OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

ROYALTY AUDIT CERTIFICATE

I have examined the production, sales, and royalty accounts and records pertaining to the sale of copper and zinc concentrates by McFarland and Mullinger for the period April 15, 1961, through April 10, 1963, from property known as the Republic Copper-Zinc Mine and Johnson Camp Mine located in Cochise County, Arizona, on which royalty is payable to the U. S. Government under terms of Contract Idm-X522, Docket DMEA-2746 (copper-zinc), dated May 18, 1953, with

Coronado Division, Cyprus Mines Corporation
(successor to Coronado Copper and Zinc Company)
1206 Pacific Mutual Building
523 West Sixth Street
Los Angeles 14, California

My examination was made in accordance with generally accepted standards applicable in the circumstances.

The audit established the total sales of concentrates subject to Government royalty for this period to be $85,541.13 and the amount of royalty payable at rates specified in the contract to be $4,277.05.

A Report of Royalty Review dated April 17, 1961, found the sales subject to royalty for the period May 18, 1953, through April 14, 1961, to be $733,637.71, which added to the sales for the subsequent period make a total of $819,178.84. The royalty account as of April 14, 1961, was:

Total Royalty Payable	$36,681.27
Total Royalty Paid	36,695.15
Overpayment of Royalty	$ 13.88

At April 10, 1963, the royalty account of this project was found to be:

Total Royalty Payable	$40,958.92
Total Royalty Paid	40,959.89
Overpayment of Royalty	$ .97

C. E. Fisher
C. E. Fisher, OME Auditor

APR 29 1963

EXTRA COPY
O. M. E
RECEIVED MAY 6 1963
DATE
800

Building 20 - Federal Center
Denver 25, Colorado

May 3, 1963

Memorandum

To: George C. Selfridge, Chief
Division of Field Operations, OME
Washington 25, D. C.

From: Acting Field Officer, OME, Region III

Subject: EXPIRATION OF DMEA CONTRACT PAYING ROYALTY
DMEA-2746 (Copper-Zinc)
Contract Idm-E522
Coronado Copper and Zinc Company
(Republic Copper-Zinc Mine)
Cochise County, Arizona

The OME audited the royalty account of the subject contract and found that the total royalty paid the Government to April 10, 1963, was $0.97 more than the amount due.

No change in the status of the royalty account to May 18, 1963, the expiration date of the contract, can be expected because the mine was closed, permanently according to the Operator, January 15, 1963.

I believe that all royalty due the Government has been paid and therefore recommend that the files of the subject contract be closed May 18, 1963.

Original signed by

Hugh M. Connors

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

ROYALTY AUDIT REPORT

I. INTRODUCTION

On April 10, 1963, an audit was made of the production, sales, and royalty accounts and records of McFarland and Hullinger pertaining to the value of lead and zinc concentrates sold during the period April 15, 1961, through April 10, 1963, from property referred to as the Republic Copper-Zinc Mine, also known as the Johnson Camp Mine, located in Cochise County, Arizona, on which royalty is payable to the U. S. Government under terms of Contract Idm-8522, Docket DMEA-2746 (copper-zinc), dated May 18, 1953, with

Coronado Copper and Zinc Company
523 West Sixth Street
Los Angeles 14, California

The Coronado Copper and Zinc Company, a wholly-owned subsidiary of Cyprus Mines Corporation, was dissolved as of the close of business December 31, 1960, its assets and liabilities were taken over by the parent, and it is now known as the Coronado Division of Cyprus Mines Corporation.

This audit was performed in the office of McFarland and Hullinger, Tooele, Utah, who have operated the property as lessees since September 1959. The records of that company pertaining to its operation of the Johnson Camp Mine were made available for this audit by A. R. Klenda, office manager, whose cooperation greatly facilitated the audit work.

II. GENERAL INFORMATION

Articles 6 and 9 of the contract provide that, if the Government considers that a discovery or development from which production may be made has resulted from the exploration work, the Operator or its successor in interest shall pay to the Government a percentage royalty on all minerals produced from the land described in Articles 2 and 9 and Annex I of the contract during a period of 10 years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A certification of discovery or development was issued on February 2, 1956.

A Report of Review in lieu of final cost audit dated August 17, 1955, indicated accepted costs under the exploration contract

amounting to $87,045.00 with the Government's contribution, on a 50 percent basis, being $43,522.50.

A Royalty Audit Report dated April 15, 1955, and a Report of Royalty Review dated January 22, 1959, relate to production, sales, and royalty payable and paid to the Government for the period from the date of the contract, May 18, 1953, through January 15, 1959, while the property was being operated by the Operator (Coronado Copper and Zinc Company) named in the contract.

A Report of Royalty Review dated April 17, 1961, pertains to production, sales, and royalty payable and paid thereafter through April 14, 1961, during which period mining and milling operations were conducted by McFarland and Mullinger. The present audit was undertaken for the purpose of making an on-site verification of royalty receipts for the period covered by such review and to extend the period covered by audit through January 15, 1963, the date upon which McFarland and Mullinger ceased operation and production at this property.

The mining and milling operations were discontinued because of an order by the Arizona State Highway Department to vacate the Operator's well and portions of its pipeline located on state property to be used for highway purposes. The Operator deemed the cost of sinking a new well and relocation of the pipeline would be excessive with respect to the probable recovery from production and sale of minerals. During most of 1962, in anticipation of the close-down of the mine and mill, the principal efforts were directed toward removing the higher grade and more readily accessible ore. The last production from the area subject to Government royalty was made in April 1962 although operations were continued in other areas until January 15, 1963.

Royalty due to the Government during the time of operations by McFarland and Mullinger was paid by the Operator or its successor, Cyprus Mines Corporation. Monthly royalty statements furnished to the Government by the Operator were supported by copies of smelter settlement statements covering sales by McFarland and Mullinger together with cumulative monthly mill reports and assay data relating to total production from the mine and that portion from ore subject to Government royalty.

III. SCOPE OF AUDIT AND FINDINGS

A considerable amount of preaudit work was accomplished in the OMM Washington, D. C., office prior to the site audit. During this preaudit work a statement of royalty received was prepared from copies of statements furnished by the Operator showing computations of the monthly royalty remittances. All of the data included in the statement were confirmed by detailed recomputation. This statement, which is filed as part of my audit work papers, was reconciled with the production and sales records in McFarland and Bullinger's office.

During this on-site audit it was determined that McFarland and Bullinger was operating under a lease which required them to pay to the Operator a 10 percent royalty on net smelter returns, less certain milling charges. Test checks were made to the extent deemed necessary to establish the fact that the same smelter settlements were used in computing the Government's royalty as were used in reporting the royalty paid to the Operator.

McFarland and Bullinger supplied to the Operator complete detail as to production from the various areas of the mine together with assay data. Based on such information the Operator was able to compute the value of the production from the area subject to Government royalty and made monthly payments of such royalty.

In this auditor's opinion the records which were inspected were reliable and adequate for the purpose of audit and the expenditure of the time and expense required for verification of the royalty account in the office of Cyprus Mines Corporation, Coronado Division, in Los Angeles, California, is unwarranted.

During the period covered by this audit, the zinc concentrates were sold to the International Minerals and Metals Corporation. The copper concentrates were sold to the International Consolidated Copper Company, except for 5 sales in September 1961 made to International Smelting and Refining Company.

IV. CONCLUSION

A summary analysis of the production, sales, and royalty payable and paid during the period covered by this audit follows:

	Total Production	DMEA Portion
Tons of ore milled	74,367.50	6,573.19
Dry tons of concentrates produced:		
Copper	5,212.03	434.64
Zinc	7,644.87	670.91
Smelter value	$1,130,292.51	
Deductions	130,413.80	
Proceeds	$ 999,878.71	$85,541.13
Royalty Payable		$ 4,277.05
Royalty Paid	$ 4,264.74	
Plus: Overpayment (per Report of Royalty Review dated April 17, 1961) applied to royalty due	13.28	4,278.02
Overpayment		$ .97*

Overpayment:

* Inspiration Consolidated Lot 1060, Shipper Lot J-95 -
Royalty Paid:
Smelter value $9,898.94 x 7.66% x 5% = $37.91
Should be:
Smelter value $9,898.94
Less: Freight 253.78
Net proceeds $9,645.16 x 7.66% x 5% = 36.94
Overpayment $ .97

The audit has confirmed the accuracy and propriety of royalty payments received applicable to settlements during the period April 15, 1961, through April 10, 1963, as well as during the period covered by and summarized in a prior Report of Royalty Review dated April 17, 1961. It has also determined that all indicated production during these periods has been properly accounted for.

C. E. Fisher

C. E. Fisher, OME Auditor

APR 29 1963

Building 20 - Federal Center
Denver 25, Colorado

EXTRA COPY O. M. E. RECEIVED MAY 8 1963		
DATE		
May 2,	1963	800

Coronado Division, Cyprus Mines Corporation
1206 Pacific Mutual Building
523 West Sixth Street
Los Angeles 14, California

Re: [illegible]-2746 (Copper-Zinc)
Contract [illegible]
Coronado Copper and Zinc Company
(Republic Copper-Zinc Mine)
Cochise County, Arizona

Gentlemen:

Enclosed is a copy of the Report of Royalty Review on the subject contract dated April 29, 1963 covering the period April 15, 1961, through April 10, 1963.

Sincerely yours,

Original signed by

Hugh M. Connors
Acting Field Officer, OME
Region III

Enclosure
cc McNurlund and Hallinger
P. O. Box 238
Tooele, Utah

Chief, Division of Field Operations, OME
E. D. Talbert, Chief
Contract Administration and Audit Division
E522 Royalty Corres
Chron
HMC/lm

Building 20 - Federal Center
Denver 25, Colorado

May 2, 1963

Memorandum

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

From: Acting Field Officer, OME, Region III

Subject: BMEA-2746 (Copper-Zinc)
Contract Idm-E522
Coronado Copper and Zinc Company
(Republic Copper-Zinc Mine)
Cochise County, Arizona

Attached is the original Report of Royalty Review dated April 29, 1963 on the subject property covering the period April 15, 1961, through April 10, 1963.

Original signed by

Hugh M. Connors

Attachments

cc Chief, Division of Field Operations, OME
E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Royalty Corres. Idm-E522
Chron
HMC/lm

APR 29 1963

Memorandum

To: Acting Field Officer, Region III

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

Subject: DMRA-2746 (Copper-Zinc)
Coronado Copper and Zinc Company
Republic Copper-Zinc Mine
Cochise County, Arizona
Contract Idm-R522

The original and three copies of a Royalty Audit Certificate and Royalty Audit Report covering the subject contract are enclosed. If you concur in the facts stated therein, please make the following distribution:

(a) Original to Fiscal Section, Division of Administrative Services, Office of the Secretary, Department of the Interior, Washington 25, D. C.;
(b) One copy for the Operator (Coronado Division, Cyprus Mines Corporation);
(c) One copy for the producer (McFarland & Hullinger); and
(d) One copy for your files.

As evidence of your concurrence, a copy of your letter transmitting the Operator's copy should be furnished this Division. If for any reason you do not contur, the original and all copies of the report should be returned to this Division with your comments.

Enclosures

CEFisher/ama 4-29-63

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

Excerpt - Letter from C. E. Fisher dated April 10, 1963

I struck a sore spot when I asked Mr. Klenda about M & H status under stabilization. They spent several weeks preparing their presentation only to be found slightly ineligible. He pointed out all of the inequities in the law and the regulations. You are familiar with them so I shall not repeat the gory details. He had good records and I am convinced that the Government has been fairly treated. They have a nice new office building and you get a feeling of prosperity and good management when you enter the place. They are operators, not promoters or speculators.

Mr. Klenda stated that M & H is about to start operations as lessees of Keystone Mine, Gunnison, Colo. on which DMEA made an advance under Docket 3866. The arrangement is to be much the same as that with Coronado. Sorry I did not get more particulars, but I felt that this is properly a Region III matter and they may have reported on it. If not, you have a lead.

Building 20 - Federal Center
Denver 25, Colorado

March 12, 1963

McFarland and Ballinger
P. O. Box 238
Tooele, Utah

Re: DMEA-2746 (Copper-Zinc)
Contract Km-2522
Coronado Copper & Zinc Company
(Republic Copper-Zinc Mine)
Cochise County, Arizona

Gentlemen:

I have been advised that Mr. Clarence E. Fisher will visit your office on or about April 10, 1963 to make a royalty audit of the captioned account.

Any courtesies shown Mr. Fisher will be greatly appreciated.

Sincerely yours,

Original signed by

Hugh M. Connors
Acting Field Officer, OME
Region III

cc Chief, Division of Field Operations, OME
E. D. Talbert, Chief
Contract Administration and Audit Division
Clarence E. Fisher

E-522

For royalty payment of $28.83, dated February 27, 1963, see transmittal letter file.

C
O
P
Y

F. G. McFarland
Tooele, Utah
Phone---Tooele 122

S. R. Hullinger
Tooele, Utah
Phone---Tooele 1425

MCFARLAND AND HULLINGER
Mining * Ore Hauling * Contracting

Phone 219
P. O. Box 238
Tooele, Utah

February 20, '63

Office of Mineral Exploration
Denver Federal Center
Building 20
Denver, Colorado

Att'n: Mr. Hugh M. Connors
Acting Field Officer

Mr. Conners:

The last time that Mr. T. M. Romslo of your office was here, he asked if we would notify you on the effective date of our cessation of operations at Coronado Copper and Zinc Companies, Johnson Camp Mine, which you have under a DMEA loan.

Operation have been concluded and the shaft has been covered. We ceased operation and production on the 15th. of January 1963.

Sincerely

McFarland and Hullinger
Johnson Camp Mine

/s/ D. R. Long
D. R. Long, Bookkeeper

cc: Tooele
Cyprus

Mr. Selfridge: Romslo will contact McFarland & Hullinger

March 8, 1963.

H. M. C.

On September 15, 1955, the McFarland and [illegible] partnership was granted a DMEA contract to explore for lead and zinc ores in the Ophir mine. The cost of the exploration project was originally estimated to be $104,700 of which the maximum Government participation was 50 percent, or $52,350. The total accepted cost of the project was $87,580.30, of which the Government contribution was 50 percent, or $43,790.15.

The project was successful in finding lead-zinc ores and was certified as a discovery or development on January 23, 1958. The full amount of the Government's contribution was repaid from royalties on production, the last payment being made in 1961.

<u>As of December 31, 1962</u>
Status of the Lead and Zinc Mining
<u>Stabilization Program relating to Utah</u>

Most applications received	- 24	from Utah out of a total of 103 from 13 states.
" certifications issued	- 20	for Utah out of a total of 83.
" firms receiving payments	- 13	in " " " " " 42.

Second in amount paid - $119,236 to Utah producers, or nearly 20 percent of the total of $610,028 paid to all producers.

E-522

For royalty payment of $378.50, dated November 9, 1962, see transmittal letter file.

EXTRA COPY
O. M. E
RECEIVED OCT 31 1962
800

OFFICE OF MINERALS EXPLORATION

REGION III

Statement in Lieu of Interim Report
of Certified Project

Reporting Period January 1, 1960 to October 11, 1962

Docket and Contract Number DMEA-2746 Idm-E522

Operator Coronado Copper and Zinc Co (Copper-Zinc)

The project has been inactive during the reporting period ☐

Pertinent data relative to the subject contract has remained unchanged since the last report ☐

Remarks: I visited the subject property October 5, 1962, but could not make a planned inspection of the active project. According to Dennis Long, bookkeeper for McFarland and Hullenger, Mr. G. H. Stauffer, mine foreman, who maintains all mine records and maps, was on vacation. Also, that all operations would cease not later than Dec. 31, 1962. In Tucson, that evening, I contacted Mr. W. D. Nelson, Supt. of the lessee's Ariz. operations, and scheduled the inspection for Oct. 11, 1962.

The inspection was made on schedule in the company of Mr. Nelson, and Mr. Stauffer, and the following information was obtained. The lessee's total production of DMEA ore to Apr. 3, 1962, when the area's ore reserves were depleted, was 10,393 tons containing about 2.93% Cu and 7.1% Zn. The DMEA and Operator's ore was co-mingled and milled, and royalties were paid the Government by the lessor. Sub-marginal ore remaining in the DMEA area is an estimated 4265 tons, in 2 blocks, containing about 1.78% Cu and 6.95% Zn.

