OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Washington office pertaining to Amended Contract Idm-8489, Docket DMEA-2612 (copper), dated as of February 20, 1953, with

Index Mining Company
2450 Monte Vista Place
Seattle 99, Washington
and its assignee
Granore Company
1511 Norton Building
Seattle, Washington

for the purpose of determining the amount of royalty payable to the U. S. Government on sales of minerals from property referred to as the Sunset (Index) Mine located in Snohomish County, Washington, during the period September 9, 1959, through August 28, 1962.

A certification of discovery or development was issued on March 26, 1956, and, in accordance with Articles 7 and 11 of the Amended Contract, royalty is payable on all minerals produced from the land described in Article 2 of the contract for a period of 12 years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A Report of Review dated December 6, 1955, indicated accepted costs under the exploration contract amounting to $114,840.00 with the Government's contribution on a 50 percent basis being $57,420.00.

The status of the project, the scope of review, and the reasons therefor are stated on page 2.

This review established no sales subject to the Government's royalty subsequent to the period covered by a prior Report of Royalty Review, which also found no sales subject to the Government's royalty through September 8, 1959. Accordingly, as of August 28, 1962, the royalty account of this project was found to be:

Total Royalty Payable	$ -0-
Total Royalty Paid	-0-
Balance of Royalty Due	$ -0-

E. D. Talbert

September 11, 1962 — E. D. Talbert, OME Auditor

Idm-1489 Granore Company, Assignee DMEA-2612

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

This contract provides that the Operator, as principal if the producer or as surety if not the producer, shall pay to the Government a percentage royalty on all minerals produced from the land thereunder. The land under the contract consists of the N½ of sec. 1 and the NE¼ of sec. 2, T. 27 N., R. 10 E., W.M., plus the whole or portions of 18 patented and 2 unpatented claims not included in the N½ of sec. 1, Index Mining District. The contract recites that the Operator is the owner of the entire interest in all the land under the contract; however, the NE¼ of sec. 2 actually was held under a purchase contract with Earl Smith, Index, Washington, a trustee for judgment creditors. In consideration of the contract, Mr. Smith subsequently, on May 9, 1955, executed a subordination agreement.

On March 23, 1955, the Operator leased the property to the Granore Company and thereafter assigned the contract to the lessee. The Government consented to the assignment on May 5, 1955, without releasing the Operator-Assignor from any of the provisions of the contract.

Exploration work under the contract was completed during October 1955. There was no production during the exploration period by either the Operator-Assignor or the Operator-Assignee. Subsequent examinations of the property and inquiries by DMEA and OME regional representatives disclosed that the property remained inactive from the conclusion of the exploration work through September 8, 1959, and that the Operator-Assignee relinquished its lease during the first part of 1956.

In an August 28, 1962, reply to a MME Form 63 inquiry, the Operator-Assignee's vice president (Robert M. MacRae) advised that neither production nor change in property status has occurred since September 8, 1959.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(1) The files indicate that no minerals have been produced from the land under the contract; and

(2) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible royalty which might be disclosed.

EXTRA COPY
O. M. E.
RECEIVED SEP 20 1962
800

So. 157 Howard Street
Spokane 4, Washington
September 18, 1962

Memorandum

To: Chief, Fiscal Section, Division of Administrative Services, Office of the Secretary, Washington 25, D. C.

From: Acting Field Officer, Region I

Subject: DMEA-2612 (Copper)
Granore Company, Assignee
Sunset (Index) Mine
Snohomish County, Washington
Amended Contract Idm-1489

There is enclosed a Report of Royalty Review dated September 11, 1962, covering the subject contract for the period September 9, 1959, through August 28, 1962.

One copy of the Report has been retained in the Regional Office files. Since the Report is for record purposes only, no copy for the Operator was provided.

D. R. MacLaren

Enclosure

DRMacLaren:mg
cc: CAAA Div., OME
OME,CFF
Reading copies to:
Nolan
McKelvey

September 11, 1962

Memorandum

To: Acting Field Officer, Region I

From: E. D. Talbert, Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: IMEA-2612 (Copper)
Gramore Company, Assignee
Sunset (Index) Mine
Snohomish County, Washington
Amended Contract Idm-5489

The original and one copy of a Report of Royalty Review covering the subject contract are enclosed. If you concur in the facts stated therein, please make the following distribution:

(a) Original to the Fiscal Section, Division of Administrative Services, Office of the Secretary, Department of the Interior, Washington 25, D. C.; and

(b) One copy for your files.

This Report of Royalty Review is made for record purposes only; therefore, no copy for the Operator is provided.

As evidence of your concurrence, a copy of your memorandum transmitting the original report to the Fiscal Section should be furnished this Division. If for any reason you do not concur, both copies of the report should be returned to this Division with your comments.

Enclosures

EDTalbert/ama 9-11-62

cc:
Docket
Director's Reading File
CA & A Division
Fiscal Section

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Office of Minerals Exploration, Washington, D. C., pertaining to Amended Contract No. Idm-E489, Docket No. DMEA-2612 (Copper), dated as of February 20, 1953, with

Cranore Company
1640 Exchange Building
Seattle, Washington
Assignee of
Index Mining Company

for the purpose of determining the amount of royalty due the U. S. Government on sales of minerals from property referred to as Sunset Mine located in Snohomish County, Washington, during the period February 20, 1953, through September 8, 1959.

A certification of discovery or development was issued on March 26, 1956, and, in accordance with Articles 7 and 11 of the contract royalty is payable on all minerals mined or produced from the land described in Article 2 of the contract for a period of 12 years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A Report of Review in lieu of final cost audit dated December 6, 1955, indicated accepted costs under the exploration contract amounting to $114,840.00 with the Government's contribution, on a 50 percent basis, being $57,420.00.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(1) The mine has not been operated since completion of the exploration;
(2) Semi-annual reports by representatives of the Field Team, Region I, and other documents in the files do not disclose any production or sales of minerals from this property subject to Government royalty during the exploration period or subsequent thereto; and
(3) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible royalty which might be disclosed.

The review indicated that there has not been any production or sales of minerals from the land described in Article 2 of the amended contract since February 20, 1953, and no royalty is due the Government.

C. E. Fisher

October 12, 1959 C. E. Fisher, OME Auditor

OME Form 22
April 59

DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

CHECK SHEET OF EXAMINING ENGINEER

Operator's Name Granore Company (assignee of Index Mining Co.)

Address 1640 Exchange Building

Seattle 4, Washington

Exploration Contract No. Idm-2489 Docket No. DMEA-2612

		Check One Yes	Check One No.
1.	(a) Does the Operator stockpile ore subject to royalty repayment?		X
	(b) If so, is segregation and identification procedure adequate?		
2.	(a) Does Operator commingle production subject to DMEA or OME royalties with exempt production?		X
	(b) If so, do you consider the allocation of the commingled production equitable?		
3.	(a) Does the Operator stockpile mine or mill rejects (low grade ore, tailing, middlings, etc.) that may have potential value within the royalty payment period?		X
	(b) If so, are adequate records maintained on such material to protect the Government's interest?		
4.	Do you consider the assay controls in effect are adequate?	X	
5.	Do you consider that the manner of disposing of production gives the Government its fair royalty returns?	X	
6.	Do your periodic examinations of operations indicate the Operator is properly reporting his production of ores subject to DMEA or OME royalties?	X	
7.	Does the Operator buy from or sell to other Operators?		X
8.	Comment on any item 2 (b) to 6 if answer is No.		

Property inactive.

September 8, 1959
Date

S. W. Zoldok
Mining Engineer
S. W. Zoldok

53362

REPORT
OF REVIEW

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

RECEIVED
DEC - 9 1955

I have reviewed the Monthly Reports of:

Granore Company, Assignee
1640 Exchange Building
Seattle 4, Washington
and
Index Mining Co., Assignor
2430 Monte Vista Place
Seattle 99, Washington

pertaining to Exploration Project Contract No. Idm-E489, Docket No. DMEA 2612, dated February 20, 1953, including Amendment No. 1 which is superseded in all respects by the Amended Exploration Project Contract No. Idm-E489, Docket No. DMEA 2612, dated as of February 20, 1953, without amendment, for the period of February 20, 1953 to October 20, 1955, covering a project for the exploration of copper on property known as the Sunset Mine, located in Snohomish County, State of Washington.

My review included an examination of the Monthly Reports (Forms MF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, consultation with the Government representative who visited and examined the project, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the following reason:

All of the costs incurred were under a contract provision for payment by the Government on the basis of fixed unit costs of work actually performed.

The review disclosed the following facts in regard to the amount paid or to be paid the contractor:

Total Cost as billed by Contractor	$120,459.60
Exceptions (Schedule attached)	5,619.60
Total Accepted Cost	$114,840.00

The contract calls for a 50 percent participation of exploration expenses by the United States Government. Therefore, payment to the Contractor by the Government in the amount of Fifty seven thousand four hundred and twenty and 00/100 Dollars

--$57,420.00--

is considered valid and proper, provided that the Regional Executive Officer, the Administrator, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

C. A. Turner

C. A. Turner, Auditor

December 6, 1955

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DEC - 9 1955

SCHEDULE OF EXCEPTIONS

Granore Company DMEA-2612 Idm-E489

Claimed on Final MF-104 dated October 1955

Geophysical Survey		$ 3,000.00	
Trenching		1,500.00	
Diamond Drilling	16,472.8 ft. @ $7.00	115,309.60	
Chemical Analyses	325 @ $2.00 each	650.00	
			$120,459.60

Work Authorized by Contract

Geophysical Survey		$ 3,000.00	
Trenching		1,500.00	
Diamond Drilling	15,670 ft. @ $7.00	109,690.00	
Chemical Analyses	325 @ $2.00 each	650.00	
			114,840.00

Disallowed by Audit

Diamond Drilling in excess of the maximum provided by the contract	802.8 ft. @ $7.00	$ 5,619.60

C. A. Turner, Auditor

December 6, 1955

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

DEC - 9 1955

Mr. Charles A. Turner
DMEA Auditor
1201 North Division Street
Spokane 2, Washington

Re: Report of Review
IGm-2489, DMEA-2612
Grumore Company, Assignee
Index Mining Co., Assignor

Dear Charlie:

Receipt is acknowledged of the Washington copies of your Report of Review covering the referenced contract.

The regional copies of the report undoubtedly have been distributed; however, you should arrange to make the following corrections on all the copies:

(1) Delete the word "The" in the title of the Assignor; and

(2) Add the words "as of" after the word "dated" in the third line immediately following the title of the exploration project contract.

The Washington copies have been corrected.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

WBorovies/wb
December 9, 1955

Copy to: Docket
Admr. Reading File
Mr. Chambers

XXXXXXXXXXXXXXXXXX
1201 N. Division Street
Spokane 2, Washington
October 25, 1955

Granore Company
1640 Exchange Building
Seattle 4, Washington

Re: Contract No. Idm-E489
Docket No. DMEA 2612
Monthly operating report
for September 1955

Gentlemen:

The subject operating report has been received and processed for payment.

This is to inform you that payment could not be made in the full amount claimed. The deletion is explained in the attached copy of a memorandum to the Field Team from the DMEA Certifying Officer, Region I. You will also note that we are withholding $3,400.00 from the payment due you under the September 1955 MF-104. This is standard procedure for all contracts as the work nears completion or is completed. We are obliged to withhold a portion of the Government's contribution to project costs pending receipt of a final engineering report from the operator and a final accounting.

By Field Team, Region I, NW District

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

cc: DMEA (2)
USGS (2)

Wing G. Agnew, Member
U. S. Bureau of Mines

DMEA Field Team, Region I, NW District October 25, 1955

DMEA Certifying Officer, Region I

Contract No. Idm-E489, Granore Company. Monthly operating reports for August and September 1955.

A payment of $3,400.00 has been made to the operator, which is the amount withheld under Voucher No. 1611 when settlement was made for the Government's share of costs approved for August 1955. This completes payment of the Government's contribution under the August 1955 MF-104.

The operating report for September 1955 has been received and processed for payment.

The operator has claimed costs in excess of the amount allowed by the contract; therefore, 580.8 ft. of diamond drilling at $7.00 per foot, or $4,065.60, has been deducted and the September 1955 MF-104 has been approved in the amount of $13,574.40.

As the contract work has been completed, we are withholding $3,400.00 from the payment due the operator for costs claimed on the September 1955 voucher pending receipt of a final engineering report from the operator evaluating the results of the project work and final accounting.

Myrtle Purdy

cc: Operator
DMEA (2)
USGS

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

Budget Bureau No. 42-R1036.5

RECEIVED
DEC 20 1955

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

Month of October, 1955 Docket No. DMEA 2612 Contract No. Idm E489
Operator's Name Granore Company Minerals Copper
Address 1040 Exchange Building, Seattle 4, Wash.
Contract Amount, $ 115,000.00 Government Participation 50% % Amount, $ 57,500.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	1,519.00	113,790.60	115,309.60	-0-	109690.00	109690.00
Bulldozing		1,500.00	1,500.00		1500.00	1500.00
Crosscutting						
Drifting						
Geophysical Survey		3,000.00	3,000.00		3000.00	3000.00
(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		650.00	650.00		650.00	650.00
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS		118,940.60	120,459.60	-0-	114840.00	114840.00

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

Date Oct. 20, 1955 Payee GRANORE COMPANY

Per [signature] Title Vice 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 MEP
(Authorized Certifying Officer)

Date ..... Vou. No. .....
(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 489 in accordance with the terms of the contract.

Signature /S/ Elwin A. Magill Title Mining Engr Date 11-3-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W. Zoldok Title Mining Engr Date 12-15-55

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 ME-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
DEC 20 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 195 5 Docket No. DMEA 2612 Contract No. Idm E489

Operator's Name Granore Company Minerals Copper

Address 1640 Exchange Building, Seattle 4, Washington

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								
Crosscutting								
Raising								
Shafts								
Winzes	Ft.	1,519.00	217'	119,309.60	16,472.0	7.00		
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching				1,500.00				
Chem. Analysis Test Pits	each	-	-	650.00	325	2.00		
Roads and Trails								
Geophysical Survey				3,000.00				
TOTAL DISTRIBUTED COSTS		1,519.00		120,459.60				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		1,519.00		120,459.60				

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 Oct. 20, 1955 Operator GRANORE COMPANY

Per [signature] Title Vice 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)

/s/ Stephen W Goldok

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

GRANORE COMPANY

1640 Exchange Building
Seattle 4, Washington

RECEIVED
DEC 20 1955

Oct. 20, 1955

The United States Department of the Interior
Defense Minerals Exploration Administration
Federal Office Building
Seattle 4, Washington

Attention: Mr. Magill

Re: Docket No. DMEA-2612
Contract No. IDM-E489

Gentlemen:

The following report covers progress at The Index Mine for the period October 1st to 5th, 1955.

Footage drilled was 217 feet.

Hole S-20, started last month was completed at 591'. No mineralization was encountered.

The drilling equipment has been removed from the property.

Respectfully submitted,

/S/ J. M. Stitt
Manager

I hereby certify this to be
a true and correct copy.

Robert M. MacRae, Vice President

DIAMOND DRILL HOLE RECORD

GRANORE COMPANY

PROPERTY: INDEX MINE

DIP TESTS					
FOOTAGE	ANGLE RECORDED	ANGLE CORRECTED	LEVEL SURFACE	LAT. 12,071.86 N	HOLE No. S - 20
			LOCATION	DEP. 15,273.28 E	SHEET No. 1
COLLAR	BRUNTON	-30°	ELEVATION 1732.76	BEARING N 34-34 E	LOGGED BY JMS
			FINISHED OCT. 4, 1955	LENGTH 591'	TOTAL RECOV. 90.28 %

FOOTAGE FROM	FOOTAGE TO	ROCK TYPE	MINERALIZATION	DESCRIPTION
0	10			Overburden
10	37			"Bx" Core Unalt. Grd.
37	116			"Ax" Core Unalt. Grd Slightly chloritized
				fracture 41-44 ∠ 10°
116	118			Light pinkish aplite dyke.
118	[illegible]			Unalt. Grd
202	203			Grd, with slightly rusted fractures at 2" intervals
203	208.5			Grd - slightly bleached
208.5	291			Unalt. Grd
291	320			Unalt. Grd, cut by slightly rusted fractures
				at intervals of 2" to 1'
320	445			Unalt. Grd.
445	448			Grd, with inclusions of f.g. lighter and darker rock.
448	448.2			Zone of pinkish feldspars [illegible] with [illegible]
				of epidote.
448.2	525.1			Unalt. Grd. 1" band of [illegible] at 493'
525.1	525.2			Light grey f.g. aplite dyke.
525.2	591			Unalt. Grd 1" band pink feldspars with chloritized
				stringers. Fracture with hematite at 579.8 ∠ 40°
				591 END OF HOLE.

