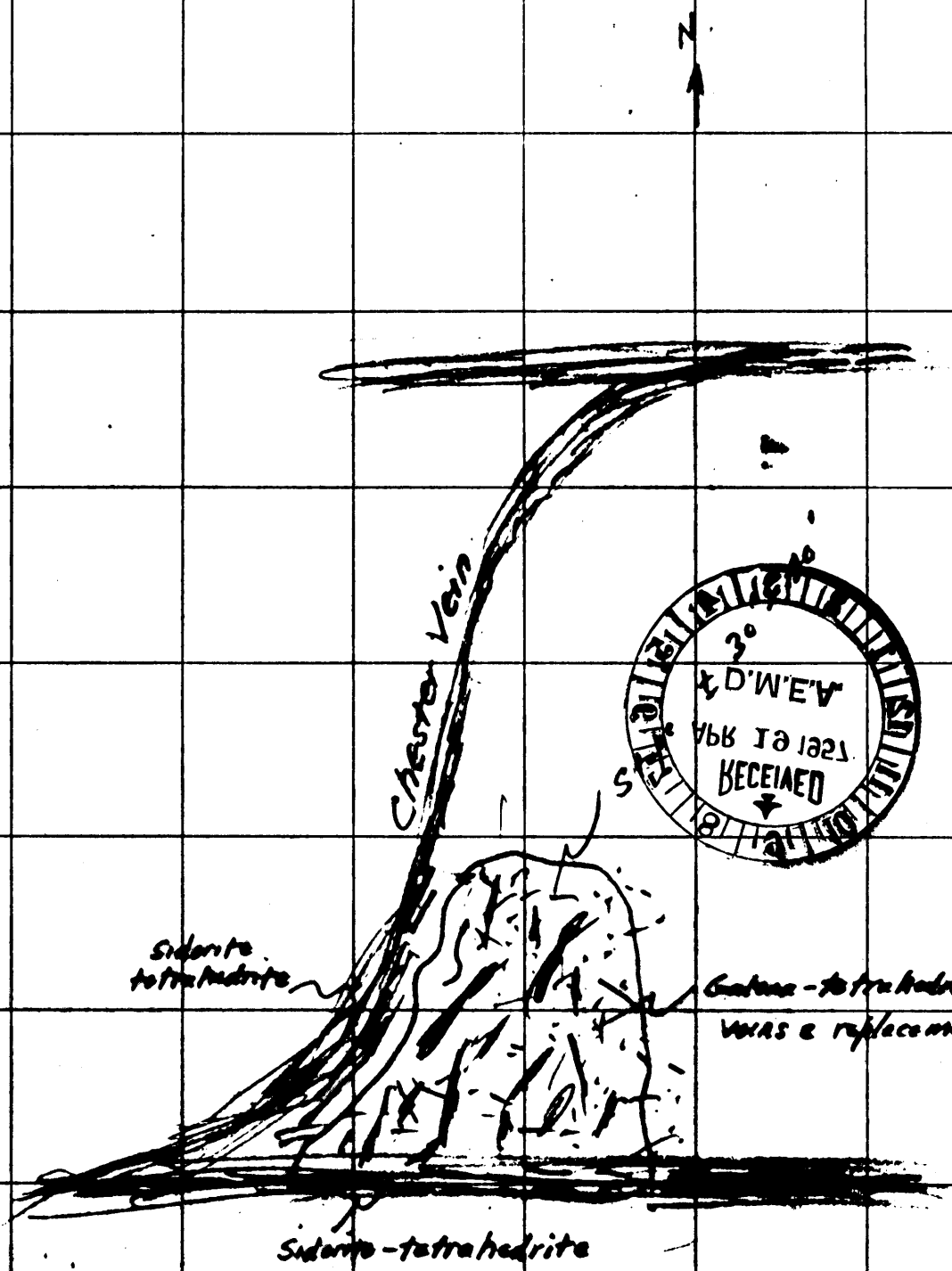
Sincerely,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team Region I, NW Dist.

Enclosures as indicated

cc: USBM (2)
Sample



RECEIVED
MAR 31 1981
A.E.M.Q.

Sketch map - Sunshine mine
Chester [redacted] Robert area
[redacted]
Scale approx [redacted] 20'

"ALDIGENE" No. 190M K&E CO., N.Y.

RECEIVED
APR 19 1957
D.M.E.A.

POLARIS MINING COMPANY

P. O. Box 320
WALLACE, IDAHO

REFER TO	ACTION	NOTED	DATE
mal			4-16
al			
ANSWERED			

April eighth
1957

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED APR 19 1957

DATE	INITIALS	CODE

Re: Progress Report
Polaris East Exploration Project
March - 1957
Docket DMEA-2879
Contract No. IDM-E541

Gentlemen:

Progress ~~in the Polaris East~~ Exploration Project during March included 234.3 feet of drift~~ing, 65.0 feet of sides~~wiping and 830.7 feet of diamond drilling.

The southerly drift on the "north-south" siderite vein was extended to station SS3088 plus 120.2 feet south for an advance of 220.5 feet during March. At the beginning of the month, the south drift had exposed a commercial grade section of the vein 81.0 feet long. The drift continued in ore for an additional 62.5 feet bringing the total length of this shoot to 143.5 feet. Based on face sample data, the grade of this shoot is 33.2 ounces silver and 0.72 percent copper, with an average width of 6.8 feet. This shoot was followed on the south by a 36 foot section of very weak mineralization and then another commercial shoot 37.5 feet long, 4.5 feet wide, with an average grade of 35.2 ounces silver and 1.50 percent copper.

As shown on the accompanying geologic map for the March advance, the vein continued south for a short distance and then turned westerly where it continued along a S. 30° W. bearing. Beyond the last small ore shoot the vein becomes narrower and is only weakly mineralized. The vein has nearly pinched out in the south face and the drift has been stopped. The possibility of an offset and continuation of the vein to the south will be explored by diamond drilling.

After discontinuing the south drift, easterly exploration along the main east-west zone was started again and as of the end of the month the drift had advanced 13.8 feet. The fault-vein structure is quite strong but is only weakly mineralized.

As shown on the enclosed map, diamond drill holes 3288 and 3289 were drilled to further explore both the north and south walls of the main east-west structure.

(Rec'd directly fr company)

Numerous small slips and small pyrite and siderite stringers were encountered but no structures of significance were found.

A third diamond drill hole, No. 3290, was drilled northerly from station SS3073 to intersect the east-west mineralized zone between holes 3281 and 3283 which showed assays of 39.3 and 25.2 ounces silver respectively. (The locations of holes 3281 and 3283 are shown on the map accompanying the progress report for October, 1956.) Hole 3290 intersected the mineralized zone at 213 feet and was completed at a depth of 271 feet. Sludge samples from 210-215 and 215-220 feet assayed 11.6 ounces silver, 0.41 percent copper and 7.9 ounces silver and 0.22 percent copper respectively. The split core sample from the vein at 213.3-215.6 feet assayed 19.0 ounces silver and 0.63 percent copper.

Diamond drill hole 3291 now being drilled northerly from near station SS3074 will intersect the zone about 75 feet east of Hole 3283. At the end of the month, the hole had reached a depth of 78.0 feet.

Holes 3290 and 3291 were planned to further explore and check the continuity of the near commercial assays obtained in the earlier drilling in this part of the zone. The results thus far indicate that the ore sections would likely be too marginal and short in length to justify further exploration by drifting.

The logs of the three holes completed in March are enclosed.

Yours very truly,

H. E. Harper
Chief Geologist

HEH:mm

Enclosures

RECEIVED
APR 16 1957
U. S. G. S.
SPOKANE, WASH.

POLARIS MINING COMPANY

P. O. Box 320
WALLACE, IDAHO

March eleventh
1957

REFER TO	ACTION	NOTED	DATE
mac at			
ANSWERED			

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
February - 1957
Docket DMEA-2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during February included 207.2 feet of drifting and crosscutting, 102 feet of sideswiping and 569.7 feet of diamond drilling.

The work during February was confined to exploration of the north-south siderite vein which was intersected by the main easterly drift in January. North of the original drift, near Station SS3080 (now replaced by SS3083), the vein was explored by an easterly drift which was driven a length of 103.0 feet during the period. As shown on the attached 50-scale map, the vein was followed northeasterly for a distance of about 40 feet where it junctions with a strong south dipping fault striking about S. 80° E., and then turns easterly along the fault. The vein is 4.5 to 6.0 feet wide where it junctions with the fault and a short section, 25 feet long, averages about 30.0 ounces silver and 0.80% copper. East of this section, the vein becomes narrower and the present face is very weak.

To the south, the crosscut driven southerly from station SS3083 during January was advanced 5.0 feet in February and then connected with a second crosscut driven southerly from station SS3081 to provide a larger radius curve. After intersecting the vein, this latter crosscut was continued as a southerly drift along the vein. Total advance in this crosscut and drift for February was 99.2 feet. As shown on the attached map the vein is nearly vertical and has changed in strike from S. 30° W. to about S. 30° E.

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(Rec'd directly fr Company)

Calculation of the sample data in the south drift up to March 1 indicates an ore shoot 81.0 feet long, 6.2 feet wide, with a weighted average grade of 32.39 ounces silver and 0.80% copper. Since March 1, the drift has advanced about 45 feet in ore which adds considerably to the length of this shoot.

During February diamond drill hole SS3287 was drilled southerly from the face of the south crosscut at station SS3077 plus 20 feet west. The hole cut numerous small quartz-pyrite-siderite stringers in the first 150 feet but no significant structures were encountered. The hole was completed at a depth of 569.7 feet and the log is enclosed.

Yours very truly,

H. E. Harper
Chief Geologist

HEH:mm

Enclosure

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7	Com	100
		500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

1201 N. Division St.
Spokane 2, Washington

February 27, 1957

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. G. Erickson, Mining Engineer, Bureau of Mines

Subject: Interim report, Docket No. DMEA-2879 (copper-lead-antimony), Polaris Mining Company, Shoshone County, Idaho, Contract No. Idm-E541

The project site was inspected February 20. I was accompanied by Mr. John Semos, company geologist, and Mr. R. Farmin, general manager, Day Mines, Inc.

The east drift had reached a point 45 feet beyond survey station No. SS-3080 and the face of the drift on the southwest vein had been advanced 50 feet beyond survey station No. SS-3082.

Two samples were taken in the east drift face at SS-3080 plus 39 and 45 feet over widths of 6.0 and 4.5 feet, respectively, and the respective samples assayed 22.3 oz. silver, 0.63 percent copper and 29.7 oz. silver, 0.77 percent copper.

Two samples taken in the southwest drift at SS-3082 plus 44 and 50 feet and over widths of 1.5 and 1.4 feet, respectively, assayed respectively 29.9 oz. silver, 0.86 percent copper, and 40.2 oz. silver and 1.17 percent copper. The Operator's sketch accompanying his letter of February 25, 1957 to the Field Team shows details and more samples of the vein. They will also be included in the Operator's monthly report.

This southwest-striking vein is believed to be a significant strike. The north end of the new vein is paralleling the main east-west structure. It was reported February 28 that the last two rounds were not commercial; however, the south end had widened to 4.5 feet and the grade of ore had improved to 50-60 ounces silver and about 1 percent copper. The vein has turned a few degrees east of south, forming a Crescent shape. It was expected to turn westerly on the south end rather than the unexpected east trend.

The drifting and crosscutting units presently authorized will be completed early in March 1957. The Operator has requested an additional 2,500 feet of crosscutting, 100 feet of sideswiping, and 5,000 feet of core drilling. The details of the proposal will be covered in a separate memorandum.

The status of the contract is:

	Authorized	Completed
Crosscutting and/or drifting	10,618.4 ft.	10,568 ft. *
Raising	330.0 ft.	324.1 ft.
Sideswiping	1,175.0 ft.	1,175.0 ft.
Core drilling	19,788.0 ft.	16,842.2 ft. **

*Subject to final measurement.
**As of February 1, 1957.

E. G. Erickson

E. G. Erickson

Distribution:
DMEA (4)
USGS (2)
USBM (AD)
Docket
Erickson

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 195 7 Docket No. DMEA 2079 Contract No. DMA-E 541

Operator's Name Polaris Mining Company Minerals Copper, Lead, Antimony (and incidental silver)

Address Box 320 - Wallace, Idaho

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet	$11902.32	244.0	$527,408.32	10600.6	$49.75	11618.4	$51.00**
Crosscutting		3053.63	62.6	40,983.70	829.4	49.41		
Raising				30,248.26	324.1	93.33	330	93.33*
~~Shafts~~ Sidewipe				29,962.50	1175.0	25.50	1175	25.50*
Winzes								
Drilling: Core		4050.00	900.0	75,789.90	16842.2	4.50	19788	4.50*
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 2/12/57 Operator Polaris Mining Company

Per [signature] Title President

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

REMARKS:

(For Government use only)

* Maximum allowed by contract

** 6199.5 @ 50.53
5418.9 @ 48.78
11618.4

RECEIVED MAR 4 1957 D.M.E.A.

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

POLARIS MINING COMPANY
P. O. BOX 320
WALLACE, IDAHO
February fourteenth
1957

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 4 1957

DATE	INITIALS	CODE

Defense Minerals Exploration Administration
United States Department of the Interior
1201 North Division Street
Spokane, Washington

Re: Progress Report
Polaris East Exploration Project
January - 1957
Docket DMEA-2879
Contract No. IDM-E541

Gentlemen:

Progress in the Polaris East Exploration Project during January included 306.6 feet of drifting and crosscutting, 20 feet of sideswiping, and 900 feet of diamond drilling.