The mining and milling of solely non-DMEA ore will continue until either the reserves are depleted, or until Dec. 31, 1962 when all operations will be terminated because the cost of moving a 6-mile water line to the property in compliance with a State Highway Department order, would greatly exceed the potential earnings from exploitation of any ore remaining.

cc Chief, Division of Field Operations, OME (Orig & 1)

Signed (Original signed by) T. M. Romslo Date Oct. 29, 1962

QUADRUPLICATE Treasury Department Circular No. 945 - Rev., Supp. 1 (Third Amendment). Promulgated Sept. 11, 1959 by Treasury Department, Fiscal Service.

CERTIFICATE OF DEPOSIT
Standard Form 219

Identification of Accountable Officer Affected	
(1) Office Deposit Symbol: 9013	(2) For Consolidated Abstract of Treasury Regional Office at (city and state): Denver, Colorado

12/30/59 (Date sent)

66 (Deposit No.)

Deposited with Federal Reserve Bank of Kansas City, Mo., Denver, Colo. (Name and location of depositary)

(3) The Sum of $ 2,302.09

(4) Classification of Deposit

Account Symbol	Amount	Account Symbol	Amount
14X4401	$ 2,302.09		$

(6) Department or Agency and address whose accounts are credited, IF OTHER THAN depositing agency.

(5)
14-23-010
Office of Minerals Exploration
224 New Custom House
Denver 2, Colorado

Depositor's title, Department or Agency and address. If deposit is made for another accounting entity, identify in (6).

(7) SPACE BELOW TO BE USED BY DEPOSITARY ONLY. I certify that the above amount has been received for credit in the account of the Treasurer of the United States on the date shown, subject to adjustment for uncollectible items included therein.

J. Michael Gennaoro
(Authorized signature)

DEC 30 1959
(Date of credit in Treasurer's account)

Depositary will date, sign and forward to depositor.

E-933 Fraud
Machinery & Chem
Corp. 1,463.55

E-1115 B.C.
Mining Corp - 47.74

E-1163 Jenkins &
Hand 198.52

E-522 Coronado
Copper & Zinc Co - 592.28

2,302.09

2 SEPT 1
05 PM 12 05
DEC 13 2005

E-522

For royalty payment of $353.83, dated January 4, 1961, see transmittal letter file.

E-522

For royalty payment of $294.58, dated December 15, 1960, see transmittal letter file.

E-522

For royalty payment of $266.18, dated November 4, 1960, see transmittal letter file.

E-522

For royalty payment of $304.42, dated October 5, 1960, see transmittal letter file.

E-522

For royalty payment of $338.06, dated September 2, 1960, see transmittal letter file.

E-522

For royalty payment of $449.85, dated July 26, 1960, see transmittal letter file.

E-522

For royalty payment of $381.63, dated June 30, 1960, see transmittal letter file.

E-522

For royalty payment of $381.35, dated May 25, 1960, dee transmittal letter file.

E-522

For royalty payment of $339.12, dated May 4, 1960, see transmittal letter file.

E-522

For royalty payment of $512.06, dated April 12, 1960, see transmittal letter file.

E-522

For royalty payment of $714.59, dated March 9, 1960, see transmittal letter file.

E-522

For Certificate of Deposit No. 74, dated January 28, 1960, giving royalty payment of $635.11, see E-345.

E-522

For royalty payment of $363.61, dated October 5, 1962, see transmittal letter file.

E-522

For royalty payment of $371.03, dated June 27, 1962, see transmittal letter file.

E-522

For royalty payment of $540.75, dated May 16, 1962, see transmittal letter file.

E-522

For royalty payment of $247.97, dated March 30, 1962, see transmittal letter file.

E-522

For royalty payment of $198.14, dated February 26, 1962, see transmittal letter file.

E-522

For royalty payment of $338.38, dated January 22, 1962, see transmittal letter file.

For royalty payment of $300.46, dated January 3, 1962, see transmittal letter file.

E-522

For royalty payment of $308.77, dated October 17, 1961, see transmittal letter file.

E-522

For royalty payment of $198.37, dated September 19, 1961, see transmittal letter file.

E-522

For royalty payment of $216.33 dated August 15, 1961, see transmittal letter file.

E-522

For royalty payment of $248.88, dated July 7, 1961, see transmittal letter file.

E-522

For royalty payment of $259.95, dated May 26, 1961, see transmittal letter file.

E-522

For royalty payment of $264.77, dated May 5, 1961, see transmittal letter file.

MAY 9 1961

Memorandum

To: Acting Field Officer, Region III

From: Chief, Division of Field Operations

Subject: DMEA-2746 (Copper-Zinc)
Coronado Copper and Zinc Company
Republic Copper-Zinc Mine
Cochise County, Arizona
Contract Idm-5522

Your Abstract of Remittances No. 61-5-2 includes royalty in the amount of $264.77 applicable to the subject contract. The remitter is shown as Cyprus Mines Corporation. The letter transmitting the check and supporting monthly Report No. 54 to you is on the letterhead of Cyprus Mines Corporation. The monthly report is headed Cyprus Mines Corporation, Coronado Division.

From these citations it appears that Coronado Copper and Zinc Company, which we understand has been controlled by Cyprus Mines Corporation, may have been abolished as a separate corporation and merged with the parent company. For record purposes please determine the Coronado Copper and Zinc Company's status and advise us accordingly.

George C. Selfridge

EDTalbert/ama/hb (5/9/61)
Copy to: Docket
Director's Reading File
CA & A Division
Review Committee

ltr. 3/31/61 from Cyprus states Coronado & a wholly owned subsidiary were dissolved 12/31/60.
Talbert

Memorandum

To: Acting Field Officer, Region III

From: Chief, Division of Field Operations

Subject: DMEA-2746 (Copper-Zinc)
Coronado Copper and Zinc Company
Republic Copper-Zinc Mine
Cochise County, Arizona
Contract Idm-E322

Your Abstract of Remittances No. 61-5-2 includes royalty in the amount of $264.77 applicable to the subject contract. The remitter is shown as Cyprus Mines Corporation.

The letter transmitting the check and supporting monthly Report No. 54 to you is on the letterhead of Cyprus Mines Corporation. The monthly report is headed Cyprus Mines Corporation, Coronado Division. From these citations it appears that Coronado Copper and Zinc Company has been acquired by or merged with the Cyprus Mines Corporation.

Please determine from Cyprus Mines Corporation when and how the Coronado Copper and Zinc Company was acquired and request copies of any documents pertaining to the acquisition or merger.

EDTalbert/ama
May 8, 1961

Copy to: Docket
Director's Reading File
CA & A Division
Review Committee

~~OFFICIAL FILE~~ COPY
O. M. E.
RECEIVED APR 24 1961

DATE	INITIALS	CODE
		800

Building 20 - Federal Center
Denver 25, Colorado

April 20, 1961

Coronado Copper and Zinc Company
1206 Pacific Mutual Building
523 West Sixth Street
Los Angeles 14, California

Re: DMEA-2746 (Copper-Zinc)
Contract I&m E522
Coronado Copper and Zinc Company
(Republic Copper-Zinc Mine)
Cochise County, Arizona

Gentlemen:

Enclosed is a copy of the Report of Royalty Review on the subject contract dated April 17, 1961 covering the period January 16, 1959, through April 14, 1961.

You will note that $13.28 is the amount of overpayment of royalty. If you submit a claim to us for that amount the overpayment in royalty will be refunded to you.

Yours very truly,

Original signed by

Hugh M. Connors
Acting Field Officer, OME
Region III

Enclosure

HMC/lm
cc Chief, Division of Field Operations, OME
E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Royalty Corres. E522
Chron

Building 20 - Federal Center
Denver 25, Colorado

EXTRA COPY
O. M. E.
RECEIVED APR 24 1961
DATE INIT.

April 20, 1961

Memorandum

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

From: Hugh M. Connors, Acting Field Officer, OME, Region III

Subject: DMEA-2746 (Copper-Zinc)
Contract Mm E522
Coronado Copper and Zinc Company
(Republic Copper-Zinc Mine)
Cochise County, Arizona

Attached is the original Report of Royalty Review on the subject property dated April 17, 1961 covering the period January 16, 1959, through April 14, 1961.

Original signed by

Hugh M. Connors

Attachments
HMC/lm
cc: Chief, Division of Field Operations, OME
E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Royalty Corres. E522
Chron

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Washington office pertaining to Contract No. Idm-E522, Docket No. DMEA-2746 (copper-zinc), dated May 18, 1955, with

Coronado Copper and Zinc Company
1206 Pacific Mutual Building
523 West 6th Street
Los Angeles 14, California

for the purpose of determining the amount of royalty due the U. S. Government on sales of minerals from property referred to as the Republic Copper-Zinc Mine, also known as the Johnson Camp Mine, located in Cochise County, Arizona, reported during the period January 16, 1959, through April 14, 1961.

A certification of discovery or development was issued on February 2, 1956, and, in accordance with Articles 6 and 9 of the contract, royalty is payable on all minerals mined or produced from the land described in Articles 2 and 9 of the contract for a period of 10 years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A Report of Review dated August 17, 1955, indicated accepted costs under the exploration contract amounting to $87,045.00 with the Government's contribution, on a 50 percent basis, being $43,522.50.

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

This review established the total sales of copper and zinc concentrates for the period to be $138,153.88. Royalty due the Government at rates specified in the contract is $6,907.67.

A prior Report of Royalty Review found the sales subject to Government royalty through January 15, 1959, to be $595,483.83 which added to the sales for this subsequent period make a total of $733,637.71. The royalty account as of January 15, 1959, was:

Total Royalty Due	$29,774.20
Total Royalty Paid	29,508.17
Balance of Royalty Due	$ 266.03

At April 14, 1961, the royalty account of this project was found to be:

Total Royalty Due	$36,681.87
Total Royalty Paid	36,695.15
Overpayment of Royalty	$ 13.28

E. D. Talbert

April 17, 1961 E. D. Talbert OME Auditor

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

Mining and milling was discontinued on August 15, 1957, by the Operator. The mine was reopened in September 1959 by a lessee, McFarland & Hullinger, Box 238, Tooele, Utah. The ore produced by the lessee was concentrated at its Sahuarita, Arizona, mill until March 1960, when milling operations were transferred to the Johnson Camp mill.

Although not the producer, the Operator has continued to pay the DMEA royalty on a monthly basis. In addition to the pertinent settlement sheets, the payments are supported by statements showing the calculated proceeds applicable to DMEA production on the basis of percentage of concentrates produced from DMEA ore to total concentrates produced by the mill during the month. This was similar to the method in effect during the prior period, when the Operator was the producer, as outlined in the prior Report of Royalty Review dated January 22, 1959, and a Royalty Audit Report dated April 15, 1955.

During the period covered by this review, the zinc concentrates were sold to the International Minerals and Metals Corporation. The copper concentrates produced through March 1960 were sold to the International Smelting & Refining Company and thereafter to the Inspiration Consolidated Copper Co.

This review included the recomputation and tabulation of the Operator's monthly reports and the pertinent settlement sheets. The tabulation is filed with my audit work-papers and is summarized, for the period covered by this review, as follows:

	Total Production	DMEA Portion
Tons of ore milled	81,836.67	8,421.28
Dry tons of concentrates produced:		
Copper	6,842.05	687.56
Zinc	7,842.48	969.83
Smelter value	$1,391,137.65	$153,391.26
Deductions	138,191.03	15,237.38
Proceeds	$1,252,946.62	$138,153.88
Royalty Due		$ 6,907.67
Royalty Paid		6,920.95
Overpayment		$ 13.28

The $13.28 overpayment of royalty was due to the following three errors in the Operator's monthly reports:

(1) A difference of $970.94 (DMEA portion $104.88) between the provisional and final settlements on smelter lot 119 (mine lot J-13) was included erroneously as an adjustment on the June 1960 report, whereas the entire final settlement had been included in the May 1960 report. This resulted in an overpayment of $5.22 in DMEA royalty.

(2) The proceeds applicable to September production on smelter lot 30 (mine lots J-51 to J-55) were reported erroneously as $9,886.13 (DMEA portion $816.59) instead of $9,866.13 (DMEA portion $814.94). This resulted in an overpayment of $.07 in DMEA royalty.

(3) An aggregate difference of $2,104.81 (DMEA portion $159.76) between the provisional and final settlements on smelter lots 506, 525, 530, and 535 (mine lots J-50, J-51, J-52, and J-53) was included erroneously as an adjustment on the November 1960 report, whereas the entire final settlements had been included in the October report. This resulted in an overpayment of $7.99 in DMEA royalty.

These findings, which are subject to audit of the producer's records if deemed advisable in the future, include production through January 1961; final settlements thereon through International Minerals and Metals Corporation's February 21, 1961, invoice MP-2591 (mine lots 91 to 94) and Inspiration Consolidated Copper Company's March 10, 1961, settlement on lot 816 (mine lot J-79); provisional settlements thereon through International Minerals and Metals Corporation's March 13, 1961, invoice MP-3557 (mine lots 95-100) and Inspiration Consolidated Copper Company's March 17, 1961, settlement on lot 838 (mine lot J-80); and royalty payments thereon through April 14, 1961.

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

(1) Available information in the files indicates that all sales of production from the property have been accounted for and proper royalty thereon has been paid to the Government; and

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

MME Form 22
April 59

DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

CHECK SHEET OF EXAMINING ENGINEER

Operator's Name CORONADO COPPER & ZINC CO.

Address 1206 Pacific Mutual Building

Los Angeles 14, California

Exploration Contract No. Idm E522 Docket No. DMEA 2746

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

3/5-20-61
Date

Hugh M. Connors
Mining Engineer
Hugh M. Connors

APR 1 7 1961

Memorandum

To: Acting Field Officer, Region III

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

Subject: IMEA-2746 (Copper-Zinc)
Coronado Copper and Zinc Company
Republic Copper-Zinc Mine
Cochise County, Arizona
Contract Idm-8522

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

(a) Original to the Fiscal Section, Division of Administrative Services, Office of the Secretary, Department of the Interior, Washington 25, D. C.;
(b) One copy to the Operator; and
(c) One copy for your files.

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

Your courtesy in forwarding advance copies of the three additional monthly reports is sincerely appreciated. This action enabled us to prepare a more current Report of Royalty Review.

Attachments

EDTalbert/ama
April 17, 1961

Copy to: Docket
Director's Reading File
CA & A Division
Mr. Rothrock

E-522

For royalty payments of $428.69 and $929.20, dated April 11, 1961, see transmittal letter file.

Building 20 - Federal Center
Denver 25, Colorado

EXTRA COPY
O. M. E
RECEIVED APR 12 1961
DATE | IN... | CODE
800

April 10, 1961

Memorandum

To: E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Washington 25, D. C.

From: Hugh M. Connors, Acting Field Officer, OME, Region III

Subject: Docket DMSA-2740 (Copper-Zinc)
Contract Idm E522
Coronado Copper and Zinc Company
(Republic Copper-Zinc Mine)
Cochise County, Arizona

This has further reference to your memorandum dated March 28, 1961 on the subject contract.

We are now in receipt of report No. 51 and No. 52 with accompanying check for $929.20 and report No. 53 with a check for $428.69.

An extra copy of each report was received in this office and is attached hereto for your information.

Original signed by

Hugh M. Connors

Attachments

HMC/lm
cc Chief, Division of Field Operations, OME
Royalty Corres E522
Chron

Building 20 - Federal Center
Denver 25, Colorado

April 3, 1961

Richard R. Grantham
Assistant Comptroller
Coronado Copper and Zinc Company
1206 Pacific Mutual Building
523 West Sixth Street
Los Angeles 14, California

EXTRA COPY
O. M. E
RECEIVED APR 5 1961
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Re: IMEA-2746 (Copper-Zinc)
Contract Idm E522
Coronado Copper and Zinc Company
(Republic Copper-Zinc Mine)
Cochise County, Arizona

Dear Mr. Grantham:

We have received no information from you regarding the captioned Contract since your Report No. 50 dated December 29, 1960. That Report covered the sales of IMEA ore milled in October 1960. There was no indication in the Report that a shutdown in operations was contemplated.

If operations have been discontinued, additional royalty is due the Government on final settlement on smelter lot Nos. 544, 554, 561, and 578, for which provisional settlement was included in the last payment of royalty. In addition, the last Report shows more copper concentrates and zinc concentrates remained on hand at the end of October.

Will you please advise.

