DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

The New Jersey Zinc Company
Austinville, Virginia
and
160 Front Street
New York 38, New York

pertaining to Exploration Project Contract No. Idm-E970, DMEA No. 4173, including Amendment Nos. 1, 2, and 3, for December 1956 to March 1958, inclusive, covering a project for the exploration of zinc on property, known as the James-Woodruff Area located in Smyth and Wythe Counties, Virginia.

My review included an examination of the Monthly Reports (Forms MF-104) and supporting documents, comparison of the claimed costs with the contract and pertinent schedules, verification of work performed by reference to Field Team reports and correspondence, 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 reasons:

(a) the Monthly Reports were supported by documentary proof of that portion ($29,803.05) of the costs which covered work performed at unit rates under independent contract;
(b) the balance ($3,803.70) of the costs was under a contract provision for payment by the Government at fixed unit costs for work performed; and
(c) the administrative cost to the Government of an audit would be excessive in relation to the estimated amount of possible disallowances.

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

Total cost billed by Contractor		$33,606.75
Exceptions:		
Prior to this review	$ -0-	
Herewith	-0-	-0-
Total Accepted Cost		$33,606.75

The contract calls for a 50 percent contribution of the allowable costs by the Government. Therefore, if the project is otherwise accepted as having met the terms of the contract, payments as follows are valid and proper:

Payable on audited claim	$16,803.38
Paid to date	14,317.13
Balance due Operator	$ 2,486.25

June 17, 1958

E. D. Talbert, Auditor

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region V
Room 13, Post Office Building
Knoxville 2, Tennessee

Re: Docket No. DMEA-4173 (Zinc)
The New Jersey Zinc Company
James-Woodruff Area
Wythe & Smyth Counties, Virginia
Contract No. Idm-E970

Dear Mr. Laurence:

The original and three copies of the Report of Review in lieu of a final audit, as requested by your memorandum of June 10, are enclosed.

If you concur with the facts as stated therein, the original and one copy should be submitted to the regional finance officer, one copy should be forwarded to the Operator, and one copy should be retained in your files. If for any reason you do not concur, please return all copies with your comments to this Division.

The final (March 1958) MF-104 and attachments, together with the drilling invoices supporting prior forms MF-104 are being returned to Mrs. Miller with a copy of this letter.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Director
Contract Administration
and Audit Division

Enclosures

EDTalbert/ama
June 17, 1958

Copy to: Docket
Admr. Reading File
Helen R. Miller w/104 and invoices
Mr. Chambers

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION V

ELECTROTECHNICAL
EXPERIMENT STATION

P. O. BOX 217
NORRIS, TENNESSEE

REGISTERED MAIL

June 12, 1958

Memorandum

To: Jay L. Chambers, Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Personal Assistant, Norris, Tennessee

Subject: Report of Review in lieu of final audit - Contract Idm-E970, Docket No. DMEA-4173, The New Jersey Zinc Company, Austinville, Virginia, James-Woodruff Area, Wythe & Smyth Counties, Va.

A report of review in lieu of final audit is requested on the subject contract. The following documents are attached:

1) Original MF-104, 104A and attachments covering final voucher

2) Invoices covering previously paid vouchers (total of 23 invoices)

3) Memo from Executive Officer regarding completion of contract

Helen R. Miller

Helen R. Miller

Attachments
/hbm
Copies to R. A. Laurence
V. J. Lynch
Norris files
Day files

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 16 1958
DATE
6/16 C 220
800

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 10 1958
DATE

June 10, 1958

Memorandum

To: Mr. Jay L. Chambers, Chief Contract Admin. and Audit Division, DMEA

From: Executive Officer, DMEA - Region V - Knoxville, Tenn.

Subject: Completion of DMEA-4173, Idm-E970(zinc)
The New Jersey Zinc Company, Austinville, Virginia
James-Woodruff Area, Wythe & Smyth Counties, Va.

Work on the subject contract has been terminated as of March 10, 1958.

The following units of work have been successfully performed as verified by our Field Examiners:

1) A total of 12,639 feet of diamond drilling has been completed.

2) 12 sample analyses were made.

An adequate final engineering and geological report has been received from the Operator.

A report of review is requested. Final Monthly Report and Voucher attached.

Robert A. Laurence

Robert A. Laurence
Executive Officer, DMEA
Region V

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K-

63

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March, 1958 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $ 41,388.00 Government Participation: 50 % Amount, $ 20,694.00

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	4419.00	25384.05	29803.05			
Bulldozing						
Crosscutting						
Drifting						
(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		12.00	12.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $0.30/ft	553.50	3238.20	3791.70			
TOTALS	4972.50	28634.25	33606.75	4972.50	28634.25	33606.75

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

Date 4/1/58 *Payee Bertha Mineral Division THE NEW JERSEY ZINC COMPANY

Per [signature] Title Gen'l Superintendent

*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:

$ 2486.25

Signature Helen R. Miller
(Authorized Certifying Officer)

Date JUN 26 1958 Vou. No. 163
(See other side)

2486.25

(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-770 in accordance with the terms of the contract.

Signature [illegible signature] Title MINING ENGINEER U. S. BUREAU OF MINES Date JUN 23 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Larsen Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date JUN 23 1958

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED JUN 30 1958

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March 1958 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia

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 0-250	Ft	1650.00	750	29803.05	12639	2.358	15000	2.45
250-500	Ft	1837.50	750					
500-627	Ft	931.50	345					
Stripping								
Trenching								
Sample Assays	Sample			12.00	12	1.00	100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	553.50	1845	3791.70	12639	0.30	15000	0.30
Total Distributed Costs		4972.50		33606.75				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
Total Costs		4972.50		33606.75				$41,388.00

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: Includes costs of JW-25, JW-26 and JW-27.

Date 4/1/58 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per W. L. Albers Title Gen'l Superintendent

W. L. Albers

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)

W. Lynch
MINING ENGINEER
U. S. BUREAU OF MINES

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

Narrative Report - James-Woodruff Project

Exploration continued in the James-Woodruff Area with the completion of three holes. JW-25, which was collared in the Saccharoidal Member and was bottomed in the Patterson Member, penetrated one foot of slightly mineralized ground, and was drilled to a depth of 625 feet. JW-26 was collared in the Saccharoidal Member and was bottomed in the Patterson Member. This hole, which was barren, was drilled to a depth of 593 feet. JW-27, which was collared in the Saccharoidal Member and bottomed in the Patterson Member, penetrated 13 feet of mineralization in trace amounts. This hole was completed at a depth of 627 feet.

A request for a recess pending termination of this project has been submitted.

Quarterly Summary

During the quarter ending March 31, the following holes were completed with the noted results:

Hole No.	Depth	Collar	Bottom	Results
JW-24	530	Saccharoidal	Patterson	1' (447-448) Traces ZnS, PbS
JW-25	625	"	"	1' (580-581) Traces ZnS
JW-26	593	"	"	Barren
JW-27	627	"	"	13' (489-502) Rare Traces ZnS

[redacted]6 150H

COPY

EXTRA COPY
DMEA
RECEIVED MAR 20
DATE | DIV | CODE
Com 3/24 | 100
800

Austinville, Va.
March 14, 1958

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13, Post Office Building
Knoxville 2, Tennessee

Subject: Monthly Report
James-Woodruff Area
DMEA 4173, Contract 970

Dear Sir:

A monthly report will not be submitted for February because we have not received bills from the drilling contractor. However, the three holes completed since the last report (JW-25, JW-26 and JW-27) did not encounter more than a trace of mineralization. JW-27 was the last of the proposed holes in the area, and subsequent to its completion we have requested a recess of the project. Drilling has been suspended in the area.

Very truly yours,

W. L. Albers,
General Superintendent

R.C.G.
RCGilbert/mjf
In quintuplicate

RECEIVED
MAR 17 1958
U. S. Geological Survey
Contract Division

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K-72

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January 1958 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $41,388.00 Government Participation: 50 % Amount, $ 20,694.00

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	1243.50	24140.55	25384.05			
Bulldozing						
Crosscutting						
Drifting						
(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		12.00	12.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $0.30/ft	159.00	3079.20	3238.20			
TOTALS	1402.50	27231.75	28634.25	1402.50	27231.75	28634.25

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 2/10/58 *Payee Bertha Mineral Division The New Jersey Zinc Company
Per [signature] Title Gen'l Superintendent

*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:
$ 701.25
Signature Helen R. Miller (Authorized Certifying Officer)
Date FEB 25 1958 Vou. No. 129
(See other side)

701.25

(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-920 in accordance with the terms of the contract.

Signature [illegible] Title MINING ENGINEER S. BUREAU OF MINES Date FEB 20 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date FEB 20 1958

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 1958 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia

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 0-250	Ft	550.00	250	25384.05	10794	2.342	15000	2.45
~~Churn~~ 250-500	"	612.50	250					
~~Auger~~ 500-530	"	81.00	30					
Stripping								
Trenching								
~~Test Pits~~ ~~Sample Assays~~	Sample			12.00	12	1.00	100	1.00
Roads and Trails								
Incidental Allowance @ $0.30/ft	Ft	159.00	530	3238.20	10794	0.30	15000	0.30
Total Distributed Costs		1402.50		28634.25				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		1402.50		28634.25				$41,388.00

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: Includes costs of JW-24

Date 2/10/58 Operator Bertha Mineral Division The New Jersey Zinc Co.

By W. L. Albers Title General Superintendent

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)

W. J. Lynch
MINING ENGINEER
U. S. BUREAU OF MINES

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

Narrative Report

Exploration continued during the month with the completion of hole JW-24. Only one foot of slightly mineralized ground was encountered. This hole was collared in the Saccharoidal Member and was bottomed in the ellipsoidal zone of the Patterson Member. A total of 530 feet was drilled in this hole.

The mineralized ground contained both ZnS and PbS in trace amounts.

Diamond Drill Log - JW-24

Location: (Based on Austinville Grid System)

18,190 S 105,245 W

Inclination: Vertical Elevation: 2467

Objective: To test for strike extension of JW-19 to the west.

Results:

From	To	Dist.	Recov.	Description
0	50	50	0	Overburden
50	96	46	24	Light medium to dark gray finely saccharoidal dolomite, local diagenetic breccia, Saccharoidal Member.
96	202	106	48	Light medium to medium gray finely saccharoidal dolomite, local abundant diagenetic breccia, Transition Zone.
202	303	101	34	Medium gray fine to finely saccharoidal dolomite, local diagenetic breccia, ribbony partings, local slight bleaching and oxidation, Patterson Member.
303	326	23	21	Medium to dark gray finely saccharoidal dolomite, abundant fragmental partings.
326	336	10	4	Medium gray finely saccharoidal dolomite, ribbony partings, moderate metamorphism.
336	348	12	5	Light medium gray fine grained dolomite, bleached diagenetic breccia, faintly mottled.
348	356	8	3	Medium gray finely saccharoidal dolomite, ribbony partings, moderate metamorphism.
356	406	50	36	Medium gray finely saccharoidal dolomite, abundant ribbony partings.
406	448	42	40	Medium to dark gray finely saccharoidal dolomite, abundant ribbony partings, locally broken ground, moderate metamorphism. Trace ZnS, bleb PbS 447-448.

DDL - JW-24 (Cont.)

From	To	Dist.	Recov.	Description
448	485	37	28	Medium gray finely saccharoidal dolomite, ribbony partings.
485	530	45	40	Medium gray fine grained limestone, thick ribbony partings, ellipsoids.

X 1085 150M

COPY

Austinville, Va.
February 10, 1958

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13, Post Office Building
Knoxville 2, Tennessee

Subject: Monthly Report
DMEA 4173, Contract 970
James-Woodruff Area, Virginia

Gentlemen:

Enclosed is our January monthly report on the James-Woodruff project. Hole JW-25, which is not covered by this report, has been completed and is essentially barren.

Very truly yours,

W. L. Albers,
General Superintendent

R.C.G.
RCGilbert/mjf
In quintuplicate

RECEIVED
FEB 13 1958

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K-34

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of December 1957 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $41,388.00 Government Participation: 50 % Amount, $20,694.00

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	2593.20	21547.35	24140.55			
Bulldozing						
Crosscutting						
Drifting						
(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		12.00	12.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $0.30/ft	327.30	2751.90	3079.20			
TOTALS	2920.50	24311.25	27231.75	2920.50	24311.25	27231.75

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 1/8/58 *Payee Bertha Mineral Division THE NEW JERSEY ZINC COMPANY
Per W. L. Allen Title Superintendent

*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:
$ 1460.25
Signature Helen R. Miller (Authorized Certifying Officer)
Date JAN 15 1958 Vou. No. 113
(See other side)

12

1460.25

(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-970 in accordance with the terms of the contract.

Signature P. J. Lynch Title U. S. BUREAU OF MINES Date JAN 14 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Laurenson Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date JAN 14 1958

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

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

Month of December 1957 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

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 0-250	Ft	1100.00	✓ 500	24140.55	10264	2.352	15000	2.45
~~Churn~~ 250-500	"	1004.50	✓ 410					
Auger 500-	"	488.70	✓ 181					
Stripping								
Trenching								
Test Pits Sample Assays Sample				12.00	12	1.00	100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	327.30	1091	3079.20	10264	0.30	15000	0.30
TOTAL DISTRIBUTED COSTS		2920.50		27231.75				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
TOTAL COSTS		2920.50		27231.75				$41,388.00

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 1/8/58 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per W. L. Albers Title Superintendent

W. L. Albers

REMARKS: Includes costs of JW-22 and JW-23.

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)

W. J. Lynch
MINING ENGINEER
U. S. BUREAU OF MINES

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

X1686 150M

COPY

Austinville, Va.
January 8, 1958

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13, Post Office Building
Knoxville 2, Tennessee

Subject: Monthly Report and Quarterly Summary
DMEA 4173, Contract 970
James-Woodruff Area, Virginia

Dear Sir:

Enclosed are our December monthly report and fourth quarter, 1957, summary of the exploration activities in the James-Woodruff Area.

Very truly yours,

W. L. Albers
W. L. Albers,
Superintendent

R.C.G.
RCGilbert/mjf
In quintuplicate

RECEIVED
JAN 14 1958
U.S. Geological Survey
Geologic Division
Knoxville, Tenn.

Narrative Report

Exploration continued in the James-Woodruff Area with the completion of holes JW-22 and JW-23. JW-22 was collared in the Saccharoidal Member and was bottomed in the Ellipsoidal Zone of the Patterson Member. A total of 681 feet was drilled. No zinc mineralization was encountered. JW-23, located about 600 feet west of JW-20, was collared in the Transition Zone and was bottomed in the Ellipsoidal Zone of the Patterson. A total of 410 feet was drilled. Traces of sphalerite were seen between 330-331.

Bad ground was encountered in JW-22 causing a delay in the completion of the hole.

Quarterly Summary

During the quarter ending December 31, the following holes were completed with the noted results.

Hole No.	Depth	Collar	Bottom	Results
JW-19	422	Saccharoidal	Patterson	3' (373-376) 1.6% Zn 17' (276-293) Weak Zn Min
JW-20	322	Patterson	Patterson	Barren
JW-21	550	Saccharoidal	Patterson	4' (506-510) 0.5% Zn 2' (520-522) 0.4% Zn
JW-22	681	Saccharoidal	Patterson	Barren
JW-23	410	Transition Zone	Patterson	1' (330-331) Traces ZnS

Diamond Drill Log - JW-22

Location: (Based on Austinville Grid System)

18190 S 104,575 W

Inclination: Vertical Elevation: 2460 (Approx)

Object: Test for down dip extent of JW-21 mineralization.

Results:

From	To	Dist	Recov	Description
0	23	23	0	Overburden
23	175	152	85	Light gray saccharoidal dolomite, Massive, few vugs, Saccharoidal Member.
175	197	22	7	Light medium gray fine to finely saccharoidal dolomite, few thin partings.
197	268	71	32	Medium to dark gray finely saccharoidal dolomite, rare thin parting.
268	359	91	64	Medium gray finely saccharoidal dolomite, local abundant diagenetic breccia, locally oxidized, Transition Zone.
359	400	41	22	Medium to dark gray finely saccharoidal dolomite, abundant fragmental partings, Patterson Member.
400	417	17	10	Medium gray finely saccharoidal dolomite, moderate metamorphism, abundant ribbony partings.
417	473	56	9	Light medium gray finely saccharoidal dolomite, abundant ribbony partings.
473	500	27	27	Medium to dark gray finely saccharoidal dolomite, moderate metamorphism, abundant fragmental partings.
500	509	9	6	Light medium gray fine to finely saccharoidal dolomite, faintly mottled, bleached diagenetic breccia.
509	524	15	7	Medium gray finely saccharoidal dolomite, moderate metamorphism, abundant ribbony partings.