During January the main east drift was extended southeasterly 244.0 feet. For the most part, this followed the main structure, although poor ground conditions required some timbering and necessitated driving part of the drift along the hanging wall of the fault-vein. Numerous cross faults and a few narrow mineralized veins were exposed by the drift as shown on the attached 50-scale map.

About five feet east of station SS3080, the drift intersected a fairly large, weakly mineralized siderite vein which strikes N. 35-40 E. and appears to be intersecting the main east-west zone from the south. As shown on the enclosed map, a 27.6 foot north crosscut was driven from station 3080 to explore the extension of a cross fault which appears to displace the main east-west structure and a 35.0 foot south crosscut was driven to explore the large siderite vein. The vein contains scattered tetrahedrite and a little chalcopyrite, though most of its length and the face sample at the end of the mouth assayed 20.4 ounces silver and 0.80% copper across a width of 8.5 feet. Because of its altitude, the strike length of the vein will probably not be great but its importance will not be known until further drifting and diamond drilling is done.

Diamond drill hole 3286, drilled northeasterly from the end of the crosscut at station 3076 + 30 feet north, was completed at a depth of 900 feet. A few small stringers and faults were intersected but none were significant and the highest sludge assay was 1.7 ounces silver at 250-255 feet. The log of this hole is enclosed.

Yours very truly,

H. E. Harper
Chief Geologist

HEH:mm

Note: All sludge assays are trace or no silver unless otherwise indicated.

DIAMOND DRILL RECORD

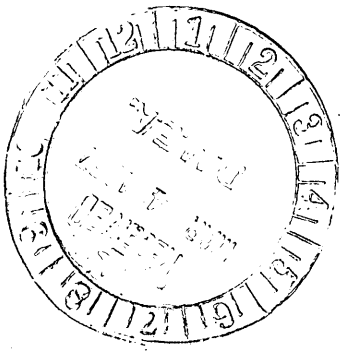
Standpipe
Casing

Started 12-30-56
Finished 1-31-57
Hole Size EX
Depth 900.0
% Core Rec. 82

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.
SS 3076 + 30.0' N.
Logged by J. G. S. Date 2-6-57
Drilled by Holten, Hauser

Hole No. 3286
Level 3000
Grid 321
Latitude 84 720 S.
Departure 93 518 E.
Elevation - 273
Bearing N. 20° E.
Inclination Flat

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
0-2.3	2.2							
5.0	2.6		E 3453	0 - 5	5.0	0.7		
10.0	4.9		4	10				
15.0	4.6		5	15	5.0	0.8		
20.0	4.9		6	20				
25.0	4.8		7	25	5.0	0.4		
30.0	4.9		8	30				
35.0	4.8	0.0' - 70.0' Mostly lt bluish gray blchd arg	9	35				
End Box 1		qtzite, some hd lt gray blchd qtzite, some						
41.6	4.5	dism sid. Few small slips. Some ser.	60	40				
46.5	4.5	Small fault at 59.0'.	1	45				
51.2	4.7		2	50				
52.8	1.0		3	55				
57.7	4.9		4	60				
62.7	5.0		5	65				
66.5	4.0		6	70				
End Box 2								
71.4	4.8							
74.8	3.0		7	75				
78.0	3.0		8	80				
83.0	4.2		9	85				
85.3	2.0							
88.2	2.9		70	90				
93.2	4.4	70.0' - 120.0' Lt gray grn blchd arg qtzite.						
94.2	0.7	Many bands dism sid.	1	95				
97.2	2.2	Fault at 74.0'.						
99.2	2.0		2	100				
104.2	4.7		3	105				
End Box 3								
109.2	5.0		4	110				
112.2	2.9		5	115				
117.2	5.0		6	120				
122.2	5.0		7	125				
127.2	4.8							
129.9	2.1		8	130				
134.4	4.4		9	135				
139.4	4.9		80	140				
End Box 4		120.0' - 160.0' Lt gray blchd arg qtzite.						
144.2	4.9	Occas bluish gray bands. Little dism sid.	1	145				
145.5	1.3		2	150				
150.2	4.7							
155.0	4.4		3	155				
159.8	4.8		4	160				



DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3286
Level 3000
Grid 321
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
162.2	2.1		E 3485	160-165				
166.0	3.3							
168.0	1.6		6	170				
173.0	4.7		7	175				
178.0	1.5	160.0' - 205.0' Lt grn blchd arg qtzite.	8	180				
End Box 5		Little wh carb at 187.0'.						
183.0	4.6	Some shearing at 192', 193', 195', & 196'.	9	185				
186.0	3.0		90	190				
190.5	4.5		1	195				
195.6	4.9							
199.9	3.6		2	200				
204.7	4.8		3	205				
208.1	3.2		4	210				
213.0	4.9		5	215				
End Box 6		205.0' - 224.0' Med gray arg qtzite.						
217.0	3.5	Slip at 211.0'. Small fault at 220.0'.	6	220				
220.6	3.4		7	225				
225.6	4.9	224.0' - 239.0' Hd dk gray arg qtzite.	8	230				
230.6	4.9	Small faults W/blk gg & many small sms py	9	235	5.0	0.2		
235.1	4.4	from 232' to 238'.						
237.5	2.3	½" gg at 233' & at 233.5'.						
238.7	1.0	¼" py stgr at 238'.	3500	240				
		1" qtz little py at 238.5'.						
241.6	2.8							
244.0	2.1		1	245	5.0	1.0		
248.0	3.2							
End Box 7								
250.0	2.0		2	250				
252.1	1.8		3	255	5.0	1.7		
255.3	2.2		4	260				
260.3	4.8	239.0' - 300.0' Mostly hd lt gray blchd arg	5	265				
265.3	4.8	qtzite. Some hd lt gray qtzite.	6	270				
270.3	4.8	Small irreg sid stgrs 249'.						
273.1	2.8	Small irreg sid stgrs & ½" py at 250'.	7	275				
277.8	3.2	Small irreg sid stgrs 251'.	8	280				
282.7	4.8	1' py from 255.8' to 265.8'.	9	285				
End Box 8		Dk gray arg qtzite 270' to 278'.						
287.7	5.0		10	290				
292.7	5.0		1	295				
297.7	4.6		2	300				

DIAMOND DRILL RECORD

Standpipe
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Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3286
Level 3000
Grid 321
Latitude
Departure
Elevation
Bearing
Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
302.7	4.6		E 3513	300-305				
306.0	3.1		4	310				
311.1	4.8		5	315				
316.0	5.0		6	320				
End Box 9								
320.9	4.9	300.0' - 350.0' Lt gray blchd arg qtzite.	7	325				
325.8	4.8	Some dism sid.						
329.0	3.2		8	330				
333.3	3.9		9	335				
338.3	5.0		20	340				
343.3	5.0		1	345				
348.3	5.0		2	350				
353.3	4.9		3	355				
End Box 10								
357.9	4.4		4	360				
362.8	4.9		5	365				
366.9	4.1		6	370				
372.0	4.1		7	375				
377.0	4.4	350.0' - 415.0' Hd med gray blchd arg qtzite	8	380				
382.0	4.7	some med gray blchd qtzite.	9	385				
387.0	4.7	Thin bands dism sid & some thin dk gray	30	390				
End Box 11		bands.						
392.0	4.2	Small qtz stgrs at 383' & 387'.	1	395				
397.0	4.8							
400.0	2.8		2	400				
403.0	2.8		3	405				
408.0	4.7		4	410				
413.6	4.0		5	415				
418.6	4.5		6	420				
421.2	1.5		7	425				
427.2	5.0	415.0' - 448.0' Lt gray blchd arg qtzite	8	430				
End Box 12		W/occas dk gray bands. Some soft lt grn arg						
433.2	4.9	qtzite. Few thin bands dism sid.	9	435				
438.2	4.9	Slip at 395'.	40	440				
443.2	5.0		1	445				
448.2	5.0		2	450				
453.2	5.0	448.0' - 465.0' Hd med gray blchd arg qtzite	3	455				
457.4	4.0	some hd med gray blchd qtzite.	4	460				
462.4	4.3	2" qtz little sid, ser at 461' small slip.	5	465				
End Box 13								

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DIAMOND DRILL RECORD

Standpipe
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Started
Finished
Hole Size
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% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3286
Level 3000
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Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
467.4	5.0		E 3546	465-470				
472.0	4.1		7	475				
477.4	1.6		8	480				
482.5	4.7							
484.8	1.0	465.0' - 525.0' Med gray blchd arg qtzite	9	485				
490.0	4.1	W/much dism sid. Many thin gray bands.	50	490				
495.0	4.8	Hd med gray qtzite W/few small stgrs sid,	1	495				
500.0	3.5	little qtz & wh carb & few small sms dism	2	500				
505.0	4.0	fine grained py from 512'-514'.	3	505				
510.0	3.4		4	510				
End Box 14								
515.0	2.8		5	515				
520.4	3.8		6	520				
525.4	1.4		7	525				
530.7	3.9		8	530				
535.7	4.6		9	535				
541.1	4.9		60	540				
546.1	4.9		1	545				
551.1	4.9	525.0' - 580.0' Lt gray grn blchd arg qtzite.	2	550				
555.5	2.0	Few thin dk gray bands, some dism sid.	3	555				
End Box 15			4	560				
560.5	3.3		5	565				
565.5	4.4							
567.2	0.9		6	570				
573.1	4.9		7	575				
576.8	2.5		8	580				
580.8	3.7		9	585				
585.8	4.4							
589.0	2.4		70	590				
593.0	1.6		1	595				% Cu
595.5	1.8		2	600	5.0	8.9	0.0	0.01
600.5	4.8							
End Box 16								
603.8	2.9		3	605	5.0	0.4		
608.8	5.0		4	610				
613.8	5.0		5	615				
618.8	5.0		6	620				
623.8	4.6		7	625				
628.8	4.1	580.0' - 685.0' Lt grn blchd arg qtzite,	8	630				
632.1	2.5	little hd lt gray blchd qtzite. Occas bands	9	635				
End Box 17		dism sid.						
637.0	3.8	Zones of badly broken core from 630' to						
638.7	1.0	685'.	80	640				
643.4	2.4	Small faults at 649', 650', 662', & 666'.	1	645				

RECEIVED
MAR 4 1957
D.M.E.A.

DIAMOND DRILL RECORD

Standpipe
Casing

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Finished
Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3286
Level 3000
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Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
646.1	2.6	Note: No mineralization in core & drillers						
647.3	1.0	report no evidence of mineralization.						
649.0	1.3	Possible accidental salting of sludge for						
650.0	0.6	595' to 600' interval.	E 3582	645-650				
655.0	3.4		3	655				
660.0	3.4		4	660				
662.0	1.5		5	665				
666.6	2.1							
669.7	1.3		6	670				
676.0	1.7		7	675				
681.8	1.1		8	680				
683.0	1.2							
End Box 18								
685.0	1.8		9	685				
687.0	1.7							
688.1	0.8							
689.2	0.7		90	690				
692.7	1.5	685.0' - 715.0' Soft lt grn blchd arg qtzite						
694.7	1.6	Much ser little dism sid much badly broken	1	695				
697.0	2.0	core. Cleavage at small angle to core.						
698.6	1.2	Small fault at 688'.						
699.7	1.1	½" lt grn gg at 700'.	2	700				
702.0	1.9	1" lt grn gg at 701'.	3	705				
706.8	3.4	Small fault at 703'.						
707.8	0.9							
709.6	1.6		4	710				
711.5	1.6							
712.8	1.0		5	715				
716.0	3.0							
717.5	1.2							
End Box 19								
719.0	1.0		6	720				
723.0	3.0							
725.0	1.8		7	725				
727.0	1.3							
729.4	1.4		8	730				
734.0	4.4	715.0' - 764.0' Mostly hd lt gray blchd qtzite	9	735				
738.8	3.7	little softer arg qtzite.						
740.0	0.9	Small fault at 718'.	3600	740				
742.2	2.1	2" qtz some ser little sid at 756'.						
744.6	2.3	1" qtz at 763'.	1	745				
748.0	2.8		2	750				
751.5	3.4							
753.7	1.8		3	755				

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MAR 4 1957
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DIAMOND DRILL RECORD

Standpipe
Casing

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Hole Size
Depth
% Core Rec.

Mine SILVER SUMMIT
Location Polaris E. Expl. Dr.