Yours very truly,

Original signed by

Hugh M. Connors
Acting Field Officer, OME
Region III

HMC/lm
cc Chief, Division of Field Operations, OME
E. D. Talbert, Acting Chief
Contract Administration and Audit Division

MAR 2 8 1961

Memorandum

To: Acting Field Officer, Region III

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

Subject: DMEA-2746 (Copper-Zinc)
Coronado Copper and Zinc Company
Republic Copper-Zinc Mine
Cochise County, Arizona
Contract Idm-X522

The prompt submission with your March 20 memorandum of a photocopy of the subject Operator's Royalty Report No. 42, together with the original and one copy of MME Form 22, is appreciated. However, in order to properly complete our Report of Royalty Review, your comments as to the present status of operations by the lessee, McFarland & Hellinger, are solicited.

From the time that the lessees reactivated this property royalty has been received on a monthly basis. There have been no payments, however, since the Operator's December 29, 1960, check in the amount of $353.83, which you submitted for deposit on Abstract of Remittances No. 1-1. This royalty payment was supported by the Operator's Royalty Report No. 50, which covers October 1960 production.

There is no indication in the October report of a shutdown in operations. Also, no mention was made by you on the MME Form 22 of any change in status. Furthermore, even if operations were discontinued, additional royalty is due the Government on final settlement of liquidations nos. 544, 554, 561, and 578, for which provisional settlement was included in the last payment of royalty. In addition, the last report states 25 to 30 tons of copper concentrates and 35-40 tons of zinc concentrates remained on hand at the end of October.

EDTalbert/ama
March 28, 1961

Copy to: Docket
Director's Reading File
CA & A Division
Mr. Talbert

Building 20 - Federal Center
Denver 25, Colorado

OFFICIAL FILE COPY
O. M. E
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DATE	INITIALS	CODE
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March 20, 1961

Memorandum

To: E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Washington 25, D.C.

From: Hugh M. Connors, Acting Field Officer, OME, Region III

Subject: IMRA-2746 (Copper-Zinc)
Contract Idm 1522
Coronado Copper and Zinc Company
(Republic Copper-Zinc Mine)
Cochise County, Arizona

In response to your memorandum of March 16, 1961, attached are photocopies of the Royalty Report No. 42 and supporting settlement sheets, and the original and one copy of MME Form 22.

Original signed by

Hugh M. Connors

Attachments

MAR 1 6 1961

Memorandum

To: Acting Field Officer, Region III

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

Subject: DMEA-2746 (Copper-Zinc)
Coronado Copper and Zinc Company
Republic Copper-Zinc Mine
Cochise County, Arizona
Contract Idm-8522

This Division is in the process of making a royalty review of the subject contract. Your submission of an original and one copy of MME Form 22, Check Sheet of Examining Engineer, is requested.

The Operator's statements of royalty payments and settlement sheets for production through January 1960 have been reviewed. At this point we are stymied. Royalty Report No. 42 and supporting settlement sheets on February 1960 production are missing from the Washington files and a thorough search has been unsuccessful.

In order that this review may be completed, your duplication and submission to this Division of a copy of the Operator's complete February 1960 Report No. 42, including all attachments, will be sincerely appreciated.

EDTalbert/ama
March 16, 1961

Copy to: Docket
Director's Reading File
CA & A Division

EXTRA COPY
O. M. E.
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DATE	INITIALS	CODE
		800

Building 20 - Federal Center
Denver 25, Colorado
December 8, 1959

CERTIFIED MAIL

Mr. R. R. Grantham
Assistant Comptroller
Coronado Copper & Zinc Company
1206 Pacific Mutual Building
523 West 6th Street
Los Angeles 14, California

Re: Docket No. IMBA 2746 (Copper-Zinc)
Contract No. Idm-E522
Coronado Copper & Zinc Company)
Johnson Camp Unit
(Republic Copper-Zinc mine)
Cochise County, Arizona

Dear Mr. Grantham:

The November issue of the Mining World Magazine contains an article wherein it is stated that McFarland and Hullinger have leased the referenced property and are making daily shipments of copper ore from the Moore shaft.

Since the Moore shaft is on or immediately adjacent to Area 1 of the land subordinated under Contract Idm-E522, your attention is directed to the following:

> The Government is entitled to royalty on any production from the land described under Article 2 of the contract which is further described in Annex I and shown on map Figure 2 which are made a part of the contract. In addition, royalty is due the Government on production in conformance with Article 6 of the contract as amended by recitation in Article 9 of the contract.

We will appreciate advice by return mail as to the status of operations and current production as concerns the Government in connection with the land subordinated under the contract.

Very truly yours,

Original signed by

J. W. Townsend
Executive Officer, OME
Field Team, Region III

JWT:ltm
cc: Chmn. Op. Comm. (2)
Roy. Corres. E522
Chron.

cc: Mr. Bill Stoffers
Mine Manager
McFarland & Hullinger
Johnson Camp Unit
Dragoon, Arizona

E-522

For Certificate of Deposit No. 127, dated March 24, 1959, giving royalty payment of $266.03, see E-345.

EXTRA COPY O. M. E. RECEIVED MAR 20 1959		
DATE	INITIALS	CODE
		800

224 New Customhouse
Denver 2, Colorado

March 18, 1959

CERTIFIED MAIL

Mr. R. R. Grantham,
Assistant Comptroller
Chromalloy Copper & Zinc Company
1806 Pacific Mutual Building
523 West 6th Street
Los Angeles 14, California

Re: Docket No. [illegible] 2746 (Copper-Zinc)
Contract No. [illegible] (Republic mine)
Cochise County, Arizona

Dear Mr. Grantham:

A report of royalty review was forwarded your company on February 2, 1959. This review shows a balance of royalties due the Government to be $266.03.

Will you please forward this office your check for $266.03 to clear the account.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Executive Officer
Off Field Ops., Region III

HMC/ff
cc: ✓Chmn. Op. Comm. (2)
Harshman
Romslo
Royalty file E522
Chron.

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OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Executive Officer, OME Field Team, Region III, Denver, Colorado, pertaining to Contract Idm-E502, Docket No. DMEA-2746 (Copper-Zinc) dated May 18, 1953, including Amendments Nos. 1 through 4, with

Coronado Copper and Zinc Company
1206 Pacific Mutual Building
523 West Sixth Street,
Los Angeles, California

for the purpose of determining the amount of royalties due the United States Government on the sale of copper concentrates, copper metal and zinc concentrates produced from ore extracted from the subordinated sections of the Republic Mine, Johnson Camp, Cochise County, Arizona, during the period November 1, 1954 through January 15, 1959.

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

My review established the total sales of concentrates and copper metal for this period to be $551,710.03. (See Schedule No. 1.) Royalty due the U. S. Government at the contract rate of 5 percent is $27,585.50. A prior royalty audit report by Donald T. Finch for the period May 18, 1953 to October 31, 1954, stated the sales of concentrates to be $43,773.80 and the royalty at 5 percent to be $2,188.70. The Auditor stated the royalty account as follows:

Total Royalty Paid	$ 2,195.09
Total Royalty Due	2,188.70
Royalty Paid in Excess of Royalty Due	$ 6.39

As of January 15, 1959, the royalty account of the project was found to be

Total Royalty Due	$29,774.20
Total Royalty Paid	29,508.17
Balance of Royalty Due (See Schedule 2)	$ 266.03

Donald T. Finch
Donald T. Finch,
OME Auditor

January 22, 1959

STATUS OF PROJECT, DESCRIPTION OF REVIEW, AND STATEMENT OF JUSTIFICATION

CONTRACT NO. Idm-E522 DOCKET NO. DMEA-2746

A certification of discovery or development was issued on February 2, 1956, and in accordance with Article 6 of the Exploration Contract, percentage royalties are due the Government on any minerals mined or produced from the land described in Article 2 and Article 9 for a period of 10 years from the date of the contract or until total amount of the Government advance has been repaid without interest, whichever occurs first. A report of review in lieu of final audit, dated August 17, 1955, indicated accepted costs under the Exploration Contract amounting to $87,045.00, with the Government's contribution on a 50 percent basis being $43,522.50.

A royalty audit report dated April 15, 1955, describes the Operator's commingling of ores and production of both copper and zinc concentrates. It also describes the detailed schedules and settlement sheets submitted to the Executive Officer of the DMEA Field Team to support its payments of royalties.

During the period November 1, 1954 to May 16, 1956, similar complete supporting data were submitted and methods of marketing of concentrates remained unchanged. Subsequent to May 16, 1956, copper concentrates were custom smelted, and resulting copper metal was sold by the Operator through a sales agent. Such copper production and sales were supported by copies of smelter statements covering the production of refined copper and by sales agent's invoices covering the sale of copper metal. Support for the sale of zinc concentrates continued to be similar to that furnished in the previous periods.

Schedule No. 1, attached, showing the quantities of each type of metals applicable to each category subject to royalty was compiled during my review from the data submitted by the Operator, which are on file in the office of the Executive Officer, OME Field Team, Region III. During the review all computations on smelter statements, sales invoices, mill data and allocation schedules were confirmed by recomputation. The production subject to royalty is approximately 10 percent of the Operator's total production. In order to confirm the portion subject to DMEA royalty, it was necessary to compile detailed and voluminous working papers which are retained in the report file. This report file also contains copies of all smelter contracts which I secured and analyzed during the review to confirm smelter deductions and charges.

Total refined copper reported returned to the Operator by the custom smelter was reconciled with total reported sales by the Operator's sales agency.

Royalties paid were reconciled with the records of the OME Finance Office, Denver, Colorado.

Operations ceased during the month of August, 1957, and there is no indication in the Executive Officer's files as to when they will be resumed.

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

(1) Operator's reports of production and royalty due were adequately documented.

(2) The examining engineer is of the opinion that all sales of production have been properly accounted for.

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

SCHEDULE NO. 1

CORONADO COPPER AND ZINC COMPANY

CONTRACT NO. Idm-E522

DOCKET NO. IMBA-2746

SUMMARY OF PRORATA PRODUCTION SUBJECT TO ROYALTY
PERIOD NOVEMBER 1, 1954 THROUGH JANUARY 15, 1959
COMPUTED AND TABULATED DURING ROYALTY REVIEW

Tons of ore produced (applies to both copper and zinc concentrates)	27,976.46		
Average grade:			
Copper corrected assays ranged from 1.46% to 3.10%			
Zinc " " " " 5.11% to 7.22%			
Copper Concentrates			
Period November 1, 1954 through May 16, 1956			
Copper concentrates sold to American Smelting and Refining Company			
Prorata tons of concentrates subject to royalty	1,107.32	Tons	
Copper content	650,005.20	Lbs.	
Less: Smelter deduction	22,142.56		
Pounds of copper paid for			627,862.64
Pounds of Zinc content (No payment)			226,713.30
Ounces of silver content	4,934.71		
Less: Smelter deduction	446.69		
Ounces of silver paid for			4,488.02
Gross Value Copper	$233,140.30		
Gross Value Silver	4,149.83		
Total Gross Value			$237,290.13
Smelter Deductions			
Treatment charges	$ 12,179.33		
Freight paid by smelter	4,574.93		
Umpire fees	55.45		
Total Smelter Deductions			16,809.71
Net Value Subject to Royalty			$220,480.42
Royalty Due at 5%			$ 11,024.02
Period May 17, 1956 through January 15, 1959			
Copper concentrates which were custom smelted by International Smelting and Refining Company: -			
Copper metal was returned to Coronado Copper and Zinc Company and sold by The American Metal Company, Ltd., agent for the Operator.			
Dry tons of copper concentrate (Smelter weights)	1,015.01	Tons	
Copper content	572,774	Lbs.	
Less: Smelter deduction Copper metal	17,181		
Copper Delivered to Operator			555,593 Lbs.

CORONADO COPPER AND ZINC COMPANY

CONTRACT NO. Idm-8522 DOCKET NO. EMRA-2746

Ounces of silver content	4,572.38		
Less: Smelter deduction silver metal	503.47		
Ounces of silver credited to Operator by Smelter			4,068.91
Value of 555,593 lbs. copper metal sold	$178,396.33		
Value of 4,068.91 ounces silver credited to producer by smelter	3,663.87		
Total value of metal subject to royalty			$182,060.20
Royalty due at 5%			$ 9,103.01

Zinc Concentrates

Period November 1, 1954 through January 15, 1959

Zinc concentrates sold to International Minerals and Metal Carporation			
Prorata tons subject to royalty	2,615.91	Tons	
Zinc content	2,835,933	Lbs.	
Less: Smelter Deduction Zinc Metal	425,390		
Pounds of Zinc paid for by smelter			2,410,543
Copper Content	102,712	Lbs.	
Less: Smelter Deduction Copper Metal	48,121		
Pounds of copper paid for by smelter			54,591
Silver Content			
Ounces of silver content	3,214.84	Ozs.	
Less: Smelter Deduction Silver Metal	1,240.13		
Ounces of silver paid for by smelter			1,974.71
Cadmium Content (Jan. 1, 1956 to Sept. 20, 1957)			
Cadmium Content	5,088	Lbs.	
Less: Smelter Deduction Cadmium Metal	4,917		
Pounds of Cadmium paid for by smelter			171
Gross Values Paid for by Smelter			
Zinc	$292,958.68		
Copper	16,248.81		
Silver	1,778.16		
Cadmium	72.96		
Total Gross Values			$311,058.61
Deductions			
Smelter charges	$128,231.26		
Freight paid by smelter	33,613.42		
Umpire fees	44.52		
Total Smelter Deductions			161,889.20
Net Value Subject to Royalty			$149,169.41
Royalty due on Zinc Concentrates at 5%			$ 7,458.47

CORONADO COPPER AND ZINC COMPANY

CONTRACT NO. Idm-E522

DOCKET NO. IMRA-2746

SUMMARY

	VALUE SUBJECT TO ROYALTY	ROYALTY AT 5%
Copper concentrates sold to smelter	$220,480.42	$11,024.02
Copper concentrates custom smelted and sold in form of copper metal	182,060.20	9,103.01
Zinc concentrates sold to smelter	149,169.41	7,458.47
Totals	$551,710.03	$27,585.50

	BALANCE PREVIOUS AUDIT PERIOD 5/18/53 - 10/31/54	PRESENT REPORT PERIOD 11/1/54 - 1/15/59	TOTAL PERIOD 5/18/53 - 1/15/59
Royalties Due	$2,188.70	$ 27,585.50	$29,774.20
Royalties Paid	2,195.09	27,313.08	29,508.17
Balance Royalties Due	$ 6.39	$ 272.42	$ 266.03

Production ceased August, 1957.
Last sale of copper dated December 19, 1957.
Last settlement sheet for zinc concentrates dated September 20, 1957.
Last deposit on Certificate of Deposit No. CD 58-126 dated April 29, 1958.