CORE ASSAYS SAMPLE NO.	FROM	TO	% CU.	OZ. AU.	OZ. AG	AVERAGE

SLUDGE ASSAYS SAMPLE NO.	FROM	TO	% CU.	OZ. AU.	OZ. AG.
				RUN	SHORT
			574.1	577.7	0
			577.7	579.6	0
			579.6	581	1.7
					54.8

RECOVERY RUN	RECOVERY SHORT	RECOVERY RUN	RECOVERY SHORT
27.37	.0	297.6	.1
44.3	.1	322.2	.2
51.8	0	[illegible]	0
60.4	.4	[illegible]	[illegible]
69.2	1.0	322.9	.1
76.4	0	327.2	.1
77.8	0	330.3	[illegible]
84.5	.8	[illegible]	[illegible]
93.5	1.0	346.7	[illegible]
101.5	1.4	[illegible]	[illegible]
109.7	0	[illegible]	[illegible]
118.2	0	366.7	1.1
[illegible]	.2	374.3	.1
134.6	0	[illegible]	0
143.[illegible]	.2	[illegible]	0
151.7	.4	399.0	0
[illegible]	0	406.7	.1
168.8	.4	415.2	.1
175.7	0	422.6	.1
183.5	.0	430.8	0
[illegible]	.0	439.3	.3
[illegible]	.4	444.8	.7
[illegible]	.5	453.1	0
[illegible]	.7	461.3	0
[illegible]		464.7	0
[illegible]	[illegible]	[illegible]	0
[illegible]	.1	481.1	0
223.6	.7	[illegible]	
227.5	[illegible]	[illegible]	0
235.[illegible]	0	[illegible]	0
[illegible]	[illegible]	514.2	0
[illegible]	[illegible]	[illegible]	.4
[illegible]	[illegible]	[illegible]	.6
[illegible]	[illegible]	533.2	0
264.2	[illegible]	546.1	1.2
274.3	.1	[illegible]	0
282.7	.6	[illegible]	2.7
[illegible]	[illegible]	[illegible]	[illegible]
		←	

COLUMBIA PRINTING CO

Standard Form No. 1034a—Revised
Form prescribed by
Comptroller General, U. S.
September 7, 1950
(Gen. Reg. No. 51, Supp. No. 11)

PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

D. O. Vou. No. ____

Bu. Vou. No. 1667

U. S. _____
(Department, bureau, or establishment)

Voucher prepared at Spokane 12/15/55
(Give place and date)

THE UNITED STATES, Dr., Payee's Account No. Idm-E489

To Granore Company
(Payee)

1640 Exchange Building, Seattle 4, Washington
(Address) (City) (State)

PAID BY

(For use of Paying Office)

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary) Discount Terms	QUANTITY	UNIT PRICE Cost	UNIT PRICE Per	AMOUNT Dollars	AMOUNT Cts.
	September 1955	Balance withheld under Voucher #1629 dated 10/24/55				3,400	00
PAYMENT: Complete ☐ Partial ☐ Final ☐		FINAL PAYMENT					
		Use continuation sheet(s) if necessary					

Shipped from to Weight Government B/L No. Total 3,400.00

(Payee must NOT use this space)

Differences

Account verified; correct for 3,400.00

(Signature or initials) MEP

Contract No. Date Req. No. Date Invoice Rec'd.

3,400.00

MEMORANDUM

ACCOUNTING CLASSIFICATION (For completion by Administrative Office)

Appropriation, limitation, or project symbol	Appropriation title	Limit'n. or Proj't. Amount	Appropriation Amount
14X4401	Revolving Fund, Defense Minerals Production Act, Interior	$3,400.00	$3,400.00

Allotment symbol	Amount	Obligations liquidated	COST ACCOUNT Symbol	COST ACCOUNT Amount	OBJECTIVE CLASSIFICATION Symbol	OBJECTIVE CLASSIFICATION Amount
1XXXXXX						

Paid by { Check No. ____ dated ____, 19____, for $____ on Treasurer of the United States in favor of payee named above.
Cash, $____, on ____, 19____.

16—22900a-2

METHOD OF OR ABSENCE OF ADVERTISING

METHOD OF ADVERTISING

1. Advertising in newspapers Yes ☐ No ☐.
2. (*a*) Advertising by circular letters sent to ..... dealers.
   (*b*) And by notices posted in public places Yes ☐ No ☐.

   (If notices were not posted in addition to advertising by circular letters sent to dealers, explanation of such omission must be made below.)

ABSENCE OF ADVERTISING

3. Without advertising, under an exigency of the service which existed prior to the order and would not admit of the delay incident to advertising.
4. Without advertising in accordance with .....
5. Without advertising, it being impracticable to secure competition because of .....

.....

.....

.....

.....

(Here state in detail the nature of the exigency or circumstances under which the securing of competition was impracticable under 3 and 4)

NOTE.—The above form "Method of or Absence of Advertising" is to be used when purchases are made or services secured under proper authority without written agreement in any form. In case of a written agreement (formal contract, proposal, and acceptance, or less formal agreement) Standard Form No. 1036—Revised should be used for abstracting the method of or absence of advertising and award of contract. (See General Regulations No. 51, as amended.)

U. S. GOVERNMENT PRINTING OFFICE : 1950 O—75805

16—22000a-2

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

Budget Bureau No. 42-R1036.5

RECEIVED
OCT 31 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September 5, 195 Docket No. DMEA 2612 Contract No. Idm.E489

Operator's Name Granore Company Minerals Copper

Address 1640 Exchange Building, Seattle 4, Washington

Contract Amount, $ 115,000.00 Government Participation: 50 % Amount, $ 57,500.00

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	17,640.00	96,150.60	113,790.60	13574.40	96115.60	109690.00
Bulldozing		1,500.00	1,500.00		1500.00	1500.00
Crosscutting						
Drifting						
Geophysical Survey		3,000.00	3,000.00		3000.00	3000.00
(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		650.00	650.00		650.00	650.00
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS		101,300.60	118,940.60	13574.40	101265.60	114840.00

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

Date Oct. 13, 1955 *Payee GRANORE COMPANY

Per [signature] Title Vice 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)

Approved
Withheld

6787.20
3400.00
3387.20

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

$ 3387 20

Signature [signature]
(Authorized Certifying Officer)

Date 10/24/55 Vou. No. 1629
(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. 489 in accordance with the terms of the contract.

Signature Clarence A. Magill Title Mining Engr Date Oct 17, 1955

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature (S) Stephen W. Goldich Title Mining Engr Date 10-20-55

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

RECEIVED
OCT 31 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 1955 Docket No. DMEA 2612 Contract No. Idm. E489
Operator's Name Granore Company Minerals Copper
Address 1640 Exchange Building, Seattle 4, Wash.

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								
Crosscutting								
Raising								
Shafts								
Winzes		13 574.40	1939.2	109 690.00	15 670.0			
Drilling: Core Ft.	Ft.	~~17,640.00~~	~~2520'~~	~~113,790.60~~	~~16,255.8~~	7.00	7225	underground
Churn							8445	surface
Auger								
Stripping								
Trenching				1,500.00				
Test Pits Chem. Analysis	each	-		650.00	325	2.00	405	new work at 2.00 each
Roads and Trails								
Geophysical Survey				3,000.00				
TOTAL DISTRIBUTED COSTS		13 574.40 ~~17,640.00~~		114 840.00 ~~118,940.60~~				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		13 574.40 ~~17,640.00~~		114 840.00 ~~118,940.60~~				115000.00

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 Oct. 13, 1955 Operator GRANORE COMPANY

Per [signature] Title Vice 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)

151 Stephen W Zoldok

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

GRANORE COMPANY

1640 Exchange Building
Seattle 4, Washington

RECEIVED
OCT 31 1955

Oct. 13, 1955

The United States Department of the Interior
Defense Minerals Exploration Administration
Federal Office Building
Seattle 4, Washington

Attention: Mr. Magill

Re: Docket No. DMEA-2612
Contract No. Idm-E489

Gentlemen:

The following report covers progress at the Index Mine for the month of September, 1955.

Footage Drilled

Surface 2520 Ft.
There was no underground drilling during the month.

Surface Drilling

One drill is operating on two shifts per day. The average footage drilled per shift, exclusive of overburden, was 29 feet. One hole, D.D.H. S-15 was drilled to 84 ft. in overburden. The depth of overburden on the remainder ranged from 13' to 26' with an average of 22'.

The best assay from the mineralized zone in D.D.H. S-14, which was drilled last month, showed 0.62% cu. over 1.0'.

D.D.H. S-15 was collared 200 ft. east of 2-Level portal and directed towards Trout Creek at -45°. It was designed to intersect a possible extension of the mineralized zone located in D.D.H. 2-13. At 84 feet the hole was still in overburden and it was impossible for the contractor to drill any further. A search of the area within a radius of 500 feet of the portal failed to locate a place where another hole could be collared with a reasonable expectation of intersecting the same zone.

Beyond the eastern end of the mine workings, three holes were drilled in the same vertical plane designed to give a continuous cross-section. The first of these, D.D.H. S-13, intersected a zone that assayed 3.20% across 1.0', at 309'. The wall rock on either side of this intersection assayed 0.15% cu. or lower.

The upper hole, D.D.H. S-17, did not intersect anything of commercial interest--- the best assay being 0.65% of cu. across 5.3'. The lower hole, D.D.H. S-19 did not intersect any mineralized zones.

Two holes were drilled to check the mineralized zone found in D.D.H. S-13. D.D.H. S-16, collared 200 feet westerly from D.D.H. S-13, intersected a zone that assayed 2.30% over 1.5'. D.D.H. S-18, collared 200 feet easterly from D.D.H. S-13, intersected a similar zone but the highest assay obtained was 0.22% over 10.5'.

D.D.H. S-20 was collared in September and at the end of the month was at 374'. This hole was designed to provide an intersection below a small, lightly mineralized outcrop on the surface, and also to test the rock below the easternmost anomaly of the resistivity survey. No mineralization has been encountered to date.

Respectfully submitted,

/S/ J. M. Stitt
Manager

I hereby certify this to be a true and correct copy.

Robert M. MacRae, Vice President

Standard Form No. 1034a—Revised
Form prescribed by
Comptroller General, U. S.
September 7, 1950
(Gen. Reg. No. 51, Supp. No. 11)

PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

D. O. Vou. No. .....

Bu. Vou. No. 1628

U. S. .....
(Department, bureau, or establishment)

Voucher prepared at Spokane 10/24/55
(Give place and date)

THE UNITED STATES, Dr., Payee's Account No. Idm-2489

To Granore Company
(Payee)

1640 Exchange Building (Address) Seattle 4, Washington (City) (State)

PAID BY

(For use of Paying Office)

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary) Discount Terms	QUANTITY	UNIT PRICE Cost	UNIT PRICE Per	AMOUNT Dollars	AMOUNT Cts.
	August 1955	Amount withheld under Voucher #1611 on Aug. 1955 MF-104 dated 9/13/55				3,400.00	
PAYMENT: Complete ☐ Partial ☐ Final ☐		Use continuation sheet(s) if necessary					

Shipped from to Weight Government B/L No. Total 3,400.00

(Payee must NOT use this space)

Differences .....

Account verified; correct for .....

(Signature or initials) M.A.P. 3,400.00

Contract No. Date Req. No. Date Invoice Rec'd.

MEMORANDUM

ACCOUNTING CLASSIFICATION (For completion by Administrative Office)

Appropriation, limitation, or project symbol	Appropriation title	Limit'n. or Proj't. Amount	Appropriation Amount
14x4401	Revolving Fund, Defense Minerals Production Act, Interior	$3,400.00	$3,400.00

Allotment symbol	Amount	Obligations liquidated	COST ACCOUNT Symbol	COST ACCOUNT Amount	OBJECTIVE CLASSIFICATION Symbol	OBJECTIVE CLASSIFICATION Amount

Paid by { Check No. ..... dated ....., 19....., for $..... } on Treasurer of the United States in favor of payee named above.
{ Cash, $....., on ....., 19.....

16—22900a-2

METHOD OF OR ABSENCE OF ADVERTISING

RECEIVED
OCT 31 1955

METHOD OF ADVERTISING

1. Advertising in newspapers Yes ☐ No ☐
2. (*a*) Advertising by circular letters sent to ..... dealers.
   (*b*) And by notices posted in public places Yes ☐ No ☐.

   (If notices were not posted in addition to advertising by circular letters sent to dealers, explanation of such omission must be made below.)

ABSENCE OF ADVERTISING

3. Without advertising, under an exigency of the service which existed prior to the order and would not admit of the delay incident to advertising.
4. Without advertising in accordance with .....
5. Without advertising, it being impracticable to secure competition because of .....

.....

.....

.....

.....

(Here state in detail the nature of the exigency or circumstances under which the securing of competition was impracticable under 3 and 4)

NOTE.—The above form "Method of or Absence of Advertising" is to be used when purchases are made or services secured under proper authority without written agreement in any form. In case of a written agreement (formal contract, proposal, and acceptance, or less formal agreement) Standard Form No. 1036—Revised should be used for abstracting the method of or absence of advertising and award of contract. (See General Regulations No. 51, as amended.)

☆ U. S. GOVERNMENT PRINTING OFFICE : 1950 O—75805

16—22000a-2

RECEIVED
OCT 30 1955

DMEA Field Team, Region I, Rk District October 25, 1955

DMEA Certifying Officer, Region I

Contract No. Ida-E40, Granore Company. Monthly operating reports for August and September 1955.

A payment of $3,400.00 has been made to the operator, which is the amount withheld under Voucher No. 1611 when settlement was made for the Government's share of costs approved for August 1955. This completes payment of the Government's contribution under the August 1955 MF-104.

The operating report for September 1955 has been received and processed for payment.

The operator has claimed costs in excess of the amount allowed by the contract, therefore, 560.8 ft. of diamond drilling at $7.00 per foot, or $4,065.60, has been deducted and the September 1955 MF-104 has been approved in the amount of $13,574.40.

As the contract work has been completed, we are withholding $3,400.00 from the payment due the operator for costs claimed on the September 1955 voucher pending receipt of a final engineering report from the operator evaluating the results of the project work and final accounting.

Myrtle Purdy

cc: Operator
DMEA (2)
USGS
Wash. (2)
Engineer
AD

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
SEP 26 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August, 1955 Docket No. DMEA 2612 Contract No. Idm E 489
Operator's Name Granore Company Minerals Copper
Address
Contract Amount, $ 115000.00 Government Participation: 50 % Amount, $ 57,500

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	34,461.00	61,689.60	96,150.60	34426.00	61689.60	96115.60
Bulldozing		1,500.00	1,500.00		1500.00	1500.00
Crosscutting						
Drifting						
Geophysical Survey		3,000.00	3,000.00		3000.00	3000.00
(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	200.00	450.00	650.00	200.00	450.00	650.00
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	34,661.00	66,639.60	101,300.60	34626.00	66639.60	101265.60

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

Date Sept. 13, 1955 Payee Granore Company

Per Robert M. MacRae Title Vice 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)

approved amt 17313.00
withheld 3400.00
13913.00

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

$ 13913.00

Signature M. Op
(Authorized Certifying Officer)

Date 9-21-55 Vou. No. 1611
(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. 489 in accordance with the terms of the contract.

Signature Elmer A Magill Title Mining Engineer Date Sept 16 1955

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 151 Stephen W Goldoft Title Mining Engr Date 9-30-55

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
SEP 26 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 1955 Docket No. DMEA 2612 Contract No. Idm E 489
Operator's Name Granore Company Minerals Copper
Address 1640 Exchange Building, Seattle 4, Wash.