Logged by Date
Drilled by

Hole No. 3286
Level 3000
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Inclination

Depth Feet	Feet Core	Lithologic Description	Sample Data No.	Interval Feet	Sple. Feet	Oz. Ag	% Pb	% Zn
End Box 20								
758.4	3.9		E 3604	755-760				
761.4	2.6							
763.9	1.1		5	765				
768.9	4.7		6	770				
771.4	2.2		7	775				
776.4	1.3	764.0' - 783.0' Hd med gray blchd arg qtzite.	8	780				
780.6	2.3							
782.1	1.3							
783.6	1.1		9	785				
786.4	2.4							
789.7	1.7		10	790				
795.6	0.8		1	795				
800.9	2.8		2	800				
End Box 21								
805.9	3.5		3	805				
810.9	3.4		4	810				
815.9	3.6	783.0' - 855.0' Lt grn blchd arg qtzite some	5	815				
820.9	3.4	dism sid. Much badly broken core.	6	820				
823.9	0.6	Fault blk slickenside at 823.5'.	7	825				
828.6	1.1	Fault lt grn gg at 824'.	8	830				
830.6	1.8							
832.6	1.0							
833.5	0.7		9	835				
836.4	1.1							
839.6	1.4		20	840				
843.1	1.5		1	845				
848.1	1.6		2	850				
853.1	1.0		3	855				
857.0	0.7							
860.0	1.0		4	860				
864.4	4.1		5	865				
End Box 22								
868.9	4.3							
869.9	0.7		6	870				
874.0	4.0	855.0' - 900.0' Mostly lt grnish gray blchd	7	875				
875.5	0.8	qtzite some arg qtzite.						
877.3	1.5	Few py cubes small fault W/blk slickenside	8	880				
881.0	3.0	at 858'.						
883.5	2.6	Fault at 887'.	9	885				
887.5	3.3		30	890				
892.4	3.9							
893.4	0.6		1	895				
900.0	2.2	END OF HOLE	2	900				

FORM 127 1M 7-55

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MAR 4 1957
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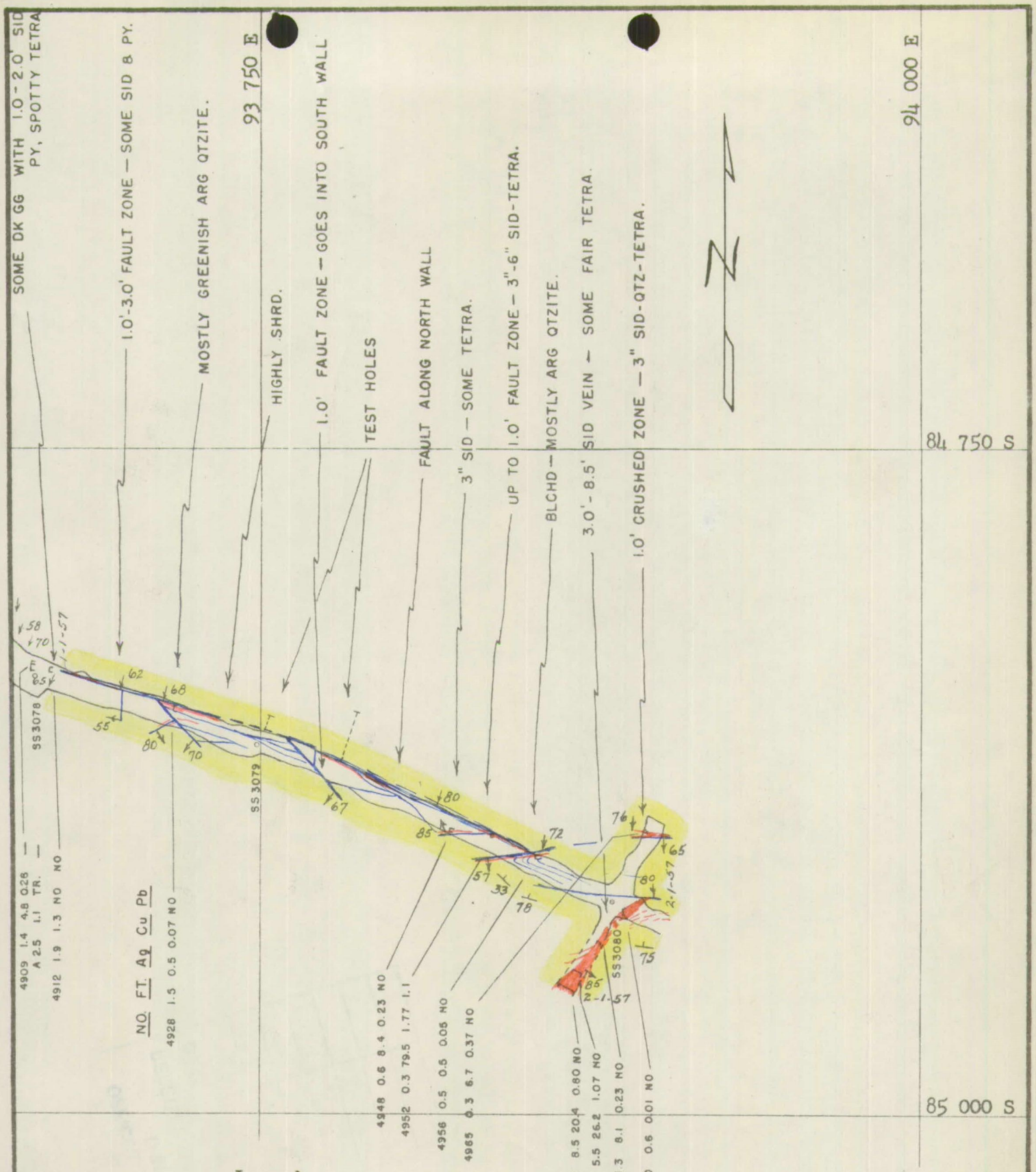

Legend

- Bleached Rocks
- Unbleached St. Regis Formation
- 82 Strike and dip of sulfide veins
- 75 Strike and dip of non-sulfide veins
- 80 Strike and dip of faults
- 85 Strike and dip of beds
- 81 Strike and dip of overturned beds
- 60 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' Feb. 1, 1957
Geology by J.G.S.

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D M E A
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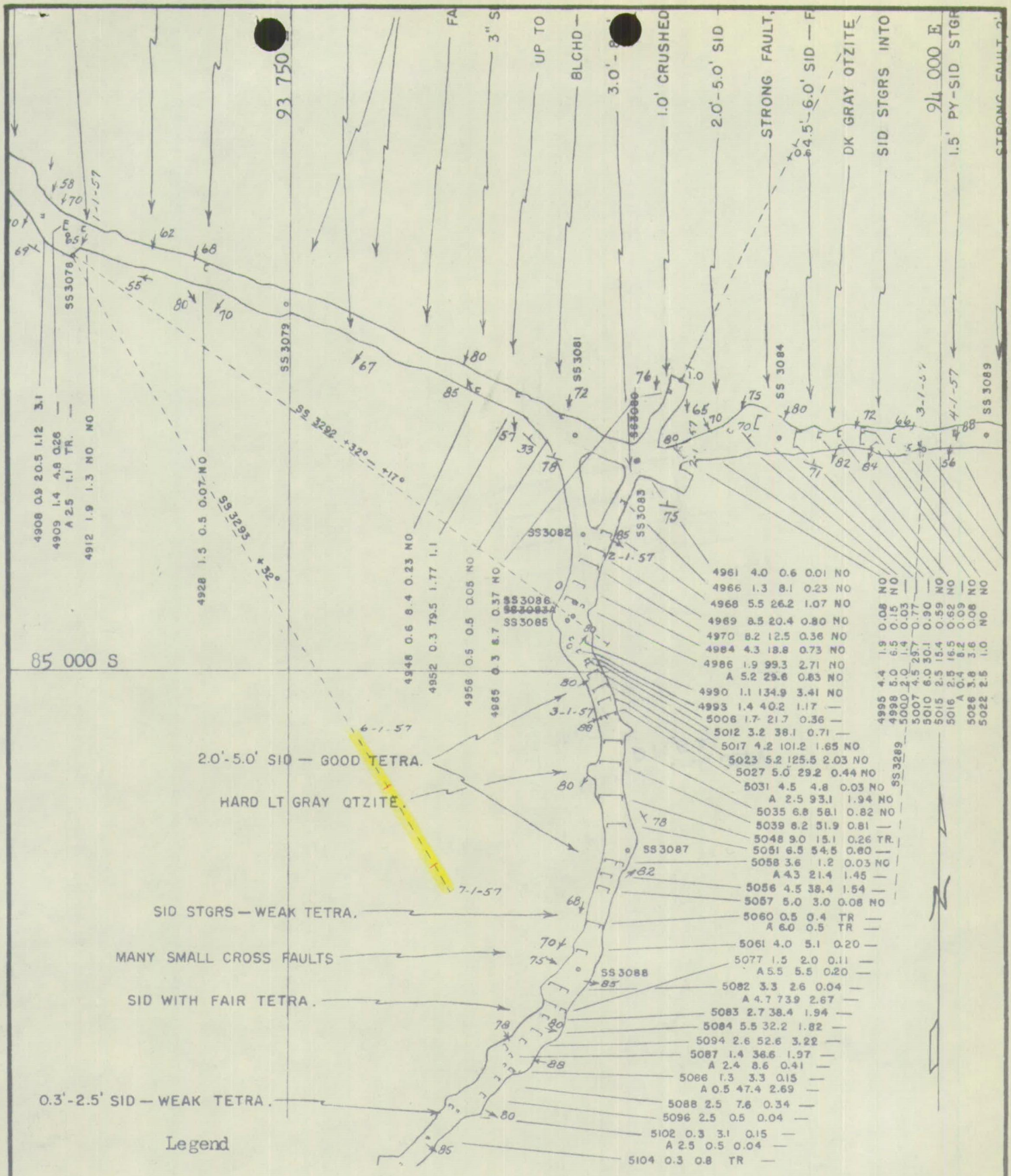
DATE	INITIALS	CODE



SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' June 1, 1957
Geology by R. A. L.

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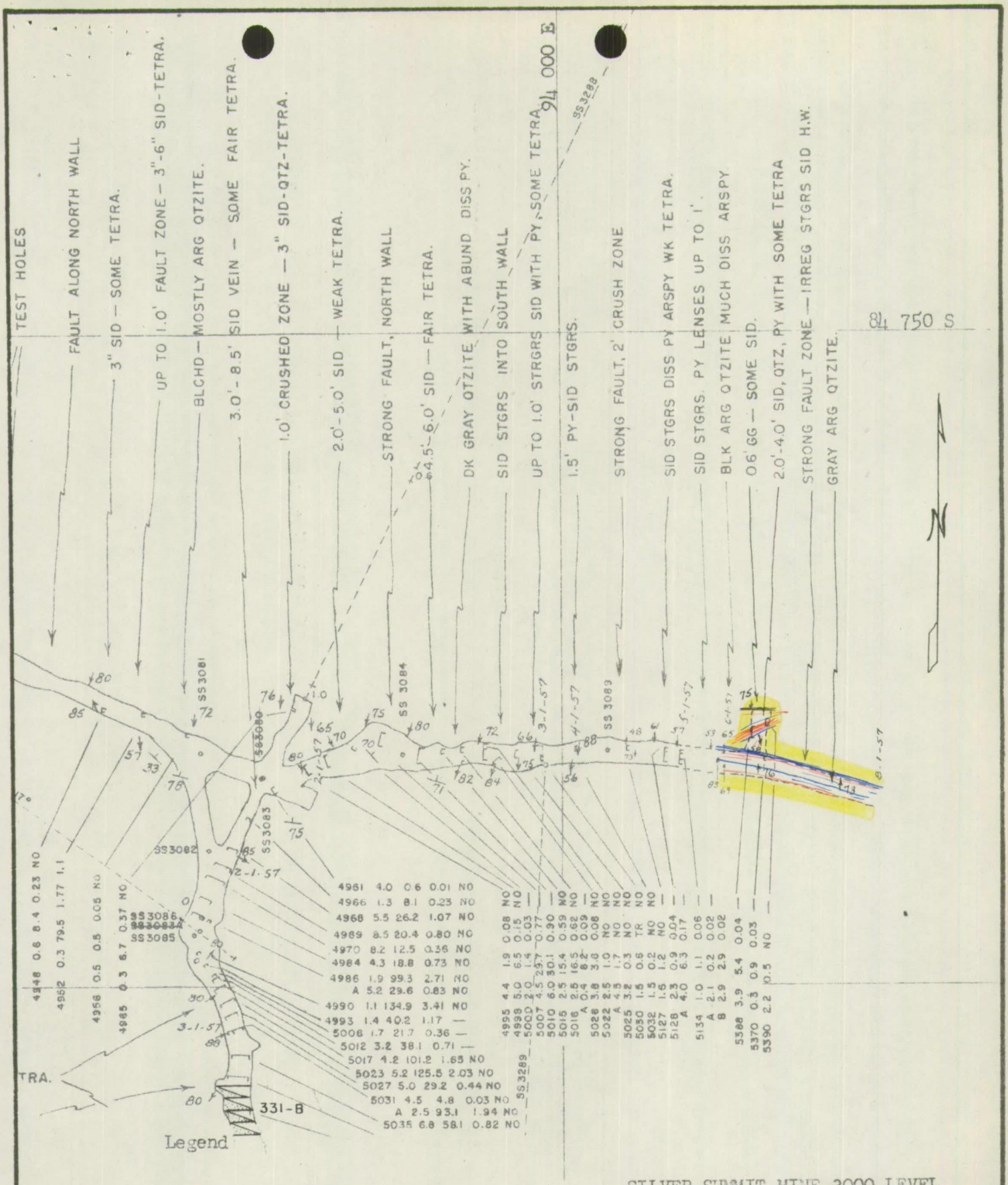
DATE	INITIALS	CODE



Bleached rocks
Unbleached St. Regis Formation
Strike and dip of sulfide veins
Strike and dip of non-sulfide veins
Strike and dip of faults
Strike and dip of beds
Strike and dip of overturned beds
Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' August 1, 1957
Geology by J. H. J.