SCHEDULE NO. 2

CORONADO COPPER AND ZINC COMPANY

CONTRACT NO. Idm-E522

DOCKET NO. IMBA-2746

SCHEDULE OF ROYALTIES DUE

DATE		REPORT NO.	ROYALTY DUE
Nov., 1954	Zinc Concentrates (Overstated value Silver 21¢)	14	.01
Feb., 1955	Copper Concentrates (Understatement of smelter charges of $216.45) Zinc Concentrates (Understatement of smelter charges of $148.07)	16	18.23
Mar., 1955	Copper Concentrates (Understatement of smelter charges of $207.62)	17	10.38
Apr., 1955	Copper Concentrates (Understatement of smelter charges of $280.66)	18	14.04
Feb., 1956	Copper Concentrates (Overstatement of total freight and umpire charges of $1.00)	28	.05
Mar., 1956	Zinc Concentrates (Overstatement of 850 lbs. Zinc, net value $111.69)	29	5.58
Apr., 1956	Zinc Concentrates (Understatement of contract adjustment for Copper of 52¢)	30	.03
May, 1956	Copper Concentrates (For corrections see Schedule No. 2A, attached)	31	102.77
June thru Sept,1956 June thru Nov.,1956	Copper Zinc -(For corrections see Schedule 2B attached)	32	76.91
Oct.,1956	Copper Concentrates (Value of Silver of $202.76 not considered by Operator for royalty, plus 36¢ adjustment Copper value)	33	10.16
Nov.,1956	Copper Concentrates (Value of Silver of $246.58 not considered by Operator for royalty, plus understated value of Copper of $2.70)	34	12.47
Dec.,1956	Copper Concentrates (Value of Silver of $136.47 not considered by Operator for royalty)	35	6.83
Jan.,1957	Copper Concentrates (Value of Silver of $154.08 not considered by Operator for royalty, plus 22¢ understatement of value of Zinc Concentrates)	36	7.71
Feb. thru Aug.,1957	Copper Concentrates (Value of Silver of $1,948.22 not considered by Operator for royalty	37	97.40
	TOTAL BALANCE OF ROYALTY DUE		$266.03

SCHEDULE NO. 2A

CORONADO COPPER AND ZINC COMPANY

CONTRACT NO. Idm-8522

DOCKET NO. DMEA-2746

SCHEDULE OF CORRECTIONS FOR OPERATOR'S REPORT NO. 31 - MAY, 1956

	CORRECTED	AS SUBMITTED	INCREASE	DECREASE
Tons of Ore Milled				
DMEA Ore	930.34	930.34	-	-
Other Ore	5,527.66	5,527.66	-	-
Total	6,458.00	6,458.00	-	-
Tons of Copper Concentrates Produced From Ore Milled				
DMEA	64.24	50.87	13.37	
Other	381.71	395.08		13.37
Total Tons Copper Concentrates	445.95	445.95	13.37	13.37
Ratio of Copper Concentrates to Ore Milled	6.9054%	6.9054%		
Tons of Zinc Concentrates Produced From Ore Milled				
DMEA	59.44	74.37		14.93
Other	353.17	338.24	14.93	
Total Tons Zinc Concentrates	412.61	412.61	14.93	14.93
Ratio of Zinc Concentrates to Ore Milled	6.3891%	6.3891%		
Ratio of DMEA Concentrates to Total Concentrates Produced				
Copper Concentrates	14.405%	11.409%	2.996%	
Zinc Concentrates	14.406%	18.024%		3.618%
Sales Applicable to: -				
Copper Concentrates	$98,146.48	* $98,146.48		
Add: Silver credit not considered	824.64		824.64	
Total Copper Concentrates	$98,971.12	$98,146.48	$824.64	
Zinc Concentrates	$27,801.62	$27,801.62		
DMEA Portion of Sales				
Copper Concentrates	$14,256.79	$11,195.68	$3,061.11	
Zinc Concentrates	4,005.10	3,011.05	1,005.95	
Totals	$18,261.89	$16,206.73	$2,055.16	
Royalty Due at 5%				
Copper Concentrates	$ 712.84	$ 559.78	$ 153.06	
Zinc Concentrates	200.26	250.55	50.29	
Total	$ 913.10	$ 810.33	$ 102.77	

* Amended Sales: See Executive Officer's letter February 19, 1957 and Operator's reply March 5, 1957.

Note: For original data see Operator's Schedules II and III.

CORONADO COPPER AND ZINC COMPANY

CONTRACT NO. Idm-8522 DOCKET NO. DMRA-2746

SCHEDULE OF CORRECTIONS FOR OPERATOR'S REPORT NO. 32
JUNE THROUGH NOVEMBER, 1956

	JUNE, 1956	JULY, 1956	AUG. 1956	SEP. 1956	TOTAL
Tons of Ore Milled (See Operator's Schedule 1-A)					
DMRA	1,157.52	1,165.34	722.30	445.24	3,490.40
Other	5,055.48	4,991.86	4,877.22	4,453.92	19,378.48
Total Tons Ore Milled	6,213.00	6,157.20	5,599.52	4,899.16	22,868.88
Tons of Copper Concentrates Produced from Ore Milled (Corrected)					
DMRA	73.11	82.76	60.66	40.66	257.19
Other	319.32	354.52	409.60	406.79	1,490.23
Total Tons of Copper Concentrate	392.43	437.28	470.26	447.45	1,747.42
Ratio of Copper Concentrates to Ore Milled	6.316%	7.102%	8.398%	9.133%	
Tons of Zinc Concentrates Produced from Ore Milled (Corrected)					
DMRA	80.09	85.61	68.91	43.11	277.72
Other	349.82	366.70	465.31	431.28	1,613.11
Total Tons Zinc Concentrates	429.91	452.31	534.22	474.39	1,890.83
Ratio of Zinc Contrates to Ore Milled	6.9195%	7.346%	9.540%	9.683%	

Ratio of DMRA Concentrates to Total Concentrates Produced
(Period June through Sept., 1956)

Copper Concentrates

As corrected (257.19 Tons ÷ 1,747.4 Tons)	14.7184%	
As originally submitted (250.85 Tons ÷ 1,747.4)	14.3556%	
Increase		0.3628%

Zinc Concentrates	DMRA	OTHER	TOTAL
Tons produced June through September, 1956, as corrected above	277.72	1,613.11	1,890.83
Tons Produced: October	57.09	466.65	523.74
November	72.07	471.48	543.55
Corrected Totals	406.88	2,551.24	2,958.12
Ratio as corrected	13.755%	86.245%	100.000%
Ratio as originally submitted	14.049%	85.951%	100.000%
Difference	.294%	.294%	0.000%

Note: Operator's Report 32 applicable to copper concentrates covered period June through September, 1956, and portion applicable to zinc concentrates covered period June through November, 1956. There was no correction of zinc concentrate production data for the months of October and November, 1956.

CORONADO COPPER AND ZINC COMPANY

CONTRACT NO. Idm-E522

DOCKET NO. DMRA-2746

SCHEDULE OF CORRECTIONS FOR OPERATOR'S REPORT NO. 32
JUNE THROUGH NOVEMBER, 1956

	CORRECTED	AS SUBMITTED	INCREASE
Sales Applicable to:			
Copper Concentrates	$341,276.92	* $341,276.92	
Add: Silver credit not considered	5,822.36		$5,822.36
Total Copper Concentrates	$347,099.28	$341,276.92	$5,822.36
Zinc Concentrates	$186,755.49	$186,755.49	-
DMEA Portion of Sales			
Copper Concentrates	$ 51,087.46	$ 48,991.81	$2,095.65
Zinc Concentrates	$ 25,688.22	$ 26,245.56	557.34
Totals	$ 76,775.68	$ 75,237.37	$1,538.31
Royalty due at 5%			
Copper Concentrates	$ 2,554.37	$ 2,449.59	$ 104.78
Zinc Concentrates	1,284.41	1,312.28	27.87
Totals	$ 3,838.78	$ 3,761.87	$ 76.91

* Amended sales - See Executive Officer's letter February 19, 1957, and Operator's reply March 5, 1957.

Check Sheet of Examining Engineer

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 26 1959

DATE	INITIALS	CODE

Operator's Name Coronado Copper and Zinc Company
Address 1206 Pacific Mutual Bldg., 523 West Sixth Street, Los Angeles, California

(Republic Mine) Johnson Camp, Cochise County, Ariz.

Exploration Contract No. Idm-E522 Copper-Zinc Docket No. DMEA-2746

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

Date July 10, 1958, amended to January 16, 1959 TMR

D M Romero
Mining Engineer

JAN 26 1959

Mr. Donald T. Finch
OME Auditor
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMFA-2746 (Copper-Zinc)
Coronado Copper and Zinc Company
Contract No. Idm-F522

Dear Mr. Finch:

Your Report of Royalty Review dated January 22, 1959, pertaining to the subject contract is acceptable and normal distribution is authorized.

It is appreciated that this review required considerably more study and effort on your part than is usual for a report of royalty review. I want to congratulate you on a very fine report.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers
Contract Administration
and Audit Division

CEFisher/GMcC
January 26, 1959

cc: Docket
Director's Reading File
Mr. Chambers

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

224 New Customhouse
Denver 2, Colorado

January 22, 1959

OFFICIAL FILE COPY O. M. E. RECEIVED JAN 26 1959		
DATE	INITIALS	CODE
1/26	C	220
		800

Mr. J. L. Chambers
Contract Administration and Audit Division
Office of Minerals Exploration
Washington 25, D. C.

Re: Report of Royalty Review
Coronado Copper and Zinc Company
Docket DMEA-2746 (Copper-Zinc)
Contract No. Idm-E522

Dear Mr. Chambers:

Attached are three copies of Report of Royalty Review covering subject contract for the period November 1, 1954 to January 15, 1959.

You will note this review has been compiled in conformance with instructions set forth in your memorandum to all auditors, dated June 18, 1958, concerning the tabulations of metal content of concentrates.

I estimate that in order to obtain the prorated quantities of metal content it was necessary to make a detailed examination of production records for approximately $6,000,000.00.

The work on this royalty review began last May. The reason the report has not been completed until the present time was the Operator's delay in furnishing a satisfactory reply to the data requested on June 23, 1958, in my memorandum to Mr. Townsend, at that time Alternating Acting Executive Officer, DMEA Field Team, Region III, copy of which has been furnished your office.

A copy of the Operator's letter dated January 7, 1959, is enclosed. This letter is unable to give a satisfactory explanation of the variations discussed in my original memorandum concerning the mill recovery percentage of concentrates. In this connection, you will note the Report of Royalty Review includes Schedules 2A and 2B reflecting the corrected computations of production subject to royalty for Operator's reports Nos. 31 and 32.

Sincerely yours,

Donald T. Finch

Donald T. Finch, Auditor

Encls.

EXTRA COPY
O. M. E.
RECEIVED JAN 16 1959

DATE	INITIALS	CODE
		800

224 New Customhouse
Denver 2, Colorado
January 12, 1959

Mr. R. R. Grantham,
Assistant Comptroller
Coronado Copper & Zinc Company
1206 Pacific Mutual Building
523 West Sixth Street
Los Angeles 14, California

Re: Docket DMRA 2740 (Copper-Zinc)
Contract Idm-E522
(Republic mine)
Cochise County, Arizona

Dear Mr. Grantham:

This will acknowledge receipt of your letter dated January 7, 1959, regarding your records of concentrates as reported for the months of May through September 1956.

Your letter has been forwarded to the Auditor and you will be advised at a later date.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
OME Field Team, Region III

HMC/ff
cc: Chairman, Op. Comm. (2)
Harshman
Romslo
Royalty File E-522
Finch
Chron.

CORONADO COPPER AND ZINC COMPANY
1206 PACIFIC MUTUAL BUILDING
523 WEST SIXTH STREET
LOS ANGELES 14, CALIFORNIA
TELEPHONE MADISON 6-3231

EXTRA COPY
OMIE
RECEIVED JAN 13 1959
DATE | INITIALS | ROUTE
DEPARTMENT OF THE INTERIOR
JAN 8 1959
REGION III
DENVER, COLORADO

January 7, 1959

United States Department of the Interior
Office of Minerals Exploration
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA 2740 (Copper-Zinc)
Contract Idm-E522
(Republic mine)
Cochise County, Arizona

Dear Sirs:

Our engineers have reviewed our records supporting the mill recovery percentages of concentrates as reported to you for the months of May through September, 1956; they were unable to determine why the percentages reported to you for DMEA ore was different from the overall recovery, since, as you know separate mill feeds were not maintained. The change occurred at the time mining engineers were changed, which it must be admitted is little excuse, if any.

Trusting this will permit you to complete your royalty audit, I remain,

Yours very truly,

CORONADO COPPER AND ZINC COMPANY

R R Grantham

R. R. Grantham
Assistant Comptroller

RRG:ih

EXTRA COPY
O. M. E.
RECEIVED NOV 20 1958

DATE	INITIALS	CODE
		800

OFFICE OF MINERALS EXPLORATION
924 Bay Customhouse
Denver 2, Colorado
November 17, 1958

CERTIFIED MAIL

Mr. R. R. Grantham,
Assistant Controller
Coronado Copper and Zinc Co.
1206 Pacific Mutual Building
523 W. 6th Street
Los Angeles 14, California

Re: Docket IMBA 2746 (Copper-Zinc)
Contract Ind-2322
(Republic mine)
Cochise County, Arizona

Dear Mr. Grantham:

Our letter to you dated July 1, 1958, requested analytical data supporting the results of your milling operations in the production of both copper and zinc concentrates. An analysis of mill recovery percentages of concentrates, as reported for the indicated months, follows:

	COPPER CONCENTRATES		ZINC CONCENTRATES	
	IMBA ORE	OTHER ORE	IMBA ORE	OTHER ORE
May	5.45%	7.13%	7.59%	6.12%
June	6.24%	6.33%	6.86%	6.93%
July	7.98%	6.90%	9.64%	6.81%
Aug.	7.12%	8.59%	8.09%	9.76%
Sept.	7.69%	9.28%	8.13%	9.84%

In view of this, please furnish adequate support to explain why IMBA ore showed a different mill percentage recovery from other company ore since it is understood that separate mill feeds were not maintained.

Your letters dated July 29, 1958 and August 28, 1958 stated that the requested information would be forthcoming. It is necessary that we receive the information in order to complete a royalty audit. Will you please, therefore, furnish immediately to this office the required analytical data.

Very truly yours,
Original signed by
J. W. TOWNSEND

J. W. Townsend
Executive Officer
OME Field Team, Region III

RMC/ff
cc: Chem. Op. Comm. (2)
Harshman
Royalty File B-522
Finch Emerick
OME/TUC
Emerick
Chron.

224 New Customhouse
Denver 2, Colorado

October 17, 1958

Mr. R. R. Grantham,
Assistant Controller
Coronado Copper and Zinc Co.
1206 Pacific Mutual Building
523 W. 6th Street
Los Angeles 14, California

Re: Docket DMSA 2740 (Copper-Zinc)
Contract IAm-E522
(Republic mine)
Cochise County, Arizona

Dear Mr. Grantham:

Your letter of August 28, 1958 stated that the analytical data supporting the results of your milling operations had been referred to your engineering department for review.

We will be happy to receive the analytical data as soon as it is released by your engineering department.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
OME Field Team, Region III

HMC:jy

cc: Royalty File E522
Chm. Op. Comm. (2)
Finch
OME, TUC
Emerick
Chron.

800

CORONADO COPPER AND ZINC COMPANY
[illegible] MUTUAL BUILDING
[illegible] FOURTH STREET
LOS ANGELES 14, CALIFORNIA
TELEPHONE MADISON 6-[illegible]

DMEA
DEPARTMENT OF THE INTERIOR
SEP 8 - 1958
REGION III
DENVER, COLORADO

800

August 28, 1958.

Mr. J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA 2740 (Copper - Zinc)
Contract No. Idm.-E522
Coronado Copper and Zinc Company
(Republic Mine)
Cochise County, Arizona

Dear Mr. Townsend:

As requested in your letter of July 1, 1958 we are enclosing copies of smelter liquidation settlement sheets covering concentrates shipped to smelters during the period November, 1954 through April, 1956.

Pages one through five summarize and identify by report number copper concentrates shipped during the subject period.

Pages six through seven summarize and identify by report number zinc concentrates shipped during the subject period.

The information requested in paragraph three of your letter regarding the mill recovery percentages on concentrates has been referred to our engineering department. They are in the process of reviewing these percentages, and upon receiving their results we will promptly furnish you with this information.

We hope this will meet with your satisfaction.

Yours very truly,

R. R. Grantham

R. R. Grantham
Assistant Controller.

P. INDOCVTO
CHRN. ORG. COMM.
DMEA/TUC
EMERGUC
FINCH

CORONADO COPPER AND ZINC COMPANY
1200 PACIFIC MUTUAL BUILDING
523 WEST SIXTH STREET
LOS ANGELES 14, CALIFORNIA
TELEPHONE MADISON 0-0201

July 29, 1958

DMEA
DEPARTMENT OF THE INTERIOR
JUL 31 1958
REGION III
DENVER, COLORADO

Mr. J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

800

RE: Docket DMEA 2740 (Copper-Zinc)
Contract No. Idm-E522
Coronado Copper and Zinc Company
(Republic Mine)
Cochise County, Arizona

Dear Mr. Townsend:

In response to your letter of July 1, 1958 we are gathering together the various documents requested by you in connection with the royalty audit of the above contract being made by your office. As a result of illness and vacations of personnel in this office, we have not yet completed the locating and copying of the required documents.

The purpose of this letter is to advise you that we will comply with your request as quickly as possible. I expect to have all of the documents and other requested information in your hands within the next thirty days.

I trust this will cause no inconvenience to your office.

Yours very truly,

Richard R Grantham

Richard R. Grantham

RRG/w

PLEV TO
NC-2
DMEA/FIN.