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								
Crosscutting								
Raising								
Shafts								
Winzes		426.00		96115.60	13738.8			
Drilling: Core	Ft	~~34,461.00~~	4923	96,150.60	~~13,735.8~~	7.00	7225	underground
Churn							8445	surface
Auger								
Stripping								
Trenching				1,500.00				
Test Pits Chem.Analysis	each	200.00	100	650.00	325	2.00	405	2.00 ea (new work)
Roads and Trails								
Geophysical Survey				3,000.00				
TOTAL DISTRIBUTED COSTS		~~34,661.00~~ 34626.00		~~101,300.60~~ 101265.60				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		~~34,661.00~~ 34626.00		~~101,300.60~~ 101265.60				115000.00

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 Sept. 13, 1955 Operator Granore Company

Per Robert M. MacRae Title Vice-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)

151 Stephen W Zoldok

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

Elliott 5133

GRANORE COMPANY

1640 Exchange Building
Seattle 4, Washington

RECEIVED
SEP 26 1955

Sept. 13, 1955

The United States Department of the Interior
Defense Minerals Exploration Administration
Federal Office Building
Seattle 4, Washington

Re: Docket No. DMEA-2612
Contract No. Idm-E489

Attention: Mr. Magill

Gentlemen:

The following report covers progress at the Index Mine for the month of August, 1955.

Footage Drilled

Underground	2567 Ft.
Surface	2356 Ft.
Total	4923 Ft.

Underground Drilling

The program of underground diamond drilling was completed this month. D.D.H.s 2-13 to 2-17 inclusive were drilled. Because of the high cost compared to the uncertain information obtainable, it was decided not to drill the two long holes proposed to test the Sunset vein at depth. The compressor and underground drilling equipment have been removed from the property.

D.D.H.2-13, drilled at -30° to test the area under Trout Creek, intersected two slightly mineralized zones as follows:

From	To	Length	% Cu.
571.5'	574.8'	3.3'	0.96
574.8'	589.0'	14.2'	0.09
718.5'	722.9'	4.4'	0.67
722.9'	725.1'	2.3'	Basic Dyke
725.1'	728.1'	3.0'	0.19

Although these zones are much below ore grade, they are interesting because of their similarity to other mine structures; both lying along basic dykes. Also, they show a possibility of ore in a hitherto unexplored area. Two holes from surface are planned to further investigate this occurrence.

D.D.H. 2-14, drilled at -30° in the same vertical plane as 2-4, did not find a downward continuation of the ore intersected by 2-4. The section which correlated with the intersection (6.4' of 5.96%) in 2-4 showed only barren alteration. The second vein assayed 0.90% for 2.7' and 0.34% for 6.0' (See section)

D.D.H. 2-15 was drilled to the northeast from the Little Copper King drift to test for veins parallel to the mine structure. Except for a few hairlike stringers of bornite close to the Little Copper King vein, the hole was barren.

D.D.H. 2-16 and 2-17 were drilled to search for extensions of the Blank and Little Copper King veins. Although both the vein structures appear continuous, no mineralization of mining width and grade was found.

Surface Drilling

Two drills are operating on two shifts each. One hole, S-14, was collared on bedrock. The average depth of overburden on the remainder was 23 feet.

D.D.H. S-10, S-11 and S-12, part of the group of five holes to explore at depth the vein found by U.S.B.M. drilling, were completed. S-10 cut 4.1' of ore grading 7.88% cu. This intersection is 108' down the dip of the vein below the intersection (6.4' of 5.67%) in U.S.B.M. hole No. 7 and is 100' east of the ore found in D.D.H.s S-8 and U.S.B.M. No. 3. D.D.H. S-12, 100' east of S-10 showed only a zone of barren chloritic alteration, as did U.S.B.M. No. 8. D.D.H.s S-9 and S-11, on the west end of the zone, were also barren.

This zone, therefore, has a possible length of 200' with a grade and true width (based on four drill holes) of 7.47% across 4.7', and a depth of 260' down the dip of the vein. Assuming the ore to extend 50 feet below the lowest drill holes, the possible tonnage developed would be 25,000 tons.

To obtain a continuous section across the mine structure, D.D.H. S-12 was continued to a depth of 747' and S-14 was drilled to section with it to a depth of 436'. S-12 intersected a zone of very low grade copper mineralization from 569' to 586.5' (11' of 0.08% and 6.5' of 0.03%) which might be the Sunset vein. S-14 intersected a zone of slightly mineralized chloritic alteration with a basic dyke in the center. This zone is likely the Copper King vein. No assays have been received todate on this material.

D.D.H. S-13 is being drilled east of the mine workings and had reached a depth of 714'. It is part of a group of three holes designed to give a continuous section across the eastern extension of the mine structure. A zone of alteration with slight copper mineralization was encountered from 304' to 325'. No assays are yet available on this zone. A drill hole on either side of S-13 is planned to further explore this mineralization.

Yours very truly,

/S/ J. H. Parliament, P. Eng.
Chief Engineer

I hereby certify this to be
a true and correct copy.

Vice President

DMEA Field Team, Region I, NW District September 21, 1955

DMEA Certifying Officer

RECEIVED
SEP 26 1955

Contract Idm-E489, Granore Company. Monthly operating report for August 1955

The subject operating report has been received and processed for payment.

A difference of 5 feet was found in the total footage accomplished to date and a check revealed that this was apparently due to an error in addition in the narrative report accompanying the July MF-104. Under "Footage Drilled" the Operator shows

Underground	2371 ft.
Surface	1583 ft.
	3959 ft.

The total of 3959 ft. was carried to the MF-104A and charges were made accordingly. We have disallowed this 5 feet at the rate of $7.00 per foot, or $35.00. If the operator finds that the actual footage claimed for either underground or surface drilling is incorrect and that the error is not merely one in addition, he may reclaim the amount disallowed.

We are withholding an amount of $3,400.00, as the project is nearing completion.

Myrtle Purdy

cc: DMEA (2)
USGS (2)
Wash. 2
Engr.
AD

XXXXXXXXXXXXXXXXXX
1201 N. Division St.
Spokane 2, Washington
September 21, 1955

RECEIVED
SEP 26 1955

Granore Company
1640 Exchange Building
Seattle 4, Washington

Re: Contract Idm-E489
Granore Company
Operating report for
August 1955

Gentlemen:

The subject operating report has been processed and forwarded to the Disbursing Officer in Portland, Oregon, for payment.

This is to inform you that payment could not be made in the full amount claimed. The amount disallowed is explained in the attached copy of a memorandum to the Field Team from the DMEA Certifying Officer, Region I.

We are withholding a portion of the payment due you as the project is nearing completion. This is standard procedure for all contracts. We are obliged to withhold a portion of the Government's contribution to the cost pending final accounting, and receipt of a final engineering report.

By Field Team, Region I
Northwest District

Verne C. Fryklund, Jr., Acting
Executive Officer
U. S. Geological Survey

cc: DMEA (2)
USGS (2)

Stephen W. Zoldok, Acting Member
U. S. Bureau of Mines

RECEIVED
SEP 26 1955

DMEA Field Team, Region I, NW District

September 25, 1955

DMEA Certifying Officer

Contract Idm-E489, Granore Company. Monthly operating report for August 1955

The subject operating report has been received and processed for payment.

A difference of 5 feet was found in the total footage accomplished to date and a check revealed that this was apparently due to an error in addition in the narrative report accompanying the July MF-104. Under "Footage Drilled" the Operator shows

Underground	2371 ft.
Surface	1583 ft.
	3959 ft.

The total of 3959 ft. was carried to the MF-104A and charges were made accordingly. We have disallowed this 5 feet at the rate of $7.00 per foot, or $35.00. If the operator finds that the actual footage claimed for either underground or surface drilling is incorrect and that the error is not merely one in addition, he may reclaim the amount disallowed.

We are withholding an amount of $3,400.00, as the project is nearing completion.

Myrtle Purdy

cc: DMEA (2) ✓
USGS (2)

Form MF-124 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
AUG 23 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1955 Docket No. DMEA 2612 Contract No. Idm 489

Operator's Name Granore Company Minerals Copper

Address 1640 Exchange Building, Seattle 4, Washington

Contract Amount, $ Government Participation: % Amount, $57,500

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	27,713.00	33,976.60	61,689.60			
Bulldozing		1,500.00	1,500.00			
Crosscutting						
Drifting						
Geophysical Survey		3,000.00	3,000.00			
(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	210.00	240.00	450.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	27,923.00	38,716.60	66,639.60	27923.00	38716.60	66639.60

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

Date Aug. 11, 1955 *Payee GRANORE COMPANY

Per [signature] Title Vice-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:

$13961 50

Signature [signature]
(Authorized Certifying Officer)

Date 8-17-55 Vou. No. 1580

(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 489 in accordance with the terms of the contract.

Signature 1S1 Elvin A. Magill Title Mining Engr. Date 8-15-55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 1S1 Stephen W. Zaldok Title Mining Engr. Date 8-16-55

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

RECEIVED
AUG 26 1955

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1955 Docket No. DMEA 2612 Contract No. Idm E 489

Operator's Name Granore Company Minerals Copper

Address 1640 Exchange Building, Seattle 4, Washington

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								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Ft.	27,713.00	3959'	61,639.60	8812.8	7.00		
Churn								
Auger								
Stripping								
Trenching				1,500.00				
Test Pits Chem.Analysis	each	210.00	105	450.00	225	2.00		
Roads and Trails								
Geophysical Survey				3,000.00				
TOTAL DISTRIBUTED COSTS		27,923.00		66,639.60				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		27,923.00		66,639.60				

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 August 11, 1955 Operator GRANORE COMPANY

Per [signature] Title Vice 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)

151 Stephen W Zoldok

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

Elliott 5133

GRANORE COMPANY

1640 Exchange Building
Seattle 4, Washington

Aug. 11, 1955

The United States Department of the Interior
Defense Minerals Exploration Administration
Federal Office Building
Seattle 4, Washington

Attention: Mr. Magill

Re: Docket No. DMEA-2612
Contract No. Idm-E489

Gentlemen:

The following report covers progress at the Index Mine for the month of July, 1955.

Footage Drilled

Underground	2371 ft.
Surface	1583 ft.
Total	3959 ft.

Underground Drilling

D.D.H.s 2-7 and 2-9 to 2-12 inclusive were completed and 2-13 and 2-14 are now being drilled. Two machines are operating on two shifts each. The average footage drilled per shift was 32.2'. Core recovery was about the same as last month except toward the ends of 2-9 and 2-10, where the broken ground near surface gave below average recovery.

D.D.H.s 2-9, 2-10 and 2-11, drilled to the southwest of the Sunset zone, proved practically barren. As 2-3 was also almost a blank, it was decided to omit the remaining two holes designed to further explore this area.

D.D.H. 2-12 was drilled to investigate the unexplored area to the northeast of the Copper King vein. One section, from 191.o' to 193.6' had chloritic alteration with a few grains of chalcopyrite, and a few other short sections showed barren chloritic alteration. The remainder of the hole was in unaltered granodiorite with no copper mineralization. Total core recovery was 96%.

D.D.H. 2-13, inclined at -30°, is now being drilled to the southwest to test the area under Trout Creek. To date it has reached a length of 547' and has encountered no important sections of alteration or copper mineralization.

Surface Drilling

Surface drilling has been progressing satisfactorily. One drill is operating two shifts per day and one drill on day shift only. The average footage drilled per shift, exclusive of overburden, was 32.2 feet. The depth of overburden for five holes this month ranged from 17' to 28' with an average of 20.2'. One hole, S-6 was started on bedrock.

D.D.H. S-5, the third hole of proposed Group 7, was completed. Like S-3 and S-4, S-5 showed no copper mineralization or zones of alteration. It was therefore decided to omit the fourth proposed hole of this group.

D.D.H.s S-6 and S-7, drilled to test Anomaly "D", encountered only granodiorite and aplite dykes. The remaining three holes proposed to further test this anomaly were therefore omitted.

D.D.H.s S-8, S-9, S-10 and S-11 are part of a group of five holes designed to explore at depth the vein found by U.S.B.M. drilling.

D.D.H. S-8, drilled at -30° under U.S.B.M.D.H.3 encountered an ore zone consisting of chloritic and sericitic alteration with massive chalcopyrite which assayed as follows:

From	To	Length	Cu%	Au	Ag
282	283	1.0'	13.20	0.17	0.54
283	284.8	1.8'	Barren Basic Dyke		
284.8	287.8	3.0'	14.20	0.19	0.60
287.8	291.0	3.2'	0.16		

This zone correlates with the intersection in D.H.3 (9.1' of 5.10% cu) with a dip of 80° to the north. Core recovery in the ore zone was good but below it there was considerable core loss. Unmineralized granodiorite and a section of ground, concentrated fine-grained chalcopyrite was recovered. This chalcopyrite was very likely washed down the hole from the previous ore zone.

The action of the drill water on the sericitic resulted in caving ground that made drilling impossible. The hole was reamed and cased to 300' but it had to be abandoned at 306'.

D.D.H. S-9, 100' northwest of S-8 and almost on section with U.S.B.M. D.H.s 4 and 6, did not show an ore zone similar to S-8. Chloritic alteration slightly mineralized with chalcopyrite was intersected from 285.3' to 292.0'. Only 1.2' of core was recovered from this section but the seritization and massive chalcopyrite, which usually cores fairly well, was absent.

D.D.H. S-10, 100' southeast of S-8 and D.D.H. S-11, 100' northwest of S-9, had reached depths of 135' and 28', respectively, at month's end.

Yours very truly,

/S/ J. H. Parliament, P. Eng.
Chief Engineer

I hereby certify this to be a true and correct copy.

Robert M. MacRae, Vice President

Form [illegible]-104 (Rev. [illegible]il 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

RECEIVED
JUL 25 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June, 195 5 Docket No. DMEA 2612 Contract No. Idm E-489
Operator's Name Granore Company Minerals Copper
Address 1640 Exchange Building, Seattle 4, Washington
Contract Amount, $ 115000.00 Government Participation: 50 % Amount, $ 57,500

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	29,594.60	4,382.00	33,976.60	29594.60	4382.00	33976.60
Bulldozing		1,500.00	1,500.00		1500.00	1500.00
Crosscutting						
Drifting						
Geophysical Survey		3,000.00	3,000.00		3000.00	3000.00
(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	240.00		240.00		240.00	240.00
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	29,834.60	8,882.00	38,716.60	29834.60	8882.00	38716.60

I certify that the above bill is correct and just and that payment therefor has not been received.
Date July 14, 1955 Payee Granore Company
Per [signature] Title Vice-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:

$ 14917 30

Signature [signature]
(Authorized Certifying Officer)

Date 7-22-55 Vou. No. 1569
(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. 489 in accordance with the terms of the contract.

Signature Elmer A. Magill Title Mining Engr Date July 20, 1955

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 151 Stephen W Zoldok Title Mining Engr Date 7-21-55

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.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 25 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 195 5 Docket No. DMEA 2612 Contract No. Idm E-489

Operator's Name Granore Company Minerals Copper

Address 1640 ExchangeBldg., Seattle 4, Washington

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								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Ft	29,594.60	4227.8'	33,976.60	4853.8	7.00	15620'	7.00 ft
Churn								
Auger								
Stripping								
Trenching				1,500.00				1500.00
~~Excess~~ Chem. Analyses	each	240.00	120	240.00	120	2.00	405	2.00 each
~~Test Pits~~								
Roads and Trails								
Geophysical Survey				3,000.00				3000.00
TOTAL DISTRIBUTED COSTS		29,834.60		38,716.60				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		29,834.60		38,716.60				115000.00

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 July 14, 1955 Operator Granore Company

Per [signature] Title Vice-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)

1 S1 Stephen W Goldok

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 83-38475

Elliott 5133

GRANORE COMPANY
1640 Exchange Building
Seattle 4, Washington

RECEIVED
JUL 25 1955

July 14, 1955

The United States Department of the Interior
Defense Minerals Exploration Administration
Federal Office Building
Seattle 4, Washington

Attention: Mr. McGill

Re: Docket No. DMEA-2612
Contract No. Idm-1489

Gentlemen:

The following report covers progress at the Index Mine for the month of June 1955.

Footage Drilled

Underground	2743.3 Ft.
Surface	1484.5 Ft.
Total	4227.8 Ft.

Underground Drilling

Note: The following table gives the relationship between actual D.D.H. numbers and the proposed holes on Map 50-40-1.

Actual No.	Proposed D.H. No.
2-1	P
2-2	O
2-3	E
2-4	J
2-5	H
2-6	M
2-7	K
2-8	L
2-9	I

D.D.H.s 2-1 to 2-6 inclusive and 2-8 were completed. 2-7 was drilled to 380 feet and 2-9 was started. The drilling rate per shift has improved over last month, mainly due to the shortening of the air lines as the drills move closer to the portal, and to the rearrangement of the drilling sequence. The average footage per shift was 31.8'. Two drills are operating on two shifts each.

The average core recovery underground was 90.1%. There was some core loss in a few of the zones of chloritic alteration, but the loss was not serious in most of the mineralized sections. In the heavily mineralized intersection in D.D.H.2-4 recovery was over 80%.