DDL - JW-22 (Cont.)

From	To	Dist	Recov	Description
524	572	48	32	Medium gray finely saccharoidal dolomite, ribbony partings, local vugs.
572	633	61	21	Medium gray finely saccharoidal dolomite, moderate metamorphism, ribbony partings.
633	660	27	14	Light medium gray fine to finely saccharoidal dolomite, ribbony partings, local vugs, suggestion of ellipsoids.
660	681	21	21	Medium gray fine grained dolomite, thick ribbony partings, ellipsoids.
	681			Bottom

Diamond Drill Log - JW-23

Location: (Based on Austinville Grid System)

18,000 S 105,310 W

Inclination: Vertical Elevation: 2461

Object: To test for JW-21 mineralization on strike to the west.

Results:

From	To	Dist	Recov	Description
0	15	15	0	Overburden
15	76	61	53	Medium gray finely saccharoidal dolomite, few partings, local abundant diagenetic breccia, Transition Zone.
76	150	74	23	Light medium gray finely saccharoidal dolomite, rare partings local shattering, Patterson Member.
150	172	22	14	Medium to dark gray finely saccharoidal dolomite, abundant fragmental partings.
172	202	30	20	Medium gray finely saccharoidal dolomite, ribbony partings, moderate metamorphism, local suggestion of ellipsoids.
202	215	13	4	Medium to dark gray finely saccharoidal dolomite, abundant fragmental partings.
215	232	17	10	Light medium gray fine to finely saccharoidal dolomite, faintly mottled, bleached diagenetic breccia.
232	267	35	21	Medium gray finely saccharoidal dolomite, abundant ribbony partings.
267	273	6	5	Medium gray finely saccharoidal dolomite, abundant fragmental partings, slightly bleached.
273	287	14	13	Medium gray finely saccharoidal dolomite, abundant ribbony partings, local slight bleaching.
287	315	28	27	Medium gray finely saccharoidal dolomite, abundant fragmental partings, moderate metamorphism.

DDL - JW-23 (Cont.)

From	To	Dist	Recov	Description
315	320	5	5	Medium gray finely saccharoidal dolomite, abundant ribbony partings.
320	331	11	11	Dark gray finely saccharoidal dolomite, broken, shattered ground, pyrite mineralization, Traces ZnS 330-331.
331	358	27	27	Medium gray finely saccharoidal dolomite, ribbony partings, moderate metamorphism 331-342, few vugs.
358	364	6	6	Steep fault zone, strong crushing, local mylonite.
364	400	36	26	Medium gray fine grained limestone, thick ribbiny partings, ellipsoids.
400	410	10	1	Medium gray finely saccharoidal dolomite, diagenetic breccia, single bleb ZnS.
	410			Bottom

RECEIVED
DEC 1957
D.M.E.A.

December 5, 1957

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13, Post Office Building
Knoxville 2, Tennessee

Subject: Monthly Report
DMEA 4173, Contract 970
James-Woodruff Area, Virginia

Gentlemen:

A monthly report on the subject area will not be submitted for November since we have not received vouchers from the drilling contractor.

Hole JW-22, which had made no progress because of drilling difficulties for six weeks, has now been completed and is apparently barren of zinc mineralization.

Very truly yours,

W. L. Albers,
Superintendent

RCGilbert/mjf
In quintuplicate

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

RECEIVED NOV 20 1957 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 26

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 1957 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

Contract Amount, $ 41,388.00 Government Participation: 50 % Amount, $ 20,694.00

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	2995.30	18552.05	21547.35			
Bulldozing						
Crosscutting						
Drifting						
(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	2.00	10.00	12.00			
Payroll Taxes						
Liability Insurance						
Incidental Allowances @ $0.30/ft	388.20	2363.70	2751.90			
(8) Contingencies (specify):						
TOTALS	3385.50	20925.75	24311.25	3385.50	20925.75	24311.25

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

Date 11/6/57 *Payee Bertha Mineral Division The New Jersey Zinc Co.

Per [signature] Title Superintendent

*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:

$ 1692.75

Signature [signature] (Authorized Certifying Officer)

Date NOV 18 1957 Vou. No. 86

(See other side)

1692.75

(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-970, in accordance with the terms of the contract.

Signature V. J. Lynch Title MINING ENGINEER U. S. BUREAU OF MINES Date NOV 14 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Laurence Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date NOV 14 1957

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 872893

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

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

RECEIVED NOV 20 1957

Month of October 1957 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia

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 0-250	Ft	1650.00	✓ 750	21547.35	9173	2.349	15000	2.45
250-500	"	1210.30	✓ 494					
500-550	"	135.00	✓ 50					
Stripping								
Trenching								
Sample Assays	Sample	2.00	2	12.00	12	1.00	100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	388.20	1294	2751.90	9173	0.30	15000	0.30
TOTAL DISTRIBUTED COSTS		3385.50		24311.25				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		3385.50		24311.25				$41,388.00

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 11/6/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per W. L. Albers Title Superintendent

REMARKS: Includes costs of holes JW-19, JW-20 & JW-21.

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)

MINING ENGINEER
U. S. BUREAU OF MINES

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

Narrative Report

Exploration continued during the month with the completion of holes JW-19, JW-20 and JW-21. Hole JW-19, which collared in the Saccharoidal Member and bottomed at a depth of 422 feet in the ellipsoidal zone of the Patterson Member, encountered 3 feet of mineralization that assayed 1.56% Zn and 17 feet that contained only traces of sphalerite. Hole JW-20, which was barren, was collared in the Patterson and was drilled to a depth of 322 feet where it was bottomed in the ellipsoidal zone. Hole JW-21 was collared in the Saccharoidal Member and was bottomed in the ellipsoidal zone of the Patterson Member. This hole encountered 4 feet of mineralization that assayed 0.46% Zn (506-510) and another run of 2 feet that assayed 0.35% Zn (520-522). Ground preparation in JW-21 appears favorable.

Diamond Drill Log - JW-19

Location: (Based on Austinville Grid System)

17,900 S 104,710 W

Inclination: Vertical Elevation: 2418

Object: To test for an assumed ore body pitching west from a geochemical anomaly.

Results:

From	To	Dist.	Recov.	Description
0	9	9	0	Overburden
9	40	31	21	Light medium gray finely saccharoidal dolomite, rare parting, few vugs, Saccharoidal Member of Shady Formation.
40	150	110	43	Medium gray finely saccharoidal dolomite, local abundant diagenetic breccia, Transition zone of Patterson Member.
150	202	52	48	Light medium gray finely saccharoidal dolomite, abundant ribbony partings, local augen, Patterson Member.
202	248	46	24	Medium to dark gray finely saccharoidal dolomite, abundant fragmental partings.
248	266	18	12	Light medium gray fine grained dolomite, faintly mottled, bleached diagenetic breccia.
266	282	16	16	Medium gray finely saccharoidal dolomite, abundant ribbony partings, local slight brecciation.
282	283	1	1	Fault zone.
283	325	42	35	Medium gray finely saccharoidal dolomite abundant ribbony partings, local augen.
325	364	39	31	Medium to dark gray finely saccharoidal dolomite, abundant fragmental partings, slight to moderate metamorphism.
364	373	9	0	Cave

DDL - JW-19 - Cont.

From	To	Dist.	Recov	Description
373	376	3	3	Medium to dark gray finely saccharoidal dolomite, moderate metamorphism, generally brecciated, 1.56% Zn.
376	393	17	16	Medium gray finely saccharoidal dolomite local abundant fragmental partings, Traces ZnS.
393	396	3	3	Medium gray finely saccharoidal dolomite, ribbony partings, local brecciation.
396	422	26	26	Medium gray fine grained limestone, thick ribbony partings, ellipsoidal zone.
	422	Bottom		

Diamond Drill Log - JW-20

Location: (Based on Austinville Grid System)

17,705 S 104,775 W

Inclination: Vertical Elevation: 2415

Object: To test for up dip extent of JW-19 mineralization.

Results:

From	To	Dist.	Recov.	Description
0	4	4	0	Overburden
4	88	84	75	Medium gray finely saccharoidal dolomite, ribbony partings, Patterson Member of Shady Formation.
88	120	32	30	Medium gray finely saccharoidal dolomite, locally shattered, moderate metamorphism.
120	138	18	15	Light medium gray fine grained dolomite, faintly mottled, bleached diagenetic breccia.
138	147	9	9	Medium to dark gray finely saccharoidal dolomite, ribbony partings, locally shattered, moderate metamorphism.
147	217	70	68	Medium gray finely saccharoidal dolomite, ribbony partings, locally shattered, local sand grains.
217	238	21	10	Medium gray finely saccharoidal dolomite, ribbony partings, local slight oxidation, moderate metamorphism.
238	243	5	5	Medium gray to buff finely saccharoidal dolomite, ribbony partings, general slight oxidation, local vugs.
243	260	17	15	Medium to dark gray finely saccharoidal dolomite, ribbony partings few vugs, moderate metamorphism.
260	285	25	25	Medium gray finely saccharoidal dolomite, ribbony partings, local vugs.
285	322	37	35	Medium gray fine grained limestone, thick ribbony parting, ellipsoidal zone.
	322	Bottom		

Diamond Drill Log - JW-21

Location: (Based on Austinville Grid System)

18,090 S 104,645 W

Inclination: Vertical Elevation: 2436

Object: To test for down dip extent of JW-19 mineralization.

Results:

From	To	Dist.	Recov	Description
0	19	19	0	Overburden
19	44	25	10	Light gray massive saccharoidal dolomite, Saccharoidal Member of Shady Formation.
44	171	127	89	Medium, local dark gray, finely saccharoidal dolomite, rare thin parting, local slight bleaching, locally oxidized.
171	241	70	68	Medium to dark gray finely saccharoidal dolomite, abundant diagenetic breccia, Transition Zone of Patterson Member.
241	336	95	58	Medium gray finely saccharoidal dolomite, local abundant ribbony partings, locally oxidized.
336	376	40	5	Medium gray fine grained dolomite, abundant fragmental partings, generally oxidized.
376	386	10	10	Medium gray finely saccharoidal dolomite, abundant fragmental partings, moderate metamorphism.
386	398	12	12	Light medium gray fine grained dolomite, faintly mottled, bleached diagenetic breccia.
398	410	12	12	Medium gray finely saccharoidal dolomite, abundant ribbony partings, locally oxidized, moderate metamorphism.

From	To	Dist.	Recov.	Description
410	464	54	51	Medium gray finely saccharoidal dolomite, abundant ribbony partings.
464	468	4	4	Medium to dark gray fine grained dolomite, abundant fragmental partings.
468	497	29	29	Medium to dark gray finely saccharoidal dolomite, thick ribbony partings, well broken ground, moderate metamorphism.
497	522	25	25	Medium to dark gray finely saccharoidal dolomite, thick ribbony partings, well broken ground, heavy pyrite mineralization. 506-510, 0.46% Zn; 520-522, 0.35% Zn.
522	545	23	23	Light medium gray fine grained dolomite, few thin ribbony partings, rare thick parting, local vugs.
545	550	5	5	Medium gray fine grained limestone, abundant thick ribbony partings, ellipsoidal zone.
	550			Bottom

7086 150M

COPY

November 7, 1957

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13, Post Office Building
Knoxville 2, Tennessee

Subject: Monthly Report
Docket #DMEA 4173, Contract #970
James-Woodruff Area, Smyth County, Va.

Gentlemen:

Enclosed is our October report on the James-Woodruff project. The drill holes covered in this report are shown on the sections submitted with the quarterly report dated October 9, 1957.

Very truly yours,

W. L. Albers,
Superintendent

R.C.G. 10/10
RCGilbert/mjf
In quintuplicate

NOV 13 1957

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED OCT 25 1957

PAID ON VOUCHER & SCHEDULE OF PAYMENTS 21

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September, 1957 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

Contract Amount, $ 41,388.00 Government Participation: 50% Amount, $ 20,694.00

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	2297.70	16254.35	18552.05			
Bulldozing						
Crosscutting						
Drifting						
(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		10.00	10.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ 0.30/ft	271.80	2091.90	2363.70			
TOTALS	2569.50	18356.25	20925.75	2569.50	18356.25	20925.75

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

Date 10/10/57 *Payee Bertha Mineral Division The New Jersey Zinc Company

Per _____ Title Superintendent

*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:

$ 1284.75

Signature Helen R. Miller
(Authorized Certifying Officer)

Date OCT 23 1957 Vou. No. 73

(See other side)

1284.75

(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-920 in accordance with the terms of the contract.

Signature [illegible] Title MINING ENGINEER U. S. BUREAU OF MINES Date OCT 18 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date OCT 18 1957

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952).

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED OCT 25 1957 D.M.E.A.

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 195 7 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

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 0-250	Ft	550.00	250	18,552.05	7879	2.355	15000	2.45
~~Churn~~ 250-500		612.50	250					
~~Auger~~ 500-750		675.00	250					
750-906		460.20	156					
Stripping								
Trenching								
~~Test Pits~~ Sample Assays Sample				10.00	10	1.00	100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	271.80	906	2,363.70	7879	0.30	15000	0.30
Total Distributed Costs		2569.50		20,925.75				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		~~2569.50~~		~~20,925.75~~				~~$41,388.00~~

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 10/10/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per W. L. Albers Title Superintendent

Remarks: Includes costs of hole JW-16

→ 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)

GEOLOGIST, U. S. G. S.

OCT 18 1957

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

X 10 150M

COPY

Austinville, Va
October 9, 1957

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13, Post Office Building
Knoxville 2, Tennessee

Subject: Monthly Report and Quarterly Summary
DMEA-4173, Contract 970
James-Woodruff Area, Wythe County, Va.

Dear Sir:

Enclosed is our September monthly report and quarterly summary of the James-Woodruff project.

Very truly yours,

W. L. Albers,
Superintendent

R.C.G.
RCGilbert/mjf
In quintuplicate

RECEIVED
OCT 14 1957
U. S. Geological Survey
Geologic Division
Knoxville, Tenn.

Narrative Report

Exploration continued in the James-Woodruff Area with the completion of Hole JW-16. This hole was collared in the Saccharoidal Member of the Shady and was bottomed in the Patterson Member. A total of 906 feet was drilled. No mineralization was encountered.

Quarterly Summary

During the quarter ending September 30, the following holes were drilled with the noted results:

Hole No.	Depth	Collar	Bottom		Results
JW-15	717	Saccharoidal	Patterson	1'	(705-706) 1% Zn
JW-16	906	"	"		Barren
JW-17	397	Patterson	Rome		Barren; penetrated Sugar Grove Fault
JW-18	134	Patterson	Patterson	5'	(32-37) 0.6% Zn
JW-19	422	Saccharoidal	Patterson	3'	(373-376) 1.5% Zn
				17'	(376-393) Weak Zn Mineralization
JW-20	322	Patterson	Patterson		Barren
JW-21	550	Saccharoidal	Patterson	4'	(506-510) Est 1-2% Zn
				2'	(520-522) Est 2% Zn

Note: Holes JW-19, 20 and 21 are not covered by detailed logs in this report since we have not received vouchers of the costs from the drilling contractor.

Diamond Drill Log - JW-16

Location: (Based on Austinville Grid System)

17,760 S 102,250 E

Inclination: Vertical Elevation: 2465

Object: To test for an assumed ore body pitching east from a geochemical anomaly.