[illegible] New Customhouse
Denver 2, Colorado

July 1, 1958

CERTIFIED MAIL

Mr. H. R. Grantham
Coronado Copper and Zinc Company
1306 Pacific Mutual Building
523 West Sixth Street
Los Angeles 14, California

Re: Docket DMA 276b (Copper-Zinc)
Contract No. I4s-[illegible]
Coronado Copper and Zinc Co.
(Republic mine)
Cochise County, Arizona

Dear Mr. Grantham:

Audit analysis of records submitted with DMA royalties on production from November 1, 1954 to date, shows that the Operator's reports Nos. 14 through 30 covering the period November, 1954 through April, 1956, were submitted without copies of smelter liquidation settlement sheets.

It is the understanding of all concerned that production reports and royalties submitted by Coronado Copper and Zinc Company would be supported by copies of applicable settlement sheets. This was confirmed by letters dated

March 27, 1954 from Coronado to this office,
December 31, 1954 from this office to Coronado, and
January 14, 1955 from Coronado to this office.

Accordingly, please provide this office with one copy of the pertinent settlement sheets identifying each according to report number.

The audit analysis also shows that during the months of May, 1956 through September, 1956, the Operator did not submit analytical data supporting the results of the company's milling operations in the production of both copper and zinc concentrates. An analysis of mill recovery percentages of concentrates as reported for the indicated months, follows: -

	Copper Concentrates		Zinc Concentrates	
	Mill Det	Smelt Det	Mill Det	Smelt Det
May	7.9%	7.1%	7.9%	5.1%
June	6.8%	6.1%	5.8%	6.9%
July	7.9%	6.9%	9.6%	6.8%
Aug.	7.1%	8.3%	8.0%	9.7%
Sept.	7.6%	9.0%	8.1%	9.8%

In view of this, please furnish adequate support to explain why EMBA ore showed a different mill percentage recovery from the company's other ore, since it is understood that separate mill feeds were not maintained.

We would appreciate your providing this office at an early date with the necessary data so that we may proceed with the royalty audit now in progress.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Alternate Acting Executive Officer,
EMBA Field Team, Region III

MMM:bh
cc: Reg. File R-522)w/copy of
Chem. Op. Comm.(2))Finch's memo
EMEA/TUC)of June 23,
Emerick)1958.
Finch (2)
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

June 23, 1958

Memorandum

To: J. W. Townsend, Alternate Acting Executive Officer, DMEA Field Team, Region III

From: Donald T. Finch, DMEA Auditor

Subject: Docket No. DMEA 2740 (Copper-Zinc), Contract No. Idm-E522
Coronado Copper and Zinc Company (Republic Mine)
Cochise County, Arizona

Pursuant to request dated April 28, 1958, from E. N. Harahman, Acting Executive Officer, a second royalty analysis was started May 26, 1958.

The first royalty audit report for this company was dated April 15, 1955, and covered the period October 1, 1953 through October 31, 1954. At the time of this first audit report it was agreed by all concerned that the company would furnish, in addition to its monthly reports of DMEA production, copies of all smelter liquidation settlement sheets in order the sales of DMEA ore could be confirmed. See letter from Operator to King dated March 17, 1954. See also letter from King to Operator dated December 31, 1954 and Operator's reply dated January 14, 1955.

The present royalty analysis indicates the Operator's reports Nos. 14 through 30, covering the period November, 1954 through April, 1956 were tendered by the Operator and accepted without the agreed copies of smelter liquidation settlement sheets.

As explained in our conference June 11,1958, it is impossible to confirm the complete accuracy of the Operator's reports for the period in question without these settlement sheets.

During the period May, 1956 through August, 1957, the Operator changed its methods of disposing of copper. Copper concentrates were custom smelted and the refined copper was returned to the Operator which sold this copper metal through an appointed agent. During this period liquidation settlement sheets were submitted for both copper and zinc concentrates. In addition, sales invoices were submitted in support of the sale of all copper metal.

During the months of May, 1956 through September, 1956, the Operator did not submit analytical data supporting the results of the Company's milling operations in the production of both copper and zinc concentrates.

An analysis of mill recovery percentages of concentrates as reported for the indicated months, follows: -

	COPPER CONCENTRATES		ZINC CONCENTRATES	
	DMEA ORE	OTHER ORE	DMEA ORE	OTHER ORE
May	5.45%	7.15%	7.99%	6.12%
June	6.24%	6.33%	6.86%	6.93%
July	7.98%	6.90%	9.64%	6.81%
Aug.	7.12%	8.59%	8.09%	9.76%
Sept.	7.69%	9.28%	8.15%	9.84%

As discussed in our June 11th conference, it was agreed the Operator should be required to furnish adequate support to explain why DMEA ore showed a different mill percentage recovery from the company's other ore, since it is understood separate mill feeds are not maintained. In this connection, adequate support was furnished by the Operator for mill recovery percentages for the period October, 1956 through August, 1957. During this later period the mill recovery percentages were the same for both DMEA Ores and Other Ores.

It is understood your office desires to attempt to secure the missing liquidation settlement sheets and mill recovery data from the Operator.

Pending the outcome of your contact with the Operator concerning the missing support, the completion of the second royalty analysis will be deferred.

Donald T. Finch

Donald T. Finch, Auditor

OFFICIAL COPY
DMEA
RECEIVED JUN 23 1958
DATE
6-26 38.9 225-
800

224 New Customhouse
Denver 2, Colorado

June 23, 1958

Memorandum

To: J. W. Townsend, Alternate Acting Executive Officer, DMEA Field Team, Region III

From: Donald T. Finch, DMEA Auditor

Subject: Docket No. DMEA 2740 (Copper-Zinc), Contract No. Idm-E522
Coronado Copper and Zinc Company (Republic Mine)
Cochise County, Arizona

Pursuant to request dated April 28, 1958, from E. N. Marshman, Acting Executive Officer, a second royalty analysis was started May 26, 1958.

The first royalty audit report for this company was dated April 15, 1955, and covered the period October 1, 1953 through October 31, 1954. At the time of this first audit report it was agreed by all concerned that the company would furnish, in addition to its monthly reports of DMEA production, copies of all smelter liquidation settlement sheets in order the sales of DMEA ore could be confirmed. See letter from Operator to King dated March 17, 1954. See also letter from King to Operator dated December 31, 1954 and Operator's reply dated January 14, 1955.

The present royalty analysis indicates the Operator's reports Nos. 14 through 30, covering the period November, 1954 through April, 1956 were tendered by the Operator and accepted without the agreed copies of smelter liquidation settlement sheets.

As explained in our conference June 11,1958, it is impossible to confirm the complete accuracy of the Operator's reports for the period in question without these settlement sheets.

During the period May, 1956 through August, 1957, the Operator changed its methods of disposing of copper. Copper concentrates were custom smelted and the refined copper was returned to the Operator which sold this copper metal through an appointed agent. During this period liquidation settlement sheets were submitted for both copper and zinc concentrates. In addition, sales invoices were submitted in support of the sale of all copper metal.

During the months of May, 1956 through September, 1956, the Operator did not submit analytical data supporting the results of the Company's milling operations in the production of both copper and zinc concentrates.

An analysis of mill recovery percentages of concentrates as reported for the indicated months, follows: -

	COPPER CONCENTRATES		ZINC CONCENTRATES	
	IMEA ORE	OTHER ORE	IMEA ORE	OTHER ORE
May	5.45%	7.15%	7.99%	6.12%
June	6.24%	6.33%	6.86%	6.93%
July	7.98%	6.90%	9.64%	6.81%
Aug.	7.12%	8.59%	8.09%	9.76%
Sept.	7.69%	9.28%	8.15%	9.84%

As discussed in our June 11th conference, it was agreed the Operator should be required to furnish adequate support to explain why IMEA ore showed a different mill percentage recovery from the company's other ore, since it is understood separate mill feeds are not maintained. In this connection, adequate support was furnished by the Operator for mill recovery percentages for the period October, 1956 through August, 1957. During this later period the mill recovery percentages were the same for both IMEA Ores and Other Ores.

It is understood your office desires to attempt to secure the missing liquidation settlement sheets and mill recovery data from the Operator.

Pending the outcome of your contact with the Operator concerning the missing support, the completion of the second royalty analysis will be deferred.

Donald T. Finch

Donald T. Finch, Auditor

DTF:bh
cc: J. L. Chambers
Subject
Chron.

224 New Customhouse
Denver 2, Colorado

April 30, 1958

800

Mr. R. R. Grantham
Coronado Copper and Zinc Company
1206 Pacific Mutual Building
523 West Sixth Street
Los Angeles 14, California

Re: Docket DMEA 2740 (Copper-Zinc)
Contract Idm-E522
Coronado Copper and Zinc Co.
(Republic mine)
Cochise County, Arizona

Dear Mr. Grantham:

Thank you for your letter of April 25, 1958, enclosing your company's check for $1,699.60, as additional royalties due on production covered by Report No. 37.

We have tentatively scheduled an on-site royalty audit of the captioned contract. In this connection, please submit a copy of the following smelter contracts:

1. American Smelting & Refining Company
   Period: May 1, 1955 - December 31, 1957.
   Note: May have been superseded by International Smelting & Refining Company.

2. International Smelting & Refining Company
   Period: May 1, 1955 - December 31, 1957.

3. International Minerals & Metals Corporation
   Period: January 1, 1953 - December 31, 1957.

Very truly yours,

Original signed by
E. N. HARSHMAN

H. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

MHM:jy
cc: Royalty File E522 }
Chm. Op. Comm. - 2 } w/copy of
DMEA, TUC } referred to ltr.
Emerick }
Finch - 2 }
Chron.

CORONADO COPPER AND ZINC COMPANY
1206 PACIFIC MUTUAL BUILDING
523 WEST SIXTH STREET
LOS ANGELES 14, CALIFORNIA
TELEPHONE MADISON 6-3231

April 25, 1958

DMEA
DEPARTMENT OF THE INTERIOR
APR 28 1958
REGION III
DENVER, COLORADO

United States Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado.

Attention: E. N. Harshman
Acting Executive Officer

Re: Royalty Payments - Docket DMEA-2740
Copper-Zinc Contract IDM-E 522
Coronado Copper and Zinc Company
Cochise County, Arizona

Gentlemen:

We have received your letter of April 22, 1958 regarding our Report No. 37 and our method employed in calculating the royalty payment.

In accordance with your request, we are enclosing our check no. 393 in the amount of $1,699.60. We wish to point out, however, that the method used by you in calculating the royalty due on DMEA copper concentrates is not in accordance with our interpretation of the contract, since the actual copper content of DMEA muck was in fact sold to the smelter in concentrate form. Our acquiescence to your demand is made only to avoid any lengthy series of correspondence at this time. Please be advised, however, that should the mine be reopened during the remaining term of our contract, I believe that we would have no alternative other than pursuing our position in this matter most vigorously.

Yours very truly,

CORONADO COPPER AND ZINC COMPANY

R R Grantham

R. R. Grantham

RRG:jw
Enclosure

Chron Opr Comm-2
DMEA/TUL
Emerick

Royalty E 522

[illegible] New Customhouse
Denver 2, Colorado

April 28, 1958

RECEIVED
DATE
CODE
800

Memorandum

To: T. K. Bruning

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 2744 (Copper-Zinc), Contract No. IDm-[illegible]
Coronado Copper and Zinc Company, (Republic Copper-Zinc Mine) Cochise County, Arizona

We would appreciate your placing the subject contract on schedule for a royalty audit.

Original signed by
E. N. HARSHMAN
E. N. Harshman

ENH:bh

cc: Sec. Op. Comm. (2)
Royalty File
Chron

TRIPLICATE Treasury Department Circular No. 945 - Rev., Supp. 1 (Third Amendment) Promulgated Sept. 11, 1957 by Treasury Department, Fiscal Service.

CERTIFICATE OF DEPOSIT
Standard Form 219

Identification of Accountable Officer Affected	
(1) Office Deposit Symbol: 9013	(2) For Consolidated Abstract of Treasury Regional Office at (city and state): Denver, Colo.

4/29/58 (Date sent) 126 (Deposit No.)

Deposited with Federal Reserve Bank of Kansas City, Mo., Denver, Colo. (Name and location of depositary)

(3) The Sum of $ 4,703.07

(4) Classification of Deposit

Account Symbol	Amount	Account Symbol	Amount
14X4401	$ 4,703.07		$

(6) Department or Agency and address whose accounts are credited, IF OTHER THAN depositing agency.

(5)
14-23-040
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Depositor's title, Department or Agency and address. If deposit is made for another accounting entity, identify in (6).

(7) SPACE BELOW TO BE USED BY DEPOSITARY ONLY. I certify that the above amount has been received for credit in the account of the Treasurer of the United States on the date shown, subject to adjustment for uncollectible items included therein.

Bennett
(Authorized signature)

APR 29 1958
(Date of credit in Treasurer's account)

Depositary will date, sign and forward to depositor for his retained copy.

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 2 1958
RECORDS MANAGEMENT CODE

E-522	Coronado Copper	$1,699.60
E-875	McFarland & Hullinger	185.17
E-823	Climax Uranium	1,750.00
E-933	Food Machinery & Chemical	1,068.30
		$4,703.07

1958 APR 29 PM 12 03

RECEIVED APR 24		
DATE	INITIALS	CODE
		800

224 New Customhouse
Denver 2, Colorado
April 22, 1958

CERTIFIED MAIL

Mr. R. R. Grantham
Coronado Copper and Zinc Co.
1206 Pacific Mutual Building
523 West Sixth Street
Los Angeles 14, California

Re: Docket No. DMEA 2746 (Copper-Zinc) Contract Idm-8522, Coronado Copper and Zinc Company (Republic Copper-Zinc Mine) Gochise County, Arizona

Dear Mr. Grantham:

We have received your letter of April 10, 1958, including your check for $3,631.42 and supporting data on production covered by Report No. 37 which also makes adjustments to certain royalties previously submitted to this office.

The method used in Report No. 37 to compute royalties on copper sales does not comply with the ruling contained in our letter of February 19, 1957, to Mr. James Reid of your accounting department.

Our calculation of royalty due on production covered by Report No. 37 based on the referenced ruling is as follows:

Zinc Concentrates
Net proceeds apportioned to 556.21 dry tons of DMEA zinc concentrates ---------- $22,606.66

Copper Metal
Net proceeds apportioned to 507.71 dry tons of DMEA copper (16.48% of $509,791.60) ---------- 84,013.66

Total value DMEA production ---------- $106,620.32

Royalty Due ---------- $ 5,331.02
Royalty Paid ---------- 3,631.42
Balance Due ---------- $ 1,699.60

Your check in the amount of $1,699.60 should be made payable to the Defense Minerals Exploration Administration, and sent at once to the Executive Officer, DMEA Field Team, Region III, 224 New Customhouse, Denver 2, Colorado.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III

MHM:dp
cc: Royalty File E522
Sec. Op. Comm. (2)
DMEA/TUC.
Chron.

FEB 14 1957

Mr. W. M. Trever
Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA-2746 (Copper-Zinc)
Coronado Copper and Zinc Company
Republic Copper-Zinc Mine
Cochise County, Arizona
Contract No. Idm-F522

Dear Mr. Trever:

Your conclusion - the smelter charge is a process incurred cost absorbed by the Operator and not a deductible item in computing the amount of royalty due the Government - set forth in the penultimate paragraph of your memorandum dated January 25, 1957, is correct. Apparently you have based your conclusion on Section 10 (c), DMEA Order-1 Amended, March 19, 1954. This amended order was not in effect at the time the contract was executed, so the interpretation of the royalty provision would be based on DMEA Order-1, March 7, 1952, as amended by Amendment 2, May 15, 1953, and interpreted by DMEA Circular 32, Supplement No. 2, April 6, 1954. The Circular is for internal use only and is not to be quoted to Operators.

In reviewing the data which have been submitted it is noted that the amount of sales ($339,152.13) shown on Schedule II, Page No. 2, represents the net amount received on various settlements made by The American Metal Company, Limited (the Operator's agent), after deduction of freight and insurance charges. Such items also represent expenses incurred by or on behalf of Coronado Copper and Zinc Company and as such are not deductible from the gross proceeds from the sale of the copper.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

APPROVED:

Frank D. Lamb
Member, Bureau of Mines

N. E. Nelson
Member, Geological Survey

Copy to: Docket
Admr. Reading File
Operating Committee
Mr. Pennington
Mr. Kiilsgaard
Mr. Griswold
Mr. Chambers

CHFisher/wb
February 7, 1957

For Certificate of Deposit No. 26, dated August 26, 1955, giving royalty repayment of $1,278.00, see E-53.