D.D.H.s 2-1, 2-2, 2-5 and 2-6, drilled to the southwest, cut a number of altered and mineralized zones, corresponding to those in the long crosscut. These intersections are all much below mining width and grade.

D.D.H.s 2-4, 2-7 and 2-8 are a little more encouraging. An intersection grading 5.96% Cu.for 6.4 Feet in D.D.H.2-4 and a well mineralized 4.7 foot intersection in D.D.H.2-7 are probably an extension of the Harrington Vein. An intersection fairly well mineralized for 5.7 feet in D.D.H.2-8 could be an extension of the Johnson Vein. D.D.H.2-7 is not yet deep enough to check the continuity of this zone.

In D.D.H.2-4 from 424.8' to 432.3' there are two mineralized sections (1.5' of 2.91% and 1.0' of 2.36%) seperated by 5.0' of andesite dyke. A narrow andesite dyke in D.D.H.2-8 might correlate with this dyke, but no mineralization was found near it. D.D.H.2-7 has not yet been drilled this far.

To date no assay results have been received for samples from D.D.H.s 2-7 and 2-8.

D.D.H.2-3, drilled to investigate several mineralized shears in the main crosscut, was in barren granodiorite for most of its length. A little chalcopyrite occurred from 336' to 352' but the zone is much below ore grade.

Surface Drilling

Drilling from surface is not progressing as fast as was anticipated due to a shortage of drillers. At present one drill is operating on a two shift basis and one drill on day shift only. The contractors hope to increase this to two machines on two shifts each, with a third machine on one shift piping through overburden.

The average footage drilled per shift, exclusive of overburden, was 33.6'. To date three holes were collared on bedrock and two were started in overburden. The depth of overburden in the latter was 23' and 14'.

D.D.H.s S-1 and S-2 were drilled to test the most westerly anomaly. Except where they cut narrow dykes, these holes were entirely in massive granodiorite. No copper mineralization or structure that would account for the anomaly was found.

D.D.H.s, S-3, S-4 and S-5 were drilled on the next anomaly east. D.D.H. S-3 encountered a section of unaltered granodiorite between 242' and 244.5' which contained a few 1/32 inch veinlets of chalcopyrite and assayed 0.06% copper, and at 384' there was an 1/8" fracture with chalcopyrite and bornite. The remainder of the hole was barren. D.D.H. S-4 and the part of S-5 drilled to date are devoid of mineralization. No fractures or zones of alteration or anything to account for the anomaly were found. The complete absence of chloritic alteration zones, so numerous in the underground holes, is very noticeable in the surface holes drilled to date.

The present plan for the surface drilling is to complete Group 7 (on the surface map) and then move the drills to Group 8.

Yours very truly,

/S/ J. H. Parliament, P. Eng.
Chief Engineer

I hereby certify this to be a true and correct copy.

Vice President

Form MF-[illegible] (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED

Month of May, 1955 Docket No. DMEA 2612 Contract No. Idm 5 E-489
Operator's Name Granore Company Minerals Copper
Address 1640 Exchange Building, Seattle 4, Washington
Contract Amount, $115,000.00 Government Participation: 50 % Amount, $57,500.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	$4,382.00		$4,382.00			
Bulldozing		$1,500.00	1,500.00			
Crosscutting						
Drifting						
Geophysical Survey		3,000.00	3,000.00			
(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):						
TOTALS	$4,382.00	$4,500.00	$8,882.00	4382.00	4500.00	8882.00

I certify that the above bill is correct and just and that payment therefor has not been received.
Date June 7, 1955 *Payee Granore Company
Per [signature] Title Vice-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:

$2191.00

Signature [signature]
(Authorized Certifying Officer)

Date 6-20-55 Vou. No. 1580
(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. 489 in accordance with the terms of the contract.

Signature Elmer A. Magill Title Mining Engineer Date June 7, 1955

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Stephen W Zoldok Title Mining Engr Date 6-16-55

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.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUN 4 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 1955 Docket No. DMEA 2612 Contract No. Idm E-489
Operator's Name Grancre Company Minerals Copper
Address 1040 Exchange Building, Seattle 4, Washington

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								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Ft.	$4,382.00	626	$4,382.00	626	$7.00	15670'	7.00 ft
Churn								
Auger								
Stripping								
Trenching				$1,500.00				1500.00 #
Test Pits								
~~Roads and Trails~~ Assays							405	2.00 each
Geophysical Survey				$3,000.00				3000.00 #
TOTAL DISTRIBUTED COSTS		$4,382.00		$8,882.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$4,382.00		$8,882.00				115000.00

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 June 7, 1955 Operator Grancre Company

Per [signature] Title Vice-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)

/s/ Stephen W Zoldoff

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.

U. S. GOVERNMENT PRINTING OFFICE 205676

PROGRESS REPORT FOR MAY 1955

Granore Company, Index Mine (Sunset)

Index, Washington

Underground Drilling

Underground diamond drilling was started from 2 level during the later part of May. A 600 c.f.m. portable compressor was set up at the two level portal to supply compressed air for the drills. The existing 3 inch air line was found useable as far as the shaft (about 1200') and new air and water lines were laid from the shaft to the farthest proposed hole. Drilling was started in the most northwesterly part of the mine, on holes DDH 2-1 and DDH 2-2 (see map). The air lines were found insufficient to supply two drills at this distance from the source of air so DDH 2-2 was temporarily stopped and the drill moved to DDH 2-3 at the end of the 3 inch air line. This proved more satisfactory. DDH 2-2 will be completed after DDH 2-1 is finished. At month's end two drills were operating on two shifts each.

Footage drilled is as follows:

Hole	Footage
2-1	340
2-2	145 (temporarily stopped)
2-3	141
Total.....	626 feet

Several mineralized sections, probably below ore grade, were encountered. Samples of all mineralized zones have been sent for assay but todate no returns have been received. Complete detailed drill logs with assays will be submitted each month as the holes are completed.

Surface Drilling

Two surface drill rigs arrived on the property May 31st and the water lines for the first holes are partially laid. Actual drilling should be underway by June 3rd. The collars of all the surface holes have been spotted and all the access roads and set-up preparations requiring a bulldozer have been completed. A total of 61 hours of bulldozer work was done.

General

The 2 level workings have been resurveyed and detailed. Surface transit loops have been surveyed to tie all surface work to the underground workings. A core shed with rack storage for 10,000 feet of core and facilities for logging and splitting core, and drying sludge samples has been prepared.

Drilling is being done by Lynch Bros. of Seattle. It is hoped shortly to have four drill-shifts underground and four drill-shifts on surface with possibly a fifth drill-shift on surface piping holes thru overburden to bedrock.

Respectfully submitted,

/S/ J. H. Parliament
Chief Engineer

I hereby certify that the above Progress Report for May is a true and correct copy.

Robert M. MacRae
Vice-President

Form MF-1 (Rev.)
(April 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

DEPARTMENT
Defense Minerals Administration
RECEIVED
NOV 18 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March to Nov 8, 1954 Docket No. DMEA 2612 Contract No. Idm-E489
Operator's Name Index Mining Company, Minerals Copper
Address 2430 Monte Vista Pl Seattle 99 Washington.
Contract Amount, $ 115,000 Government Participation: 50 % Amount, $57,500

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing trenching	700.00		700.00	1500.00	-0-	1500.00
Crosscutting						
Drifting						
Geophysical Survey				37.78	2962.22	3000.00
(2) Labor and Supervision:						
Labor	1812.50	331.80	2144.30			
Supervision		48.00	48.00			
Technical Services	960.00	2075.72	3035.72			
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives	48.85		48.85			
Pipe						
Track						
Sundry Expenses	18.76	23.13	41.89			
(4) Operating Equipment:						
Rental	90.80 80.00	410.00	580.00			
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes	122.64		122.64			
Liability Insurance						
(8) Contingencies (specify):						
Telephone	99.72	73.57	173.29			
TOTALS	3932.47	2962.22	6894.69	1538.78	[illegible]	[illegible]

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

Date Nov. 8, 1954 *Payee Index Mining Company

Per N. Brennan 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:

$ 768.81

Signature M. D. P.
(Authorized Certifying Officer)

Date 11/12/54 Vou. No. 1352
(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. 489 in accordance with the terms of the contract.

Signature Elmer A. Mazzil Title Min Engineer Date Nov 9 1954

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature 1st Stephen W. Goldoft Title Mining Eng Date 11/10/54

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.

U. S. GOVERNMENT PRINTING OFFICE 205675

Form MF-[illegible]A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 18 1954

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March to Nov 8, 1954 Docket No. DMEA 2612 Contract No. Idm-E489
Operator's Name Index Mining Company Minerals Copper
Address 2430 Monte Vista Pl, Seattle 99, Washington

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								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits & prospecting		2588.79		2588.79				
Roads and Trails								
Geophysical Survey		1343.68		4305.90				
TOTAL DISTRIBUTED COSTS		3932.47		6894.69				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 Nov. 8, 1954 Operator Index Mining Company

Per C Brennan 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)

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 83-38475

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 18 1954

DMEA FIELD TEAM, REGION II

November 15, 1954

DMEA Certifying Officer, Region II

Contract Idm-E489, Docket DMEA 2612, Index Mining Company
Monthly operating report for March to Nov, 8, 1954.

The subject operating report has been received and processed.

A deletion of $2,394.69 was made from the amount of $3,932.47 submitted by the operator for payment. The details of this deletion follow.

$1,305.90 was deducted from the amount claimed for geophysical survey. The contract allows $3,000.00 for this item. The amount is starred. The amount deleted represents the amount claimed by the operater in excess of the $3,000.00

$1,088.79 was deducted from the amount claimed for trenching. The contract allows $1,500.00 for trenching and the $1,500.00 is starred. The amount deleted represents the amount claimed by the operator in excess of the amount allowed by the contract.

Myrtle Purdy

cc: Wash. (2)
Engr.
AD

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 18 1954

INDEX MINING COMPANY
2430 Monte Vista Place
Seattle 99, Washington

November 8, 1954.

Mr. A. E. Weissenborn,
Executive Officer
Defense Minerals Exploration Administration
Field Team, Region II
Spokane, Washington.

Subject: Docket No. DMEA 2612
Contract No. Idm-E489
March to date.

Dear Mr. Weissenborn:

Enclosed herewith please find 5 copies covering the additional geophysical work done this summer as well as a rather extensive surface prospecting campaign. I think largly because of this work we have interested the Granby Mining Smelting and Powere Company of 165 Broadway, New York 6, New York in an extensive diamond drilling campaign after an examination thereof by their consulting engineer.

This Company is asking for a one year extension in time for DMEA Contract Idm-E489 and that you allow that this approximate $54,000.00 of DMEA money which has already been appropriated be used for diamond drilling.

I believe that if the Department can make these concessions that work would be started almost immediately.

Enclosed please find 2 prints of each of the geophysical survey maps, scale 1" - 200', which together show the complete survey.

With kindest personal regards I am,

Sincerely yours,

C V Brennan

C. V. Brennan.

CVB:A

RECEIVED
NOV 18 1954

Report of work done under Docket No. DMEA 2612
May 1 to October 31st, 1954.

During the summer of 1954 further geophysical surveying was done on the Sunset property and the result of this work, on the area west of the new Bureau of Mines ore body down to the County road looked quite encouraging. There is a considerable amount of rock exposure in this section and surface prospecting was done here but the results were disappointing, perhaps because there is a heavy mantel of gravel and clay over a good part of this section.

Quite extensive prospecting was carried on over other parts of the property and encouraging looking boulders of well mineralized granite were exposed in the general section above anamaly C and to the west thereof. Copper in place was also exposed here.

It would seem to be very advisable and important that the surface diamond drill campaign initiated by the U. S. Bureau of Mines in 1950, and which was so successful, should be further continued and underground drilling such as was recommended by the Government engineer at that time be carried out. The work done to date under DMEA contract 2612 has given a lot of new and helpful information on which to base such a diamond drilling campaign.

C Brennan.

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
JUL 8 1954

REPORT ON THE GEOPHYSICAL SURVEY
Done under Docket No. DMEA 2612, the summer of 1954.

The area investigated extended from the U. S. Bureau of Mines diamond drill hole 1 as far west as the north fork of the Skykomish River road. This work was done by the electrical resistivity method which had been found useful during previous geophysical investigations on the propert. The results are shown on the accompanying map.

Four areas of low resistivity values may be noted. The first striking almost E-W and crossing the base line at 8'w is the continuation of an anomaly already outlined during the previous survey. The values suggest a weak shear zone with minor amounts of mineralization.

The second anomaly crosses the base line from 0 to 3w. This area has been tested by D.D.hole 1 in which the results were surprisingly disappointing.

The third low area extends across the map region and is probably caused by a strong shear zone which may be well mineralized. The better portions of this zone are between 6w and 12w and in the vicinity of 18w. The wide areas of generally low resistivities at either end are in part caused by clay in the overburden.

The fourth low zone lies near the road and is not nearly as continuous as the previous zone.

RECOMMENDATIONS

Western Area.

The long central anomaly should be tested by trenching if possible on lines 6w, 7. 5w, and 9w as well as on line 18w. If sulphide mineralization is encountered the anomaly should be diamond drilled.

Respectfully submitted

A. [illegible]. Clark
Geophysical Consultant

July 5, 1954

IND X MINING COMPANY
2430 Monte Vista Place
Seattle 99, Washington

Subject: Docket No. DMEA 2612
Contract No.Idm-E489
March to date.
November 8, 1954.

Distribution Sheet

	Geophysical Survey	Pits and Prospecting	Total
Bulldozer		$700.00	700.00
Labor	300.00	1512.50	1812.50
Technical services	815.00	145.00	960.00
Explosives		48.85	48.85
Sundry expense	13.76	5.00	18.76
Rentals	150.00	20.00	170.00
Gov.payroll tax	22.00	100.64	122.64
Telephone	42.92	56.80	99.72
	1343.68	2588.79	3932.47

COPY

DEPT. OF THE INTERIOR
Minerals Administration
RECEIVED
NOV 18 1954

INDEX MINING COMPANY
2430 Monte Vista Place,
Seattle 99, Washington.

Subject: Docket No. DMEA 2612
Contract No.Idm-E489
March to date
November 8, 1954.

State of Washington and Federal Taxes

State Employment Security Taxes:

6/30/54	$10.60
9/30/54	28.96

State Department Labor & Industry

6/30/54	15.40
9/30/54	31.04

Federal Employees Quarterly Tax

6/30/54	7.85
9/30/54	21.45
Estimate for October payroll	7.34
	122.64

COPY

Form MF-1(Rev.)
(April 195)

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

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

Month of March thru Nov., 1953 Docket No. DMEA 2612 Contract No. IDM-E 489
Operator's Name Index Mining Co Minerals Copper
Address 2430 Monte Vista Place, Seattle 99, Washingtn.
Contract Amount, $ 115,000.00 Government Participation: 50 % Amount, $ 57,500.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor Feb. to Nov 30	331.80		331.80			
Supervision	48.00		48.00			
Technical Services	630.72	1445.00	2075.72	1227.22	1735.00	2962.22
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Sundry Feb to Nov 30	23.13		23.13	—		—
(4) Operating Equipment:						
Rental	120.00	290.00	410.00	—	—	—
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):						
telephone Fto N30 bill			73.57	—	—	—
Pacific Tel & Tel	62.37			—	—	—
sundry B.C. Tel.	11.20			—	—	—
TOTALS	1227.22	1735.00	2962.22	1227.22	1735.00	2962.22

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

Date May 3/54 *Payee Index Mining Co.

Per J. Brennan 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)

All charges are in connection with Geophysical survey

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

$ 613 61

Signature MDP
(Authorized Certifying Officer)

Date 6/15/54 Vou. No. 1177
(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. E489 in accordance with the terms of the contract.

Signature Elwin A. Magill Title Mining Engr Date 5/28/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Stephen W. Zoldok Title Mining Engr Date 6/2/54

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.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March Nov. 195 3 Docket No. DMEA 2612 Contract No. IDM-E 489
Operator's Name Index Mining Co. Minerals Copper
Address 2430 Monte Vista Place, Seattle 99, Washington.

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								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Geophysical survey		1227.22		1735.00		2962.22		
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 May 3, 1954 Operator Index Mining Co

Per C. Brennan 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)

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 83-38475

May 3, 1954.

Mr. A. E. Weissenborn,
Executive Officer
Defense Minerals Exploration Administration
Field Team, RegionII
Spokane, Washington.