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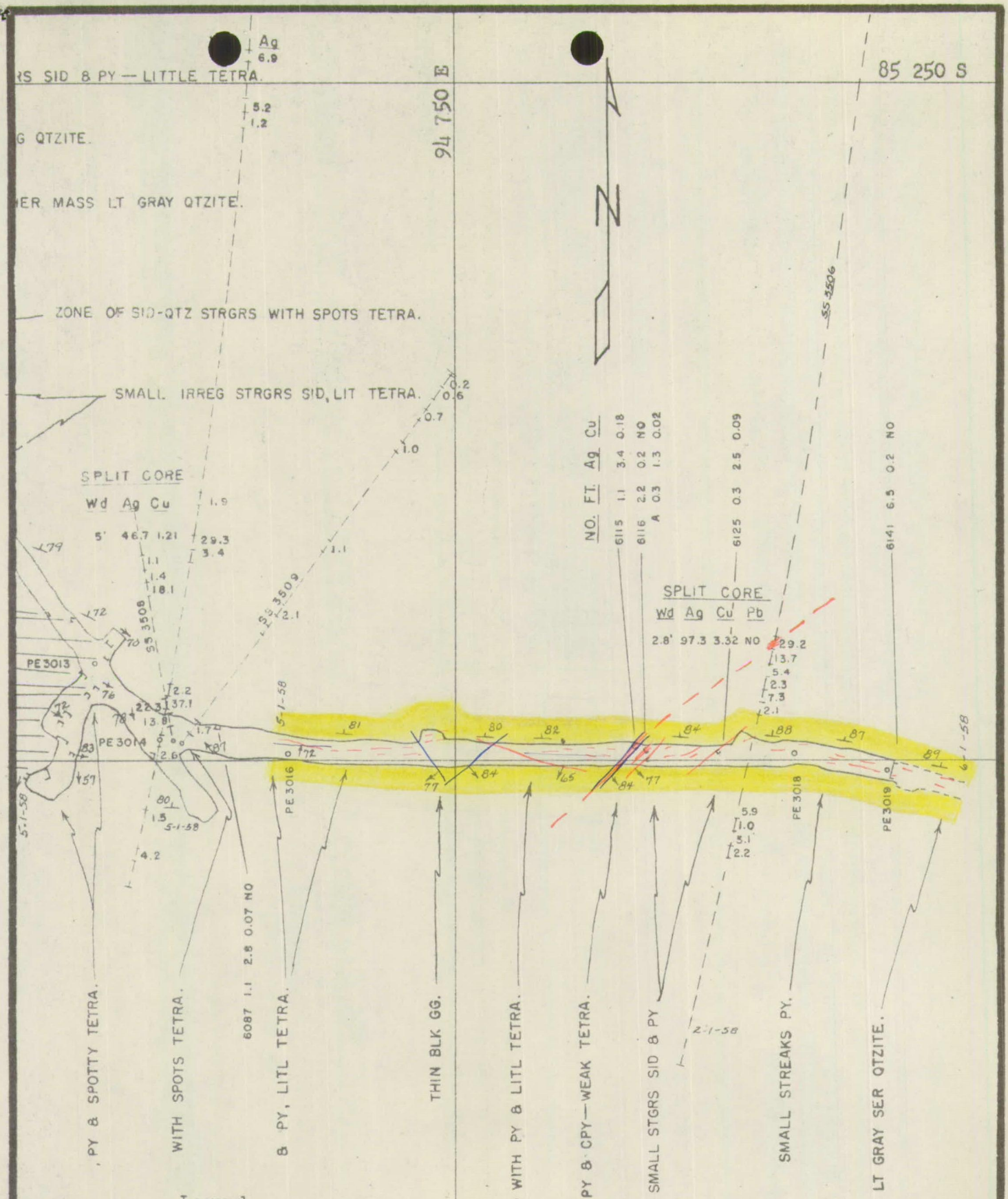

Legend

- Bleached rocks
- Unbleached St. Regis Formation
- 80 Strike and dip of sulfide veins
- 78 Strike and dip of non-sulfide veins
- 75 Strike and dip of faults
- 82 Strike and dip of beds
- 78 Strike and dip of overturned beds
- 65 Strike and dip of cleavage

SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' June 1, 1958

Geology by J.H.J.

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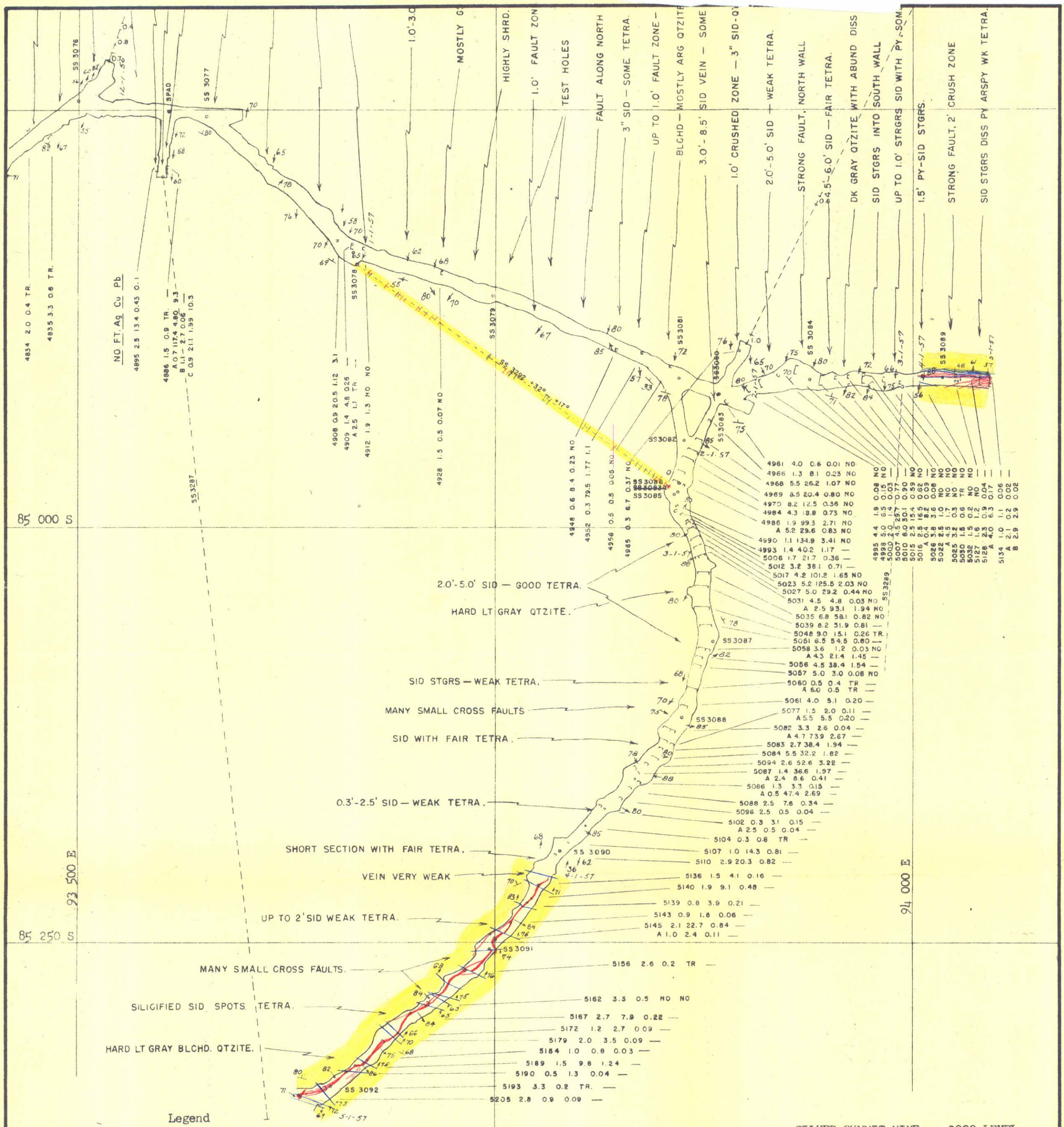
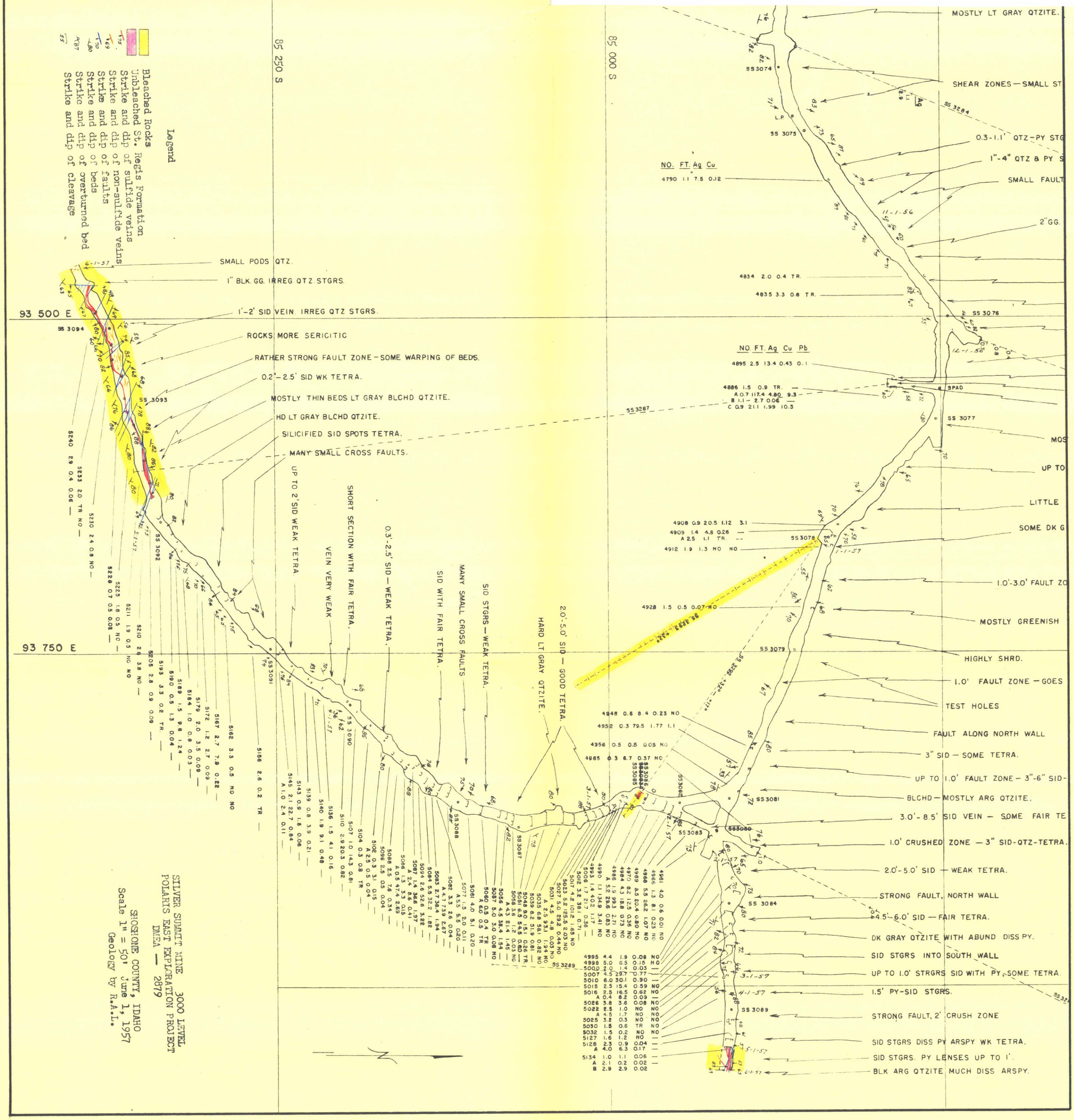
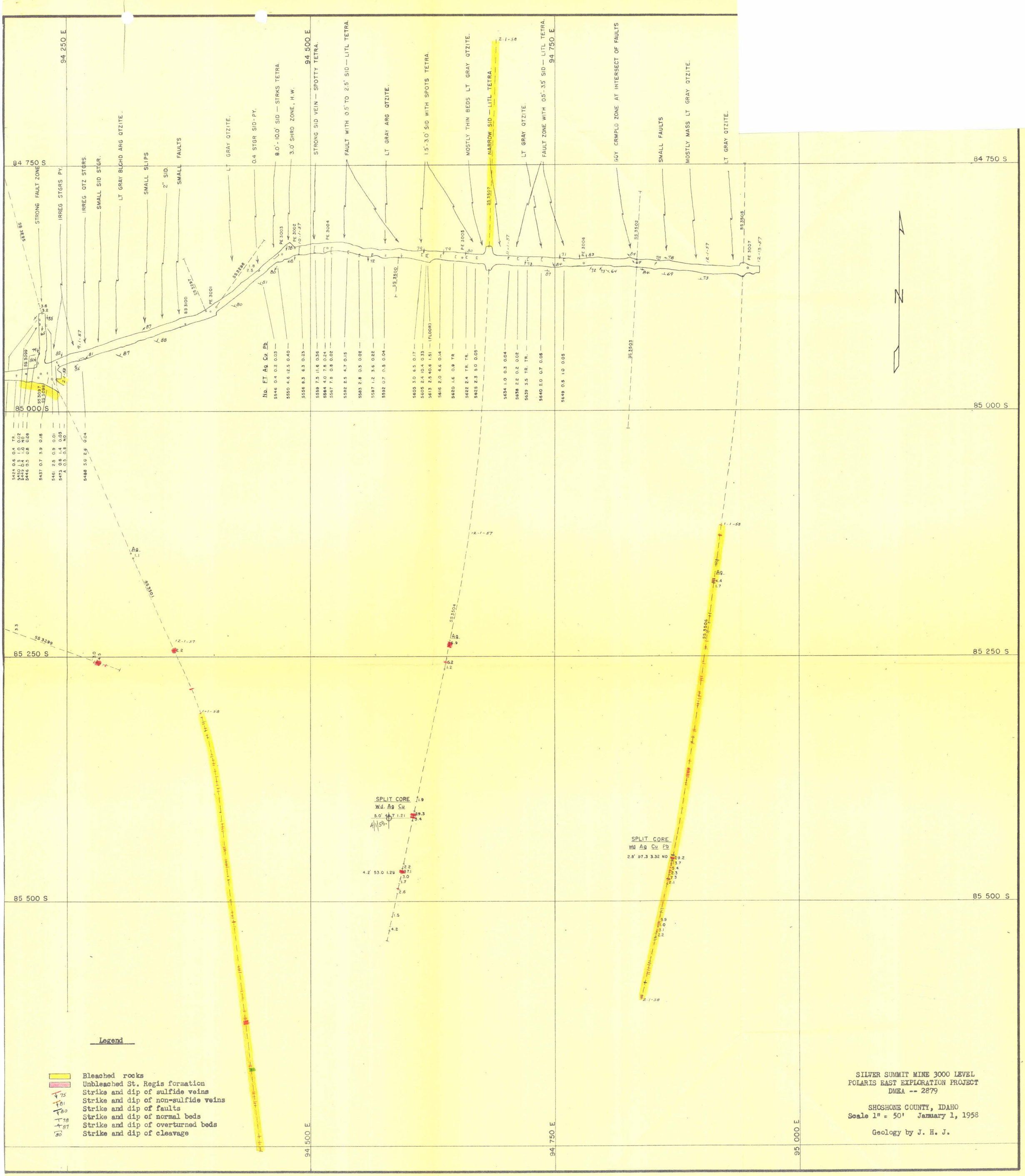
DATE	INITIALS	CODE