Results:

From	To	Dist.	Recov.	Description
0	46	46	0	Overburden
46	66	20	16	Light medium gray finely saccharoidal dolomite, few partings, few vugs, Saccharoidal Member of Shady.
66	87	21	15	Medium to dark gray fine grained dolomite, local weak diagenetic breccia, local banding.
87	119	32	31	Light to medium gray fine grained dolomite, local parting, local sand grains and mud flakes.
119	125	6	6	Medium to dark gray fine grained dolomite, shattered, local spherulites, rare bleb ZnS.
125	200	75	31	Medium gray fine to finely saccharoidal dolomite, local thin partings, locally bleached.
200	223	23	13	Light to medium gray, locally buff, fine grained dolomite, abundant contorted shale partings, locally bleached.
223	373	150	142	Light gray saccharoidal dolomite, generally massive.
373	390	17	12	Light medium gray finely saccharoidal to saccharoidal dolomite, local diagenetic breccia.
390	465	75	35	Medium gray fine to finely saccharoidal dolomite, local abundant diagenetic breccia, locally weakly oxidized, Transition Zone of Patterson Member.
465	504	39	15	Medium gray finely saccharoidal dolomite, local diagenetic breccia, few partings, locally oxidized, Patterson Member.

DDL - JW-16 - Cont.

From	To	Dist.	Recov.	Description
504	509	5	4	Medium to dark gray finely saccharoidal dolomite, abundant fragmental partings.
509	667	158	102	Medium gray finely saccharoidal dolomite, local diagenetic breccia, abundant ribbony partings, locally oxidized.
667	703	36	31	Medium to dark gray finely saccharoidal dolomite, abundant fragmental partings.
703	712	9	8	Light medium gray fine grained dolomite, abundant bleached diagenetic breccia, faintly mottled.
712	727	15	15	Medium gray finely saccharoidal dolomite, ribbony partings, moderate metamorphism.
727	765	38	38	Medium gray finely saccharoidal dolomite, ribbony partings.
765	820	55	54	Medium gray finely saccharoidal dolomite, ribbony partings, locally oxidized, moderate metamorphism.
820	867	47	46	Medium gray finely saccharoidal dolomite, abundant ribbony partings, local suggestion ellipsoids.
867	906	39	36	Medium gray fine grained limestone, abundant thick ribbony partings, ellipsoidal zone.
	906			Bottom

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 14

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August, 1957 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Va.
Contract Amount, $41,388.00 Government Participation: 50 % Amount, $20,694.00

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	1204.95	15049.40	16254.35			
Bulldozing						
Crosscutting						
Drifting						
(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	1.00	9.00	10.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $0.30/ft	159.30	1932.00	2091.90			
TOTALS	1365.25	16991.00	18356.25	1365.25	16,991.00	18,356.25

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

Date 9/10/57 *Payee Bertha Mineral Division The New Jersey Zinc Co.

Per W. L. Allen Title Superintendent

*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:

$682.62

Signature Helen R. Mullin
(Authorized Certifying Officer)

Date SEP 18 1957 Vou. No. 55

(See other side)

682.63

(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. Jan E970 in accordance with the terms of the contract.

Signature [illegible] Title MINING ENGINEER U. S. BUREAU OF MINES Date SEP 18 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date SEP 18 1957

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R151.2

RECEIVED SEP 23 1957 D.M.E.A.

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

Month of August 1957 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

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 0-250	Ft	844.80	384	16254.35	6973	2.331	15000	2.45
~~Chip~~ 250-397	Ft	360.15	147					
Auger								
Stripping								
Trenching								
~~Test Pits~~ Sample Assays	Sample	1.00	1	10.00	10	1.00	100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	159.30	531	2091.90	6973	0.30	15000	0.30
Total Distributed Costs		1365.25		18356.25				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
		1365.25		18356.25				$41,388.00
Total Costs								

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

Date 9/10/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per W. L. Albers Title Superintendent

W. L. Albers

Remarks: Cover costs of JW-17 and JW-18

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)

GEOLOGIST, U. S. G. S.

SEP 16 1957

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

Narrative Report - James-Woodruff Area

Exploration continued in the James-Woodruff area with the completion of holes JW-17 and JW-18. JW-17, collared in the Patterson below the ellipsoidal zone, was drilled through the Sugar Grove Fault and was bottomed in the Rome Formation. A total of 397 feet was drilled in this hole.

JW-18 was collared in the Patterson Member and was bottomed in the Patterson at a depth of 134 feet. Five feet of 0.6% Zn was encountered at a depth of 32-37 feet.

JW-16 has been completed but as yet no statement of the costs has been received from the drilling contractors. This hole was barren.

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 23 1957

DATE	INITIALS	CODE

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 23 1957
DATE | INITIALS | CODE

Diamond Drill Log - JW-17

Location: (Based on Austinville Grid System)

16,725 S 105,115 W

Inclination: Vertical Elevation: 2519

Object: To test for an assumed ore shoot pitching west from a geochemical anomaly.

Results:

From	To	Dist	Recov	Description
0	11	11	0	Overburden
11	115	104	82	Medium gray fine to finely saccharoidal dolomite, local abundant ribbony partings, Patterson Member of Shady.
115	133	18	16	Medium gray to buff fine to finely saccharoidal dolomite, ribbony partings, generally oxidized.
133	172	39	37	Medium gray, locally buff, fine to finely saccharoidal dolomite, ribbony partings, locally oxidized.
172	181	9	9	Medium gray fine grained dolomite, few thin irregular partings.
181	222	41	35	Light gray to pink saccharoidal dolomite, massive.
222	351	129	74	Medium gray to buff fine to finely saccharoidal dolomite, ribbony partings, local sand grains, locally oxidized.
351	382	31	11	Sugar Grove Fault zone.
382	397	15	6	Gray to red shale, Rome Formation
	397			Bottom

Diamond Drill Log - JW-18

Location: (Based on Austinville Grid System)

17,350 S 104,900 W

Inclination: Vertical Elevation: 2440

Object: To test for an assumed ore shoot pitching west from a geochemical anomaly.

Results:

From	To	Dist	Recov	Description
0	18	18	0	Overburden
18	32	14	10	Medium gray finely saccharoidal dolomite, Ribbony partings, locally oxidized, moderate metamorphism, Patterson Member of Shady.
32	37	5	5	Medium gray finely saccharoidal dolomite, ribbony partings, moderate metamorphism, 0.58% Zn, Nil Pb, 2.84% Fe.
37	65	28	8	Medium gray fine to finely saccharoidal dolomite, abundant ribbony partings, local strong oxidation, abundant openings.
65	134	69	45	Medium gray fine grained limestone, abundant ribbony partings, ellipsoids.
	134			Bottom

Form MF-104
(April 1952)

RECEIVED
AUG 22 1957
D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 7

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July 1957 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $ 41,388.00 Government Participation: 50 % Amount, $ 20,694.00

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	1748.40	13301.00	15049.40			
Bulldozing						
Crosscutting						
Drifting						
(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	1.00	8.00	9.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowance @ $0.30/ft	215.10	1717.50	1932.60			
TOTALS	1964.50	15026.50	16991.00	1964.50	15026.50	16991.00

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

Date 8/6/57 *Payee Bertha Mineral Division The New Jersey Zinc Company

Per [signature] Title Superintendent

*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:

$ 982.25

Signature [signature] (Authorized Certifying Officer)

Date AUG 20 1957 Vou. No. 32

(See other side)

8

(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-970 in accordance with the terms of the contract.

Signature [illegible] Title MINING ENGINEER U. S. BUREAU OF MINES Date AUG 14 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date AUG 15 1957

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1957 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Va.

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 0-250	Ft	550.00	250	15049.40	6442	2.336	15000	2.45
~~Chip~~ 250-500	"	612.50	250					
~~Lugs~~ 500-717	"	585.90	217					
Stripping								
Trenching								
~~Texas~~ Sample Assays	Sample	1.00	1	9.00	9	1.00	100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	215.10	717	1932.60	6442	0.30	15000	0.30
TOTAL DISTRIBUTED COSTS		1964.50		16991.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		1964.50		16991.00				$41,388.00

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 8/6/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per W. L. Albers Title Superintendent

W. L. Albers

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)

MINING ENGINEER
U. S. BUREAU OF MINES

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

Narrative Report - James-Woodruff Area

Exploration continued in the James-Woodruff Area with the completion of hole JW-15. This hole was collared in the Saccharoidal Member of the Shady Formation and was bottomed in the Patterson Member. A total of 717 feet was drilled, and one foot of mineralization assaying 1.46% Zn, 2.36% Fe and Nil Pb was encountered at a depth of 705-706 feet.

The drill was moved to a position 200 feet down dip from JW-15.

Diamond Drill Log JW-15

Location: (Based on Austinville grid system)

17,570 S 102,305 W

Inclination: Vertical Elevation: 2435

Object: To test for an assumed ore shoot pitching east from a geochemical anomaly.

Results:

From	To	Dist	Recov	Description
0	40	40	0	Overburden
40	182	142	75	Light gray saccharoidal dolomite, massive Saccharoidal Member of Shady Formation.
182	238	56	36	Light medium to medium gray finely saccharoidal dolomite, local abundant diagenetic breccia, few partings. Transition Zone.
238	315	77	70	Light medium to medium gray finely saccharoidal dolomite, few partings, local diagenetic breccia, local oxidation, Patterson Member of Shady.
315	318	3	3	Medium to dark gray fine grained dolomite, abundant fragmental partings.
318	400	82	72	Light medium to medium gray fine to finely saccharoidal dolomite, local diagenetic breccia, few ribbony partings.
400	407	7	7	Medium to dark gray finely saccharoidal dolomite, abundant fragmental partings.
407	506	99	63	Light medium to medium gray finely saccharoidal dolomite, ribbony partings, few vugs, local oxidation.
506	523	17	17	Medium to dark gray fine to finely saccharoidal dolomite, local breccia, abundant fragmental partings, pyrite mineralization.
523	590	67	65	Medium gray finely saccharoidal dolomite, abundant ribbony partings, local oxidation.

Form [illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
[illegible]RATOR'S MONTHLY REPORT AND VOUCHER

Budget Bureau No. 42-R1036.5

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 3

Month of June, 1957 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

Contract Amount, $41,388.00 Government Participation: 50% Amount, $20,694.00

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	2259.35	11041.65	13301.00			
Bulldozing						
Crosscutting						
Drifting						
(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		8.00	8.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $0.30/ft	290.40	1427.10	1717.50			
TOTALS	2549.75	12476.75	15026.50	2549.75	12476.75	15026.50

RECEIVED JUL 22 1957 DMEA

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

Date 7/5/57 *Payee Bertha Mineral Division The New Jersey Zinc Company

Per [signature] Title Superintendent

*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:

$ 1274.87

Signature Helen R. Mulbe (Authorized Certifying Officer)

Date JUL 18 1957 Vou. No. 11

(See other side)

1274.88

(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-970 in accordance with the terms of the contract.

Signature [illegible] Title GEOLOGIST, U. S. G. S. Date JUL 15 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature V. J. Lynch Title ACTING EXECUTIVE OFFICER DMEA - REGION V Date JUL 16 1957

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Budget Bureau No. 42-R1151.2

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

Month of June 1957 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

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 0-250	Ft	1100.00	500	13,301.00	5725	2323	15000	2.45
250-500	"	1021.65	417					
500-551	"	137.70	51					
Stripping								
Trenching								
Sample Analysis Sample				8.00	8	1.00	100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	290.40	968	1717.50	5725	0.30	15000	0.30
TOTAL DISTRIBUTED COSTS		2549.75		15,026.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		2549.75		15,026.50				$41,388.00

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 7/5/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per W. L. Albers Title Superintendent

W. L. Albers

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)

RECEIVED JUL 22 1957 D.M.E.A.

Seymour Cram Jr.
GEOLOGIST, U. S. G. S.
JUL 15 1957

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

Narrative Report - James-Woodruff Area

Exploration continued during the month on the James-Woodruff project with the completion of two holes. Some low grade mineralization was encountered in hole JW-15 (not covered in this report by a detailed log.)

Hole JW-13 was collared in the Transition Zone and was bottomed in the Patterson Member of the Shady at a depth of 417 feet. Some pyrite mineralization was encountered.

Hole JW-14 was collared in the Saccharoidal Member of the Shady and was bottomed in the Patterson Member at a depth of 551 feet. Only pyrite mineralization was encountered.

JW-15, not covered in this report, has been completed. A thin bed (?) of mineralization was encountered near the bottom of this hole. A hole 200 feet down dip from JW-15 is now in progress.

Quarterly Summary

Exploration in the James-Woodruff area progressed with the completion of six holes during the quarter ending June 30. Two of these holes were drilled on the N. S. King property and the other four were drilled on the R. B. James property. Only thin low grade mineralization has been encountered.

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 22 1957

DATE	INITIALS	CODE

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 75

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1957 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $ 41,388.00 Government Participation: 50% Amount, $ 20,694.00

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	2625.40	8416.25	11041.65			
Bulldozing						
Crosscutting						
Drifting						
(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		8.00	8.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $0.30/ft	338.10	1089.00	1427.10			
TOTALS	2963.50	9513.25	12476.75	2963.50	9513.25	12476.75

RECEIVED JUN 17 1957 D.M.E.A.

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

Date 6/5/57 *Payee Bertha Mineral Division The New Jersey Zinc Company

By [signature] Title Superintendent

*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:

$ 1481.75

Signature [signature] (Authorized Certifying Officer)

Date JUN 14 1957 Vou. No. 203

(See other side)

1481.75

(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-770 in accordance with the terms of the contract.

Signature W. J. Lynch Title MINING ENGINEER U. S. BUREAU OF MINES Date JUN 10 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA FIELD TEAM REGION V Date JUN 10 1957

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 1957 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

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 0-250	Ft	1540.00	700	11041.65	4757	2.321	15000	2.45
250-500	Ft	661.50	270					
500-657	"	423.90	157					
Stripping								
Trenching								
Sample Assays	Sample			8.00	8	1.00	100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	338.10	1127	1427.10	4757	0.30	15000	0.30
TOTAL DISTRIBUTED COSTS		2963.50		12476.75				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		2963.50		12476.75				$41,388.00

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 6/5/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

By W. L. Albers Title Superintendent

W. L. Albers

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

(Instructions on reverse)

REMARKS:

(For Government use only)

RECEIVED JUN 17 1957 D.M.E.A.

GEOLOGIST, U. S. G. S.

JUN 10 '57

INSTRUCTIONS

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

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

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

GPO 872894

DDL - JW-15 - Cont.

590	636	46	36	Medium gray finely saccharoidal dolomite, ribbony partings, moderate metamorphism.
636	705	69	51	Medium gray fine grained dolomite, ribbony partings, local shattering, local suggestion of ellipsoids.
705	706	1	1	Medium gray fine grained dolomite, generally shattered, zinc mineralization (1.46% Zn, Nil Pb, 2.36% Fe)
706	717	11	11	Medium gray fine grained limestone, thick ribbony partings, ellipsoids.
	712			Bottom

Narrative Report - James-Woodruff Area, Virginia

Exploration continued during May with the completion of three diamond drill holes. One of these holes completed the proposed fence on the King Property, and the other two holes were drilled in the James Property. With the completion of the fence on the King Property, this portion of the James-Woodruff area has been recessed pending further study. Drilling will continue on the James and Newland Properties.

JW-10 was collared in the Saccharoidal Member of the Shady Formation and was bottomed in the Patterson Member at a depth of 657 feet. Some pyrite mineralization was encountered, but the core was barren of zinc mineralization.

JW-11, the first of the holes on the James Property, was collared in the Patterson Member of the Shady Formation and was bottomed in the same member at a depth of 200 feet. No zinc mineralization was encountered.

JW-12 was collared in the Patterson Member of the Shady Formation and bottomed in the same member at a depth of 270 feet. Only pyrite mineralization was encountered.

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DMEA

Diamond Drill Log - JW-10

OFFICIAL FILE COPY
D M E A
RECEIVED 1957
DATE

Location: (Based on Austinville Grid System)

15,570 S 88,260 W

Inclination: Vertical Elevation: 2435 (?)

Object: Test for western strike extension of JW-5 mineralization.

Results:

From	To	Dist.	Recov	Description
0	15	15	0	Overburden
15	66	51	38	Medium to dark gray finely saccharoidal dolomite, local banding, local brecciation, local partings; Saccharoidal member of Shady Formation.
66	84	18	16	Light to medium gray finely saccharoidal dolomite, few thin partings, local vugs.
84	142	58	58	Dark gray fine to finely saccharoidal dolomite, few thin partings, local shattering.
142	275	133	122	Light local medium gray saccharoidal dolomite, local banding.
275	294	19	17	Light medium gray finely saccharoidal dolomite, abundant bleached diagenetic breccia, Transition Zone.
294	353	59	42	Medium gray fine grained dolomite, few ribbony partings, vugs. Patterson Member of Shady Formation.
353	362	9	8	Medium to dark gray fine graimed dolomite, abundant fragmental partings.
362	405	43	39	Light medium to medium gray finely saccharoidal dolomite abundant ribbony partings.
405	420	15	9	Light medium gray finely saccharoidal dolomite, few vugs, ribbony partings, moderate metamorphism.
420	452	32	24	Medium gray fine to finely saccharoidal dolomite, ribbony partings, local vugs, local breccia.