Subject: Docket No. DMEA 2612
Contract No. Idm-E489
March through November 1953.

Dear Mr. Weissenborn:

Enclosed herewith please find 5 copies covering the geophysical work August to November 30th, 1953. It also includes some previous accounts which had not carried individual receipts in the previous bill.

It has been quite difficult to get the work forwarded during the past year as Dr. Clark and Mr. Craig are very busy men. The survey is not yet quite completed to my satisfaction and of course Dr. Clark as a proffessor at the University is hard to get hold of but I have he and Mr. Craig under promise for a week in June, which I hope will put the situation in good shape.

At that time I am looking forward to being able to go to Spokane in order to confer with you and your associates in connection with this whole matter.

With kindest personal regards I remain,

Sincerely yours,

C.V. Brennan

President.

CVB:A

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

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

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

Month of March thru Aug., 1953 Docket No. DMEA 2612 Contract No. IDM-E 489
Operator's Name Index Mining Co. Minerals Copper
Address 2430 Monte Vista Place, Seattle 99 - Washington
Contract Amount, $115000.00 Government Participation: 50% Amount, $ 57500.00 2170.32

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						
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
* Labor	388.00			—		
Supervision						
Technical Services	1445.00			1445.00	—	1445.00
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
* Track						
Sundry goo & batteries etc	8.97			—	—	—
(4) Operating Equipment:						
Rental	290.00			290.00	—	290.00
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):						
* telephone	38.35			—		
TOTALS	2170.32			1735.00		1735.00

I certify that the above bill is correct and just and that payment therefor has not been received.
Date August 31/53 *Payee Index Mining Co.
Per A Brennan 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:
$ 867.50
Signature [illegible]
(Authorized Certifying Officer)
Date 12/9/53 Vou. No. 999
(See other side)

* Not adequately supported.

(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. 489 in accordance with the terms of the contract.

Signature Chas A. Mazell Title Mining Engr Date Dec 4, 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature /S/ Thomas E. Howard Title Mining Eng Date 12/8/53

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.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March - Aug inclusive 1953 Docket No. DMEA 2612 Contract No. IDM-E 489

Operator's Name INDEX MINING Co. Minerals copper

Address 2430 Monte Vista PLACE SEATTLE 99. WASHINGTON

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								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching on geophysical anomaly	164	on						
Test Pits								
Roads and Trails								
Geophysical survey		2006.32						
TOTAL DISTRIBUTED COSTS		2170.32						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 August 31 /53 Operator Index Mining Co.

Per C. V. Brennan Title President

REMARKS: See accompanying letter

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)

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 83-38475

INDEX MINING COMPANY
2430 Monte Vista Place,
Seattle 99, Washington,

December 8, 1953.

The Administrator,
Defense Minerals Exploration Administration.

Dear Sir: Re. DMEA docket No. 2612 and contract No.10M-I 439 for the Index Mining Co.

Work in this regard was started in March 1953 and continued at intervals to date.

Mr. A. R. Clark and A. J. Craig were contracted with to make a geophysical survey of the area and although their schedule has been very full all summer in the east as well as in the west we have gained a great deal of useful information which looks very promising.

There is still some important work to tie in and we will then submit the final report on this work for 1953 although there will doubtless be some further detailed work which should be done early next year.

Mr. Clark plans to recommend some surface diamond drilling. Before the year end we expect to get the road to the portal of the crosscut to be driven to the Bureau of Mines ore body completed so that this crosscut will be started very early in the spring of 1954, depending somewhat on climatic conditions. As the elevation is low, about 1300 feet above sea level this should be early.

Thanking you for your help in this matter,

Sincerely yours,

C V Brennan

C. V. Brennan, President.

CVB:A

REPORT ON THE GEOPHYSICAL SURVEY

[illegible] MINE AREA

INDEX, WASHINGTON.

INTRODUCTION:

The field work has been done at intervals over the past year under widely varying conditions in so far as the probable moisture content of the overburden is concerned. Since the resistivity methods by which the survey was carried out are influenced by moisture in the overburden, one could not expect to be able to repeat results too closely, in other words a variation in calculated resistivity values might occur between the results obtained in dry weather and in wet weather. Since tests showed that the difference in calculated resistivity values over the ore zones and over the barren zones were always of this order or much greater it was decided that these zones would be recognizable. In general the effect of increased moisture was to decrease all the values for resistivities.

METHOD OF [illegible] SURVEY.

Two methods were used, differing only in the direction in which the surface voltage drop was measured with respect to the line joining the electrodes by which current was introduced into the ground.

METHOD -A.

In this method two current electrodes were placed about 3000 feet apart and connected to the terminals of an 800 cycle 110 volt generator. The line joining the electrodes was approximately at right angles to the general strike of the known veins. Two potential probes were kept 50 feet apart and the voltage drop between them was measured by a vacum tube voltmeter which would read voltages as low as two microvolts. These voltage readings were taken at 50 foot intervals along lines parallel to the line between the current electrodes.

METHOD -B

This method differed from A in that the line joining the current electrodes was parallel to the strike of the veins while the traverse lines along which the voltages were measured were at right angles to the current line.

Both methods have certain advantages over the other. In method A a deflection in the direction of the traverse line did not have as large an influence on calculated resistivity values as in method B. However the second method always produces a more marked drop in resistivity values over a long conductor and since experimental tests showed that even over the best ore intersections from diamond drilling there was not an extreme change it was thought that with care in running traverses the second method was likely to produce good results. In addition the local topography

made the use of method B desirable.

Both methods were used, method A in the west and central section and method B in the eastern section. At points where the two methods overlapped there was a good agreement between calculated resistivity values.

In calculating resistivities it was necessary to know the current flowing to ground. This was determined by measuring the voltage drop across an known resistance in the current electrode line. Hence it was chiefly a case of using the voltmeter to compare ground resistances with the known resistance in the line. Thus errors due to changes in voltmeter amplification were largely eliminated.

The results obtained are shown on the map. Only one set of values were omitted. These were taken with method B for test purposes and the ground current was not measured. In calculation it was assumed to be one ampere which is likely much too high and the resulting resistivity values were then much too low.

DISCUSSION OF RESULTS.

Part of the contours of equal resistivity were drawn. The largest contour value being 3×10^3 ohm cm. Higher value contours would only show areas of very shallow overburden and add to the complexity of the map.

A number of resistivity anomalies stand out. These have been lettered A, B, C etc.

ANOMALY A.

Is part of a long narrow conducting zone in the eastern section. The overburden is likely shallow and will not be too effective in producing low values. The anomaly extends east of the creek with a small area of very low values near its end. Minor amounts of chalcopyrite mineralization are evident in the easterly bank in the anomaly zone. The better part of the conducting zone lies between lines C 13 and C 5. A short anomaly lies south of the main one on line C-4. This also shows evidence of mineralization on the logging spur road.

ANOMALY B.

This region is short. There are high clay banks on the south side near its west end which may account in part for the low values. However it is part of a long series of low values and is of interest.

ANOMALY C.

The low erratic values are chiefly due to overburden. Any other conducting ore zone is completely masked.

ANOMALY D.

This anomaly may mark the extension of the ore found by drilling to the east of line A-8. The values are very low and the results were obtained with method A which has a tendency to produce higher values. The anomaly is of considerable interest.

ANOMALY E.

This zone is part of the Sunset Mine vein. The values to the west of the small tunnel (wet tunnel) shown are better than the contours indicate. They are also lower than any others over the Sunset vein. The anomaly south of the main vein and parallel to it is also of interest.

ANOMALY F.

The values are caused by a short conductor. The area of lows to the east might be partially due to overburden. There is evidence of mineralization in the cuts on the logging road. No extension of the low values was found on the traverse along the logging road some 1000 feet east.

ANOMALY G.

This anomaly was found on only one line. There is no evidence of mineralization in the creek banks just to the east. Because of the position of the creek bottom, the traverse is also off line at this point which may account for the low values. It may be that the anomaly is a spurious one.

RECOMMENDATIONS.

As a preliminary test the positions of three recommended drill holes are shown on the map. In addition anomaly E should be tested by drifting or drilling.

Respectfully submitted.

A. R. Clark.

J65

Cremore Company
1511 Norton Building
Seattle, Washington

Re: IMEA-2612 (Copper)
Cremore Co., Assignee
Sunset Mine
Snohomish County, Washington
Amended Contract Lim-2489

Gentlemen:

By the terms of the subject Amended Exploration Project Contract, as amended, and the certification of discovery or development dated March 26, 1956, all minerals mined or produced from February 20, 1953, to February 10, 1965, were subject to the Government's royalty as set forth in said amended contract.

As the period during which production was subject to royalty has now expired, the Government according to its present records retains no claim or lien against the property subject to the amended contract or any future production therefrom. We, therefore, are closing our books and records on this amended contract. Your attention, however, is called to the provisions of the amended contract which require the Operator to keep and preserve certain records for the periods indicated.

Sincerely yours,

George Fumich, Jr.

Acting Director

MMerrithew/mm (3/23/65)
cc: Director's Reading File
Region I w/cy of incoming 63 from Index Mining Co. dated 3/4/65
CA&A Division
Docket
Code 120M
Earl Smith, Trustee, Index, Wash.
Index Mining Co., 2430 Monte Vista Place W., Seattle, Wash.,98199

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

CERTIFICATION BY THE UNITED STATES OF AMERICA
OF A DISCOVERY OR DEVELOPMENT UNDER
AN EXPLORATION PROJECT CONTRACT

To: Mr. Robert M. Meakins, Vice President
Granore Company
1440 Hoshange Building
Seattle 4, Washington

Pursuant to the provisions of Amended Exploration Project Contract No. Idm-[illegible], dated February 20, 1953, Docket No. DMA-[illegible], hereinafter called the "contract", between the Granore Company, a corporation, and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien thereon and on the land described in the contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration work.

The nature of said discovery or development is described broadly or indicated as follows: Diamond drilling from the surface and from the No. 2 level of the mine has shown the existence of copper ores occurring in fracture zones in granodiorite.

Dated MAR 2 6 1956

WPKingescheid/er 3/19/56
Copy to:
Docket
Mr. C. F. Fredell, Dr.,MB,EPB
Mr. Geehan, USBM
Mr. Kiilsgaard, USGS
Admr R File
Op. Committee
Cont. Adm & Audit Div
Finance Office
Base Metals
Region I, NW. Dist.(2)
F. E. Johnson
W. R. Griswold
Chron.

THE UNITED STATES OF AMERICA

By C O Mitteudorf
Administrator, Defense Minerals
Exploration Administration

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

MAR 2 7 1956

Mr. Robert H. MacRae, Vice President
Granore Company
1640 Exchange Building
Seattle 3, Washington

Re: Docket No. DMEA-2612 (Copper)
Granore Company
Sunset Mine
Snohomish County, Washington
Amended Contract No. Idm-2489

Dear Mr. MacRae:

Transmitted herewith is a certification of discovery or development related to the Amended Exploration Project Contract No. Idm-2489, dated February 20, 1953, on the lands described in the contract.

By the terms of the Amended Exploration Project Contract and of the Certification, all production from the land described in the contract from February 20, 1953, the date of the contract, is subject to the Government's percentage royalty as set forth in the said contract until the sum of $57,020.00, which the Government has advanced as its participating interest is repaid, or until February 20, 1965, whichever occurs first.

Payments should be made to Mr. A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I, South 157 Howard Street, Spokane 4, Washington. Checks should be drawn in favor of the Defense Minerals Exploration Administration. The purchaser should be advised to deduct royalties from the amount due on each shipment and forward the checks to the Executive Officer.

Royalty payments to the Government should be accompanied by suitable evidence, such as copies of the settlement sheets, showing quantity and grade of the products sold, the name of the purchaser, and the price and charges, certified to be correct by the purchaser.

You are requested to notify Mr. Weissenborn of any changes in ownership and production rights that might affect the Government's right to its percentage royalty. Also, if production ceases at any time for an extended period please notify Mr. Weissenborn at six-month intervals that such is the case.

Sincerely yours,

O. O. Mitte[illegible]

Administrator

Enclosure

Copy to: Docket
Mr. O. A. Predell, Dr., MD, EPG
Mr. Gosken, USGS
Mr. Killingsbard, USGS

Region I, F.M. Dist. (2)
Mr. F. E. Johnson
H. R. Griswold
Chron.

Admr R File
Op. Committee
Const. Adm & Audit. Div.
Finance Office
Rate Retain

[illegible]/mr 3/19/56

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

MAR 27 1956

Mr. Clarence A. Fredell, Acting Director
Materials Division
Emergency Procurement Service
General Services Administration
Washington 25, D. C.

Re: Docket No. DMEA-2612 (Copper)
Granore Company
Sunset Mine
Snohomish County, Washington
Amended Contract No. Idm-2489

Dear Mr. Fredell:

Enclosed is a copy of a certification of discovery or development related to Amended Exploration Project Contract No. Idm-2489.

The contract was dated February 20, 1953, with the Government participating to the extent of 50 per cent in an exploration project estimated to cost $115,000.00. Actual expenditures were $114,840.00, with the Government's share being half of such amount, or $57,420.00.

The total amount of work provided for under the contract consisted of a geophysical survey, trenching, and 15,670 feet of diamond drilling. All work specified in the contract was actually completed.

The discovery consists of copper ores occurring in fracture zones in granodiorite. Estimated indicated ore reserves were 24,400 tons averaging 7.22 per cent copper. Inferred ore reserves are in three blocks: (1) Harrington-Westward extension containing 44 tons of rock per vertical foot and averaging 4.25 per cent copper; (2) Harrington-Eastward extension containing 255 tons of rock per vertical foot and averaging 4.20 per cent copper; and (3) Johnson and Red Devil containing 180 tons of rock per vertical foot and averaging 2.32 per cent copper. The vertical extent of the inferred ore is unknown.

Sincerely yours, WPKlugescheid/er 3/19/56

G. O. Mitchell

Administrator

Copy to: Docket
Mr. Geehan, USBM
Mr. Kiilsgaard, USGS
Admr R File
Op. Committee
Const. Adm & Audit Div.
Base Metals
F. E. Johnson
W. R. Griswold
Region I, BM Dist. (2)
Chron.

Enclosure

Government's copy

ASSIGNMENT OF CONTRACT

WHEREAS, Index Mining Company, a Washington corporation (hereinafter called the "Assignor"), entered into Amended Exploration Project Contract Idm-E489 (Docket No. DMEA-2612), executed January 27, 1955, and effective February 20, 1953 (hereinafter called the "Contract"); and

WHEREAS, Granore Company, a Washington corporation, whose address is 1640 Exchange Building, Seattle, Washington (hereinafter called the "Assignee"), has acquired the Assignor's interest in the land which is the subject of the Contract and the Assignee desires to complete the work under the Contract;

NOW THEREFORE, the Assignor, in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration received from the Assignee does hereby assign, transfer, and convey to the Assignee all of its right, title, and interest in the Contract: Provided, that the Government shall make payment to the Assignor for all work performed prior to January 1, 1955, and upon payment thereof the Government shall be and is hereby released by the Assignor from all claims under the Contract.

The Assignor consents to all future amendments and assignments of the Contract and waives notice thereof.

This Assignment is subject to the execution by the Assignee of the acceptance form set forth below and to the written consent of the Government.

Dated this 9 day of May, 1955.

INDEX MINING COMPANY

By C V Brennan

I, A. J. Brennan, certify that I am the _____ secretary of the corporation named herein; that C. V. Brennan who signed this instrument on behalf of the corporation, was then President of said corporation;

that said instrument was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

R. J. Brennan [Corporate Seal]

ASSIGNEE'S ACCEPTANCE

The Assignee, Granore Company, hereby accepts the above Assignment and agrees to be bound by the terms, provisions, and conditions of the Contract.

Dated this 9th day of May, 1955.

GRANORE COMPANY

By Robert M. Macken

I, Elizabeth Barnes, certify that I am the _____ secretary of the corporation named herein; that Robert M. MacKen who signed this instrument on behalf of the corporation, was then Vice President of said corporation; that said instrument was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Elizabeth Barnes [Corporate Seal]

GOVERNMENT'S CONSENT

The Government, this 3rd day of May, 1955, hereby consents to the above Assignment without

releasing the Assignor, Index Mining Company, from any of the terms, provisions, and conditions of the Contract.

THE UNITED STATES OF AMERICA

By _____
Administrator, Defense
Minerals Exploration
Administration

MF-203
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator Index Mining Company
Docket No. DMEA- 2612
Amended Contract No. Idm-E 489
Executed January 27, 1955.