For Certificate of Deposit No. 22, dated August 18, 1955, giving royalty repayment of $3,075.51, see E-4.

For Certificate of Deposit No. 122, dated April 21, 1958, giving royalty payment of $3,631.42, see E-360.

For Certificate of Deposit No. 167, dated June 13, 1957, giving royalty payment of $722.70, see E-452.

For Certificate of Deposit No. 155, dated May 14, 1957, giving royalty payment of $575.19, see E-440.

E-522

For Certificate of Deposit No. 139, dated April 8, 1957, giving royalty payment of $689.95, see E-440.

For Certificate of Deposit No. 128, dated March 18, 1957, giving royalty payment of $802.68, see E-509.

For Certificate of Deposit No. 124, dated March 12, 1957, giving royalty payment of $435.13, see E-440.

For Certificate of Deposit No. 101, dated January 25, 1957, giving royalty payment of $3,371.96, see E-53.

For Certificate of Deposit No. 88, dated January 2, 1957, giving royalty payment of $765.11, see E-53.

E-522

For Certificate of Deposit No. 139, dated June 12, 1956, giving royalty repayment of $1,277.43, see E-54.

TRIPLICATE

STANDARD FORM 201 (Formerly Cert. of Deposit, Form 1)
Promulgated Oct. 1949 by Treasury Dept., Fiscal Service

THIS DEPOSIT IS NOT SUBJECT TO CHECK

Denver, Colorado

DEPOSIT NO.
14-23-040-123

$ 1,174.33

For credit of 413 Treasury Regional Office, Denver, Colo. 5/3/56
(Name, title, and disbursing or other identification symbol of accountable officer) (Date sent)

deposited with Federal Reserve Bank of Kansas City, Mo. Denver, Colo.
(Name and location of depositary)

for accounts listed below. SCHEDULE NOS.

ACCOUNT SYMBOL	TITLE OF ACCOUNT TO BE CREDITED	AMOUNT
14X4401		1,174.33

(Depositor will insert below his name, title, Department or Agency concerned, and his address)

Defense Minerals Exploration Administration
224 New Custom House
Denver 2, Colorado

SPACE BELOW TO BE USED BY DEPOSITARY ONLY

I certify that the above amount has been received for credit in the account of the Treasurer of the United States on the date shown, subject to adjustment for uncollectible items included therein.

(Authorized signature)

5/3/56
(Date of credit in Treasurer's account)

DEPOSITARY WILL DATE, SIGN, AND RETURN THIS TO DEPOSITOR FOR HIS RETAINED COPY

16—59686b-1 GPO

[illegible]606	G. R. French	191.23
[illegible]522	Coronado Copper	983.10
		1,174.33

1956 MAY 3 PM 12 00
MAIL DEPT

For Certificate of Deposit No. 111, dated April 10, 1956, giving royalty repayment of $1,475.50, see E-100.

For Certificate of Deposit No. 89, dated February 7, 1956, giving royalty repayment of $1,897.01, see E-54.

For Certificate of Deposit No. 80, dated January 10, 1956, giving royalty repayment of $874.17, see E-53.

For Certificate of Deposit No. 71, dated December 13, 1955, giving royalty repayment of $651.27, see E-4.

E-522

For Certificate of Deposit No. 66, dated November 30, 1955, giving royalty repayment of $3,107.35, see E-485.

DEFENSE MINERALS EXPLORATION ADMINISTRATION

CONTRACT ADMINISTRATION AND AUDIT DIVISION

FIRST ROYALTY AUDIT CERTIFICATE

I have examined the records and sales documents pertaining to the sale of Silver, Copper, and Zinc Concentrates for the period October 1, 1953 through October 31, 1954, by

Coronado Copper and Zinc Company
1206 Pacific Mutual Building
Los Angeles, California.

produced from the Republic Mine located at Johnson Camp, Cochise County, Arizona, under the terms of Contract Idm-E522, Docket No. DMEA 2746.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

The Audit established the total net sales of Silver, Copper and Zinc Concentrates for this period to be $43,773.80. Royalty due the United States Government at the contract rate of 5% is $2,188.70. The royalty paid and balance due are as follows:

Total Royalty Paid	$2,195.09
Total Royalties Due	2,188.70
Royalty Paid In Excess of Royalty Due - - -	$6.39

Donald T. Finch

Donald T. Finch
DMEA Auditor.

April 15, 1955

Minerals Administration
RECEIVED
1956

FIRST ROYALTY AUDIT REPORT

I INTRODUCTION

On March 23 to April 7, 1955, an audit of royalty payments received covering the period October 1, 1953 through October 31, 1954, was made of the production records and ore sales accounts pertaining to Contract Idm-E522, Docket No. DMEA 2746 with the

Coronado Copper and Zinc Company
1206 Pacific Mutual Building
Los Angeles, California.

covering a project of exploration for Copper - Zinc located at the Republic Mine, Johnson Camp, Cochise County, Arizona.

The formal production records and ore sales accounts pertaining to this contract are located at the Company's office in Los Angeles, Cal.

II GENERAL INFORMATION

At the time of this audit of royalty payments, the Exploration Contract had not been completed and the D.M.E.A. had not issued a Certificate of Discovery. The total costs of operations accepted by the Certifying Officer, D.M.E.A. Field Team, Region III, as of March 23, 1955, amounted to $79,497.00, with Government participation of $39,748.50.

The Exploration Contract (short form) authorizes total costs of $99,050.00 with Government participation of 50%, or $49,525.00.

During the period October 1, 1953 to October 31, 1954 there were 83,434 tons of ore produced from the Republic Mine. Of this amount 3,812 tons, or 4.57%, of total production were subject to D.M.E.A. royalty.

All ore produced from the Republic Mine is concentrated in the Company's plant at Johnson Camp, Arizona. Copper concentrates and zinc concentrates are produced from the ores. The copper concentrates are sold to the American Smelting and Refining Company's smelter located at El Paso, Texas. The zinc concentrates are sold to International Minerals and Metals Corporation's smelter located at Bartlesville, Oklahoma. Both concentrates contain Silver, Copper and Zinc. All sales of concentrates were made under written contracts with the respective smelters. Copies of these smelter contracts were examined during the Audit, and are available in the Audit working papers.

In a letter dated October 29, 1953 the Operator notified the Executive Officer of the D.M.E.A. Field Team, Region IV (now Region III) to the effect that because of the Operator's methods of operations and the relatively small amount of production applicable to D.M.E.A. royalty, it would

be impractical to treat such ore separately from other Republic Mine ore. This letter also outlined in general the manner in which D.M.E.A. production would be determined by the application of engineering formulae. The proposed method was reported as being the same method the Operator used in determining the distribution of its other production to other parts of the mine.

The Supervising Engineer in a report dated January 8, 1954 stated:

> "The method used by the Operator to account for the ore mined from various places in the mine, including the D.M.E.A. project, was checked and is reasonable."

The Operator's method of determining D.M.E.A. project production and the computation of D.M.E.A. royalties was reviewed in detail during the Audit with the Executive Officer, D.M.E.A. Field Team, Region III. These methods which will be discussed in detail later in this report are approved by the Executive Officer. The Auditor concurs in this approval, in respect to the soundness from an accounting standpoint of the methods of allocation used.

The production areas subject to D.M.E.A. royalty are described in Annex I to the Exploration Contract.

The Operator had, at the time of the Audit, submitted thirteen monthly reports of D.M.E.A. project production and royalty. These reports consisted of the following:

1. Monthly statement of calculated net proceeds from sale of concentrates derived from milling of ore produced from area subject to D.M.E.A. project.

2. Schedule I: In 3 parts

   (A) Itemized "Breakdown of Mine Ore". This data is signed by a mining engineer in the employ of the Operator. It consists of a completely itemized schedule of all Republic Mine production for the month. It shows the total mine cars, tons of ore, grab sample assays and corrected assays for each location in the mine, and the total average mine assays for the month, of copper and zinc contents. D.M.E.A. project production and mine assays are segregated in this schedule.

   (B) Statement of the following data:
   1. Opening and closing mill bin inventories
   2. Mill heads in tons with assays for copper and zinc
   3. Total mine production in tons
   4. Computation of car/ton factor
   5. Computation of copper assay correction factor
   6. Computation of zinc assay correction factor
   7. Itemized summary of D.M.E.A. project production

(C) Mill Recovery Statement D.M.E.A. Muck. This statement is signed by the Mill Manager and shows
1. Tons of Ore Milled
2. Per Cent of Ore Resulting in Concentrates
3. Assays of Ore, Copper Concentrates, and Zinc Concentrates
4. Pounds of Metal each type of Concentrate
5. Mill Recovery Percentages

3. Schedule II, Detailed, computed statement for sale of copper concentrates including itemized smelter charges and deductions.

4. Schedule III, Detailed, computed statement for sale of zinc concentrates including itemized smelter charges and deductions.

5. Photographic copies of all smelter settlement sheets. A. S. & R. Company, smelter, El Paso, Texas.

6. Photographic copies of all smelter settlement sheets. International M. & M. Corporation, smelter, Bartlesville, Oklahoma.

7. Transmittal letter signed by Treasurer of the Operator, authenticating the data submitted.

All of the foregoing data is available in the files of the Executive Officer, D.M.E.A. Field Team, Region III.

Periodic monthly inspections have been made of the project by U.S.B.M. Engineers, and written interim reports on production of ore from the D.M.E.A. project have been submitted to the Executive Officer, D.M.E.A. Field Team, Region III. Copies of these interim reports are available in the Executive Officer's files.

III SCOPE OF AUDIT AND FINDINGS

The audit was limited to determining the accuracy and propriety of royalty payments received by the Finance Officer, which were applicable to production and sales of concentrates during the period October 1, 1953 through October 31, 1954, and a determination that the Operator was properly accounting for production resulting from operations subject to the Exploration Contract.

The extent of the Audit and the findings follow: -

A. Conference with the Examining Engineer, U. S. B. M.

In lieu of a conference with the Examining Engineer, copies of interim royalty reports on file with the Executive Officer, D.M.E.A. Field Team, Region III, were examined and the entire problem was reviewed with the Executive Officer.

Mr. William R. Hardwick, U. S. B. M. Engineer made an on-site examination on January 18, 1955, and submitted a written report on this examination dated January 25, 1955. In this report Mr. Hardwick submits a table of production subject to royalty for the period October, 1953 through December, 1954. This table shows tons of ore produced, tons of copper concentrates and tons of zinc concentrates derived from milling D.M.E.A. project ores. A complete reconciliation of this data with material submitted by Operator was effected during the audit. Mr. Hardwick also states in this report that: -

> "On several regular inspection visits to the mine the stopes and working places from which this ore was produced were examined. The amount of ore reported by the Operator is believed to be correct."

As previously stated in this report, the Executive Officer, D.M.E.A. Field Team, approves, in principle, the Operator's method of determining the sales value of D.M.E.A. project production subject to royalty.

B. Audit of Operator's Monthly Reports

During the Audit itemized statements of all computations were prepared from the schedules and data submitted by the Operator each month. A condensed summary of these computations follows:

SUMMARIZED COMPUTATIONS OF ROYALTIES DUE
OCTOBER 1, 1953 THROUGH SEPTEMBER 30, 1954

	ORE	COPPER CONCENTRATES	ZINC CONCENTRATES
Total tons of ore produced at Republic Mine during period	83,433.52		
Total Mine Cars of Ore	89,761		
Car Ton Factor (Average)	.929507470		
Total Cars Produced from Area Subj. to DMEA Royalties	4,101		
Total Tons of Ore Produced Subject to DMEA Royalties	3,812		
Total Pounds DMEA Ore	7,624,000		

*Mill Head Assays
*Weighted Average Grab Sample Assays
*Weighted Average DMEA Grab Sample Assays

* SEE COMMENTS

	ORE		COPPER CONCENTRATES		ZINC CONCENTRATES
DMEA Ore					
Average Grade Corrected Assays					
Copper	1.75254				
Zinc	6.42992				
Metal Content in Pounds					
Copper		133,613.67			
Zinc		490,217.08			
% of Ore Resulting In Concentrates (Average)			5.3549		9.6645
Weight of Concentrates Produced					
Tons				204.13	368.41
Pounds				408,260	736,820
DMEA Concentrates					
Assays (Average)					
Copper			29.022		1.216
Zinc			13.812		55.134
Mill Recovery Percentages (Average)					
Copper			88.677		6.707
Zinc			11.503		82.870
Metal Content of DMEA Concentrates, Pounds					
Copper				118,484.49	8,961.08
Zinc				56,388.32	406,242.35
Smelters Sold To:			A. S. & R. Co. El Paso, Texas		Int'l. M. & M. Corp. Bartlesville, Okla.
Metals Paid For:					
Copper (Pounds)			118,484		8,961
Adjustments Per Smelter Contracts					
Less: 20 lbs. per Ton (204.13)			4,081		
Less: 35% (8961)				114,403	3,138
Zinc (Pounds)				None	406,236
Less 15% Per Smelter Contract					60,936
					345,300
Silver					
Average Ounces Per Ton			3.88		.97
Total Ounces			792.36		357.52
Adjustments Per Smelter Contracts					
Less: 5%			39.61		
Less: 20%				752.75	71.52
					286.00

	COPPER CONCENTRATES		ZINC CONCENTRATES	
Average Prices (Based on E.&M.J.)				
Monthly Averages				
Copper per lb.	29.676¢		29.678 ¢	
Zinc per lb.	None		10.4526¢	
Silver per oz.	88.5 ¢		90.¢	
Payments				
Gross Copper Payment	$33,950.08		$ 1,728.15	
Less: Adjustments Per Smelter Contracts (See Comments)	3,763.48		416.31	
Net Copper Payments Before Smelter Charges & Deductions		$30,186.60		$ 1,311.84
Gross Zinc Payment	None		$36,092.87	
Less: Adjustment E. St. Louis Freight at .35535¢ per Smelter Contract			1,227.05	
Net Zinc Payment Before Smelter Charges and Deductions		None		$34,865.82
Silver Payment Before Smelter Charges and Deductions		666.18		257.40
Total Payments Before Smelter Charges and Deductions		$30,852.78		$36,435.06
Smelter Charges				
Average Per Ton (See Comments)	$10.5485		$43.9769	
Amount of Smelter Charges		* $ 2,153.26		$16,201.54
Net Payment Before Deductions		$28,699.52		$20,233.52
Deductions by Smelters				
Total Wet Tons of Concentrates	223.94		400.75	
Freight and Taxes Per Wet Ton	$3.5535		$11.316	
Freight and Taxes	$795.76		$4,534.92	
Switching and Taxes	48.83		-	
Umpire Fees (Pro Rata)	9.25		7.65	
Total Deductions		853.84		4,542.57
Sub-Total		$27,845.68		$15,690.95
Add: Excess Computed Smelter Chgs. Not Reflected on Smelter Settlement Sheets (See Comments)		* 237.17		-
Net Smelter Value Subject To DMEA Royalty		$28,082.85		$15,690.95

SUMMARY

Net Smelter Value		
Copper Concentrates	$28,082.85	
Zinc Concentrates	15,690.95	
Total Net Smelter Value		$43,773.80
Royalties Received Per Finance Officer's Records	$ 2,195.09	
Royalties Due (5% of Smelter Value)	2,188.70	
Overpayment of Royalties by Operator		$6.39

In connection with the foregoing condensed summary, it should be noted that it is a composite of thirteen different reports, and no notation has been made of minor mathematical variations in composite data which are due to decimal or mill adjustments. All monetary values are, however, exact.

Complete detailed computations and schedules compiled during the audit are available in the file of the audit working papers.

Discussion of the foregoing data and the degree of confirmation follows:

Total Tons of Ore Produced: 83,433.52

Total Mine Cars of Ore: 89,761

These totals were compiled during the audit from the Operator's monthly Schedule I, "Breakdown of Mine Ore." Monthly totals were adjusted by the Operator for variations in opening and closing Mill Bin Inventories.

Car Ton Factor (Average .929507470)

The Operator keeps track of all mine cars produced segregated by production location in the mine. Total tons produced in any given month are determined at the mill. Total Tons divided by Total Mine Cars applicable to the month under consideration results in a car/ton factor to use in determining the number of tons of ore produced from any specific location in the mine. All car/ton factors for the period October 1, 1953 to October 31, 1954 were recomputed during the audit. The average car/ton factor above was derived by dividing total tons produced during the period by total cars produced.