DDL - JW-10 -(Cont)

From	To	Dist.	Recov	Description
452	467	15	14	Medium to dark gray fine to finely saccharoidal dolomite, local abundant fragmental partings, moderate metamorphism.
467	503	36	35	Medium gray finely saccharoidal dolomite, abundant ribbony partings, local oxidation.
503	558	55	42	Medium gray finely saccharoidal dolomite, ribbony partings, local abundant breccia, moderate metamorphism.
558	581	23	7	Light medium gray finely saccharoidal dolomite, bleached diagenetic breccia, faintly mottled.
581	594	13	13	Medium gray finely saccharoidal dolomite, ribbony partings, local diagenetic breccia, moderate metamorphism.
594	634	40	38	Medium gray finely saccharoidal dolomite, ribbony partings.
634	657	23	23	Medium gray fine grained limestone, ribbony partings, ellipsoids.
	657			Bottom

Diamond Drill Log - JW-11

Location: (Based on Austinville Grid System)

16,650 S 102,525 W

Inclination: Vertical Elevation: 2440 (?)

Object: To test for an assumed ore shoot pitching east from a geochemical anomaly.

Results:

From	To	Dist.	Recov.	Description
0	1	1	0	Overburden
1	33	32	20	Light medium gray finely saccharoidal dolomite, ribbony partings, local augen, local shattering, Patterson Member of Shady Formation.
33	46	13	12	Medium gray fine grained dolomite, abundant fragmental partings.
46	79	33	23	Buff finely saccharoidal dolomite, ribbony partings, strongly oxidized.
79	92	13	12	Light gray to buff finely saccharoidal dolomite, ribbony partings, moderately oxidized.
92	114	22	20	Light gray finely saccharoidal dolomite, ribbony partings, local suggestion of ellipsoids.
114	200	86	80	Medium gray fine grained limestone, ellipsoids.
	200			Bottom

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 69

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April, 1957 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $41,388.00 Government Participation: 50% Amount, $20,694.00

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	1091.45	7324.80	8416.25			
Bulldozing						
Crosscutting						
Drifting						
(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	5.00	3.00	8.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $0.30/ft	141.30	947.70	1089.00			
TOTALS	1237.75	8275.50	9513.25	1237.75	8275.50	9513.25

RECEIVED MAY 17 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 5/13/57 *Payee Bertha Mineral Division The New Jersey Zinc Company
Per [signature] Title Superintendent

*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:
$ 618.88
Signature Helen R. Miller
(Authorized Certifying Officer)
Date MAY 15 1957 Vou. No. 189
(See other side)

b 618.87

(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-970 in accordance with the terms of the contract.

Signature Kenneth Carey Jr. Title GEOLOGIST, U. S. G. S. Date MAY 14 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature V. J. Lynch Title ACTING EXECUTIVE OFFICER DMEA - REGION V Date MAY 14 1957

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of April 1957 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

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 0-250	Ft	550.00	250	8416.25	3630	2.319	15000	2.45
~~Chain~~ 250-471	"	541.45	221					
Auger								
Stripping								
Trenching								
~~Test Pits~~ Sample Assays	Sample	5.00	5	8.00	8	1.00	100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	141.30	471	1059.00	3630	0.30	15000	0.30
TOTAL DISTRIBUTED COSTS		1237.75		9513.25				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								~~$41,388.00~~

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 5/10/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per J. W. Alders Title Superintendent

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)

RECEIVED MAY 1957 D.M.E.A.

Seymour Cooper Jr.
GEOLOGIST, U. S. G. S.
MAY 14 1957

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

Narrative Report - James-Woodruff Area

Drilling continued on the King Property in the James-Woodruff area with the completion of hole JW-9. This hole was collared in the Saccharoidal Member of the Shady, and was bottomed in the Patterson Member at a depth of 471 feet. No zinc mineralization was observed in this hole.

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D M E A
RECEIVED MAY 17 1957

DATE	INITIALS	CODE

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 17 1957

DATE	INITIALS	CODE

Diamond Drill Log - JW-9

Location: (Based on Austinville Grid System)

15,340 S 18,290 W

Inclination: Vertical Elevation: 2370 (?)

Object: To test for strike extension of JW-5 mineralization.

Results:

From	To	Dist	Recov	Description
0	26	26	0	Overburden
26	60	34	16	Light gray saccharoidal dolomite, Saccharoidal Member of Shady Formation.
60	98	38	32	Light medium gray fine grained dolomite local diagenetic breccia.
98	122	24	22	Light medium to medium gray finely saccharoidal dolomite, diagenetic breccia, vugs, Transition Zone.
122	146	24	23	Medium gray fine to finely saccharoidal dolomite, local oxidation, local partings. Patterson Member of the Shady.
146	164	18	17	Medium to dark gray finely saccharoidal dolomite, abundant fragmental partings, rare trace ZnS.
164	246	82	82	Light medium to medium gray fine grained dolomite, ribbony partings, local oxidation few augen, local shattering.
246	253	7	6	Medium to dark gray fine grained dolomite, abundant fragmental partings.
253	280	27	27	Medium gray finely saccharoidal dolomite, ribbony partings, augen.
280	300	20	20	Medium gray finely saccharoidal dolomite, local strong oxidation, ribbony partings, moderate metamorphism.
300	341	41	41	Medium gray local buff fine grained dolomite, ribbony partings, local strong oxidation.
341	361	20	20	Medium gray finely saccharoidal dolomite, ribbony partings, local brecciation, moderate metamorphism.

DDL - JW-9 (Cont.)

From	To	Dist	Recov	Description
361	386	25	25	Medium gray finely saccharoidal dolomite, ribbony partings, local oxidation.
386	410	24	24	Light medium gray fine grained dolomite, faintly mottled, vugs.
410	447	37	32	Medium gray fine grained dolomite, ribbony partings, local augen.
447	471	24	24	Medium gray fine grained limestone, ribbony partings, ellipsoids.
	471			Bottom

2086 150M

COPY

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DMEA
RECEIVED MAY 17 1957

DATE	INITIALS	CODE

Austinville, Va.
May 13, 1957

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13, Post Office Building
Knoxville 2, Tennessee

Re: Monthly Report
James-Woodruff Area, Wythe County, Va.
Docket #DMEA 4173, Contract #970

Gentlemen:

Enclosed is our April report on the James-Woodruff project. The present drilling is designed to determine the strike extent of the mineralization to the west of the original fence.

Very truly yours,

W. E. Albers,
Superintendent

R.C.G.
RCGilbert/mjf
In quintuplicate

RECEIVED
MAY 14 1957
Knoxville, Tenn.

Diamond Drill Log - JW-12

Location: (Based on Austinville Grid System)

16,945 S 102,480 W

Inclination: Vertical Elevation: 2405 (?)

Object: Test for an assumed ore shoot pitching east from a geochemical anomaly.

Results:

From	To	Dist.	Recov.	Description
0	27	27	0	Overburden
27	46	19	19	Medium to dark gray fine grained dolomite, abundant fragmental partings, Patterson Member of Shady Formation.
46	121	75	67	Light to medium gray fine to finely saccharoidal dolomite, local abundant diagenetic breccia (62-80), ribbony partings, local bleaching.
121	130	9	7	Light medium gray fine grained dolomite, generally shattered, local mylonite.
130	137	7	7	Medium gray finely saccharoidal dolomite, abundant ribbony partings.
137	185	48	46	Medium to dark gray finely saccharoidal dolomite, ribbony partings, moderate metamorphism, pyrite mineralization.
185	196	11	11	Medium gray fine grained dolomite, ribbony partings, local shattering.
196	204	8	8	Medium to dark gray fine grained dolomite, abundant fragmental partings.
204	234	30	30	Medium gray fine grained dolomite, abundant ribbony partings.
234	270	36	34	Medium gray fine grained limestone, ribbony partings, ellipsoids.
	270			Bottom

FILE COPY
DMEA
RECEIVED JUN 17 1957
DATE | INITIALS | CODE

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

PAID ON VOUCHER & SCHEDULE OF PAYMENTS X-64

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March, 1957 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $41,388.00 Government Participation: 50% Amount, $20,694.00

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	3854.30	3470.50	7324.80			
Bulldozing						
Crosscutting						
Drifting						
(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	-	3.00	3.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowances @ $0.30/ft	487.20	460.50	947.70			
TOTALS	4341.50	3934.00	8275.50	4341.50	3934.00	8275.50

RECEIVED APR 22 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 4/11/57 *Payee Bertha Mineral Division The New Jersey Zinc Company
Per W. L. Allen/gm Title Superintendent

*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:
$ 2170.75
Signature Helen R. Miller (Authorized Certifying Officer)
Date APR 19 1957 Vou. No. 177
(See other side)

4

2170.75

(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-970 in accordance with the terms of the contract.

Signature W. J. Lynch Title MINING ENGINEER U. S. BUREAU OF MINES Date APR 17 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Paul A. Lawrence Title EXECUTIVE OFFICER DMEA REG. C Date APR 17 1957

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

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

RECEIVED APR 1957 DMEA

Month of March 1957 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Va.

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 0-250	Ft	1650.00	750	7324.80	3159	2.319	15000	2.45
~~Core~~ 250-500	Ft	1523.90	622					
~~Core~~ 500-730	Ft	680.40	252					
Stripping								
Trenching								
~~Test Pits~~ Sample Assays	Sample			3.00	3	1.00	100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	487.20	1624	947.70			15000	0.30
Total Distributed Costs		4341.50		8275.50				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		4341.50		8275.50				$41,388.00

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 4/11/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per W. L. Albers Title Superintendent

W. L. Albers

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

(Instructions on reverse)

Remarks:

(For Government use only)

MINING ENGINEER
U. S. BUREAU OF MINES

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

X 10 G 150M

COPY

OFFICIAL FILE COPY
DMEA
RECEIVED APR 22 1957
CODE

Austinville, Va.
April 12, 1957

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13, Post Office Building
Knoxville 2, Tennessee

Subject: Monthly Report and Quarterly Summary
James-Woodruff Area, Wythe County, Va.
Docket #DMEA 4173, Contract #970

Dear Sir:

Enclosed are our March monthly report and first quarter 1957 summary of the exploration activities on the James-Woodruff project. The first fence of seven holes has been completed, and the second fence, located 1200 feet west of the first, has been started. The first hole of the second fence, which will have three holes, has been completed.

Very truly yours,

W. L. Albers/sgm

W. L. Albers,
Superintendent

R.C.G. 4173
RCGilbert/mjf
In quintuplicate

Narrative Report - James-Woodruff Area, Wythe County, Va.

Hole JW-6 was collared in the Saccharoidal Member of the Shady and was bottomed in the Patterson Member. The hole was completed at a depth of 522 feet. Traces of zinc sulphide mineralization occur from 233-237. From 237-239, mineralization estimated at 1% Zn was encountered, and from 267 to 269 the zinc content is estimated at less than 1%. The latter two runs will be assayed.

Hole JW-7 was collared in the Saccharoidal Member of the Shady and was bottomed at a depth of 730 feet. The bottom of the hole is in the Patterson Member. Zinc mineralization was encountered in two zones: 414-417 and 454-463. Both runs were estimated at about 1% and will be assayed.

This was the last of the proposed holes on this fence. To determine the extent of the mineralization encountered in JW-5, a fence of three holes was proposed 1200 feet to the west along the strike.

Hole JW-8, the first hole of the fence 1200 feet from the original fence, was collared in the Patterson Member of the Shady and drilled to a depth of 372 feet. The bottom of the hole is in the Patterson Member. Only traces of zinc mineralization were encountered, at a depth of 100-114.

Quarterly Summary

Exploration in the James-Woodruff area continued with the completion of diamond drill holes JW-2, JW-3, JW-4 JW-5, JW-6, JW-7 and JW-8. A total of 2998 feet was drilled during the quarter. Holes JW-2, JW-3, JW-4 and JW-8 were collared in the Patterson Member of the Shady and holes JW-5, JW-6 and JW-7 were collared in the Saccharoidal Member. All holes were bottomed in the Patterson Member.

Mineralization was encountered as follows:

JW-4

Dist.	Depth	Grade
5	36 - 41	Est. 1/4% Zn

JW-5

28'	145 - 173	Traces only
7	173 - 180	1.3% Zn
4	212-216	Est. 1% Zn
5	305 - 310	3.0% Zn

JW-6

Dist	Depth	Grade
4'	233 - 237	Traces ZnS
2	237 - 239	Est. 1% Zn
26	239 - 267	Traces ZnS
2	267 - 269	Est. 1% ZnS

JW-7

3	414 - 417	Est. 1% Zn
9	454 - 463	Est. less than 1% Zn

JW-8

14	100 - 114	Traces ZnS

Form MF 104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 57

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February, 1957 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $ 41,388.00 Government Participation: 50% Amount, $ 20,694.00

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	1022.85	2447.65	3470.50			
Bulldozing						
Crosscutting						
Drifting						
(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	3.00	None	3.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental Allowance @ $0.30/ft	132.90	327.60	460.50			
TOTALS	1158.75	2775.25	3934.00	1158.75	2775.25	3934.00

RECEIVED MAR 25 1957 D.M.E.A.

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

Date 3/13/57 *Payee Bertha Mineral Division The New Jersey Zinc Co.

By [signature] Title Superintendent

*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:

$ 579.38

Signature Helen R. Miller
(Authorized Certifying Officer)

Date MAR 22 1957 Vou. No. 148

(See other side)

3

579.37

(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-970 in accordance with the terms of the contract.

Signature [illegible] Title MINING ENGINEER U. S. BUREAU OF MINES Date MAR 15 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION V Date MAR 15 1957

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED MAR 25 1957 D.M.E.A.

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

Month of February 1957 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia

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 0-250	Ft	550.00	250	3470.50	1535	2.261	15000	2.45
~~Core~~ 250-443	Ft	472.85	193					
Auger								
Stripping								
Trenching								
~~XXXXX~~ Sample Assays	Sample	3.00	3	3.00	3	1.00	100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	132.90	443	460.50			15000	0.30
TOTAL DISTRIBUTED COSTS		1158.75		3934.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		1158.75		3934.00				41,388.00

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 3/13/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per W. L. Albers Title Superintendent

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

(Instructions on reverse)

REMARKS:

(For Government use only)

Kenneth Lucas Jr.
GEOLOGIST, U.S.G.S.
MARCH 15, 1957

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

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 25 1957

DATE	INITIALS	CODE

Narrative Report - James-Woodruff Area, Virginia

Hole JW-5, which was collared in the Saccharoidal Member of the Shady and bottomed in the Patterson Member, was completed at a depth of 443 feet. Traces of mineralization were encountered at a depth of 145 to 173 feet. From 173 to 180 feet mineralization assaying 1.33% Zn was encountered. Four feet of about 1% Zn (estimated; to be assayed) was recovered at a depth of 212 - 216 feet. A deeper run of mineralization (305-310 feet) assayed 3.01% Zn.

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 25 1957
DATE | INITIALS | CODE

Diamond Drill Log - JW-5

Location: 800 feet S5E of JW-1

Elevation: 2331 (?) Inclination: Vertical

Object: To test for an assumed ore shoot pitching west from a geochemical anomaly.