DEPARTMENT OF THE INTERIOR
Bureau of Mines Minerals Administration
RECEIVED
MAY 20 1955

CONSENT TO LIEN

To the United States of America:

Referring to that certain land in the County of Snohomish, State of Washington, described as follows:1/

See ANNEX 1 to this Consent to Lien

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of a percentage royalty on production as may be provided for by the contract;2/ and represents and undertakes that there are no claims, liens, or encumbrances upon the undersigned's right, title, or interest in the land prior to that hereby granted to the Government other than the following:3/

N O N E

3. Undertakes and agrees neither to commit any act nor assert any claim in conflict with the provisions of this Consent to Lien; and to give advance notice of the Government's rights under this Consent to Lien to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, or interest in the land; and

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

3/ Write "none" if that is the case. Do not leave lines blank.

4. Consents to all amendments and assignments of the contract without notice thereof, and agrees that this Consent to Lien shall extend and apply thereto.

5. Added provision: NONE

Dated this 9 day of May, 1955.

INDEX MINING COMPANY
By C. Brennan [Seal]
Pres.

[Seal]

[Seal]

I, A. J. Brennan certify that I am the _____ (Secretary, etc.) of the corporation named herein; that C. O. Brennan who signed this agreement was then President (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

A. J. Brennan.

[Corporate Seal]

AMENDED EXPLORATION CONTRACT
INDEX MINING COMPANY
DOCKET NO. DMEA-2612

ANNEX 1 to "OWNER'S CONSENT TO LIEN"
Executed by Index Mining Company

The North 1/2 of Section 1 and the Northeast 1/4 of Section 2, Township 27 North, Range 10 East, W.M.; and the following mining claims:

Star and Black Bear (both covered by patent #488234), Black Bear Extension, W.H.B., Boundary, Hazel C., Ivy R., Mountain Side, Ravine, Mono (all covered by patent #886270), and those portions of the Mabel Lode and Lloyd B. Lode not included in North 1/2 of Section 1. The land is shown, in part, on the map, "Figure 2 Index Mining Company Patented Claims," attached to the Original Contract and made a part hereof.

MF-201
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator Index Mining Company
Docket No. DMEA- 2612
Amended Contract No. Idm-E-89
Executed ~~XXXXXXXXXXXX~~ January 27, 1955

SUBORDINATION AGREEMENT

To the United States of America:

Referring to that certain land in the County of Snohomish, State of Washington, described as follows:1/

The Northeast 1/4 of Section 2, Township 27 North, Range 10 East, W.M.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Subordinates whatever right, claim, lien or encumbrance the undersigned may have in or against the land to whatever interests, equities, and rights the Government may acquire under the contract (a) with respect to purchased property in or upon the land to the cost of which it has contributed, including the right to dismantle, sever, and remove it from the land; and (b) with respect to a percentage royalty on production from the land and a lien to secure the payment thereof; and

2. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Subordination Agreement; and (b) to give advance notice of this Subordination Agreement to any transferee of the right, claim, lien, or encumbrance hereby subordinated; and

3. Consents to all amendments and assignments of the contract without notice thereof, and agrees that this Subordination Agreement shall extend and apply thereto.

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

(OVER)

Dated this 9 day of May, 1955.

_____ [Seal]

~~Earl~~ Smith, Trustee

Earl Smith Trustee [Seal]

_____ [Seal]

I, _____, certify that I am the _____, (Secretary, etc.) of the corporation named herein; that _____ who signed this agreement was then _____ (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____

[Corporate Seal]

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
1201 N. Division St.
Spokane 2, Washington
February 4, 1955

MEMORANDUM

To: DMEA Field Team, Region I, NW District

From: E. A. Magill, Mining Engineer, Bureau of Mines

Subject: Justification of drill hole "A", Docket No. DMEA 2612 (copper) Index Mining Company, Sunset Mine, Snohomish County, Washington, Contract No. Idm-E489

Reference is made to Mr. Selfridge's letter of January 11, 1955, regarding justification for drill hole "A" under the subject contract.

Drill hole "A" is a minus 30° hole to be drilled from underground in line with the main crosscut adit. This hole has a double purpose. The first is to test a vein which is exposed at the end of the timbers at the portal. This vein was intersected only a few feet beneath the overburden. It does not outcrop on the surface. The vein, where intersected, is several feet in width and shows good copper mineralization. No development work was done previously because of its location, i.e., near the portal and with no backs. The second reason for the drill hole is the fact that Quartz Creek flows in exactly the same direction as the strike of the major veins in the area. There is the very definite possibility that Quartz Creek has incised itself along a vein.

At the time the Bureau of Mines was exploring the Sunset mine in 1950 a hole similar to hole "A" was very seriously considered. Limitations in funds was all that prevented it from being drilled at that time.

E. A. Magill

Orig. & 3 cys - Wash.
USGS (2)
DMEA
M/D
AD
EAM/he

Docket No. 2612

Commodity Copper

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

STRATEGIC AND CRITICAL MINERALS EXPLORATION PROGRAM

TO: Chief, Finance Section, Budget and Finance Branch, Bureau of Mines

Please enter on the records of the Defense Minerals Exploration Administration under the Strategic and Critical Minerals Exploration Program, the following contract, or amendment to contract.

Contract No. Idm-E 489

Date of Contract ~~Amendment~~ February 20, 1953

Name and Address of Operator:

Granore Company (Index Mining Company)
2430 Monte Vista Place
Seattle 99, Washington

Amount of Government participation $ 57,500.00

Percent of Government participation 50 %

Region: I NW State: Washington

Note: Please release $80.00. Contract terminated.

E. L. Chambers
(Name)

for L. Chambers, Chief
Contract Administration and
Audit Division
(Title)

Date Delivered to Bureau of Mines, Washington. 1/4/56

54458

Government's Copy

MF-200A
(Revised June 1954)

Docket No. DMEA -2612

Commodity Copper

Contract No. Idm-E 489

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
Amended EXPLORATION PROJECT CONTRACT[1]
(Short Form)

It is agreed ~~this~~ as of the 20th day of February, 195 3, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Index Mining Company, a State of Washington Corporation, whose mailing address is 2430 Monte Vista Place, Seattle 99, Washington, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and Annex II

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Washington, County of Snohomish, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Owner of [5] the entire interest in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] ------, [7] --recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: None

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Copper. The work to be performed is described in Exhibit "A." The Operator on or before April 20, 1953 shall commence the work, and on or before February 20, 1956 (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $115,000.00. The Government will contribute 50 percent of the fixed unit costs as work is performed, in a total sum not in excess of $57,500.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records or accounts.

ARTICLE 7. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 6) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. **See Article 11.**

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 8. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 8 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 9. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 10. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 11. *Changes and added provisions.*—
In Article 7(b) the words "twelve years from the date of the Original Contract," are substituted for the words "ten years from the date of the Contract."

Executed in sextuplicate the ~~day and year first above written~~ day of January 27 1955.

INDEX MINING COMPANY
(Operator)

By C. V. Brennan
President

THE UNITED STATES OF AMERICA

By O. Mitchendorf
Administrator, Defense Minerals
Exploration Administration

I, A. J. Brennan, certify that I am the secretary of the corporation named as Operator herein; that C. V. Brennan who signed this contract on behalf of the Operator, was then President of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Index Mining Co.
by A. J. Brennan
Sect. Treas.

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70618-1

RECEIVED

EXPLORATION PROJECT CONTRACT
INDEX MINING COMPANY
DOCKET NO. DMEA-2612

ANNEX I

The North ½ of Section 1 and the Northeast ¼ of Section 2, Township 27 North, Range 10 East, W. M.; and the following mining claims:

Star and Black Bear (both covered by patent #488234), Black Bear Extension, W. H. B., Boundary, Hazel C., Ivy R., Mountain Side, Ravine, Mono (all covered by patent #886270), and those portions of the Mabel Lode and Lloyd B. Lode not included in the North ½ of Section 1. The land is shown, in part, on the map, "Figure 2 Index Mining Co. Patented Claims," attached to the Original Contract and made a part hereof.

EXPLORATION PROJECT CONTRACT
INDEX MINING COMPANY
DOCKET NO. DMEA-2612

ANNEX II

WITNESSETH:

The parties to this Amended Exploration Project Contract, hereinafter called the "Contract," are also parties to Contract Idm-E489 (Docket No. DMEA-2612), dated February 20, 1953, as amended, executed on form MF-200 (June 1951), in this Contract called the "Original Contract." Only a small part of the work described in the Original Contract (some geophysical surveying and bulldozing) has been performed, and the parties desire to redescribe the work, to change the basis of payment for the work, to add land to the project, and to restate their agreement on form MF-200A (Revised June 1954).

NOW, THEREFORE, It is agreed that:

1. Effective February 20, 1953, the Original Contract is superseded in all respects by this Contract, which shall control the Government's claim and lien for percentage royalty, and in which all the rights and obligations of the parties are fully merged.

2. The Operator releases and agrees to save the Government harmless from all claims and demands arising out of the Original Contract.

EXPLORATION PROJECT CONTRACT
INDEX MINING COMPANY
DOCKET NO. DMEA-2612

EXHIBIT "A"

Description of the Work

The work consists of the geophysical surveying and trenching performed under the Original Contract, and the following:

1. Drill an aggregate of 7,225 feet of diamond drill hole (minimum size AX) in approximately 16 holes from underground locations on the No. 2 level of the Sunset Mine, as tentatively indicated on the map entitled "Figure 7, Sunset Mine, Proposed Underground Drill Plan," attached hereto and made a part hereof.

2. Drill an aggregate of 8,445 feet of diamond drill hole (minimum size AX) in approximately 25 holes from surface locations, as tentatively indicated on the map entitled, "Figure 8, Sunset Mine, Proposed Surface Drilling," attached hereto and made a part hereof, exclusive of Group 5.

All diamond drill core shall be stored in core boxes and shall be made available to the Government for inspection. The Government, if it so elects, may also require splits of core for its own use. All holes drilled shall be logged geologically, and a detailed record of such logging shall be submitted to the Government with the Operator's monthly progress report and voucher. A summary of the logging record also shall be submitted as a part of the Operator's final engineering and geologic report.

The Operator shall select representative samples for chemical analysis from drill core and cuttings, and shall have these samples analyzed.

The location, inclination, direction, and extent of all work, including the quantity and method of sampling and analysis, are subject to the approval of the Government.

Estimated Cost of the Project

Fixed Unit Costs

Work Performed Under Original Contract

Geophysical survey 1/	$ 3,000.00	
Trenching 1/	1,500.00	$ 4,500.00

Work To Be Performed Under This Contract

15,670 feet diamond drilling @ $7.00/ft.	$109,690.00	
405 chemical analyses @ $2.00/each	810.00	$110,500.00
Estimated Total cost of project		$115,000.00
Government participation @ 50%		$ 57,500.00

1/ This work, completed under the Original Contract, constitutes a unit for the purpose of payment under this Contract.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~XXXXXXXXXXXXXXXXXX~~
WASHINGTON 25, D. C.
1201 N. Division St.
Spokane 2, Washington
February 1, 1955

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA 2612 (copper)
Index Mining Company
Sunset Mine
Snohomish County, Washington
Contract Idm-E489

Dear Mr. Selfridge:

Enclosed are the Government, Docket, and Division copies of the Amended Contract for the captioned Operator.

Distribution of this contract has been made in the usual manner.

With reference to your comments on the proposed diamond drill hole No. A, a justification for this hole will be submitted to you before the hole is drilled.

Sincerely yours,

Thomas E. Howard
for: Wing G. Agnew, Member
DMEA Field Team, Region I
Northwest District

Enclosure

cc: USGS (2)
Finance Office w/encl.

Government's copy

DEPARTMENT OF ... Defense Minerals ... APR 30 1954

EXPLORATION PROJECT CONTRACT
INDEX MINING COMPANY
DOCKET NO. DMEA-2612

AMENDMENT NO. 1

It is agreed this 17th day of March, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Index Mining Company, that Contract Idm-E489 (Docket No. DMEA-2612), dated February 20, 1953, is amended, effective December 1, 1953, as follows:

1. a. Work under the contract shall be suspended during the period beginning December 1, 1953, and ending not later than June 1, 1954.

b. No costs incurred by the Operator during the period of suspension shall be allowable for contribution by the Government.

c. The Operator, at his own cost and expense, without contribution by the Government, during the period of suspension shall preserve the project work and any property in which the Government has an interest.

d. The Government shall not contribute to any costs of rehabilitation or repair which in its opinion would not have occurred if there had been no suspension of work.

2. The provisions of Annex III, attached hereto and made a part hereof, are substituted for the provisions of Article 9 of the contract form.

3. It is of the essence of this contract that work be resumed on or before June 1, 1954; and if the work is not resumed within the time limited, in a manner required to bring the project to completion as required:

a. All obligation of the Government to contribute to costs not incurred before December 1, 1953, shall be and is hereby terminated, except for necessary and reasonable costs and expenses incurred in--

(1) preserving and disposing of property to the cost of which the Government has contributed, and

(2) making and rendering reports, accounts, and winding-up and settlement actions provided for in the contract.

b. The Operator shall promptly perform all winding-up and settlement actions provided for in the contract, including the disposal of any facilities, buildings, fixtures, equipment, or other items to the cost of which the Government has contributed; and shall promptly render to the Government a final report and a final accounting.

c. The provisions of Annex III to this Amendment No. 1, as amended hereafter, shall remain in full force and effect. That part of paragraph "b" of Annex III which precedes the first colon is amended to read as follows:

"The Operator, regardless of any certification of discovery or development, and regardless of whether the Operator is the producer or has any interest in the land or the production therefrom, shall pay to the Government a royalty on all minerals mined or produced from the land described in the contract for a period of ten years from the date of the contract, or until the total amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other amounts realized from the sale or other disposition of any such production (including any bonuses, premiums, allowances, or other benefits), in whatever form disposed of, including ore, concentrates, or metal, as follows:"

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute,

the amount of any item designated as "allowable maximum," or the agreed unit cost of any item of work.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C O Mitchendorf
Administrator, Defense Minerals
Exploration Administration

INDEX MINING COMPANY

By C V Brennan

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
9 APR 30 1954

ANNEX III

The following provisions are in lieu of Article

Repayment by Operator.--a. Certification.--If at any time the Government considers that a discovery or development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Percentage royalty.--The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2,--(1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by this contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other amounts realized from the sale or other disposition of any such production (including any bonuses, premiums, allowances, or other benefits), in whatever form disposed of, including ore, concentrates, or metal, as follows:

(a) One and one-half ($1\frac{1}{2}$) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(b) One and one-half ($1\frac{1}{2}$) percent of any such net amounts, plus one-half ($\frac{1}{2}$) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half ($1\frac{1}{2}$) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

c. Definitions.--As here used, "net smelter returns", "net concentrator returns", and "other amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

d. Lien for Payment.--To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

e. Notice to Purchasers.--The Operator shall notify any purchaser of the production of the Government's royalty interest, and shall authorize and direct the purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets; but failure or refusal by the purchaser to comply shall not relieve the Operator of liability to pay any royalty falling due.

f. No Obligation to Produce.--This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Docket No. DMEA 2612

Commodity Copper

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

STRATEGIC AND CRITICAL MINERALS EXPLORATION PROGRAM

TO: Chief, Finance Section, Budget and Finance Branch, Bureau of Mines

Please enter on the records of the Defense Minerals Exploration Administration, under the Strategic and Critical Minerals Exploration Program, the following contract, or amendment to contract.

Contract No. Idm-E 489

Date of Contract ~~xxxAmendmentx~~ February 20, 1953

Name and Address of Operator:
Index Mining Company
2430 Monte Vista Place,
Seattle 99, Washington

Amount of Government participation $ 57,500.00

Percent of Government participation 50 %

Region: II State: Washington

(Name)
J. L. Chambers,
Chief, Contract Administration and Audit Division

(Title)

Date Delivered to Bureau of Mines, Washington. Feb. 20, 1953

13808

MF-200
(June 1951)
(Revised Feb. 1952)

DOCKET No. DM 2612

COMMODITY Copper

Government's Copy
IDM-E 489

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 23 1953

EXPLORATION PROJECT CONTRACT [1]

IT IS AGREED this 20th day of February, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Index Mining Company, a corporation duly organized and existing under and by virtue of the laws of the State of Washington, 2430 Monte Vista Place, Seattle 99, Washington

hereinafter called the "Operator," as follows: and as provided in Annex I, attached hereto.