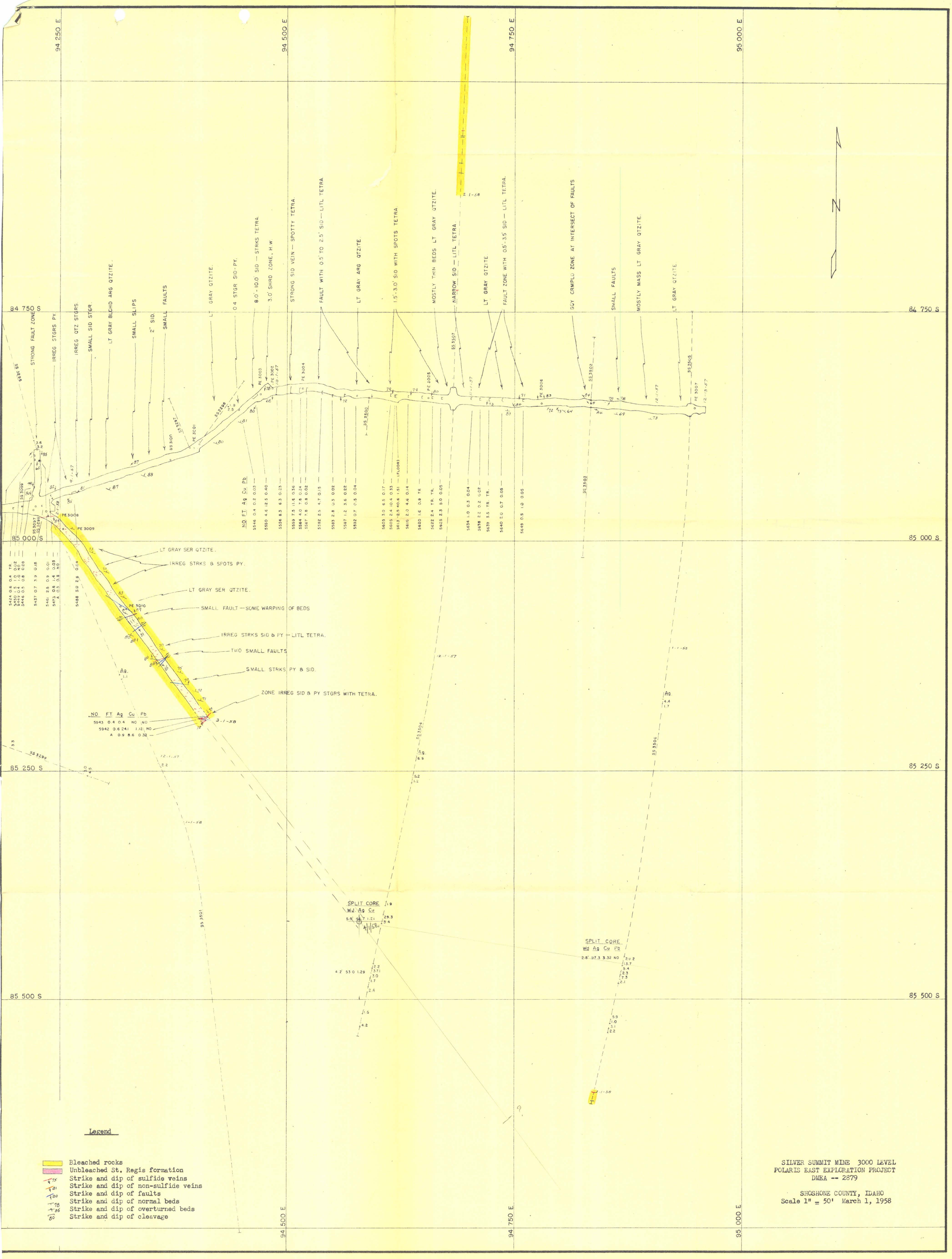


SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' May 1, 1957
Geology by J.G.S. & R.A.L.

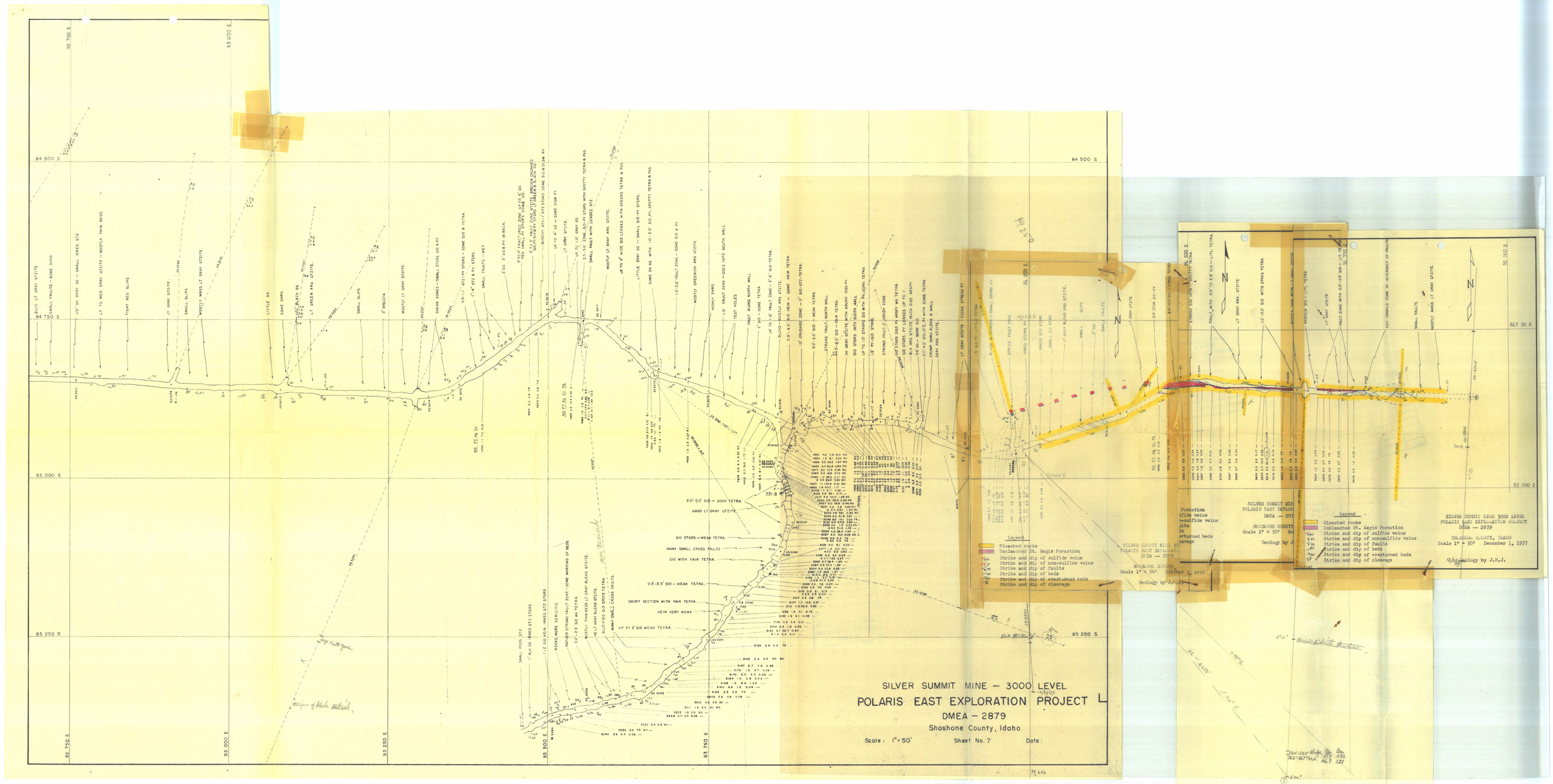

Legend
Bleached Rocks
Unbleached St. Regis Formation
Strike and dip of sulfide veins
Strike and dip of non-sulfide veins
Strike and dip of faults
Strike and dip of beds
Strike and dip of overturned bed
Strike and dip of cleavage
85 250 S
85 000 S
93 500 E
93 750 E
SMALL PODS QTZ.
1" BLK. GG. IRREG. QTZ. STGRS.
1'-2' SID VEIN. IRREG QTZ STGRS.
ROCKS MORE SERICITIC
RATHER STRONG FAULT ZONE - SOME WARPING OF BEDS.
0.2'-2.5' SID WK TETRA.
MOSTLY THIN BEDS LT GRAY BLCHD QTZITE.
HD LT GRAY BLCHD QTZITE.
SILICIFIED SID SPOTS TETRA.
MANY SMALL CROSS FAULTS.
UP TO 2' SID WEAK TETRA.
SHORT SECTION WITH FAIR TETRA.
VEIN VERY WEAK
0.3'-2.5' SID - WEAK TETRA.
SID WITH FAIR TETRA.
MANY SMALL CROSS FAULTS
SID STGRS - WEAK TETRA.
HARD LT GRAY QTZITE.
2.0'-5.0' SID - GOOD TETRA.
MOSTLY LT GRAY QTZITE.
SHEAR ZONES - SMALL ST
0.3-1.1' QTZ-PY STG
1"-4" QTZ & PY S
SMALL FAULT
2" GG.
NO. FT. Ag Cu
4790 1.1 7.5 0.12
4834 2.0 0.4 TR.
4835 3.3 0.6 TR.
NO FT. Ag Cu Pb
4895 2.5 13.4 0.43 0.1
4886 1.5 0.9 TR. —
A 0.7 117.4 4.80 9.3
B 1.1 - 2.7 0.06 —
C 0.9 21.1 1.99 10.5
SPAD
MOS
UP TO
LITTLE
SOME DK G
4908 0.9 20.5 1.12 3.1
4909 1.4 4.8 0.26 —
A 2.5 1.1 TR. --
4912 1.9 1.3 NO NO
1.0'-3.0' FAULT ZO
4928 1.5 0.5 0.07 NO
MOSTLY GREENISH
HIGHLY SHRD.
1.0' FAULT ZONE - GOES
TEST HOLES
FAULT ALONG NORTH WALL
3" SID - SOME TETRA.
UP TO 1.0' FAULT ZONE - 3"-6" SID-
BLCHD - MOSTLY ARG QTZITE.
3.0'-8.5' SID VEIN - SOME FAIR TE
1.0' CRUSHED ZONE - 3" SID-QTZ-TETRA.
2.0'-5.0' SID - WEAK TETRA.
STRONG FAULT, NORTH WALL
4.5'-6.0' SID - FAIR TETRA.
DK GRAY QTZITE WITH ABUND DISS PY.
SID STGRS INTO SOUTH WALL
UP TO 1.0' STRGRS SID WITH PY, SOME TETRA.
1.5' PY-SID STGRS.
STRONG FAULT, 2' CRUSH ZONE
SID STGRS DISS PY ARSPY WK TETRA.
SID STGRS. PY LENSES UP TO 1'.
BLK ARG QTZITE MUCH DISS ARSPY.
4948 0.6 8.4 0.23 NO
4952 0.3 79.5 1.77 1.1
4956 0.5 0.5 0.05 NO
4965 0.3 6.7 0.37 NO
4995 4.4 1.9 0.08 NO
4998 5.0 6.5 0.15 NO
5000 2.0 1.4 0.03
5007 4.5 29.7 0.77
5010 6.0 50.1 0.90
5015 2.5 15.4 0.59 NO
5016 2.5 16.5 0.62 NO
A 0.4 8.2 0.09
5026 3.8 3.6 0.08 NO
5022 2.5 1.0 NO NO
A 4.5 1.7 NO NO
5025 3.2 0.3 NO NO
5030 1.5 0.6 TR NO
5032 1.5 0.2 NO NO
5127 1.6 1.2 NO —
5128 2.3 0.9 0.04 —
A 4.0 6.3 0.17 —
5134 1.0 1.1 0.06 —
A 2.1 0.2 0.02 —
B 2.9 2.9 0.02
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879
SHOSHONE COUNTY, IDAHO
Scale 1" = 50' June 1, 1957
Geology by R.A.L.