Results:

From	To	Dist	Recov	Description
0	19	19	0	Overburden
19	25	6	4	Light gray massive saccharoidal dolomite, Saccharoidal Member of Shady Formation.
25	74	49	36	Medium gray finely saccharoidal dolomite, few partings, local diagenetic breccia.
74	98	24	21	Medium gray finely saccharoidal dolomite, abundant diagenetic breccia, few partings, Transition zone.
98	125	27	25	Medium gray finely saccharoidal dolomite, few partings, local diagenetic breccia, Patterson Member of Shady Formation.
125	128	3	3	Medium to dark gray finely saccharoidal dolomite, abundant fragmental partings.
128	145	17	15	Light medium gray finely saccharoidal dolomite, local strong oxidation, partings.
145	173	28	19	Medium gray finely saccharoidal dolomite, abundant thin wavy partings, scattered traces ZnS.
173	175	2	2	2.07% Zn
175	180	5	5	1.03% Zn
180	212	32	32	Medium gray finely saccharoidal dolomite, abundant thin wavy partings, local slight to moderate metamorphism local scattered traces of ZnS.
212	216	4	4	Estimated 1% Zn

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

PAID ON VOUCHER & SCHEDULE OF PAYMENTS K- 47

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January, 1957 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Va.
Contract Amount, $ 41,388.00 Government Participation: 50% Amount, $ 20,694.00

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	2093.45	354.20	2447.65			
Bulldozing						
Crosscutting						
Drifting						
(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): Incidental Allowances @ $0.30/ft	279.30	48.30	327.60			
Totals	2372.75	402.50	2775.25	2372.75	402.50	2775.25

RECEIVED FEB 14 1957 D.M.E.A.

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 2/4/57 *Payee Bertha Mineral Division THE NEW JERSEY ZINC CO.
Per [signature] Title Superintendent

*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:
$ 1186.38
Signature [signature]
(Authorized Certifying Officer)
Date FEB 12 1957 Vou. No. 128
(See other side)

1186.37

(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-970 in accordance with the terms of the contract.

Signature [illegible] Title GEOLOGIST, U. S. G. S. Date FEB 11 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title ACTING EXECUTIVE OFFICER DMEA - REGION V Date FEB 11 1957

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

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

RECEIVED FEB 14 1957 D.M.E.A.

Month of January 1957 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia

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 0-250	Ft	1650.00	750	2447.65	1092	2.241	15000	2.45
250-500	Ft	443.45	181					
Auger								
Stripping								
Trenching								
Sample Assays	Sample						100	1.00
Roads and Trails								
Incidental Allowances @ 0.30/ft	Ft	279.30	931	327.60	1092	0.30	15000	0.30
Total Distributed Costs		2372.75	931	2775.25				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		2372.75		2775.25				$41,388.00

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 2/4/57 Operator Bertha Mineral Division THE NEW JERSEY ZINC CO.

Per W. L. Albers Title Superintendent

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)

GEOLOGIST, U. S. G. S.

FEB 11 1957

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

Narrative Report - James-Woodruff Area - January 1957

Diamond drill hole JW-2 was collared and bottomed in the Patterson Member of the Shady Formation and drilled to a depth of 277 feet. No zinc mineralization was encountered.

Hole JW-3 was collared and bottomed in the Patterson Member of the Shady without encountering any zinc mineralization. A total of 332 feet was drilled.

Hole JW-4 was collared and bottomed in the Patterson Member of the Shady. Five feet of zinc mineralization (estimated less than 1%) was encountered between 36 and 41 feet. A total of 322 feet was drilled.

EXTRA COPY
D M E A
RECEIVED FEB 14 1957

DATE	INITIALS	CODE

EXTRA COPY
DMEA
RECEIVED FEB 14 1957

DATE	INITIALS	CODE

Diamond Drill Log - JW-2

Location: 200 feet S5E from JW-1

Elevation: 2375 (?) Inclination: Vertical

Object: To test for an assumed ore shoot west of a geochemical anomaly.

Results:

From	To	Dist	Recov	Description
0	25	25	0	Overburden
25	33	8	8	Medium gray fine saccharoidal dolomite, local diagenetic breccia, local oxidation, partings, Patterson Member of Shady.
33	36	3	3	Medium gray fine grained limestone, few partings.
36	49	13	11	Medium gray fine saccharoidal dolomite, moderate metamorphism, oxidized and leached, ribbony partings.
49	110	61	36	Medium gray fine to fine saccharoidal dolomite, local faint mottling, local abundant ribbony partings, local strong oxidation and leaching.
110	277	167	131	Medium gray fine grained limestone, abundant ribbony partings, ellipsoids.
	277			Bottom

Diamond Drill Log - JW-3

Location: 400 feet S5E from JW-1

Elevation: 2359 (?) Inclination: Vertical

Object: To test for an assumed ore shoot west of a geochemical anomaly.

Results:

From	To	Dist	Recov	Description
0	21	21	0	Overburden
21	73	52	50	Medium gray fine saccharoidal dolomite, abundant partings, local oxidation. Patterson Member, Shady Formation.
73	121	48	36	Medium gray to buff fine Saccharoidal dolomite, abundant partings, strongly oxidized.
121	210	89	64	Medium gray fine to fine saccharoidal dolomite, local abundant partings, rare diagenetic (?) breccia.
210	332	122	116	Medium gray fine grained limestone, abundant ribbony partings, ellipsoids.
	332			Bottom

Diamond Drill Log JW-4

Location: 600 feet S5E from JW-1

Elevation: 2342 (?) Inclination: Vertical

Object: To test for an assumed ore shoot west of a geochemical anomaly.

Results:

From	To	Dist	Recov	Description
0	18	18	0	Overburden
18	36	18	18	Medium gray fine saccharoidal dolomite, local partings, rare diagenetic (?) breccia. Patterson Member, Shady formation.
36	41	5	5	Weak disseminated zinc mineralization, estimated less than 1%.
41	46	5	5	Medium to dark gray fine to fine saccharoidal dolomite abundant partings, fragmental.
46	72	26	26	Medium gray fine to fine saccharoidal dolomite ribbony partings, local oxidation.
72	81	9	9	Medium gray to buff fine saccharoidal dolomite, ribbony partings, general strong oxidation.
81	118	37	28	Light to medium gray fine to fine saccharoidal dolomite, few partings, faint mottling.
118	169	51	51	Light to medium gray fine to fine saccharoidal dolomite, local partings, local oxidation, local vugs.
169	189	20	19	Medium gray fine saccharoidal dolomite, few partings, local moderate metamorphism few vugs.
189	194	5	5	Medium gray fine grained limestone, abundant ribbony partings, local sandgrains.
194	217	23	23	Medium gray fine saccharoidal dolomite, local moderate metamorphism, local diagenetic breccia, local oxidation, partings.

DDL - JW-5 - Cont.

From	To	Dist	Recov	Description
216	299	83	83	Light medium to medium gray finely saccharoidal dolomite, partings, local oxidation, few vugs.
299	305	6	6	Medium gray finely saccharoidal dolomite, local diagenetic breccia, moderate to strong metamorphism.
305	310	5	5	3.01% Zn
310	318	8	8	Light medium gray finely saccharoidal dolomite, moderate to strong metamorphism, ribbony partings, local diagenetic breccia.
318	338	20	20	Light medium gray fine grained dolomite, few vugs, rare parting.
338	347	9	9	Medium gray finely saccharoidal dolomite, moderate metamorphism, local diagenetic breccia, rare parting.
347	414	67	47	Light medium gray fine to finely saccharoidal dolomite, abundant partings, local oxidation.
414	443	29	25	Medium gray fine grained limestone, abundant thick partings, local ellipsoids.
	443			Bottom

DDH - JW-4 (Cont.)

From	To	Dist	Recov	Description
217	297	80	76	Light medium gray fine saccharoidal dolomite, local partings, augen, local faint mottling, few vugs
297	322	25	25	Medium gray fine grained limestone, abundant ribbony partings, ellipsoids.
	322			Bottom

EXTRA COPY
D M E A
RECEIVED FEB 14 1957
DATE | INITIALS | CODE

Austinville, Va.
February 8, 1957

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13
Post Office Building
Knoxville 2, Tennessee

Subject: January Report - James-Woodruff Area, Va.
Docket #DMEA 4173, Contract #970

Dear Sir:

Enclosed is our January monthly report on the James-Woodruff project. Hole JW-4 contains five feet of mineralization that was not recognized during field inspections. This is the first mineralization encountered on this project.

Very truly yours,

W. L. Albers,
Superintendent

R.C.G.
RCGilbert/mjf
In quintuplicate

RECEIVED
FEB 11 1957

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OR VOUCHER & SCHEDULE OF PAYMENTS K-

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of December 1956 Docket No. DMEA 4173 Contract No. 970
Operator's Name The New Jersey Zinc Company Minerals Zinc
Address Austinville, Virginia
Contract Amount, $ 41,388.00 Government Participation: 50 % Amount, $ 20,694.00

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	354.20	None	354.20			
Bulldozing						
Crosscutting						
Drifting						
(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): Incidental Allowances @ $0.30/ft	48.30	None	48.30			
TOTALS	402.50		402.50	402.50	—	402.50

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

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 1/3/57 *Payee Bertha Mineral Division The New Jersey Zinc Co.
Per [signature] Title Superintendent

*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:

$ 201.25

Signature [signature]
(Authorized Certifying Officer)

Date JAN 16 1957 Vou. No. [illegible]
(See other side)

201.25

(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-970 in accordance with the terms of the contract.

Signature P. G. Lynch Title MINING ENGINEER U. S. BUREAU OF MINES Date JAN 15 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature Robert A. Lawrence Title EXECUTIVE OFFICER DMEA REGION V Date JAN 15 1957

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

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

JAN 18 1957

Month of December 1956 Docket No. DMEA 4173 Contract No. 970

Operator's Name The New Jersey Zinc Company Minerals Zinc

Address Austinville, Virginia

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 0.250	Ft	354.20	161	354.20	161	2.20	15000	2.45
Churn								
Auger								
Stripping								
Trenching								
~~Test Pits~~ Sample Assays	Sample	-	None				100	1.00
Roads and Trails								
Incidental Allowances @ $0.30/ft	Ft	48.30	161	48.30	161	0.30	15000	0.30
TOTAL DISTRIBUTED COSTS		402.50	161	402.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		402.50		402.50				$41,388.00

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 1/3/57 Operator Bertha Mineral Division The New Jersey Zinc Co.

Per W. L. Albers Title Superintendent

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)

MINING ENGINEER
U. S. BUREAU OF MINES

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

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

Narrative - Quarterly Summary - October-December 1956

Drilling was in the James-Woodruff area of Wythe County on December 12, 1956. To date only one hole has been completed.

JW-1 collared and bottomed in the Patterson Member of the Shady Formation. A total of 161 feet was drilled without encountering any mineralization.

This is the first hole on a proposed fence of seven holes to be drilled near the Woodruff area.

Diamond Drill Log - JW-1

Location: 1450 feet N71W from Hale-Woodruff corner at intersection of public roads.

Elevation: 2390 (?) Inclination: Vertical

Object: To test for an assumed ore shoot down pitch from a geochemical anomaly.

Results:

From	To	Dist	Recov	Description
0	5	5		Overburden
5	161	156	142	Medium gray fine grained limestone, abundant ribbony partings ellipsoids, Patterson member of Chady Formation.
		161		Bottom

COPY

Austinville, Va.
January 10, 1957

Regional Executive Officer
Defense Minerals Exploration Administration
Room 13
Post Office Building
Knoxville 2, Tennessee

Subject: December and fourth Quarterly Report
James-Woodruff Area, Virginia
Docket #DMEA 4173 Contract #970

Dear Sir:

Enclosed is our monthly report on the James-Woodruff project for December together with the quarterly report for quarter ending December 31, 1956.

Very truly yours,

W. L. Albers,
Superintendent

R.C.G.
RCGilbert/mjf
In quintuplicate

RECEIVED
JAN 1 0 1957

JAN 22 1959

Mr. S. S. Goodwin, Vice President
and Manager of Mines
The New Jersey Zinc Company
160 Front Street
New York 38, New York

Re: Docket No. DMA-4173 (Zinc)
The New Jersey Zinc Company
James-Woodruff Area
Wythe & Smyth Counties, Virginia
Contract No. 1dm-5970

Dear Mr. Goodwin:

Reference is made to your terminated exploration contract with the Government.

We sincerely regret that the work performed did not result in a certification of discovery or development under the provisions of the contract. In the absence of such certification, the Government retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this project. Your attention, however, is called to the provisions of the contract which require the Operator to keep and preserve certain records for the period indicated.

We appreciate your interest and participation in the DMEA exploration program which has now been succeeded by the Office of Minerals Exploration program.

Sincerely yours,

(signed) FRANK E. JOHNSON
Acting Director

WPKlugescheid/er 1/21/59
Copy to: Docket
Dir Read File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Mr. Chambers
Chron.
Region V (2)

OFFICIAL FILE COPY
DMEA
Auditx Copy
RECEIVED MAY 7 1958

DATE	INITIALS	CODE

[redacted]

[redacted] April 1958, [redacted]

1. [redacted] 1958, [redacted] shall be and [redacted]

2. [redacted]

3. [redacted]

4. [redacted]

5. [redacted]

6. [redacted]

IN WITNESS WHEREOF, [redacted] this agreement as of the day and year first above written.

[redacted]

THE NEW JERSEY BELL TELEPHONE COMPANY

By [redacted]
VICE PRESIDENT

By [redacted]

Audit Copy

RECEIVED
SEP 27 1957
D.M.E.A.

EXPLORATION PROJECT CONTRACT

THE NEW JERSEY ZINC CO.

DOCKET NO. DMEA-4173- Zinc

AMENDMENT No.3

It is agreed this 12th day of September, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and The New Jersey Zinc Company, that Exploration Project Contract Idm-E970, (Docket No. DMEA-4173), dated July 23, 1956, and amended October 4, 1956 and April 16, 1957, be further amended as follows:

In Annex 1 of the contract there is hereby added the following parcel of land, designated " J. R. Horne" on the maps, Figures 2-B and 2-D which are attached to the contract. The tract is more specifically described in the records on file in the Clerk's Office of Smyth County, Virginia, and is further identified as follows:

Property Owner	Acreage (more or less)	Expiration of option	Deed Book	Page
J.R. & Nell Gray Horne, et al	130.5	1-31-62	115	51

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, nor the amount of any item designated as "maximum."

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Robert A. Lawrence
Executive Officer, DMEA
Field Team, Region V

THE NEW JERSEY ZINC COMPANY

By [illegible]

Title: VICE PRESIDENT

Government Copy COPY
OFFICE OF
DMEA
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DATE | INITIALS | CODE
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EXPLORATION PROJECT CONTRACT
THE NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-4173

Amendment No. 2

It is agreed this 16th day of April, 1957, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and the New Jersey Zinc Company that Exploration Project Contract Idm-E970, Docket No. DMEA-4173, dated July 23, 1956, and amended October 4, 1956, is further amended as follows:

In Annex I of the contract, there are hereby added the following parcels of land.

Name of Property Owner	Acres	Expiration Date of Option	Deed Book	Will Book	Page
J. S. & Faye H. Eanes	65	3/18/60	(142		426
			(113		501
Glen D. & Blanche L. Fiedler	61	3/18/60	(133		132
			(142		419
M. O. & Helen Phipps Buchanan	250	3/18/60	(85		285
			(	27	45

These land areas are shown on the map entitled "Revised Property Map, James-Woodruff Area II" which is hereby made a part of the contract and designated Figure 2-D, and the particular tracts are specifically described in records on file in the Clerk's Office of Wythe County, Virginia, as indicated in the listing above.

- - - - - -

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, or the fixed unit cost of any item of work.

Executed in sextuplicate the day and year first above written and is effective as of July 23, 1956.

THE UNITED STATES OF AMERICA

By Robert A. Lawrence
Executive Officer, DMEA
Field Team, Region V

THE NEW JERSEY ZINC COMPANY

By [illegible]

Title Vice Pres.

OFFICIAL FILE COPY
D M E A
RECEIVED MAY 3 1957

DATE	INITIALS	CODE

Conformed copy
3/30/57

This CONTRACT AND AGREEMENT made and entered into this 18th day of March, 1957, by and between M. C. BUCHANAN and HELEN PHIPPS BUCHANAN, his wife, parties of the first part, hereinafter called the "Owners", and THE NEW JERSEY ZINC COMPANY, a corporation qualified to do business in Virginia, party of the second part, hereinafter called the "Company";

-W I T N E S S E T H-

That in consideration of One Dollar ($1.00), cash in hand paid, the receipt whereof is hereby acknowledged, and other good and valuable consideration not necessary to be herein set out at length, the parties of the first part do give, grant and convey unto the party of the second part for a period of three years expiring on the 18th day of March, 1960, the exclusive right and option to purchase all the minerals and mineral interests, which shall be construed to mean all the minerals, mineral substances, metals, ores, ore bearing materials, and rock of every kind and description, which may be in, under or upon the following described premises, together with the right to mine, extract and remove the same, and the right to prospect for the same, and certain water rights, and the right to purchase a portion of the surface, and the right of ingress and egress in accordance with an agreement of even date herewith entered into between the parties hereto.