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of Washington, County of Snohomish, described as follows: [3] As set forth in Annex II

the Operator represents and undertakes: [4]

(*a*) That the Operator is the owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: None

~~(*b*) That the Operator is a lessee in possession and entitled to possession, and the Owner's Consent to Lease is attached.~~

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within 60 days from the date of this contract shall commence work on a project of exploration for [5] Copper

in or upon the described land; and shall bring the project to completion within a period of 2 years from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided.

ARTICLE 4. *Performance of the work.*—(*a*) *Operator's responsibility.* The work shall be performed efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmens' compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. To the extent specified in Exhibit "A," attached hereto, the work may be performed by independent contractor or contractors; and work not specified in Exhibit "A" for performance by independent contractor may nevertheless be so performed upon amendment of Exhibit "A," as agreed to by the parties, to state the work to be so performed and the estimated unit costs thereof, as provided hereafter.

(*b*) *Independent contracts.*—Any independent contract for the performance of work shall be on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved), or on some basis that will indicate the amount due for work performed at any stage of the work to be performed under such independent contract. The Government shall not be nor be considered to be a party to any such independent contract, and the Government's right to terminate the exploration project contract under any of its provisions shall not in any manner be affected by reason of any such independent contract. If the reference in Exhibit "A" to any such independent contract states that the Government's approval thereof is required, the Government may refuse to participate in the cost thereof unless and until it has given its written approval of the independent contract.

(*c*) *Government may inspect.*—The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 5. *Estimated costs of the project.*—A statement of the estimated cost of the project is set forth in Exhibit "A," attached hereto. Except insofar as any item of requirement or the estimated cost thereof set forth in Exhibit "A" is there or elsewhere designated as an "allowable maximum," such items of requirement and of related cost are estimates only, and may be exceeded to the extent that the Government may from time to time approve for the most economic and beneficial performance of the work within the limitation of the total aggregate estimate of costs. The Government's approval of any such excess over the estimate for an item of requirement or related cost will be signified by its approval and payment of any invoice or voucher for payment which expressly calls attention to such excess. Items expressly designated in Exhibit "A" or elsewhere as "allowable maximum," and the total aggregate estimated cost are limitations, and any excess therein will be for the sole account of the Operator in which the Government will not participate.

ARTICLE 6. *Allowable costs of the project.*—(*a*) The costs of the project in which the Government will participate are limited to the following: and also the costs referred to in Article 13.

(1) *Independent contracts.*—Payments to independent contractors under independent contracts listed in Exhibit "A." The estimated cost of any work to be performed under an independent contract is or shall be included in the estimate of costs in Exhibit "A" in terms of the estimated numbers of units of work to be performed, the estimated amount to be paid per unit, and the estimated total amount to be paid to the independent contractor, and such estimates shall be allowable maximums above which the Government will not contribute. Regardless of the provisions of any such independent contract, the Government will participate in the payments to the independent contractor only on account of work actually performed and that conforms with the provisions of the exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable and necessary. No such independent contract shall have the effect of increasing the estimated total cost of the exploration project contract nor the maximum amount which the Government will pay as provided in the exploration project contract.

(2) *Labor, supervision, consultants.*—Labor, supervision and technical services (including engineering and geological consultants), a schedule of which is included in the estimate of costs set forth in Exhibit "A." The requirements and related estimated costs for supervision and technical services are allowable maximums.

(3) *Operating materials and supplies.*—Necessary materials and supplies including items of equipment costing less than $50.00 each, and power, water, and fuel, a schedule of which is included in the estimate of costs in Exhibit "A."

(4) *Operating equipment.*—Any operating equipment to be rented or purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or the allowable depreciation, as the case may be, a schedule of which is included in Exhibit "A." Any items listed as owned and to be furnished by the Operator, and related ~~initial~~ allowable depreciation, are allowable maximums.

(5) *Rehabilitation and repairs.*—Any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and to be devoted to the purposes of the exploration contract, a schedule of which is included in the estimate of costs set forth in Exhibit "A." These items are allowable maximums.

(6) *New buildings, improvements, installations.*—Any necessary buildings, fixed improvements, or installations to be purchased, installed, or constructed for the purposes of the exploration work, with the estimated cost of each, a schedule of which is included in the estimate of costs in Exhibit "A." All of these items are allowable maximums.

(7) *Miscellaneous.*—Repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance and payroll taxes.

(8) *Contingencies.*—Such other necessary, reasonable direct costs of performing the exploration work, within the limit of the total aggregate estimate of costs, whether or not included in any schedule of costs in Exhibit "A," as may be approved by the Government in the course of the work, as indicated by its approval and payment of invoices and vouchers.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) The Government's payment in all cases will be based on actual, necessary costs (including contract unit prices) incurred not in excess of any "allowable maximum," and not in excess of the fixed percentage of the total aggregate estimated cost. Costs will be considered to be incurred only as they are or become due and payable.

(*c*) No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes) or any other indirect costs, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

ARTICLE 7. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operators shall provide the Government with monthly reports of work performed and costs (including contract unit prices) incurred under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of costs incurred on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) Compliance with requirements.—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account as provided in Article 12.

ARTICLE 8. *Payments by the Government.*—(*a*) The Government will pay 50 percent of the allowable costs incurred, as they accrue, in an aggregate total amount not in excess of $ 57,500.00, which is 50 percent of $ 115,000.00, the agreed, estimated total cost of the project in which the Government will participate; *Provided,* that until the Operator's final report and final accounting have been rendered to the Government, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract.

(*b*) The Government may make any payment or payments direct to independent contractors and to suppliers, for the account of the Operator, rather than to the Operator.

ARTICLE 9. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

(For instance: The percentage royalty on a net amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales; or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 10. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 11. *Title to and disposition of property.*—All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

ARTICLE 12. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall dispose of any remaining materials, supplies, facilities, buildings, fixtures, and equipment in which the Government has an interest, for the joint account of the Operator and the Government in the proportion of their respective interests; shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; and shall pay to the Government its pro rata share of any money remaining.

ARTICLE 13. *Changes and added provisions.* To the extent that costs are set forth in Exhibit "A" as "Agreed Unit Costs" they are in lieu of the actual costs that would otherwise be allowable costs of the project as provided in Article 6(a) of the contract form.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O. Mitterdorf
Administrator, Defense Minerals Exploration Administration

Index Mining Company
(Operator)

By C. Brennan President

I, A. J. Brennan, certify that I am the secretary of the corporation named as Operator herein; that C. V. Brennan, who signed this contract on behalf of the Operator, was then President of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Index Mining Co. A. J. Brennan Secy.

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66328-1

EXPLORATION PROJECT CONTRACT
INDEX MINING COMPANY
DOCKET NO. DMEA-2612

ANNEX I

Materials and Supplies: For the purpose of determining the Government's interest in materials or supplies remaining upon any termination of the work, they shall be considered in groups or categories (such as pipe, or explosives, or rails, or drill steel), and if the original cost of the remaining unexpended portion of any such group or category exceeded $50, the Government shall have an interest therein as provided in Article 11 of the contract form.

Equities in Equipment: Unless expressly permitted by provisions in Exhibit "A", the operator shall not procure equipment or any other item under a rental-purchase agreement, an installment-purchase agreement, any agreement which creates or builds up an equity or interest in the thing procured which can be converted to legal title only by further payment or some other consideration, or any agreement other than for straight rental or cash purchase and delivery.

Preservation of Property: Until the final disposal of any equipment or other property in which the Government has an interest or equity, the operator shall preserve and protect same for the mutual best interests of the parties, any reasonable and necessary cost thereof to be treated as an allowable cost of the exploration work to which the Government will contribute.

EXPLORATION PROJECT CONTRACT
INDEX MINING COMPANY
DOCKET NO. DMEA-2612

ANNEX II

North 1/2 of Section 1 Township 27 N. R. 10 E. W. M.; and the following patented mining claims: Star and Black Bear, (both covered by patent #488234); Black Bear Extension, W. H. B., Boundary, Hazel C., Ivy R., Mountain Side, Ravine and Mono (all covered by patent #886270) shown on the two maps attached hereto and made a part hereof entitled "Figure 2 Index Mining Co. Patented Claims" and "Figure 3 Sunset Mine Area, Snohomish County, Washington" but excluding that part of the Sunset Mine below the No. 2 Level at elevation 1420 feet indicated on map attached hereto and made a part hereof entitled "Fig. 6 -- Longitudinal section of the Sunset mine, Snohomish County, Washington."

EXPLORATION PROJECT CONTRACT
INDEX MINING COMPANY
DOCKET NO. DMEA-2612

EXHIBIT "A"

Description of the Work

The object of this work is to explore for copper ore in the area indicated on the map entitled "Figure 3 -- Sunset mine area, Snohomish County, Washington". The proposed work indicated on the said map is as follows:

1. Construct a road 600 feet long from the "logging railroad grade" to the portal site of the proposed "Bureau" (of Mines) crosscut which is at an elevation of 1330 feet, and prepare said site.

2. Crosscut 600 feet to intersect the "Bureau" vein at a depth of approximately 270 feet below the outcrop and then drift 300 feet on the vein.

3. Conduct a geophysical survey in an area located roughly between the "Bureau" ore body and the Sunset vein, and also in the area East of the present Sunset Mine workings.

4. If the geophysical survey indicates the advisability of so doing, dig trenches to the necessary depth and length on any favorable indications found by the geophysical survey.

5. Construct a road approximately 1800 feet long from a point near diamond drill hole No. 3 on the branch road from Trout Creek Road, to the portal of a proposed Harrington crosscut at 1600 feet elevation.

6. Crosscut from the portal of the proposed Harrington crosscut approximately 150 feet to the Harrington vein, and then drift easterly on the Harrington vein 750 feet.

7. Diamond drill three holes to a total length of 1000 feet from the "Bureau" crosscut to intersect the "Bureau" vein at a depth of approximately 150 feet below the crosscut or approximately 420 feet below the outcrop.

All the drifts and crosscuts are to be timbered where necessary and shall be at least 5 feet x 7 feet in the clear. It is estimated that about 525 feet of drifts and crosscuts will require timbering.

The diamond drill holes must be of a size necessary to obtain the required geological information.

The location, direction and extent of all work is subject to the approval of the Government engineers.

AGREED UNIT COSTS

Construct 2400 ft. of roads @ $2.20/ft.	$ 5,280.00	
Crosscut and drift 1800 ft. @ $36.17/ft.	65,106.00	
Timber 525 feet of drifts and/or cross-cuts @ $8.39/ft.	4,405.00	
Diamond drill 1000 feet @ $7.00/ft.	7,000.00	$81,791.00

The Government will contribute to the costs of the road construction, drifting, crosscutting, timbering and diamond drilling on the basis of these agreed unit costs per foot, as they accrue, for units of work actually performed, in lieu of actual costs. The agreed unit costs include all costs of the work except Operating Equipment and Assaying estimated under Items (4) and (7) below. The rest of the described work estimated in Items (5),(6) and (8) below, and those items of cost which are excluded from the unit costs will be contributed to by the Government on the basis of the actual costs:

Estimated Actual Costs
(*Indicates allowable maximum)

Geophysical survey 1/	$ 3,000.00*
Trenching on favorable geophysical showings 1/	1,500.00*

(4) Operating Equipment

To be Purchased

1 Air compressor 315 cfm diesel	$10,000.00
1 Loader, Eimco 12 B or equivalent	3,100.00
1 Air Trammer	2,100.00

1/ With respect to this item of work, all schedules are waived. The sum allowed includes all costs including that of necessary technicians, labor, supervision, equipment, materials and supplies.

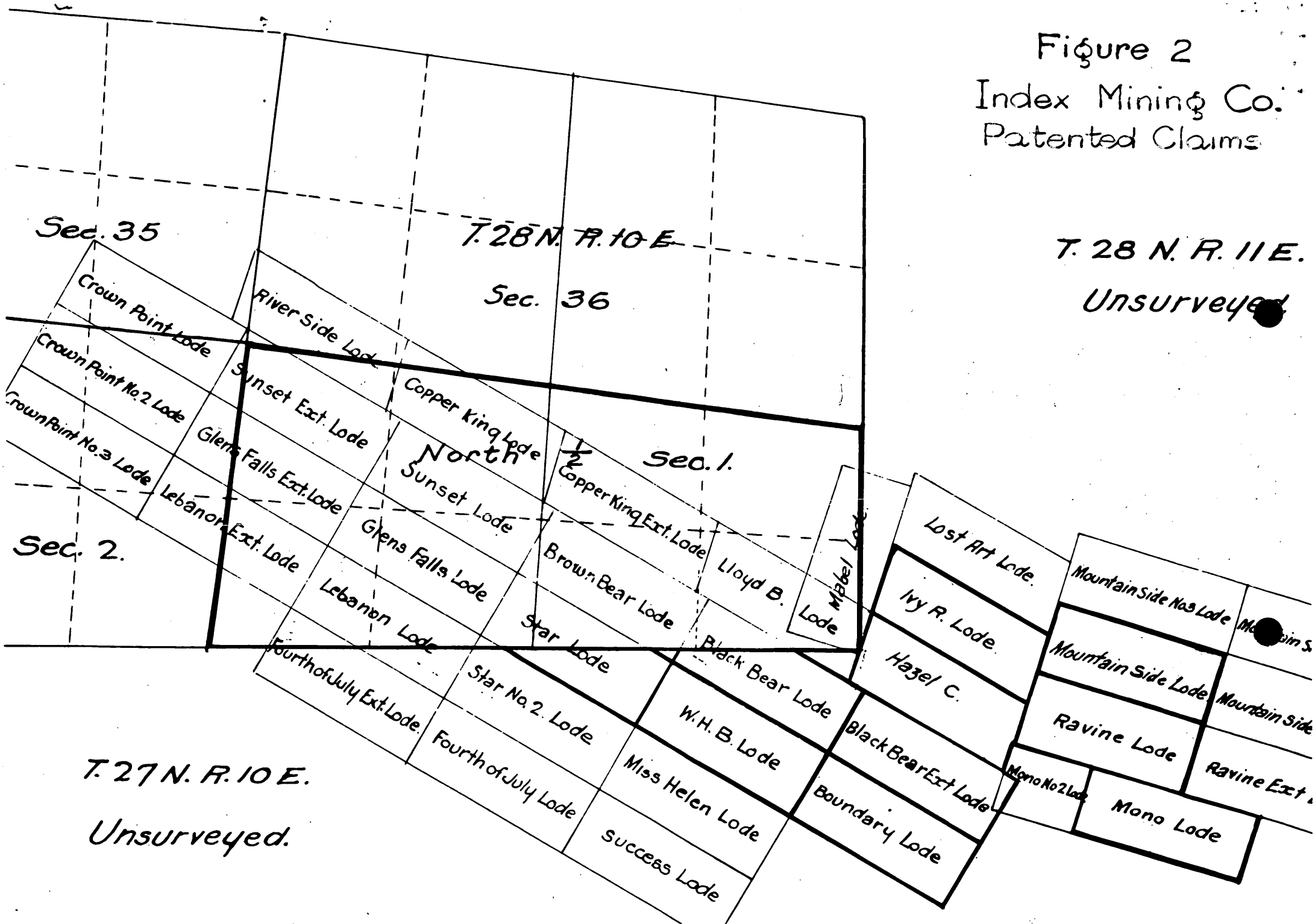
4 Mine cars @ $300	$ 1,200.00	
3 Drills with air leg @ $650/ea.	1,950.00	
1 Truck pickup	2,275.00	
1 Grinder air driven	200.00	
1 Ventilating fan gas engine driven	350.00	
1000 feet Vent tube @ $1.00/ft.	1,000.00	
250 ft. Air hose, 1 inch	245.00	
150 ft. Water hose 3/4 inch	135.00	
1 Saw air driven, hand	250.00	
1 Air receiver tank 36 inch x 8 ft.	400.00	$23,205.00
(5) Rehabilitation and Repairs		
Blacksmith Shop, Office and Dry 2/	990.00*	990.00*
(6) New Buildings, Improvements, Installations 2/		
1 Shed for compressor and tools at "Bureau" Adit 2/	500.00	
1 Shed for compressor and tools at 1600 level Adit 2/	500.00	1,000.00*
(7) Miscellaneous		
Assaying 2/	600.00	600.00
(8) Contingencies		2,914.00*
		$33,209.00*

S U M M A R Y

Agreed Unit Costs	$81,791.00	
Estimated Actual Costs	33,209.00*	
Estimated Total Cost of Project		$115,000.00*
Government Participation @ 50%		$ 57,500.00*

2/ See footnote 1.