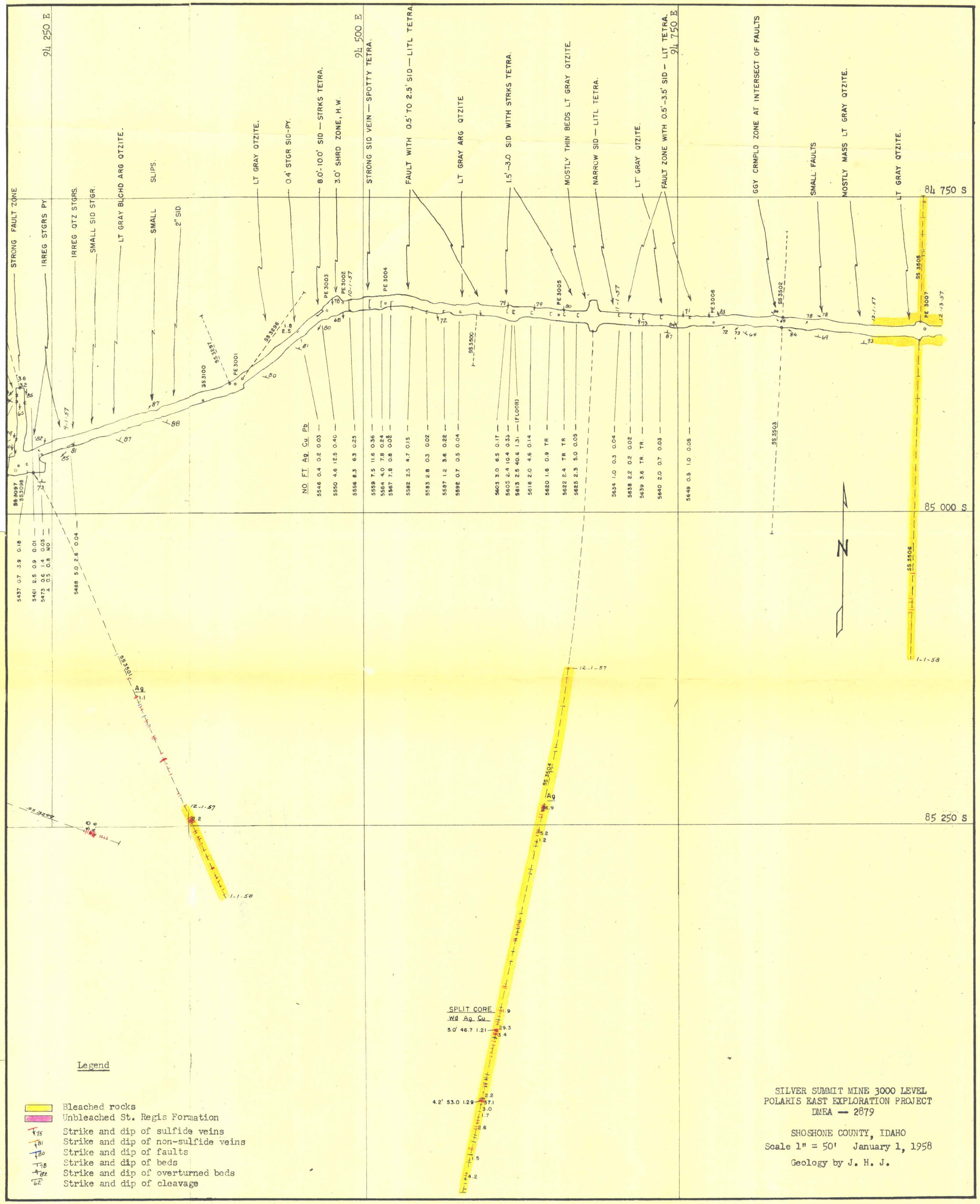

94 250 E
94 500 E
94 750 E
95 000 E
84 750 S
85 000 S
85 250 S
85 500 S
STRONG FAULT ZONE
IRREG STGRS PY.
IRREG QTZ STGRS.
SMALL SID STGR.
LT GRAY BLCHD ARG QTZITE.
SMALL SLIPS
2" SID.
SMALL FAULTS
LT GRAY QTZITE.
0.4 STGR SID-PY.
8.0'-10.0' SID — STRKS TETRA.
3.0' SHRD ZONE, H.W.
STRONG SID VEIN — SPOTTY TETRA.
FAULT WITH 0.5' TO 2.5' SID — LITL TETRA.
LT GRAY ARG QTZITE.
1.5'-3.0' SID WITH SPOTS TETRA.
MOSTLY THIN BEDS LT GRAY QTZITE.
NARROW SID — LITL TETRA.
LT GRAY QTZITE.
FAULT ZONE WITH 0.5'-3.5 SID — LITL TETRA.
GOY CRMPLD ZONE AT INTERSECT OF FAULTS
SMALL FAULTS
MOSTLY MASS LT GRAY QTZITE.
LT GRAY QTZITE.
No. FT Ag Cu Pb
SPLIT CORE
Wd. Ag Cu
SPLIT CORE
Wd Ag Cu Pb
Legend
Bleached rocks
Unbleached St. Regis formation
Strike and dip of sulfide veins
Strike and dip of non-sulfide veins
Strike and dip of faults
Strike and dip of normal beds
Strike and dip of overturned beds
Strike and dip of cleavage
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879
SHOSHONE COUNTY, IDAHO
Scale 1" = 50' January 1, 1958
Geology by J. H. J.



SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' March 1, 1958


SILVER SUMMIT MINE – 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA – 2879
Shoshone County, Idaho
Scale : 1" = 50'
Sheet No. 7
Date :
Legend
Bleached rocks
Unbleached St. Regis Formation
Strike and dip of sulfide veins
Strike and dip of non-sulfide veins
Strike and dip of faults
Strike and dip of beds
Strike and dip of overturned beds
Strike and dip of cleavage
Geology by J.H.J.
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA -- 2879
SHOSHONE COUNTY, IDAHO
Scale 1" = 50'
December 1, 1957
84 500 S
84 750 S
85 000 S
85 250 S
92 750 E
93 000 E
93 250 E
93 500 E
93 750 E
95 000 E
331-B