Total Cars Produced from Mine Area Subject to DMEA Royalty: 4,101

This total was compiled during the Audit from the Operator's monthly Schedule I, "Breakdown of Mine Ore."

Total Tons of Ore Produced, Subject to DMEA Royalty: 3,812

This total was determined by applying the foregoing car/ton factor to the total DMEA cars produced. Each monthly computation of DMEA tons for the period under review was recomputed, and the monthly totals were added and reconciled with the above total of 3,812 tons. A minor variation due to decimal lag has been disregarded in this report.

Total Pounds DMEA Ore: 7,624,000

The above DMEA tons of ore have been converted to pounds in this report for ease in applying applicable assay percentages.

Mill Head Assays, Weighted Average Grab Sample Assays, Weighted Average DMEA Grab Sample Assays

The Operator takes car samples as the ore is hoisted. From this data monthly average mine assays for each production area of the mine and for the entire mine are determined. These assays are reflected by the Operator on the Schedule I, "Breakdown of Mine Ore." Mill head assays for the month are reported by the Operator on the second part of the Schedule I of the monthly report.

From the foregoing data, assay correction factors are determined for both copper and zinc. These assay correction factors are derived by dividing the monthly mill head assays by the average monthly mine assay.

During the audit all of the foregoing computations for the period October 1, 1953 to October 31, 1954 were recomputed.

Average Grade Corrected Assays DMEA Ore

During the audit all corrected DMEA assays for each month under review were recomputed by applying the applicable assay correction factor. For purposes of the composite summary in this report, the corrected average assays were computed by dividing the thirteen months' totals of metals by the total tons of ore. These computations show corrected weighted average assays DMEA Ore as follows:

Copper 1.75254 Zinc 6.42992

Metal Content in Pounds, DMEA Ore:

Copper 133,613.67 Zinc 490,217.08

The above totals are a composite compiled during the audit from the Operator's monthly reports. Monthly data is shown in the Operator's reports on the second part of Schedule I and carried forward to the third part of this schedule, "Mill Recovery Statement." Monthly data is obtained by applying corrected DMEA assays to the monthly DMEA ore production expressed in pounds. All monthly computations of this nature, for the period October 1, 1953 to October 31, 1954, were recomputed.

Per Cent of Ore Resulting in Concentrates

The per cent of ore resulting in concentrates is reported in the Operator's "Mill Recovery Statement" submitted with each monthly report. It is based on the mill operating averages for each month. The percentages shown in the composite summary of this report were derived during the audit by dividing the thirteen months' total DMEA tons of concentrates by the total DMEA tons of ore. These percentages which are weighted averages are 5.3549% for copper concentrates and 9.6645% for zinc concentrates.

Weight of Concentrates Produced:

Copper	204.13 Tons or 408,260 lbs.
Zinc	368.41 Tons or 736,820 lbs.

The above data is a composite total, compiled during the audit from the Operator's monthly reports. Data shown on the Operator's monthly reports is obtained by applying the applicable mill percentage of ore resulting in concentrates. During the audit all computations for the period October 1, 1953 to October 31, 1954 were recomputed.

Assays, DMEA Concentrates (Average)

	Copper Concentrates	Zinc Concentrates
Copper	29.022	1.216
Zinc	13.812	55.134

The monthly assays for concentrates are reported by the Operator on the "Mill Recovery Statement" which is the third part of Schedule No. 1 of the monthly report. The above data is a composite of the thirteen months involved. It was derived during the audit by dividing the total weight of applicable concentrate into the applicable total weight of metal recovered. During the audit the monthly assay data for each month was used as a cross check of reported mill recovery percentages.

Mill Recovery Percentages (Average)

	Copper Concentrates	Zinc Concentrates
Copper	88.677	6.707
Zinc	11.503	82.870

The monthly mill recovery percentages are reported by the Operator on the "Mill Recovery Statement" which is the third part of Schedule No. 1 of the monthly report. The above data is a composite of the thirteen months involved. It was derived during the audit by dividing the total weight of metal in the applicable concentrate by the total metal content of the ore. During the audit all mathematical computations for each month were recomputed.

Metal Content of DMEA Concentrates: Pounds

	Copper Concentrates	Zinc Concentrates
Copper	118,484.49	8,961.08
Zinc	56,388.32	406,242.35

Metal contents of concentrates are derived for each month by applying the appropriate mill recovery percentages to the metal content of DMEA ore. A cross check of quantities of metal for each type of concentrate is

provided by applying the proper assay of concentrates. During the audit all computations for metal content of concentrates were recomputed for the period October 1, 1953 to October 31, 1954. The foregoing composite data are a summation of monthly quantities. These quantities represent the gross quantities of metal purchased by the smelters.

Metals Paid For:

	Copper Concentrate	Zinc Concentrate
Copper	114,403 lbs.	5,823 lbs.
Zinc	None	345,300 lbs.
Silver	752.75 ozs.	357.52 ozs.

Net metals paid for are shown by the Operator on Schedules II and III of the monthly report. The net quantities are arrived at by applying the provisions of the applicable smelter contract. In the case of copper concentrates, gross copper metal quantities are adjusted by 20 lbs. per ton of concentrate. No payment is made by the smelter for zinc. Gross quantities of silver are adjusted by 5%. In the case of zinc concentrates, gross quantities of copper metal are adjusted by 35%, gross quantities of zinc by 15%, and gross quantities of silver by 20%.

Gross quantities of silver for both types of concentrates were computed on the basis of average number of ounces per ton of concentrates sold during the month as shown by the copies of settlement sheets issued by each smelter. During the audit the average monthly content of silver per ton of concentrate for each type of concentrate was computed for each month under review. The average of ounces of silver per ton shown in this report summary for each type of concentrate is a composite average derived by dividing total ounces of silver for the period by total tons of the applicable concentrate.

Also during the audit all monthly computations shown on the Operator's schedules for net metals were recomputed for each month October, 1953 through October, 1954, and all adjustments were confirmed as being in accordance with the applicable smelter contract.

Average Prices

Prices paid by the smelters were in accordance with contract agreements. They were based on the monthly average as published in the Engineering and Mining Journal. During the audit all average monthly prices were confirmed for each month October, 1953 through October, 1954 by reference to the weekly E. & M. J. prices and the computation of the monthly averages.

The prices shown on the summary statement in this report are a weighted average for the period under review.

Payments

Gross Payments

Net Payments before Smelter Charges and Deductions

Gross payment amounts for each month were determined by multiplying

net metal units by the average monthly unit price. All extensions of this nature for the period October 1, 1953 to October 31, 1954 were recomputed during the Audit.

The monthly gross payment amounts were adjusted by the following items as provided by the various smelter contracts:

(A) Copper Concentrates

Copper Metal

Bullion Freight Tax per lb. of copper .035¢;
Contract Price adjustment ranged from 3.080¢ to 3.180¢ per lb. of copper;
Cathode adjustment .125¢ per lb. of copper.

(B) Zinc Concentrates

Copper Metal

Contract price adjustment per lb. of copper ranged from 6¢ to 7.41¢.
Cathode adjustment .15¢ per lb. of copper.

Zinc Metal

Contract price adjustment E. St. Louis Freight at .35535¢ per lb. of zinc.

During the audit all computations involved in determining the net payments for metals before smelter charges and deductions were recomputed for the period under review. All price adjustments were compared with the applicable smelter contract.

Smelter Charges

All smelter charges shown on the Operator's monthly reports were determined during the audit to be in accordance with the smelter contracts. These charges were also compared with copies of smelter settlement sheets. Later in this report comment is made concerning sundry overcharges which were disallowed by the audit. All mathematical computations involved in the monthly smelter charges for the period October 1, 1953 to October 31, 1954 were recomputed during the audit. The smelter charges consisted of the following components:

Copper Concentrates

Base charge per ton of concentrate ranged from $8.88 to $9.16. Labor adjustment per ton of concentrate (sliding scale) ranged from 2¢ to 56¢ addition per ton. Adjustment per ton of concentrate for excessive per cent of zinc content ranged from 52¢ to $2.8038 addition per ton. Note: Operator reported zinc adjustment on basis of contract provision and DMEA zinc assay for copper concentrates. This resulted in an overcharge. See full discussion of the disallowances in this report.

Zinc Concentrates

Base charge per ton of concentrates $54.13. Deduction adjustment for price variations in zinc ranged from $12.00 to $15.1875 per ton. Labor adjustment per ton of concentrate (sliding scale) ranged from $3.026 to $3.902 addition per ton.

The amounts per ton for smelter charges shown on the summary in this report are weighted averages based on the Operator's monthly reports. These averages do not reflect correction for overcharges disallowed in this report.

Smelter Deductions

All computations for smelter deductions during the period October 1, 1953 to October 31, 1954 were recomputed during the audit. Also, the reasonableness and rates per ton for freight were confirmed by comparison with copies of settlement sheets submitted with each monthly report.

These deductions consisted of the following items:

Copper Concentrates

Freight and tax per wet ton of concentrates $3.5535. Switching and tax (Pro rata for month) ranged from $1.30 to $8.24. Umpire fees (Pro rata for month) ranged from 13¢ to $1.46.

Zinc Concentrates

Freight and tax per wet ton of concentrate ranged from $11.30 to $11.57. Umpire fees (Pro rata for month) ranged from zero to $1.70.

Excessive Smelter Charges

Copper Concentrates

The smelter contracts for purchase of copper concentrate prescribe additional charges for zinc in excess of 10%. In submitting the monthly reports the Operator based its computations on this provision and the assay of DMKA Concentrate. Reference to copies of settlement sheets disclosed that the Operator's method of computation resulted in excessive computed smelter charges. Adjustment in this report is based on monthly average zinc charge per ton of concentrate sold, as computed during the audit from copies of A. S. & R. Co. smelter settlement sheets. A monthly tabulation of excess smelter charges by months is as follows:

October, 1953	$12.08	
November	14.67	
December	8.36	
January, 1954	-	
February	12.87	
March	34.92	
April	15.78	
May	49.75	
June	18.07	
July	21.39	
August	8.71	
September	14.48	
October	26.09	
TOTAL:		$237.17

Other Errors Corrected in Report Summary

The following errors were noted during the audit and have been corrected in the summary statement of this report.

	Net Smelter Return	
	Under Stated	Over Stated
March: 1954 Zinc Concentrates		
Overstatement of Silver 7.51 ozs. at 90¢		$ 6.76
April: Zinc Concentrates		
Error in Labor Adjustment. Umpire fees of 96¢ subtracted instead of added;	$ 0.57	
Gross overstatement		1.92
May: Zinc Concentrates		
Overcharge Freight	3.01	
July: Copper Concentrates		
Understatement of 1,096 lbs. of Copper at 26.36¢	288.90	
Zinc Concentrates		
Undercharge Freight		255.27
August: Copper Concentrates		
Error in Extension Silver Overstatement		393.47
TOTALS:	$292.48	$657.42

Royalties

Total Royalties Due at 5% of Net Smelter Value of $43,773.80 amount to			$2,188.70
Total Royalties Received			2,195.09
Overpayment			($6.39)

Represented by:

Gross overstatement Net Smelter Value by Operator		$657.42	
Less: Excessive Smelter Charges	$237.17		
Other Errors listed above which understated net smelter value	292.48	529.65	
Net Overstatement Net Smelter Value		$127.77	
5% of Net Overstatement Net Smelter Value Resulted in Royalty Overpayment as above.			$6.39

C. Audit of Operator's Records

In view of the very complete documentation submitted by the Operator in its monthly reports and also the on-site examination by the Examining Engineer, which included an examination of mill production records, further examination of the Operator's records was considered unnecessary.

D. Other Comments

In reviewing the Examining Engineer's report it was noted that DMEA production for November and December, 1954 totaled 161.54 tons of ore, from which 6.7 tons of copper concentrates and 14.67 tons of zinc concentrates were derived. Royalty reports and payments on this production had not been received at the time of the audit. This situation was, therefore, discussed with the Executive Officer of the DMEA Field Team, Region III.

Based on the amount of work involved for the Operator in the preparation of the monthly royalty reports, both the Executive Officer and the Auditor consider that this Operator's royalty account is in a reasonably current condition.

IV CONCLUSIONS

The audit has confirmed the accuracy and propriety of the royalty payments received by the Finance Officer, which are applicable to sales of concentrates during the period October 1, 1953 through October 31, 1954, with the exception of the errors and resulting net overpayment described in the previous section of this report. It has also determined that the Operator is properly accounting for production resulting from operations subject to the DMEA Exploration Contract during the period under review.

April 15, 1955

Donald T. Finch

Donald T. Finch, Auditor

Minerals Administration
RECEIVED

January 25, 1955

Memorandum

To : Walter R. Storms, Superintendent, Southwest Experiment Station, Region III

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Interim Report, Docket DMEA-2746, Contract Dmc-6522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc mine Cochise County, Ariz.

On December 13, 1954, T. H. Bruding, DMEA auditor, and John F. Shaw, suggested that a recapitulation of the production records at the Republic mine should be made to show the total quantity of ore that has been produced on which royalty should be paid to the Government. Accordingly the mine was visited on January 18, 1955. Mr. Fred K. Gray, manager, was at the mine.

The weight of ore in tons is obtained by counting the number of cars of ore that are mined from the subordinated ground. Then the number of cars is multiplied by a factor that is obtained by dividing the total number of tons of ore produced from the mine in a month by the total number of cars. In a similar manner a factor for grade correction is derived by dividing the pounds of metal produced by the tons of ore produced and then dividing this value by the weighted average assay for the month resulting from samples taken from the cars of ore as mined.

All ore that is mined from the Republic mine is concentrated in the Coronado Copper and Zinc Co.'s plant at Johnson Camp to produce a copper concentrate which is sold to the El Paso plant of the American Smelting & Refining Company, and a zinc concentrate which is shipped to the Bartlesville plant of National Zinc Co.

Using the number of cars of ore mined from the subordinated area and the factors derived by the method above, the Coronado Copper and Zinc Co. reports the production shown

CC W. M. Traver (Orig. & 8)
DMEA-2746
BF

WRHardwick:frj

in Table 1. On several regular inspection visits to the mine the stopes and working places from which this ore was produced were examined. The amount of ore reported by the operator is believed to be correct.

The first production of ore discovered by this contract was in October 1953. Detailed schedules reflecting the calculated weights assays and metal content of the ore mined in October 1953 were included with the operator's first royalty payment on December 18, 1953. Subsequent production has been calculated by the same method.

William R. Hardwick

William R. Hardwick
Mining Engineer
Tucson, Arizona

TABLE I. Production subject to royalty.

Date	Ore Tons	Copper Concentrate Tons	Copper Concentrate Percent Copper	Copper Concentrate Percent Zinc	Zinc Concentrate Tons	Zinc Concentrate Percent Copper	Zinc Concentrate Percent Zinc
Oct. 1953	458.33	23.24	20.330	11.740	34.94	1.375	54.850
Nov. 1953	354.83	18.71	20.520	14.538	21.25	1.061	53.940
Dec. 1953	197.34	8.44	20.650	11.312	13.77	0.936	55.800
Jan. 1954	204.53	18.53	20.240	9.481	28.55	1.606	55.520
Feb. 1954	194.37	13.84	20.870	13.106	22.64	1.313	54.310
Mar. 1954	401.18	20.83	20.850	13.735	42.66	1.047	54.760
Apr. 1954	174.04	6.78	20.470	17.730	15.97	0.885	52.400
May 1954	308.31	18.03	20.050	10.905	38.74	1.100	53.130
June 1954	138.32	7.07	20.270	17.680	14.58	1.413	54.530
July 1954	205.45	11.40	20.040	15.387	23.20	0.887	55.600
Aug. 1954	253.87	13.68	20.230	13.335	21.89	1.365	53.130
Sept. 1954	344.87	18.81	20.200	12.545	32.87	1.250	54,710
Oct. 1954	332.62	18.36	20.430	13.677	33.85	1.317	54.030
Nov. 1954	11.17	0.30	20.300	15.033	1.06	0.928	55.460
Dec. 1954	135.27	6.20	20.400	15.614	13.61	1.045	54.400
Total	3,948.88						

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

APR 22 1955

Mr. Donald T. Finch
DMEA Auditor
224 New Customhouse
Denver 2, Colorado

Re: Coronado Copper & Zinc Co.
Contract No. Idm-R522
Docket No. DMEA-2746

Dear Mr. Finch:

This acknowledges receipt of your First Royalty Audit Report and Certificate issued on the above-cited contract.