The property herein mentioned is situated in the Speedwell Magisterial District of Wythe County, Virginia, and is bounded and described in three tracts as follows:

TRACT NO. 1. Several adjoining tracts of land aggregating 116.86 acres in the Speedwell Magisterial District of Wythe County, Virginia, and more particularly described as follows:

FIRST: A certain tract of land said to contain 54 acres, 3 roods and 4 porches and bounded as follows: BEGINNING at the joining of two fences, N 51½ W 29 poles to a stump; n 39½ W 64½ poles to a sycamore in creek at ford and with the road S 62½ W 11¼ poles; S 75¼ W 13 poles; N 88¼ W 22 poles, S 86½ W 15 poles and 15 links, leaving the road; S 13 E 111 poles to a chestnut oak stump; near top of a ridge; S 71½ E 28 poles; S 74 E 29 poles; N 66 E 7-3/4 poles; N 54½ E 50-3/4 poles to the beginning.

SECOND: A tract containing about 31.25 acres BEGINNING at a stake on the crest of the ridge and in the line of D. C. James N 71° 30' E 655' to a corner of D. C. James, thence N 12° 40' W 1,905' to a stake in center of the road leading to Cedar Springs, thence S 85° 15' W 745' to a stake in center of said road; S 15° 10' W 2,057' to the beginning.

THIRD: A tract containing 30.83 acres BEGINNING at the same stake thence S 71° 30' W 412' to a stake; thence S 62° 30' W 254' to a stake; thence N 18° 25' W 1,287' crossing the creek to a stake in center of road, and following the center of the road N 12° W 475.5' to a stake; thence following said road N 25° 40' E 295' and with said road N 75° 50' E 281'; thence N 58° E 65' to a stake; N 16° E 149' to a stake; thence continuing in said road N 82° 30' E 87' to a stake, corner to tract No. 2; thence with said tract S 15° 10' W 2,057' to the beginning; and being the same as was conveyed to M. O. Buchanan by S. B. Campbell, Special Commissioner, et al, by deed dated November 1, 1930, and recorded in the Clerk's Office of Wythe County in Deed Book 85,

at page 285, a reference to which is hereby made for a more complete description.

TRACT NO. II.

BEGINNING at a point in the middle of Cripple Creek SW from W. M. Buchanan's house, thence with his line S 33° E 181 poles to a stake in Poff's line with hickory pointers; thence in a SW course with Poff's line to a large white pine, thence S 62½° W 27 poles to a white oak above road; thence N 39° W 11½ poles to a stake above road, thence S 74° W 9½ poles to a stake; thence N 52½ W 2 poles to a stake at road by a branch; thence N 21½° E with D. C. James' line and the public road to a white oak stump a corner to the land of Eliza Keesling's heirs; thence with line of same to the middle of the creek; thence down said creek to James' corner, thence with his line to Wilson's corner, thence with line of same to a sycamore sapling by road on bank of creek, W. M. Buchanan's corner, and with line of same S 81° E 17-1/5 poles crossing creek to a stake with sycamore pointer at side of road; thence down road N 72-3/4° E 72 poles to a point in Cripple Creek; thence N 5-3/4° E 5-3/4 poles, thence N 68¼° E 18 poles, thence N 66° 35' E 15-1/3 poles to the beginning, containing about 98 acres, more or less; and being a part of the same which was devised to M. C. Buchanan, as Oscar Buchanan, by the will of W. M. Buchanan which was probated March 19, 1932, and recorded in the Clerk's Office of Wythe County in Will Book 27, at page 45, a reference to which is hereby made for a more complete description.

TRACT NO. III. a certain parcel of land containing by survey 36 acres, 2 roods, and 24 perches and bounded as follows: BEGINNING on a white oak on a ledge of rocks on the south side of a ridge, Wilson's corner, and with a line of the same S 72-3/4 W 149 poles to a stake in the center of the road, and with the same leaving Wilson's line S 12½ E 22-4/5 poles, crossing the creek and leaving the road to a stake in Wilson's line, and with a line

of the same S 40½ E 14½ poles to a stake in same, sycamore pointers South of the road and on right bank of the creek, thence leaving said line S 81 E 17-1/5 poles crossing the creek to a stake and bunch of sycamore bushes pointers, by the road and with the same N 72-3/4 E 72 poles to the middle of the creek, and with the same N 5-3/4 E 5-3/4 poles, N 68½ E 18 poles, N 66 35 E 15-3/4 poles, N 41-3/4 E 30½ poles, leaving the creek to a small topped sycamore on left bank of the creek, and with Buchanan and Wilson lines N 25-3/4 W 19-2/5 poles to the beginning; and being a part of the same which was devised to M. O. Buchanan, as Oscar Buchanan, by the will of W. M. Buchanan which was probated March 19, 1932, and recorded in the Clerk's Office of Wythe County in Will Book 27, at page 45, a reference to which is hereby made for a more complete description.

In the same consideration, the Owners give, grant and convey unto the Company, for the same period of time the right to prospect for, explore and examine all minerals, mineral substances, metals, ores, ore bearing materials and rock of every kind, in, under or upon the described premises, including the right to enter thereon, to use available water and to remove samples in accordance with the terms of the above-mentioned agreement.

The terms of this option and agreement are fully set out in the agreement of even date herewith and hereinbefore referred to, which is here referred to and made a part hereof as if fully herein set out at length.

In witness whereof the parties of the first part have executed this agreement the day and year first above written.

M. O. Buchanan (signed) (SEAL)

Helen Phipps Buchanan (signed) (SEAL)

VIRGINIA:

STATE AT LARGE, To-wit:

I, _____, a Notary Public in and for the Commonwealth of Virginia, at large, do certify that M. O. Buchanan and Helen Phipps Buchanan, his wife, whose names are signed to the foregoing Contract and Agreement bearing date on the 18th day of March, 1957, personally appeared before me in my County aforesaid and acknowledged the same.

My commission expires _____.

Given under my hand this 18th day of March, 1957.

_____
Notary Public.

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 3 1957

DATE	INITIALS	CODE

Conformed copy 3/20/57 dth

This CONTRACT AND AGREEMENT made and entered into this 18th day of March, 1957, by and between GLEN D. FIELDER and BLANCHE L. FIELDER, his wife, parties of the first part, hereinafter called the "Owners", and THE NEW JERSEY ZINC COMPANY, a Corporation qualified to do business in Virginia, party of the second part, hereinafter called the "Company".

-W I T N E S S E T H-

That in consideration of One Dollar ($1.00) cash in hand paid, the receipt whereof is hereby acknowledged, and other good and valuable consideration not necessary to be herein set out at length, the parties of the first part do give, grant and convey unto the party of the second part for a period of three years expiring on the 18th day of March, 1960, the exclusive right and option to purchase all the minerals and mineral interests, which shall be construed to mean all the minerals, mineral substances, metals, ores, ore bearing materials, and rock of every kind and description, which may be in, under or upon the following described premises, together with the right to mine, extract and remove the same, and the right to prospect for the same, and certain water rights, and the right to purchase a portion of the surface, and the right of ingress and egress in accordance with an agreement of even date herewith entered into between the parties hereto.

The property herein mentioned is situated in the Speedwell Magisterial District of Wythe County, Virginia, and is bounded and described in two tracts as follows:

TRACT NO. 1: BEGINNING at a point in the old roadbed of Cedar Springs road, corner of land of Sumet E. Fielder; thence running

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D M E A
RECEIVED MAY 3 1957

DATE	INITIALS	CODE

This CONTRACT AND AGREEMENT made and entered into this 18th day of March, 1957, by and between J. S. EANES and FAYE H. EANES, his wife, parties of the first part, hereinafter called the "Owners", and THE NEW JERSEY ZINC COMPANY, a Corporation qualified to do business in Virginia, party of the second part, hereinafter called the "Company".

-W I T N E S S E T H-

That in consideration of One Dollar ($1.00) cash in hand paid, the receipt whereof is hereby acknowledged, and other good and valuable consideration not necessary to be herein set out at length, the parties of the first part do give, grant and convey unto the party of the second part for a period of three years expiring on the 18th day of March, 1960, the exclusive right and option to purchase all the minerals and mineral interests, which shall be construed to mean all the minerals, mineral substances, metals, ores, ore bearing materials, and rock of every kind and description, which may be in, under or upon the following described premises, together with the right to mine, extract and remove the same, and the right to prospect for the same, and certain water rights, and the right to purchase a portion of the surface, and the right of ingress and egress in accordance with an agreement of even date herewith entered into between the parties hereto.

The property herein mentioned is situated in the Speedwell Magisterial District of Wythe County, Virginia, and is bounded and described in two tracts as follows:

TRACT NO. 1: BEGINNING at a stake in the center of the State Road, leading to Speedwell, corner to Tract no. 2 of Otto James; thence N 12° W 1413' crossing Cripple Creek to a stake; thence N 78° W 8'; thence N 57° 30' W 113'; thence N 38° 40' W 215' to a walnut tree; thence S 67° 10' W 514' to a stake; thence along a fence on Fisher's line S 67° 10' W 517' to a stake; S 64° 15' W 301' to a stake; S 77° 40' W 303' to a stake; S 82° 30' W 491' to a stake, corner to Newland; thence S 10° 45' W 257' to a stake; corner to lands of Cal James; thence along said James' land N 87° 15' E 1607' along a fence line to a post; thence S 11° 40' E 1339' to a point in the center of the road leading to Speedwell; thence with the road N 25° 40' E 295', N 75° 50' E 281', N 58° E 65', N 16° E 149' N 82° 30' E 87' to the beginning, containing 41.64 acres, more or less, according to a plat of survey by B. B. Roberts, Registered Surveyor, dated May 4, 1939.

This is the same property conveyed to J. S. Banes by Florence M. James, et al by deed dated June 18, 1953, and recorded in the Clerk's Office of Wythe County in Deed Book 142, page 426.

TRACT NO. 2: BEGINNING at a stake on the bank of Cripple Creek, corner to land of J. A. James, thence S 12° 10' E 1469' to a stake in road leading to Cedar Springs; thence S 85' 15° W 745' to a stake in said road; thence N 12° W 1413' to a stake on the bank of creek, corner to W. H. Fisher; thence S 78° E 78'; thence N 83° 30' E 218'; thence S 88° 30' E 207'; thence N 68° E 218' to the beginning, containing 23.18 acres, more or less.

This is the same property conveyed to J. S. Banes by J. E. Fielder, Widower, by deed dated February 13, 1945, and recorded in the Clerk's Office of Wythe County in Deed Book 113, page 501.

In the same consideration, the Owners give, grant and convey unto the Company, for the same period of time the right to prospect for, explore and examine all minerals, mineral substances,

metals, ores, ore bearing materials and rock of every kind, in, under or upon the described premises, including the right to enter thereon, to use available water and to remove samples in accordance with the terms of the above-mentioned agreement.

The terms of this option and agreement are fully set out in the agreement of even date herewith and hereinbefore referred to, which is here referred to and made a part hereof as if fully herein set out at length.

In witness whereof the parties of the first part have executed this agreement the day and year first above written.

J. S. Eanes (signed) _____ (SEAL)

Faye H. Eanes (signed) _____ (SEAL)

VIRGINIA:

STATE AT LARGE, To-wit:

I, _____, a Notary Public in and for the Commonwealth of Virginia, at large, do certify that J. S. Eanes and Faye H. Eanes, his wife, whose names are signed to the foregoing Contract and Agreement bearing date on the 18th day of March, 1957, personally appeared before me in my County aforesaid and acknowledged the same.

My commission expires _____.

Given under my hand this 19th day of March, 1957.

_____
Notary Public.

with the middle of said road S 9-1/3° E 9-3/4 P; S 15-1/2° E 25 P, corner to land of M. O. Buchanan; thence running with his line N 73-1/2° E 102 P to a stake; thence N 3-1/2° W 25 P to corner of fence, corner to land of Price Buchanan; thence N 39° W 20 P, corner to land of Sumet Fielder, S 85-1/2° W 35 P, S 55° W 10-3/4 P, S 53-1/2° W 19 P and 6 feet, S 71° W 11-3/4 P, S 70° W 24 P to beginning, containing 24-3/4 acres more or less.

This is the same property conveyed to Glen D. Fielder by Sumet E. Fielder, et al by deed dated August 9, 1946, and recorded in the Clerk's Office of Wythe County in Deed Book 133, page 132.

TRACT NO. 2: BEGINNING at a poplar on the North side and near the Creek, a corner to lands of W. H. Fisher and lands of James Otto James, and thence with James' line S 12-1/4° E 89-1/4 poles to a stake in the road leading from Bud Horn's by way of Phill Newland to State Road No. 115; thence with the road and Oscar Buchanan's line N 87-1/4° E 16 poles, S 85-1/4° E 18-1/2 poles, N 77-3/4° E 18 poles; thence leaving the road N 64-1/4° E 12 poles to a stake, on the bank of the Creek, N 36-3/4° W 16 poles to a stake on the west side of the Creek, N 11-1/4° W crossing the Creek and with State Road No. 115 22-1/2 poles to a stake in said road, a corner to the lands of Steve Fielder, and with the road and Fielder's line N 15-1/4° W 26-1/2 poles to a stake in said road, N 9° W 18-1/2 poles to a stake in said road, N 25° W 12 poles to a stake in the fork of the Grey Branch Road, and the State Road, and continuing with the State Road No. 115, N 64° W 16 poles to a stake in State Road; thence N 78° W 41 poles to a stake in said road and corner to W. H. Fisher's land; thence leaving the road, and with Fisher's line S 4-1/4° E 26 poles to the beginning, containing 37.32 acres, according to plat of survey by B. B. Roberts, Registered Surveyor, dated May 2, 1939.

This is the same property conveyed to Glen D. Fielder by Florence M. James, et al by deed dated June 18, 1953, and recorded in the Clerk's Office of Wythe County in Deed Book 142, page 419.

In the same consideration, the Owners give, grant and convey unto the Company, for the same period of time the right to prospect for, explore and examine all minerals, mineral substances, metals, ores, ore bearing materials and rock of every kind in, under or upon the described premises, including the right to enter thereon, to use available water and to remove samples in accordance with the terms of the above-mentioned agreement.

The terms of this option and agreement are fully set out in the agreement of even date herewith and hereinbefore referred to, which is here referred to and made a part hereof as if fully herein set out at length.

In witness whereof the parties of the first part have executed this agreement the day and year first above written.

Glen D. Fielder (signed) (SEAL)

Blanche L. Fielder (signed) (SEAL)

VIRGINIA:

STATE AT LARGE, To-wit:

I, _____, a Notary Public in and for the Commonwealth of Virginia, at large, do certify that GLEN D. FIELDER and BLANCHE L. FIELDER, his wife, whose names are signed to the foregoing Contract and Agreement bearing date on the 18th day of March, 1957, personally appeared before me in my County aforesaid and acknowledged the same.

My commission expires _____.

Given under my hand this 19th day of March, 1957.

_____
Notary Public

Government Copy

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OCT 1 1956

EXPLORATION PROJECT CONTRACT
THE NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-4173

Amendment No. 1

It is agreed this 4th day of October, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and The New Jersey Zinc Company that Exploration Project Contract Idm-E970, Docket No. DMEA-4173, dated July 23, 1956, is amended as follows:

In Annex I of the contract, there is hereby added the following parcel of land, shown outlined in yellow on the eastern half of Figure 2B which is attached to the contract and listed as "Property Being Negotiated." This tract is more specifically described in the records on file in the Clerk's Office of Wythe County, Virginia, and is further identified as follows:

Name of Property Owner	Acreage (more or less)	Expiration date of Option	Deed Book	Page
N. S. King and his wife, Darylene C. King	80.37	9/24/58	133	535

* * * * *

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, or the fixed unit cost of any item of work.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Robert A. Lawrence
Executive Officer, DMEA
Field Team, Region V

THE NEW JERSEY ZINC COMPANY

By C. H. George
Title EXECUTIVE VICE PRESIDENT

g

DMEA Form 14

Contract No. Idm-E 970

Docket No. 4173

Terminated contract

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Obligation Document

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

Please make the following entry on the records of the Defense Minerals Exploration Administration under the Strategic and Critical Minerals Exploration Program.