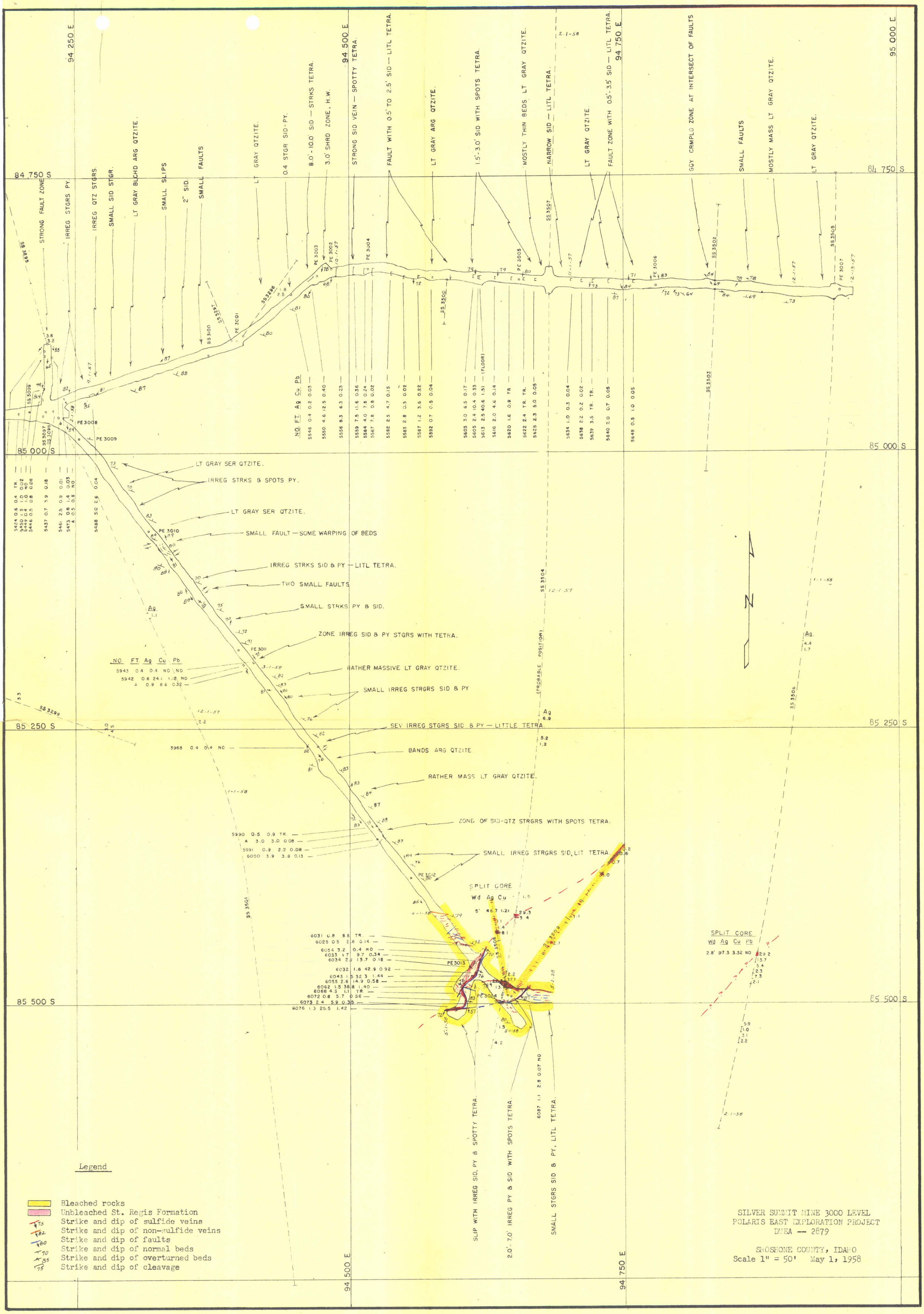


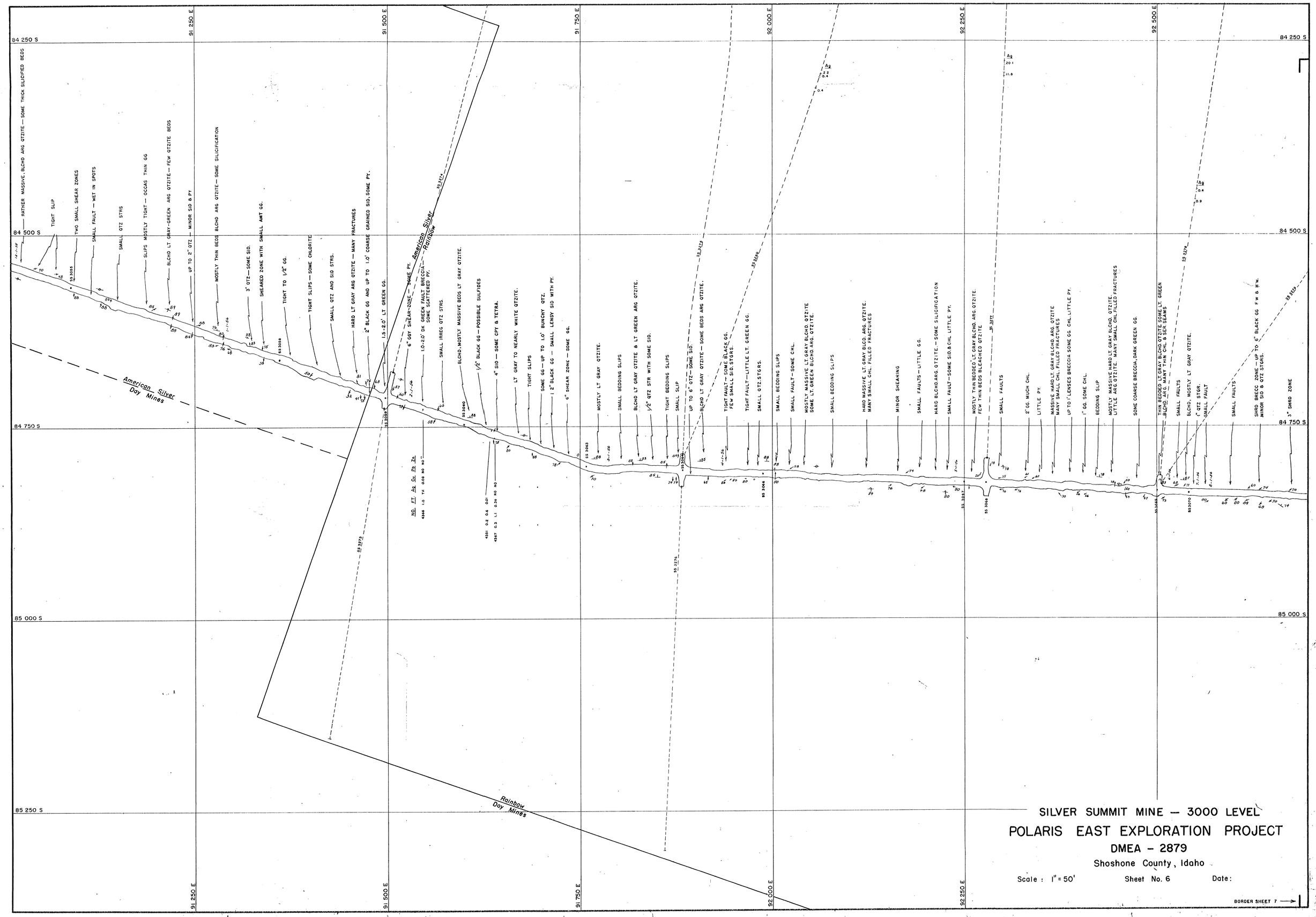
Legend

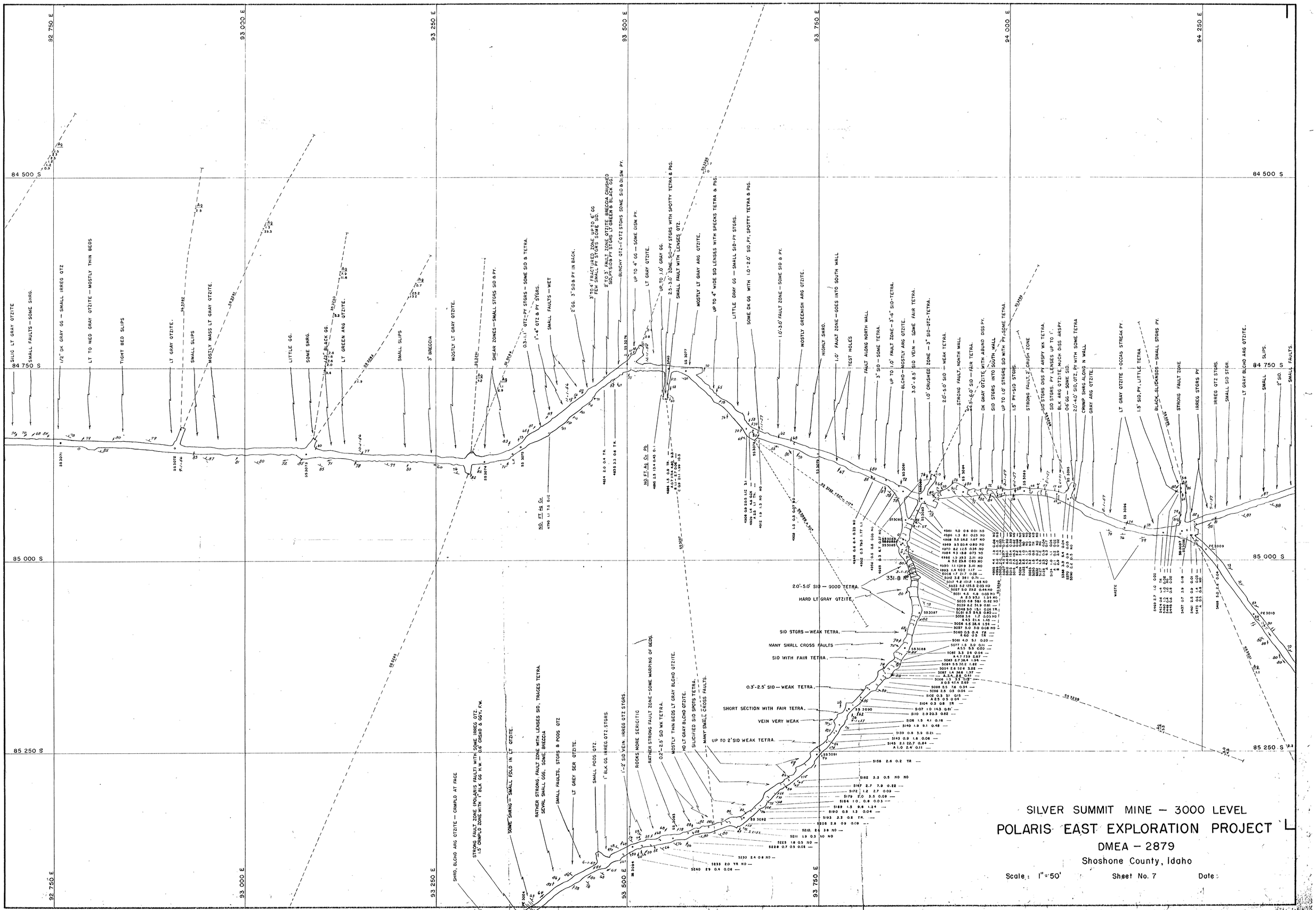
- Bleached rocks
- Unbleached St. Regis Formation
- Strike and dip of sulfide veins
- Strike and dip of non-sulfide veins
- Strike and dip of faults
- Strike and dip of beds
- Strike and dip of overturned beds
- Strike and dip of cleavage

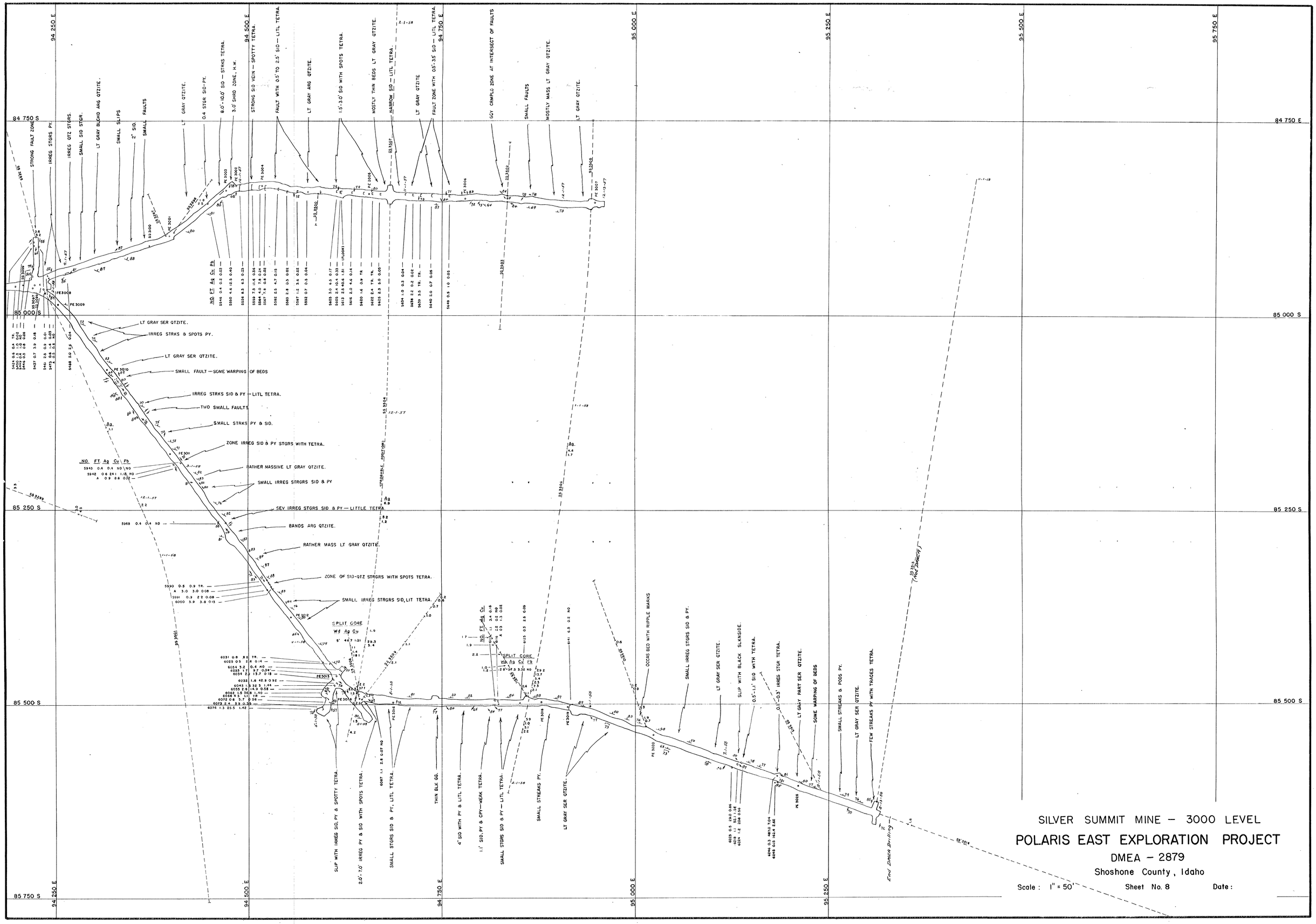
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879

SHOSHONE COUNTY, IDAHO
Scale 1" = 50' January 1, 1958
Geology by J. H. J.


94 250 E
94 500 E
94 750 E
95 000 E
84 750 S
85 000 S
85 250 S
85 500 S
STRONG FAULT ZONE
IRREG STGRS PY.
IRREG QTZ STGRS.
SMALL SID STGR.
LT GRAY BLCHD ARG QTZITE.
SMALL SLIPS
2" SID.
SMALL FAULTS
LT GRAY QTZITE.
0.4 STGR SID-PY.
8.0'-10.0' SID — STRKS TETRA.
3.0' SHRD ZONE, H.W.
STRONG SID VEIN — SPOTTY TETRA.
FAULT WITH 0.5' TO 2.5' SID — LITL TETRA.
LT GRAY ARG QTZITE.
1.5'-3.0' SID WITH SPOTS TETRA.
MOSTLY THIN BEDS LT GRAY QTZITE.
NARROW SID — LITL TETRA.
LT GRAY QTZITE.
FAULT ZONE WITH 0.5'-3.5' SID — LITL TETRA.
GOY CRMPLD ZONE AT INTERSECT OF FAULTS
SMALL FAULTS
MOSTLY MASS LT GRAY QTZITE.
LT GRAY QTZITE.
NO. FT. Ag Cu Pb
5546 0.4 0.2 0.03 —
5550 4.6 12.5 0.40 —
5556 8.3 6.3 0.23 —
5559 7.5 11.6 0.36 —
5564 4.0 7.8 0.24 —
5567 7.8 0.8 0.02 —
5582 2.5 4.7 0.15 —
5583 2.8 0.5 0.02 —
5587 1.2 3.6 0.82 —
5592 0.7 0.5 0.04 —
5603 3.0 6.5 0.17 —
5605 2.4 10.4 0.33 —
5613 2.5 40.6 1.51 — (FLOOR)
5616 2.0 4.6 0.14 —
5620 1.6 0.9 TR —
5622 2.4 TR. TR. —
5625 2.3 5.0 0.05 —
5634 1.0 0.3 0.04 —
5638 2.2 0.2 0.02 —
5639 3.5 TR. TR. —
5640 2.0 0.7 0.05 —
5649 0.5 1.0 0.05 —
LT GRAY SER QTZITE.
IRREG STRKS & SPOTS PY.
LT GRAY SER QTZITE.
SMALL FAULT — SOME WARPING OF BEDS
IRREG STRKS SID & PY — LITL TETRA.
TWO SMALL FAULTS
SMALL STRKS PY & SID.
ZONE IRREG SID & PY STGRS WITH TETRA.
RATHER MASSIVE LT GRAY QTZITE.
SMALL IRREG STRGRS SID & PY
SEV IRREG STGRS SID & PY — LITTLE TETRA.
BANDS ARG QTZITE
RATHER MASS LT GRAY QTZITE.
ZONE OF SID-QTZ STRGRS WITH SPOTS TETRA.
SMALL IRREG STRGRS SID, LIT TETRA.
NO. FT. Ag Cu Pb
5943 0.4 0.4 NO NO
5942 0.6 24.1 1.12 NO
A 0.9 8.6 0.32 —
5968 0.4 0.4 NO —
5990 0.5 0.9 TR. —
A 3.0 3.0 0.06 —
5991 0.9 2.2 0.08 —
6000 3.9 3.8 0.13 —
SPLIT CORE
Wd Ag Cu
5' 46.7 1.21
6031 0.8 8.8 TR. —
6025 0.5 2.6 0.14 —
6054 3.2 0.4 NO —
6033 1.7 9.7 0.34 —
6034 2.0 15.7 0.18 —
6032 1.6 42.9 0.92 —
6043 1.5 32.3 1.44 —
6055 2.6 14.9 0.58 —
6062 1.5 36.8 1.40 —
6066 4.5 1.1 TR. —
6072 0.8 5.7 0.56 —
6073 2.4 5.9 0.35 —
6076 1.3 25.5 1.42 —
SPLIT CORE
Wd Ag Cu Pb
2.8' 97.3 3.32 NO
(PROBABLE POSITION)
SLIP WITH IRREG SID, PY & SPOTTY TETRA.
2.0'-7.0' IRREG PY & SID WITH SPOTS TETRA.
6087 1.1 2.8 0.07 NO
SMALL STGRS SID & PY, LITL TETRA.
Legend
Bleached rocks
Unbleached St. Regis Formation
Strike and dip of sulfide veins
Strike and dip of non-sulfide veins
Strike and dip of faults
Strike and dip of normal beds
Strike and dip of overturned beds
Strike and dip of cleavage
SILVER SUMMIT MINE 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879
SHOSHONE COUNTY, IDAHO
Scale 1" = 50' May 1, 1958