Figure 2
Index Mining Co.
Patented Claims



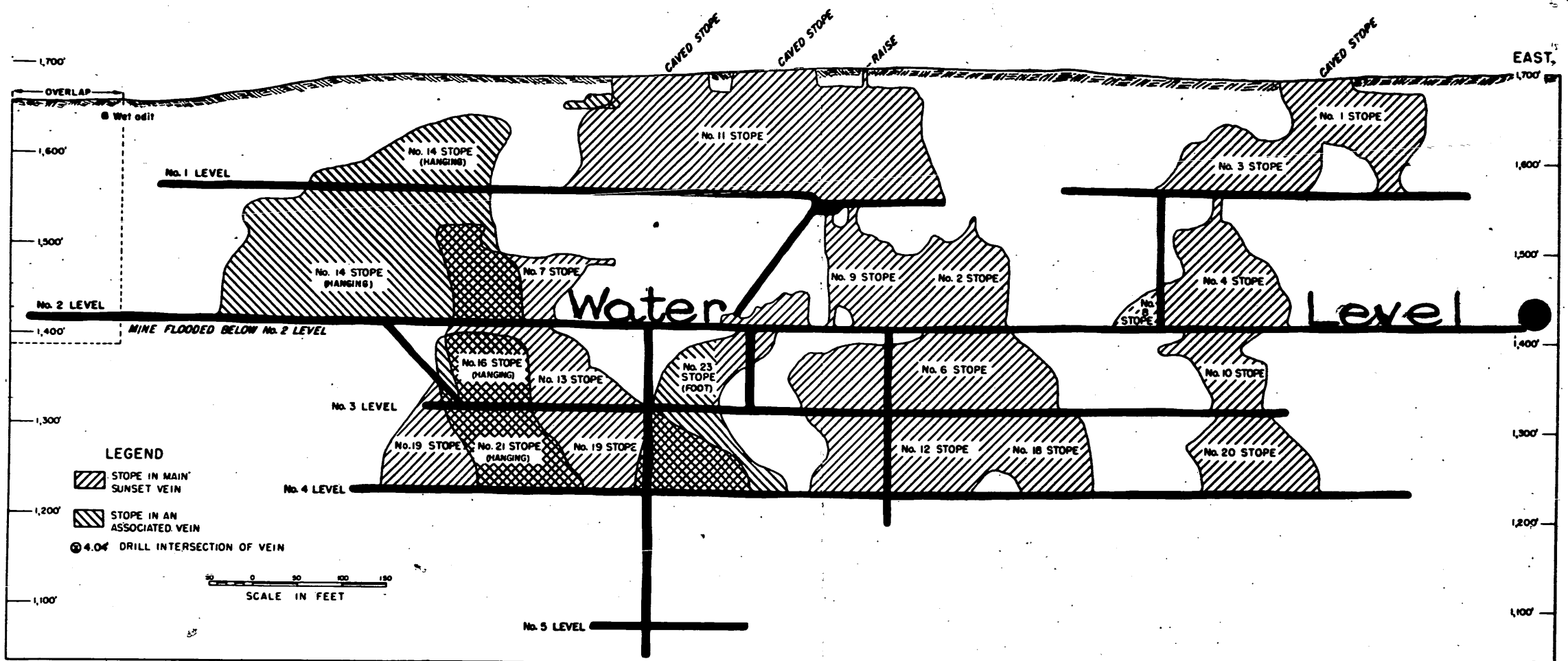
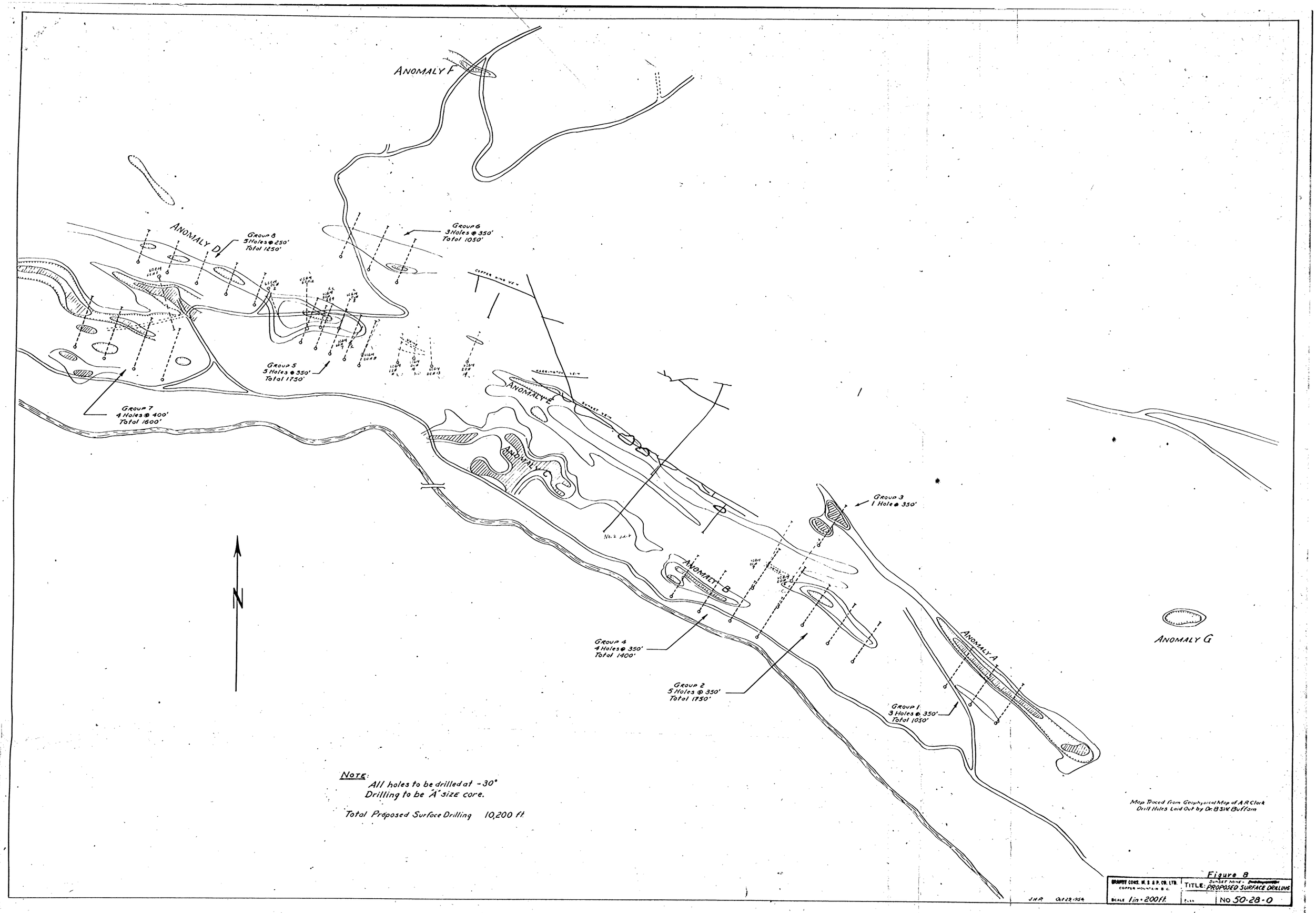


Figure 6.—Longitudinal section of the Sunset mine, Snohomish County, Washington.


ANOMALY F
ANOMALY D
Group 8
5 Holes @ 250'
Total 1250'
Group 6
3 Holes @ 350'
Total 1050'
COPPER KING VEIN
Group 5
5 Holes @ 350'
Total 1750'
Group 7
4 Holes @ 400'
Total 1600'
WASHINGTON VEIN
ANOMALY E
SUNSET VEIN
ANOMALY C
No. 2 ADIT
Group 3
1 Hole @ 350'
ANOMALY B
Group 4
4 Holes @ 350'
Total 1400'
Group 2
5 Holes @ 350'
Total 1750'
ANOMALY A
Group 1
3 Holes @ 350'
Total 1050'
ANOMALY G
N
NOTE:
All holes to be drilled at -30°
Drilling to be 'A' size core.
Total Proposed Surface Drilling 10,200 ft
Map Traced from Geophysical Map of A.R. Clark
Drill Holes Laid Out by Dr. B.S.W. Buffam
J.H.R. Oct 23 1954
GRANBY CONS. M. S. & P. CO. LTD.
COPPER MOUNTAIN B.C.
SCALE 1 in = 200 ft.
Figure 8
TITLE: SUNSET MINE - PROPOSED SURFACE DRILLING
No 50-28-0

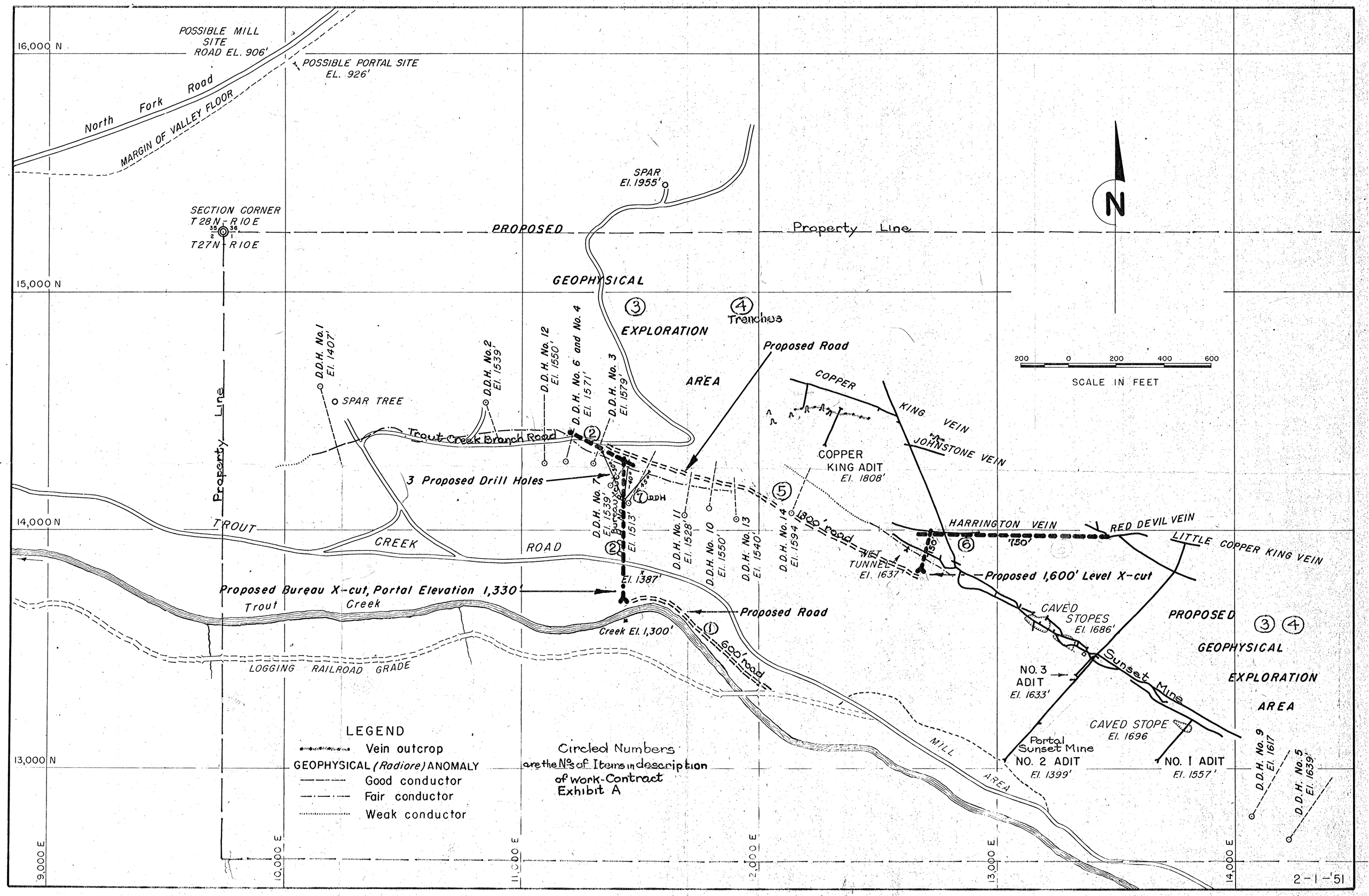


Figure 3 — Sunset mine area, Snohomish County, Washington.

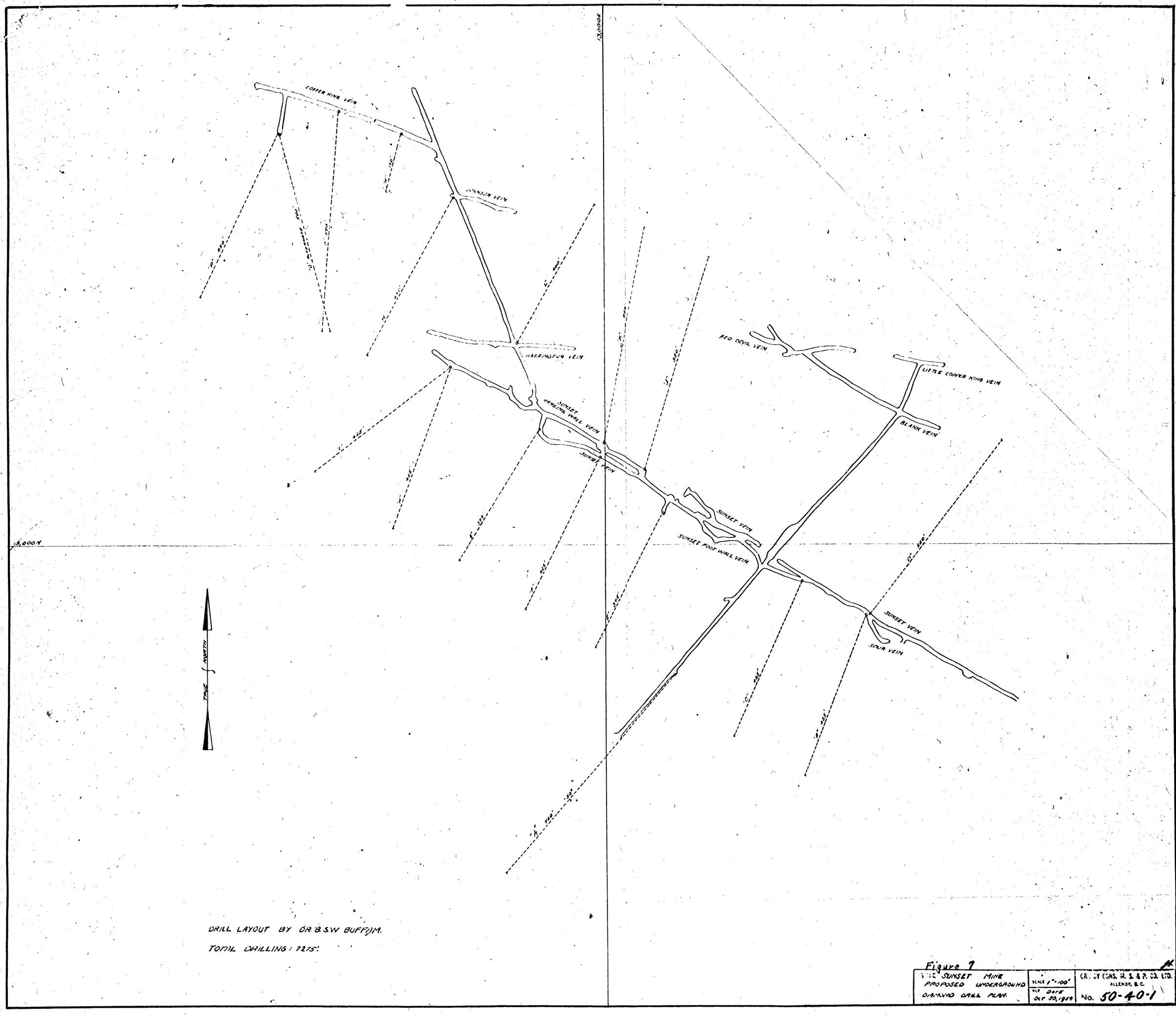


Figure 7

THE SUNSET MINE PROPOSED UNDERGROUND DIAMOND DRILL PLAN.	SCALE 1" = 100' / DATE OCT 30, 1959	CRANBROOK CONS. M. S. & P. CO. LTD. ALLENBY, B.C. No. 50-40-1