Date of Contract	Region	State	Commodity
July 23, 1956	V	Virginia	Zinc

Name and Address of Operator: The New Jersey Zinc Company
160 Front Street
New York 38, New York

	Reserve	Obligation
Prior Amount	0	20,694.00
Increase	0	0
Decrease	0	3,890.62
Revised Amount	0	16,803.38

Remarks:

Allen S. Daken, Chief
Operations Control and
Statistics Division

(Name)

(Title)

Date delivered to Bureau of Mines, Washington 6/30/58

22845

Government's Copy

MF-200
(Revised June 1954)

Docket No. DMEA 4173

Commodity Zinc

Contract No. Idh-E 970

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this JUL 23 1956 day of ....., 195..., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] THE NEW JERSEY ZINC COMPANY, a New Jersey corporation, whose mailing address is 160 Front Street, New York 38, New York, 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-200), the attached Exhibit "A," Annex I, and five maps

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 Virginia, Counties of Smyth and Wythe, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] optionee (see Annex I) of [5] ..... 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

[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."

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of the land (lessor, seller, optionor, etc.), are attached, as follows: Consents to Lien waived.

(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 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Zinc. The work to be performed is described in Exhibit "A." The Operator on or before January 1, 1957 shall commence the work, and on or before April 1, 1958 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work ~~or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A."~~ See Article 13.

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) *Independent contracts.*—To the extent that the allowable costs are estimated in Exhibit "A" with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed; but if the reference in Exhibit "A" to any such independent contract requires the Government's approval thereof, payments under such contract will not be allowable costs unless the Government gives its written approval of the contract. Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract and regardless of the Government's approval thereof, the Government will participate in payments to the independent contractor only on account of work performed in accordance with the provisions of this 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.

(c) *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.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $41,388.00. The Government shall contribute 50 percent of the allowable costs as they are incurred in a total sum not in excess of $20,694.00: *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 or not in excess of the amount of the Government's contribution to the cost of property which is or may become subject to disposal as provided in Article 9(c), whichever is greater. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 7(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. "Costs incurred" mean costs that have been paid or have become due and payable, or that in the opinion of the Government have become an obligation. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; ~~but except for any such necessary excesses in categories, subcategories, or items the amount of the Operator is not obligated to incur more than his agreed percentage of the estimated total allowable cost of the work.~~ See Article 13.

To the extent specified in this article or in Exhibit "A" the following categories, subcategories, and elements thereof are maximums; but if not so specified either here or in Exhibit "A" they are not maximums, and may be exceeded within the limit of the estimated total allowable cost of the work:

CATEGORY (1)—INDEPENDENT CONTRACTS.—Work to be performed under independent contracts (see Article 4(b)). The estimated total amount of this category and the estimated cost of each unit of work for performance under an independent contract are maximums.

CATEGORY (2)—PERSONAL SERVICES.

Subcategory (a)—Supervision.—All elements of this subcategory (number of supervisors, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)—Technical services.—All elements of this subcategory (number of technicians, periods of employment, rates of pay, and total) are maximums.

Subcategory (c)—Labor.

CATEGORY (3)—OPERATING MATERIALS AND SUPPLIES.—Includes such items as drill bits and steel, explosives, fuel, pipe, power, small tools costing less than $50 each, timber, track.

CATEGORY (4)—OPERATING EQUIPMENT.

Subcategory (a)—Rental.—The number of each object to be rented [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)—Purchases.—The estimated total of this subcategory is a maximum.

Subcategory (c)—Depreciation.—All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)—INITIAL REHABILITATION AND REPAIRS.—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

Subcategory (a)—Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).—The estimated total of this subcategory is a maximum.

Subcategory (b)—Initial rehabilitation and repairs of operating equipment.—The estimated total of this subcategory is a maximum.

CATEGORY (6)—NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

CATEGORY (7)—MISCELLANEOUS.—Repairs and maintenance (other than initial) of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, communications, and any other items of requirement or cost that do not fall within any of the first 6 categories.

THE ESTIMATED TOTAL ALLOWABLE COST of the work is a maximum.

(b) *Nonallowable costs.*—The following costs are not allowable for contribution by the Government:

(1) *Costs of the land,* such as rental, depreciation, depletion, or other cost of acquiring, owning, or holding possession;

(2) *Indirect costs,* such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) *Previous work* performed or costs incurred before the date of this contract; and

(4) *Deferred payments.*—Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods; unless the purchase agreement is approved by the Government in writing.

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9. See Article 13.

ARTICLE 7. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the 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. If the Government elects to audit said records and accounts relating to the exploration work by certified public accountant, it may do so as a cost of the work to which the Operator shall contribute. 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. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved 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 detailed costs incurred during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and 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 related costs incurred.

(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 8. *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 7) 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~~ thirty 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 13.

(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. See Article 13.

(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 therof 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 9. *Interests in purchased property.*—(a) *Title and ownership.*—All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions, although title thereto shall be taken in the name of the Operator.

(b) *Preservation of property.*—Until the final disposal of any property in which the Government has an interest the Operator shall preserve and protect same for the best interest of the Government, any reasonable and necessary costs thereof to be treated as an allowable cost of the project. After the completion of the work or termination of the Government's obligation to contribute, or when such property is not in use for or needed for the work, the Operator shall neither use it without the written consent of the Government nor without paying a reasonable rental to be fixed by the Government for its interest.

(c) *Disposal of property.*—Upon the completion of the work or termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest 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 or the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government the Operator shall not sell at any price any item of property the cost of which was more than $500, and shall not sell at less than 25 percent of the purchase price any item of property which cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or himself cares to give. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, or explosives, or pipe, or rails), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the project.

(d) *Default of the Operator re disposal.*—If within 90 days after the completion of the work or termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, or after such further time as the Government may in writing allow, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may pursue one of the following two courses: (1) the Government, by written notice to the Operator, may place upon such property what in its opinion is a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the

date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; or (2) the Government may enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 10. *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: (1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) 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.

(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: (1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) 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 10 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 11. *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 12. *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 13. *Changes and added provisions.*— (a) Categories (2) through (7) of Article 6(a) are deleted. (b) To the extent that costs are set forth in Exhibit "A" as "Fixed Unit Costs" they are in lieu of the actual costs that otherwise would be allowable costs of the project as provided in Article 6 of the contract. The Government will contribute to the fixed unit costs as they accrue, on the basis of units of work actually performed. The fixed unit costs include all costs of the work necessary to complete the project. (c) In Article 3, everything after the reference to Article 10 is deleted and the following substituted: "shall have completed the work." (d) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon, is deleted. (e) In Article 6(c), the reference to Article 9 is changed to Article 8. (f) In Article 6(b): (1) the word "minerals" includes limestone and dolomite products produced in processing ore; and (2) the words "ten years" are changed to "thirty years." (g) The following clause is added to Article 8(c): "Provided, however, That so long as the Operator operates smelting facilities as an integrated part of its business, the settlement made by the Operator's smelter to its mine or mill on the ore or concentrates subject to the Government's royalty shall be, for the purpose of calculating the royalty payable to the Government under this contract, on the same settlement basis that the said smelter makes to its independent suppliers under the schedule most favorable to any independent supplier, or should gross income from mining operations for percentage depletion purpose in Federal income tax determination show a greater value for ore or concentrate sales than that value which would result from applying the smelter schedule most favorable to an independent supplier, the greater values will be used as the basis for calculating royalty payable to the Government.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By Frank E. Johnson
ACTING Administrator, Defense Minerals
Exploration Administration

THE NEW JERSEY ZINC COMPANY
(Operator)

By S S Goodwin

Title VICE PRESIDENT

I, Walter R. Anyan, certify that I am the secretary of the corporation named as Operator herein; that S. S. Goodwin who signed this contract on behalf of the Operator, was then Vice 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.

Walter R. Anyan

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70617-1

EXPLORATION PROJECT CONTRACT
THE NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-4173

ANNEX I

The land referred to in Article 2 of the contract consists of various privately owned tracts of land in Wythe and Smyth Counties, Virginia, which are held by the Operator pursuant to option contracts, which permit it to engage in mineral exploration with option to purchase all mineral and mining rights upon such tracts. Such land areas are shown outlined in blue on the maps (Fig.-2A, 2B, and 2C) entitled "Camp Area, Smyth County, Va.," "Asbury Area, Wythe County, Va.," and "Speedwell Area, Wythe County, Va.," respectively. The location of the three areas outlined in Figs. 2A, 2B, and 2C are shown on another map (Fig. 1) entitled "The New Jersey Zinc Company, Austinville, Virginia, Index Geologic Map, Speedwell Syncline." These four maps are attached hereto and made a part of this contract. The particular tracts, more specifically described in the records on file in the Clerk's Office of Wythe County, Virginia, listed below, to which reference is here made, are as follows:

Name of Property Owner	Tract	Acreage (more or less)	Expiration date of Option	Deed Book	Will Book	Page
A. C. Woodruff and his wife, Mozelle H. Woodruff		160	8/29/58	95		124
Millard R. Newland and his wife, Katherine Umberger Newland		275	8/29/58		28	62
Dr. J. C. Moxley and his wife, Emma R. Moxley		211	9/8/58	110		534
(deducted therefrom for road)		2.33		105		419
Remaining acreage		209				
Fred E. Cline and his wife, Martha Wright Cline	I	64.86	9/11/58	111		331
	II	121.50		133		566
	III	1.50				
		187.86				
(deduction from Tract II)		27.01		65		149
Remaining acreage		161				
Sallie Ann Hale and others		98	9/16/58	134		36
					30	452
W. W. Roberts and his wife, Valla R. Roberts		123	10/7/58	133		584

Name of Property Owner	Tract	Acreage (more or less)	Expiration date of Option	Deed Book	Will Book	Page
A. L. Porter and others	I	366	10/15/58	94		196
	II	66		101		150
		432				
(deducted therefrom for road, Tract I)		3.04				
Remaining acreage		429				
Robert H. James and others		122	11/30/58	116		305
Raymond B. Smith and his wife, Betty Smith		85	1/29/59	140		173

SPECIAL AGREEMENT CONCERNING LAND

1. In the event the Operator or any subsidiary thereof at any time during the period expiring ten years from the date of this contract acquires any interest, title or equity, in any lands contiguous to the premises described in this contract, it is agreed that such contiguous lands shall thereupon become subject to the provisions of this contract and the parties hereto shall promptly execute amendments to this contract listing such contiguous lands as lands included in this contract.

2. It is further agreed that the Operator may, at any time before the expiration of sixty days following the conclusion or termination of exploration work performed pursuant to the terms of this contract, request the Government to delete from this contract such lands described in the Option contracts listed in this Annex I, or in any amendments thereto, as have no known value for mineral production. The Government will promptly prepare amendments removing the specified lands from the contract, which amendments shall provide that the Operator:

(a) certifies the lands have no known value for mineral production.

(b) has, prior to the execution of the respective amendment, surrendered or otherwise disposed of all of its interest, title, and equity in such lands, and any minerals produced therefrom, including any option, lease or permit thereto, without any consideration whatsoever, including future compensation, for such surrender or disposition, other than relief from the cost of maintaining such interest;

(c) agrees that no benefit from such lands or any production of minerals therefrom will accrue to the Operator or to any of its subsidiaries or affiliates, directly or indirectly, during the period expiring thirty years from the date of this contract;

(d) agrees that if the Operator or any of its subsidiaries or affiliates acquires any interest, title, or equity in such lands or any minerals produced therefrom, or derives any benefit therefrom, before the expiration of thirty years from the date of this contract, the lands with respect to which such interest, title or equity is acquired, and any minerals produced therefrom, shall be deemed subject to this contract and any certification from the date that the Operator or its subsidiaries or affiliates acquired such interest, title, or equity, or any benefit therefrom, until the expiration of thirty years from the date of this contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

EXPLORATION PROJECT CONTRACT
THE NEW JERSEY ZINC COMPANY
DOCKET NO. DMEA-4173

EXHIBIT "A"

Description of the Work

The purpose of the project is to explore for ores of zinc by diamond drilling (plus necessary overburden drilling). The holes to be initially drilled pursuant to the contract are roughly indicated on the attached map (Fig.-2B) referred to in Annex I. Fig. 3, attached hereto and made a part hereof, shows a generalized cross section and a proposed drilling pattern.

The objective of the work is to investigate the ore potential of the Patterson limestone and the Saccharoidal dolomite of the Shady formation. There is a suggestion from the shape and trend of the axes of the anomalies that they represent "pencil" ore bodies and it would appear likely that the pencils should pitch southwest at an acute angle to strike. Drill holes are expected to vary from 150 to 1,100 feet in depth locally, with an average of 600 feet more or less. Approximately 24 holes will be required. Not more than 15,000 feet of drilling shall be performed, provided, however, that the Operator may, upon the written approval of the Government, perform more than 15,000 feet of drilling so long as the total cost of all drilling work allowable under the contract is not exceeded.

The project is not intended to accomplish the outlining of individual ore bodies. The proposed work consists of fences of diamond drill holes, roughly at right angles to strike, designed to intercept ore shoots pitching into the bedding from the anomalies. The drill holes shall not be located on closer spacing than 200 feet in each fence nor shall the fences be closer together than 600 feet, except with prior approval of the Government.

All diamond drilling, including the location and depths of holes, is subject to prior Government approval.

All drill holes shall be logged geologically and all drill core will be made available to the Government for examination. All significantly mineralized core will be properly sampled and assayed for zinc. Such assays, together with proper geological logs of drill holes, will be reported to the Government, together with proper plan maps and sections showing the progress of the work. Diamond drilling will be done with AX size or larger coring bits.

The project work shall be supervised at all times by competent engineers or geologists.

Drilling will not be done at locations closer than 200 feet from property lines.

Estimated Cost of the Project

Actual Costs

Category (1) Independent Contracts

Overburden drilling and diamond drilling to 250-foot depth, 6,000 feet @ $2.20/ft.	$13,200.00	
Diamond drilling 250-foot to 500-foot depth, 4,650 feet @ $2.45/ft.	11,392.50	
Diamond drilling 500-foot to 750-foot depth, 2,850 feet @ $2.70/ft.	7,695.00	
Diamond drilling 750-foot to 1,000-foot depth, 1,200 feet @ $2.95/ft.	3,540.00	
Diamond drilling 1,000-foot to 1,250-foot depth, 300 feet @ $3.20/ft.	960.00	$36,787.50

The above rates cover charges for reaming, cementing, water supply, casing, changing of location, and all other charges which may be incurred by the Operator pursuant to diamond drilling contracts. 1/

Categories (2) through (7) None

Fixed Unit Costs (See Article 13)

Incidental allowance for each foot of drilling completed, 15,000 feet @ $0.30/ft.	$ 4,500.00	
100 Samples of drill core to be assayed for zinc @ $1.00 per sample	100.00	$ 4,600.00
Estimated Total Cost of the Project (rounded)		$41,388.00
Government Participation @ 50%		$20,694.00

1/ Neither the cost nor value of casing left in drill holes at option of the Operator will be accepted as a charge under the contract.

PORTION OF MAP FROM L. W. CURRIER (1935) GEOLOGIC MAP AND INTERPRETIVE CROSS SECTIONS FROM REPORT "ZINC AND LEAD REGION OF SOUTHWESTERN VIRGINIA," BULL. 43, VIRGINIA GEOL. SURVEY

LEGEND

Er	ROME FORMATION		LOWER CAMBRIAN
Es	SHADY FORMATION	Esa SACCHAROIDAL DOL.	
		Esp PATTERSON LS	
Eq	CAMBRIAN QUARTZITE	Ec ERWIN Qtzt	
		Eh HAMPTON Sh	

Fig-2A AREA OF COVERAGE AND FIGURE NUMBER OF QUADRANGLE SHEET

DMEA-4173. FIG.-1

POSTED TO DATE	THE NEW JERSEY ZINC COMPANY AUSTINVILLE, VA.	DRAWN TRACED	DATE 1/30/56 SCALE 1/62500	INDEX GEOLOGIC MAP SPEEDWELL SYNCLINE	DISTRICT JAMES-WOODRUFF THE NEW JERSEY ZINC COMPANY 160 FRONT ST., NEW YORK, N.Y.