84 250 S
84 500 S
84 750 S
85 000 S
85 250 S
91 250 E
91 500 E
91 750 E
92 000 E
92 250 E
92 500 E
RATHER MASSIVE, BLCHD ARG QTZITE — SOME THICK SILICIFIED BEDS
TIGHT SLIP
TWO SMALL SHEAR ZONES
SMALL FAULT — WET IN SPOTS
SMALL QTZ STRS
SLIPS MOSTLY TIGHT — OCCAS THIN GG
BLCHD LT GRAY-GREEN ARG QTZITE — FEW QTZITE BEDS
UP TO 2" QTZ — MINOR SID & PY
MOSTLY THIN BEDS BLCHD ARG QTZITE — SOME SILICIFICATION
3" QTZ — SOME SID.
SHEARED ZONE WITH SMALL AMT GG.
TIGHT TO 1/2" GG.
TIGHT SLIPS — SOME CHLORITE
SMALL QTZ AND SID STRS.
HARD LT GRAY ARG QTZITE — MANY FRACTURES
2" BLACK GG AND UP TO 1.0' COARSE GRAINED SID. SOME PY.
1.5-2.0' LT GREEN GG.
6" GRY SHEAR-ZONE — SOME PY.
1.0-2.0' DK GREEN FAULT BRECCIA — SOME SCATTERED PY.
SMALL IRREG QTZ STRS.
BLCHD. MOSTLY MASSIVE BEDS LT GRAY QTZITE.
1/2" BLACK GG — POSSIBLE SULFIDES
4" SID — SOME CPY & TETRA.
LT GRAY TO NEARLY WHITE QTZITE.
TIGHT SLIPS
SOME GG — UP TO 1.0' BUNCHY QTZ.
1-2" BLACK GG — SMALL LENSY SID WITH PY.
6" SHEAR ZONE — SOME GG.
MOSTLY LT GRAY QTZITE.
SMALL BEDDING SLIPS
BLCHD LT GRAY QTZITE & LT GREEN ARG QTZITE.
1/2" QTZ STR WITH SOME SID.
TIGHT BEDDING SLIPS
SMALL SLIP
UP TO 6" QTZ — SOME SID.
BLCHD LT GRAY QTZITE — SOME BEDS ARG QTZITE.
TIGHT FAULT — SOME BLACK GG. FEW SMALL SID. STGRS.
TIGHT FAULT — LITTLE LT. GREEN GG.
SMALL QTZ. STGRS.
SMALL BEDDING SLIPS
SMALL FAULT — SOME CHL.
MOSTLY MASSIVE LT. GRAY BLCHD. QTZITE SOME LT. GREEN BLCHD. ARG. QTZITE.
SMALL BEDDING SLIPS
HARD MASSIVE LT. GRAY BLCD. ARG. QTZITE. MANY SMALL CHL. FILLED FRACTURES
MINOR SHEARING
SMALL FAULTS — LITTLE GG.
HARD BLCHD. ARG. QTZITE. — SOME SILICIFICATION
SMALL FAULT — SOME SID. & CHL. LITTLE PY.
MOSTLY THIN BEDDED LT. GRAY BLCHD. ARG. QTZITE. FEW THIN BEDS BLEACHED QTZITE
SMALL FAULTS
2" GG. MUCH CHL.
LITTLE PY.
MASSIVE HARD LT. GRAY BLCHD. ARG. QTZITE MANY SMALL CHL. FILLED FRACTURES
UP TO 1' LENSES BRECCIA SOME GG. CHL. LITTLE PY.
1" GG. SOME CHL.
BEDDING SLIP
MOSTLY MASSIVE HARD LT. GRAY BLCHD. QTZITE. LITTLE ARG QTZITE. MANY SMALL CHL. FILLED FRACTURES
SOME COARSE BRECCIA, DARK GREEN GG.
THIN BEDDED LT. GRAY BLCHD QTZITE SOME LT. GREEN BLCHD ARG QTZITE. FEW CHL & SER SEAMS
SMALL FAULTS
BLCHD. MOSTLY LT GRAY QTZITE.
1" QTZ STGR.
SMALL FAULT
SMALL FAULTS
SHRD BRECC ZONE — UP TO 6" BLACK GG F W & HW. MINOR SID & QTZ STGRS.
3" SHRD ZONE
American Silver
Rainbow
American Silver Day Mines
Rainbow Day Mines
NO. FT. Ag Cu Pb Zn
4266 1.0 TR 0.09 NO NO
4351 0.2 0.4 0.01
4367 0.3 1.1 0.39 NO NO
SILVER SUMMIT MINE — 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA - 2879
Shoshone County, Idaho
Scale : 1" = 50'
Sheet No. 6
Date:
BORDER SHEET 7


SILVER SUMMIT MINE — 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879
Shoshone County, Idaho
Scale: 1"=50'
Sheet No. 7
Date:
92 750 E
93 000 E
93 250 E
93 500 E
93 750 E
94 000 E
94 250 E
84 500 S
84 750 S
85 000 S
85 250 S
SILIC LT GRAY QTZITE
SMALL FAULTS—SOME SHRG.
1/2" DK GRAY GG — SMALL IRREG QTZ
LT TO MED GRAY QTZITE—MOSTLY THIN BEDS
TIGHT BED SLIPS
LT GRAY QTZITE.
SMALL SLIPS
MOSTLY MASS LT GRAY QTZITE.
LITTLE GG.
SOME SHRG.
1/2" BLACK GG
LT GREEN ARG QTZITE.
SMALL SLIPS
3" BRECCIA
MOSTLY LT GRAY QTZITE.
SHEAR ZONES—SMALL STGRS SID & PY.
0.3-1.1' QTZ-PY STGRS — SOME SID & TETRA.
1"-4" QTZ & PY STGRS.
SMALL FAULTS—WET
2' GG. 3" SID & PY IN BACK.
3' TO 4' FRACTURED ZONE UP TO 6" GG FEW SMALL PY STGRS SOME SID.
2' TO 3' FAULT ZONE, QTZITE, BRECCIA CRUSHED SID, PY, SID & PY STGRS LT GREEN & BLACK GG.
BUNCHY QTZ-1" QTZ STGRS SOME SID & DISM PY.
UP TO 4" GG — SOME DISM PY.
LT GRAY QTZITE.
UP TO 1.0' GRAY GG.
2.5-3.0' ZONE, SID-PY STGRS WITH SPOTTY TETRA & PKS.
SMALL FAULT WITH LENSES QTZ.
MOSTLY LT GRAY ARG QTZITE.
UP TO 4" WIDE SID LENSES WITH SPECKS TETRA & PKS.
LITTLE GRAY GG — SMALL SID-PY STGRS.
SOME DK GG WITH 1.0-2.0' SID, PY, SPOTTY TETRA & PKS.
1.0'-3.0' FAULT ZONE — SOME SID & PY.
MOSTLY GREENISH ARG QTZITE.
HIGHLY SHRD.
1.0' FAULT ZONE — GOES INTO SOUTH WALL
TEST HOLES
FAULT ALONG NORTH WALL.
9" SID — SOME TETRA.
UP TO 1.0' FAULT ZONE — 3"-6" SID-TETRA.
BLCHD — MOSTLY ARG QTZITE.
3.0'-8.5' SID VEIN — SOME FAIR TETRA.
1.0' CRUSHED ZONE — 3" SID-QTZ-TETRA.
2.0'-5.0' SID — WEAK TETRA.
STRONG FAULT, NORTH WALL
4.5'-6.0' SID — FAIR TETRA.
DK GRAY QTZITE WITH ABUND DISS PY.
SID STGRS INTO SOUTH WALL
UP TO 1.0' STRGRS SID WITH PY, SOME TETRA.
1.5' PY-SID STGRS.
STRONG FAULT 2' CRUSH ZONE
SID STGRS DISS PY ARSPY WK TETRA.
SID STGRS. PY LENSES UP TO 1".
BLK ARG QTZITE, MUCH DISS ARSPY.
0.6' GG — SOME SID.
2.0'-4.0' SID, QTZ, PY WITH SOME TETRA
CRUMP SHRG ALONG N WALL
GRAY ARG QTZITE.
LT GRAY QTZITE — OCCAS STREAK PY.
1.5' SID, PY, LITTLE TETRA.
BLACK SLICKNSDS — SMALL STGRS PY.
STRONG FAULT ZONE
IRREG STGRS PY.
IRREG QTZ STGRS.
SMALL SID STGR.
LT GRAY BLCHD ARG QTZITE.
SMALL SLIPS.
2" SID.
SMALL FAULTS.
WASTE
331-B R
2.0'-5.0' SID — GOOD TETRA.
HARD LT GRAY QTZITE.
SID STGRS — WEAK TETRA.
MANY SMALL CROSS FAULTS
SID WITH FAIR TETRA.
0.3'-2.5' SID — WEAK TETRA.
SHORT SECTION WITH FAIR TETRA.
VEIN VERY WEAK
UP TO 2' SID WEAK TETRA.
NO FT Ag Cu Pb
NO FT Ag Cu
SHRD, BLCHD ARG QTZITE — CRMPLD AT FACE
STRONG FAULT ZONE (POLARIS FAULT) WITH SOME IRREG QTZ.
1.5' CRMPLD ZONE WITH 1" BLK GG N.W. — 0.6' CRSHD & GGY, F.W.
SOME SHRG — SMALL FOLD IN LT QTZITE.
RATHER STRONG FAULT ZONE WITH LENSES SID, TRACES TETRA.
SEVRL SMALL GGS, SOME BRECCIA
SMALL FAULTS, STGRS & PODS QTZ
LT GREY SER QTZITE.
SMALL PODS QTZ.
1" BLK. GG. IRREG QTZ STGRS.
1"-2' SID VEIN, IRREG QTZ STGRS.
ROCKS MORE SERICITIC
RATHER STRONG FAULT ZONE — SOME WARPING OF BEDS.
0.2'-2.5' SID WK TETRA.
MOSTLY THIN BEDS LT GRAY BLCHD QTZITE.
NO LT GRAY BLCHD QTZITE.
SILICIFIED SID SPOTS TETRA.
MANY SMALL CROSS FAULTS.


SILVER SUMMIT MINE — 3000 LEVEL
POLARIS EAST EXPLORATION PROJECT
DMEA — 2879
Shoshone County, Idaho
Scale : 1" = 50'
Sheet No. 8
Date :
84 750 S
85 000 S
85 250 S
85 500 S
85 750 S
84 750 E
94 250 E
94 500 E
94 750 E
95 000 E
95 250 E
95 500 E
95 750 E
STRONG FAULT ZONE
IRREG STGRS PY.
IRREG QTZ STGRS.
SMALL SID STGR.
LT GRAY BLCHD ARG QTZITE.
SMALL SLIPS
2" SID.
SMALL FAULTS
LT GRAY QTZITE.
0.4 STGR SID-PY.
8.0'-10.0' SID — STRKS TETRA.
3.0' SHRD ZONE, H.W.
STRONG SID VEIN — SPOTTY TETRA.
FAULT WITH 0.5' TO 2.5' SID — LITL TETRA.
LT GRAY ARG QTZITE.
1.5'-3.0' SID WITH SPOTS TETRA.
MOSTLY THIN BEDS LT GRAY QTZITE.
NARROW SID — LITL TETRA.
LT GRAY QTZITE
FAULT ZONE WITH 0.5'-3.5' SID — LITL TETRA.
GOY CRMPLD ZONE AT INTERSECT OF FAULTS
SMALL FAULTS
MOSTLY MASS LT GRAY QTZITE.
LT GRAY QTZITE.
LT GRAY SER QTZITE.
IRREG STRKS & SPOTS PY.
LT GRAY SER QTZITE.
SMALL FAULT — SOME WARPING OF BEDS
IRREG STRKS SID & PY — LITL TETRA.
TWO SMALL FAULTS
SMALL STRKS PY & SID.
ZONE IRREG SID & PY STGRS WITH TETRA.
RATHER MASSIVE LT GRAY QTZITE.
SMALL IRREG STRGRS SID & PY
SEV IRREG STGRS SID & PY — LITTLE TETRA
BANDS ARG QTZITE.
RATHER MASS LT GRAY QTZITE.
ZONE OF SID-QTZ STRGRS WITH SPOTS TETRA.
SMALL. IRREG STRGRS SID, LIT TETRA.
SPLIT CORE
SLIP WITH IRREG SID, PY & SPOTTY TETRA.
2.0'-7.0' IRREG PY & SID WITH SPOTS TETRA.
SMALL STGRS SID & PY, LITL TETRA.
THIN BLK GG.
4" SID WITH PY & LITL TETRA.
1.1' SID, PY & CPY — WEAK TETRA.
SMALL STGRS SID & PY — LITL TETRA.
SMALL STREAKS PY.
LT GRAY SER QTZITE.
OCCAS BED WITH RIPPLE MARKS
SMALL IRREG STGRS SID & PY.
LT GRAY SER QTZITE.
SLIP WITH BLACK SLKNSIDE.
0.5'-1.1' SID WITH TETRA.
0.1'-0.3' IRREG STGR TETRA.
LT GRAY PART SER QTZITE.
SOME WARPING OF BEDS
SMALL STREAKS & PODS PY.
LT GRAY SER QTZITE.
FEW STREAKS PY WITH TRACES TETRA.
End DMEA Drilling