Full-size

Contra[illegible] No. Idm-E 970

Docket No. 4373

DEPARTMENT OF THE INTERIOR

Executed contract

DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

Please make the following entry on the records of the Defense Minerals Exploration Administration under the Strategic and Critical Minerals Exploration Program.

Date of Contract	Region	State	Commodity
July 23, 1956	**V**	**Virginia**	**Zinc**

Name and Address of Operator: **The New Jersey Zinc Company**
160 Front Street
New York 38, New York

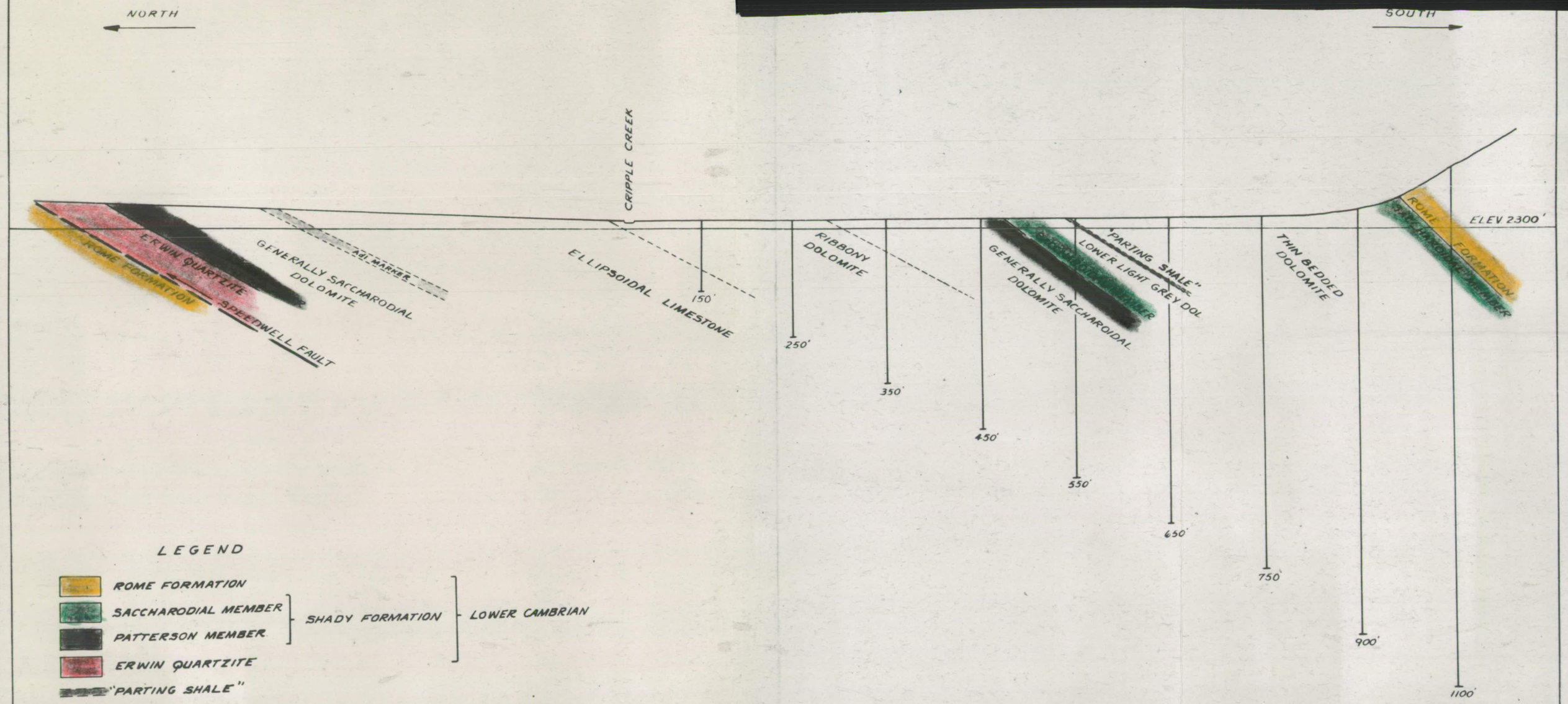
	Reserve	Obligation
Prior Amount	0	$ 0
Increase	0	20,694.00
Decrease	0	0
Revised Amount	0	$20,694.00

Remarks:

(Name)
Robert E. Adams, Chief
Operations Control and
Statistics Division
(Title)

Date Delivered to Bureau of Mines, Washington 7/23/56

98963



LEGEND

- ROME FORMATION
- SACCHARODIAL MEMBER } SHADY FORMATION } LOWER CAMBRIAN
- PATTERSON MEMBER } SHADY FORMATION } LOWER CAMBRIAN
- ERWIN QUARTZITE
- "PARTING SHALE"
- "Adl" MARKER
- SPEEDWELL FAULT

DMEA-4173. FIG. 3

POSTED TO DATE	THE NEW JERSEY ZINC COMPANY AUSTINVILLE, VA.	DRAWN D.K.L. DATE 1/30/56 TRACED E.E.F. SCALE 1"=200'	GENERALIZED CROSS SECTION AND PROPOSED DRILLING PATTERN	DISTRICT JAMES-WOODRUFF AREA THE NEW JERSEY ZINC COMPANY 160 FRONT ST., NEW YORK N. Y.

Full Size

ZGB 2962

3407 B 1M 3-53

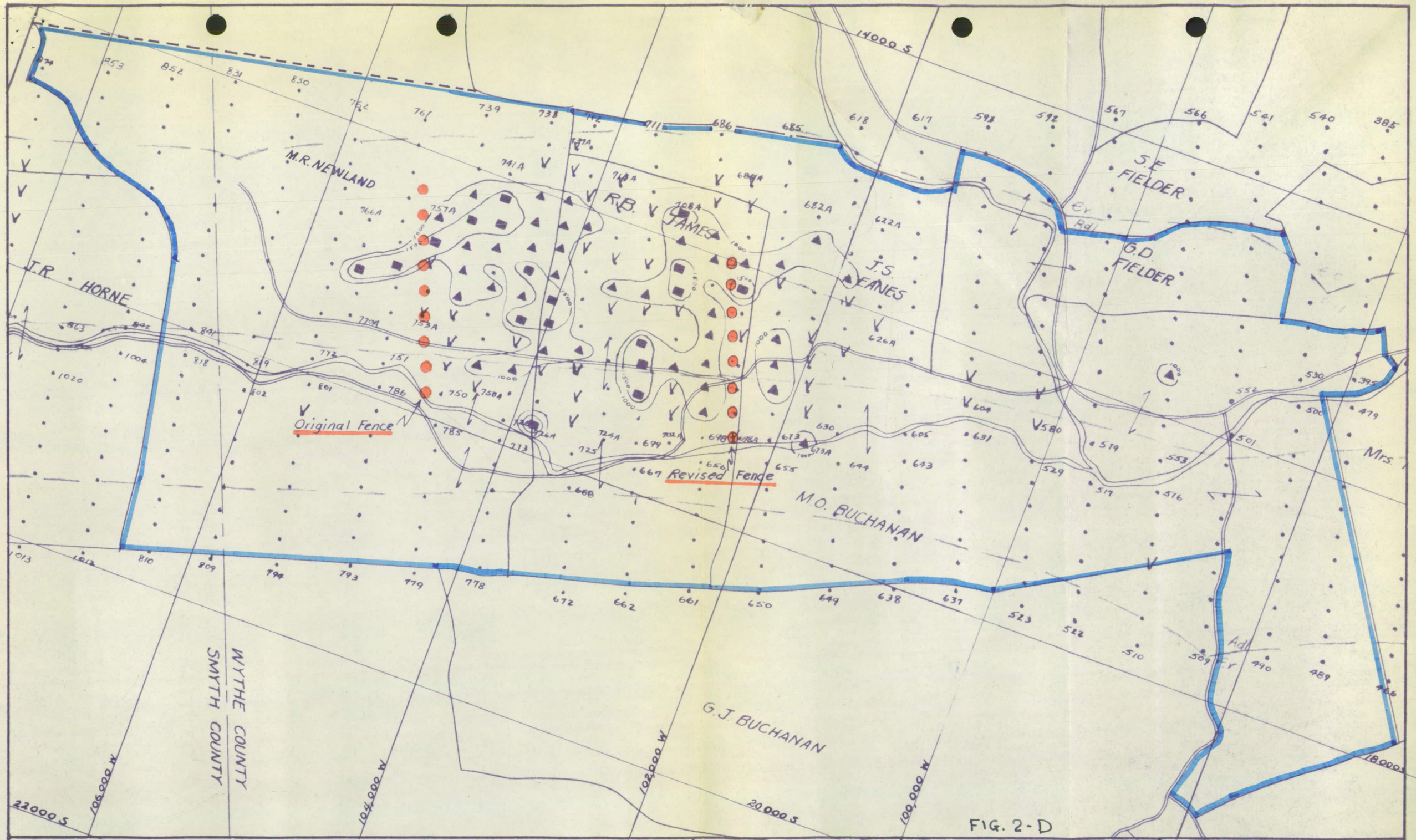


FIG. 2-D

	3-25-57	REVISED PROPERTY MAP	SMYTH-WYTHE Cos., VA.
R.C.G.	1"=660'	JAMES-WOODRUFF AREA II	From 76B 2353

LEGEND
Location of soil samples assaying below cutoff value.*
Soil 500 to 999 p.p.m. zinc equivalent.
Soil 1000 to 1499 p.p.m. zinc equivalent.
Soil 1500 p.p.m. zinc equivalent or greater.
Contours based on zinc equivalent in soils.
Detail sample locations.
Diamond drill hole locations.
Rome Formation
Carbide Member
Sacchaoritt Member
Patterson Member
Basal part Ribbon Member
Shady formation
Erwin formation and Lower Cambrian quartzites.
Fault
Zinc and/or lead mineralization.
*In early work this includes all values below 1000 p.p.m. In later work below 500 p.p.m. The maps are inconsistent in this respect due to the change in method.
NOTE: Numbers on sample lines are sample numbers.
Mineral Rights Optioned By N.J.Z.
Properties Being Negotiated
LAPRELLE
MYERS
MOORE
M R NEWLAND
L.M. VAUGHT
Mrs. SETH BENNINGTON
J.R. HORNE
D.J. HORNE
H. STEFFY
ROSE COPENHAVER
SETH BENNINGTON
W.W. PARKS
C.D. JENNINGS
D.J. HORNE
J.D. HORNE
K.J. COPENHAVER
RAY BENNINGTON
H.P. RICHARDSON
OLA LYONS
F.W. TAYLOR
A.C.
H.S. VAUGHT
W.G. COX
J.E. WILLIAMS
ORA GOETZINGER
N.M. PARKS
C.M. ROBERTS
H.P. RICHARDSON
F.A. PARKS
W.O. PIERCE
F.L. KHUDY
FIG-2A
POSTED TO DATE 6/9/53 DKL
Ref Photo 223-7-3 B,C,+D (TVA)
223-7-4 ABCEFG
BERTHA MINERAL DIVISION
THE NEW JERSEY ZINC CO.
AUSTINVILLE, VA.
DRAWN DKL
TRACED
DATE 3/12/53
SCALE 1" = 660'
CAMP AREA, SMYTH COUNTY, VA.
GEOCHEMISTRY
DMEA-4173.
FILE NO. 76B-2363 1/2
THE NEW JERSEY ZINC COMPANY
160 FRONT ST., NEW YORK, N.Y.

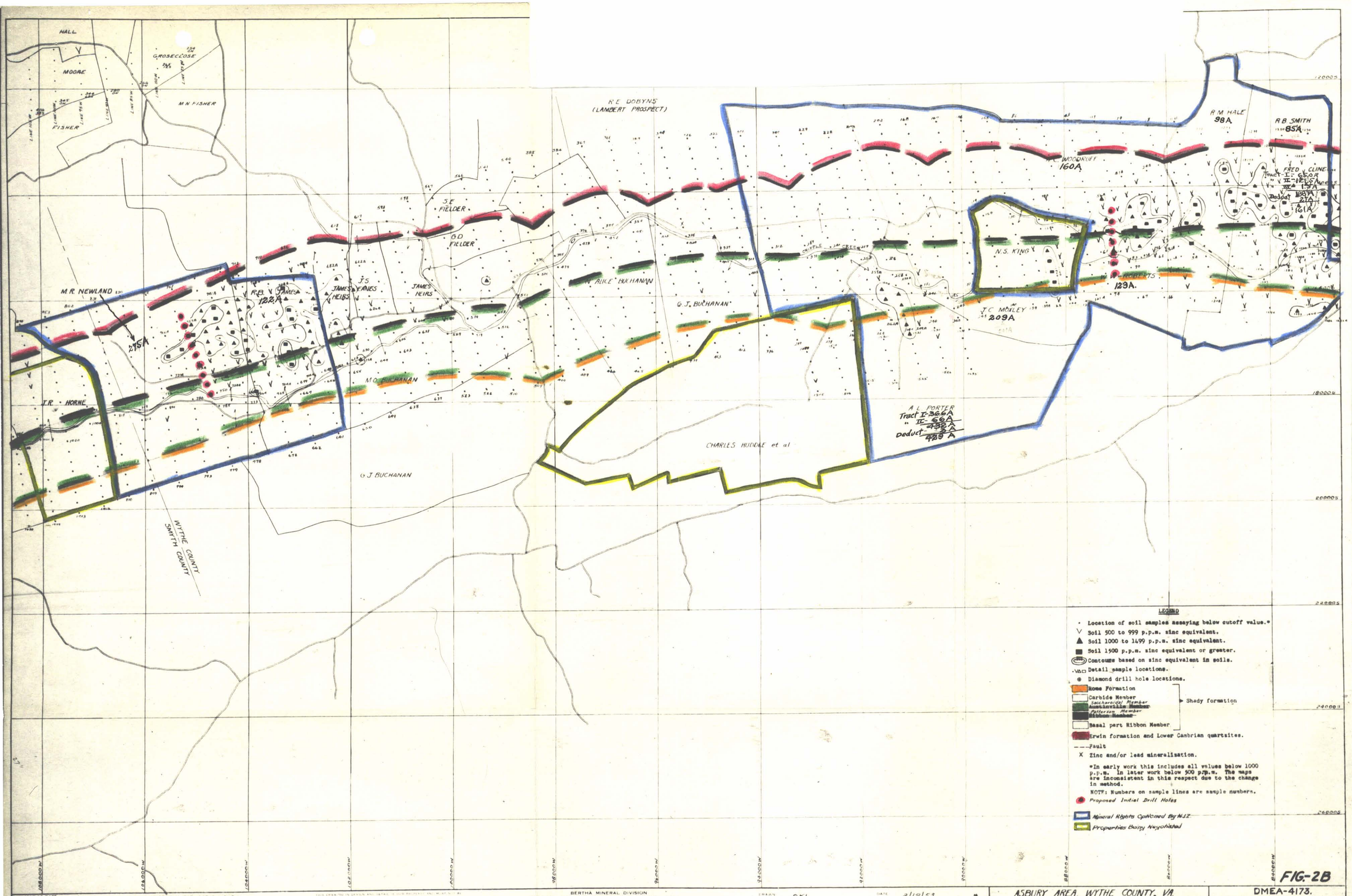


FIG-2B

POSTED TO DATE 6/9/53 DKL 9/22/53 DKL

Ref. Photos TVA 223-6-1 A+B, 223-7-1 A.B.C+D, 223-7-3 C+D

BERTHA MINERAL DIVISION
THE NEW JERSEY ZINC CO.
AUSTINVILLE, VA.

DRAWN DKL DATE 3/12/53
TRACED SCALE 1" = 660'

ASBURY AREA, WYTHE COUNTY, VA.
GEOCHEMISTRY

DMEA-4173.
FILE NO. 76B-2353 1/2

THE NEW JERSEY ZINC COMPANY
160 FRONT ST., NEW YORK N.Y.

POSTED TO DATE 6/19/53 D.K.L.

BERTHA MINERAL DIVISION
THE NEW JERSEY ZINC CO.
AUSTINVILLE, VA

DRAWN
TRACED
DATE 5/20/53
SCALE 1" = 660'

SPEEDWELL AREA, WYTHE COUNTY, VA.

DMEA-4173.
FILE NO. 76B-2384 1/2

THE NEW JERSEY ZINC COMPANY
160 FRONT ST., NEW YORK N.Y.