The Report is accepted and may be distributed in the usual manner.

I may use a part of the report in the royalty audit procedure. If I do I shall change it so that the company will not be identified, or I may request assistance from you in making the changes.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb
April 21, 1955

Copy to: Docket
Admr. Reading File
Mr. Chambers

For Certificate of Deposit No. 66, dated January 31, 1955, giving royalty repayment of $1,351.41, see E-312.

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

224 New Customhouse
Denver 2, Colorado

December 2, 1954

Memorandum

To: T. H. Brading, DMEA Auditor, Region IV

From: Executive Officer, DMEA Field Team, Region IV

Subject: Royalty Audit, DMEA Docket 2746 (Lead-Zinc)
Contract Idm-E522, Coronado Copper and Zinc Company

Enclosed is a copy of our letter of this date to Coronado Copper and Zinc Company regarding delinquent royalty payments. We believe that payment of October, 1954 expenditures under Contract Idm-E522 must be withheld pending a determination of the correct royalty due under this contract.

Please make arrangements to perform a full royalty audit for Contract Idm-E522 in the near future so we may release the balance of monies due the operator for October, 1954.

W. H. King

Enclosure

RDB:mn

cc: Royalty File E522
Correspondence File E522
Sec. to the Oper. Comm. (2)
W.R.Storms
T.A.Christensen
J.W.Townsend
R.D.Berkenkotter
Chron.

E-522

For Certificate of Deposit No. 13, dated June 8, 1954, giving royalty repayment of $708.30, see E-4.

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

224 New Customhouse
Denver 2, Colorado

February 23, 1954

Mr. C. W. Six, Treasurer
Coronado Copper and Zinc Company
1206 Pacific Mutual Building
523 West Sixth Street
Los Angeles 14, California

Re: DMEA Docket 2746 (Copper-Zinc)
Contract Idm-E522

Dear Mr. Six:

A letter received from the Arizona-New Mexico branch of the Bureau of Mines states in part:

"The Republic Mine was visited on January 7, 1954. The method of computing royalty payments as provided by DMEA Order, Sec. 10, was explained to Mr. Fred E. Grey, Manager, and to Mr. Joe Sierakoski, Mine Engineer, who makes the calculations. It was emphasized that royalty payments should be computed on the value of the product in whatever form it is disposed, and at the rates provided in Article 6 of the contract.

The Operator was requested to separate all ore mined under the DMEA project by a distinctive mark from all ore that was not mined under the DMEA project when this report is submitted in the future.

It was suggested to the operator that he submit a new calculation based on the value of the product actually sold at the point of disposal. Mr. Grey was advised that four copies of each settlement sheet for each lot of DMEA ore should be included with the settlement check."

As stated in this letter, your mine manager, Mr. Grey, has been informed as to the acceptable method of calculating royalty due the U. S. Government.

This office has also been informed that the following tonnages of ore were concentrated and shipped from DMEA exploration work on the subject property:

October 1953	453.98 tons
November 1953	220.00 tons
December 1953	179.24 tons
January 1954	240.53 tons

To date, we have received royalty payments from you for ore shipped during October only. Please inform us as to when we may expect royalty payments for ore shipped subsequent to October 1953.

Also, regarding royalty payment for October 1953, we note that royalty due was calculated at 3 percent based on the valuation of the ore as mined instead of 5 percent based on the concentrate value, the form in which it was sold. Royalty at 5 percent on concentrates shipped during October 1953 would amount to $255.62; whereas payment received was $135.38, leaving a balance due of $90.24. Please send your check for this amount to W. H. King, Executive Officer, DMEA Field Team, Region IV, 224 New Customhouse, Denver 2, Colorado. Check should be made payable to the Treasurer of the United States.

We again stress the fact that all ore produced from land described in Article 2 of your contract is subject to royalty payments. Annex I of the subject contract fully describes the land referred to in Article 2.

Very truly yours,

W H King

W. H. King
Executive Officer
DMEA Field Team
Region IV

R oyalty File E522
Chron.
W.R. Storms
Sec. to Oper. Comm. (2) w/enc. copies of memos
Christensen w/enc. copy of memos
Berk

[illegible]
[illegible]
[illegible]
25 1954

January 11, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Royalty Payments, Contract Ida-1522, Docket DMA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

In regard to your memorandum of December 24 on royalty payments under Contract Ida-1522, W. R. Hardwick of the Bureau of Mines visited the Republic mine on January 7 and checked the royalty calculations and location of ore mined.

The operator has been paying royalty on all ore mined from the project area; ore also was mined from another area in the mine which was outside the contract project area.

Hardwick also informed the mine manager that royalty payment should have been on concentrates instead of on ore.

Attached is a short interim report by Hardwick.

Walter R. Storms

Walter R. Storms

cc: W. H. King (6)
DMA-2746 Proj. Reports
DMA-2746 Royalty
LF

WRStorms:frj

January 8, 1954

Memorandum

To : Walter A. Sturm, Chief, Mining Methods Branch, Mining Division, Region IV

From : William H. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Interim Report, Docket DMEA-2746, Contract Idm-5523, Cerrosuelo Copper and Zinc Company's Republic Mine, Cochise County, Ariz.

The Republic Mine was visited on January 7, 1954. The method of computing royalty payments as provided by DMEA Order 1, Sec. 10, and further described by DMEA Circular No. 32, April 28, 1953, was explained to Mr. Fred E. Gray, Manager, and to Mr. Joe Sierakowski, Mine Engineer, who makes the calculations. It was emphasized that royalty payments should be computed on the value of the product in whatever form it is disposed, and at the rates provided in Article 6 of the Contract. The attention of the Operator was also directed to the method of determining the net value of the ore as provided by the contract and further explained in DMEA Circular 32, April 28, 1953.

The location from which the ore came, reported in connection with a payment of $135.38, was investigated. It was found that only the ore mined on the 400-level came from the ground described in Article 2 of the Contract. This ore is reported from two locations: "400 L-W HW Drift", and "400 L - W. HW Drift - Cem. Stp." in a report which the operator calls "Breakdown of Mine Ore". All other ore shown in this report did not come from property described in Article 2 of the Contract.

The Operator was requested to separate all ore mined under the DMEA project by a distinctive mark from all ore that was not mined under the DMEA project when this report is submitted in the future. In general, all ore mined from the 400 level will be from the property described in Article 2 of the Contract, while ore mined from the 500 level or the 600 level will not be from subordinated ground.

The method used by the Operator to account for the ore mined from various places in the mine, including the DMEA project, was checked and is reasonable. It was suggested to the operator that he submit a

DC: W. H. King (orig. & 6)
DMEA-2746 Proj. Rptr.
DMEA-2746 Royalty
DF

WHHardwick:frj

new calculation based on the value of the product actually sold at the point of disposal. It is believed that on the supporting "Breakdown of Mine Ore" report he will also show distinctly what ore is from the DMEA project, as suggested.

Mr. Gray stated that while the basic calculations are made in the mine office, the final check will be made by Mr. C. W. Six, the company's treasurer in Los Angeles, who also supplies the settlement sheet. Mr. Gray was advised that four copies of each settlement sheet for each lot of DMEA ore should be included with the settlement check.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

Standard Form No. 1044—Revised
Form approved by Comptroller General U. S.
June 25, 1936

SCHEDULE OF COLLECTIONS

Schedule No. [illegible]-54-[illegible]-70

Sheet No. 1

(14-23-040)

Department of the Interior (Department or Establishment)

Defense Minerals Exploration Administration (Bureau or Office)

Received by G. [illegible] Evans, National Disbursing Officer (Name) (Title) at Denver, Colorado (Station)

Period December, 1953 (Month or quarter ended)

D. O. Symbol No. 413

Date Received	Receipt Number	Name of Remitter	Detail Description of Purpose for Which Collections Were Received	Amount	Fund to be Credited (Symbol and title in full)
12/29/53		Coronado Copper & Zinc Co. Check No. 2181, drawn on First National Bank of Nevada, Las Vegas, Nevada	Repayment under the Mineral Exploration Program, Contract Idr-[illegible] 522, Coronado Copper & Zinc Co.	135.38	14x4401 Revolving Fund Defense Production Act, Interior
			Total,	135.38	

Received _____, subject to collection. Forwarded December 29, 1953

_____ (Disbursing clerk or accountable officer)

By Naomi [illegible] Stokes (Name)

By _____

Title Authorized Certifying Officer

Certificate of Deposit No. _____ dated _____

U. S. GOVERNMENT PRINTING OFFICE 10—1790

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
FEB 19 1954

224 New Customhouse
Denver 2, Colorado

February 17, 1954

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: Calculation sheets for royalty received December 24, 1953 from Coronado Copper and Zinc Company $135.38, Docket No. DMEA 2746, Contract Idm-E522

Enclosed are your copies of calculation sheets for royalty payment made to this office and transmitted to you on December 24, 1953 in the amount of $135.38.

W. H. King

Enclosures

es

cc: Sec. to the Oper. Comm. (2) w/enc.
Royalty File
Chron.

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

Department of the Interior
Defense Minerals Administration
RECEIVED
DEC 28 1953

224 New Customhouse
Denver 2, Colorado

December 24, 1953

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: Royalty Payment - Contract Idm-E 522 (Copper-Zinc), Docket No. DMEA 2746, Coronado Copper and Zinc Company

Enclosed is a check in the amount of $135.38 in part payment of royalty on ore mined in October 1953.

Copies of the calculation sheets were enclosed with the royalty check. The royalty was not properly calculated, and we are returning the information to our Tucson office for clarification.

The corrected calculation sheets and the check in payment for the remainder of the royalty will be transmitted when it is received in this office.

W. H. King

W. H. King

Enclosure

JFS:fwo

cc Sec.Oper.Comm.
WRStorms
Contract
Chron

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Coronado Copper and Zinc Company
Johnson Camp
Cochise County, Arizona

pertaining to Exploration Project Contract No. Idm-5522, Docket No. DMEA-276, including Amendments, Nos. 1 to 4, for the months of June, 1953 to April, 1955 covering a project for the exploration of Copper and Zinc on property known as Republic Mine, located in Cochise County, Arizona.

My review included an examination of the Monthly Reports (Form MF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, consultation with the Executive Officer, DMEA Field Team, 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:

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

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

Total cost as billed by Contractor:		$87,605.00
Exceptions (schedule attached):		
By DMEA Finance Officer Herewith	$560.00	560.00
Total Accepted Cost		$87,045.00

The contract calls for a 50 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Forty-three thousand, five hundred twenty-two and 50/100ths Dollars

** $43,522.50 **

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

August 17, 1955.

T. H. Brading, Auditor

SCHEDULE OF EXCEPTIONS

CORONADO COPPER AND ZINC COMPANY

DOCKET NO. DMEA-2476, CONTRACT IDM-E522

14 Feet of Drifting @ $40.00 per foot	$560.00

Unable to determine footage actually advanced during the period from December 13, 1954 to January 31, 1955 from Operator's records before the effective date of Amendment (December 27, 1955.) Total footage completed is based on number of working days for period December 13, 1954 to January 31, 1955, resulting in disallowance shown above. Disallowance approved by Auditor.

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

224 New Customhouse
Denver 2, Colorado

September 9, 1955

Mr. E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Report of Review
Coronado Copper & Zinc Co.
Contract Idm-E522,
Docket No. DMEA-2746

Dear Mr. Talbert:

I am completely at a loss to explain the non-receipt of Report of Review covering subject contract. Our files show that three copies were forwarded to you on August 17 with a buck-slip.

Attached hereto are three copies of the aforementioned Report of Review.

Sincerely yours,

T. H. Brading, Auditor.

Enc.

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

SEP - 7 1955

Mr. Thomas H. Brading
DMEA Auditor
224 New Customhouse
Denver 2, Colorado

Re: Report of Review
Coronado Copper and Zinc Co.
Idm-8522, DMEA-2746

Dear Tom:

Your last Monthly Work Load Report indicates the release of a Report of Review covering the referenced Exploration Project Contract. Furthermore, a copy of a memorandum dated August 26, 1955, addressed to Mr. T. A. Christensen by the Executive Officer, Region III, states that you released this Report of Review to his office on August 18, 1955.

To date the Washington copies have not been received. Please submit at once.

Sincerely yours,

E. D. Talbert, Acting Chief
Contract Administration
and Audit Division

EDTalbert/wb
September 7, 1955

Copy to: Docket
Admr. Reading File
Mr. Chambers

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

RECEIVED
SEP - 6 1955

224 New Customhouse
Denver 2, Colorado

August 26, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Co., Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona - FINAL PAYMENT.

Reference is made to our memorandum of May 27, 1955 whereby we transmitted the final Form MF-104, Operator's Monthly Progress Report and Voucher for the period of April 1955, and instructed you to withhold the amount of $250.00 from reimbursement to the operator pending receipt of the Operator's Final report and release of the Final Report of Review by the Contract Administration and Audit Division.

We now recommend that final payment to the operator be made on the following basis which is in Conformance with the Report of Review by the Contract Administration and Audit Division released to this office on August 18, 1955.

Basis for Final Payment

Total accepted cost as per Report of Review	$87,045.00
Government participation at 50 percent	43,522.50
Total prior payments	43,272.50
Balance due the Operator	$ 250.00

W. M. TRAVER,

W. M. Traver

$250.00

Schedule 56-21
8/29/55
M. Stokes

WLD:jy

cc: Sec. Op. Comm. (2)
Storms
Townsend
MF 104 File Idm-E522
Chron.

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

RECEIVED
SEP - 6 1955

224 New Customhouse
Denver 2, Colorado

August 31, 1955

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522 Coronado Copper and Zinc Co., Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona - FINAL PAYMENT.

Enclosed are two copies of a memorandum to T. A. Christensen, dated August 26, 1955, relative to final payment under the terms of the subject contract.

W. M. Traver

W. M. Traver

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUN 15 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April, 1955 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper & Zinc Co. Minerals Cu - Zn
Address P. O. Box 44 Dragoon, Arizona
Contract Amount, $99,050.00 Government Participation: 50 % Amount, $49,525.00

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 Surface		$31,423.00	$31,423.00			
Bulldozing Underground	$1020.00	2,722.00	3,742.00			
Crosscutting		10,620.00	10,620.00			
Drifting		41,820.00	41,820.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$1020.00	$86,585.00	$87,605.00	** 1020.00	86,585.00	87605.00

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

Date May 21, 1955 *Payee Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

*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:

$ 760.00 ?

Signature Randell R. Cooper
(Authorized Certifying Officer)

Date 6/1/55 Vou. No. DMA-55-94
(See other side)

* Previous disallowance
** Withheld $250.00 Reinstate $510.00

(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. Dm-F-522 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date 5/24/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Burk.

Signature W. M. Jones Title Executive Officer Date MAY 27 1955

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
JUN 15 1955

Month of April 1955 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper & Zinc Co. Minerals Cu - Zn
Address P. O. Box 44 Dragoon, Arizona

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting	feet			$41,820.00	1045.5	$40.00	1520	$40.00
Crosscutting	"			10,620.00	265.5	"		
Raising								
Shafts								
Winzes								
Drilling: Core AX	"			12,190.50	2709.0		9060	4.50
Churn EX	"			19,232.50	5495.0			3.50
Auger EX Underground								
Stripping	"	$1020.00	255	3,742.00	935.5			4.00
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		$1020.00		$87,605.00				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		$1020.00		$87,605.00				

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 May 21, 1955 Operator Coronado Copper & Zinc Co.

Per Fred E. Gray Title Mine Manager

Fred E. Gray

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)

Total of $87,605.00 should be reduced $560.00, cost of 14 ft of drifting that was disallowed on January 1955 Voucher - otherwise correct

William R. Hardwick

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

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION IV

RECEIVED
JUN 15 1955

Administrative Audit Difference Statement

Date: June 1, 1955
Payee's Reference: April 1955

Coronado Copper & Zinc Co.
1206 Pacific Mutual Bldg.
523 W. 6th St.
Los Angeles, Calif.

Dear Sir:

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ 1,020.00

Difference $

Amount Approved $ *1,020.00

The reason for the difference was due to:

* $250.00 Withhold pending receipt of the Operator's Final Report

$500.00 Withhold from payment on March 1955 report is reinstated.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-IV-B & F Form No. 4
4-15-52 D

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

RECEIVED
JUN 15 1955

224 New Customhouse
Denver 2, Colorado

May 27, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Co., Republic Copper-Zinc mine, Johnson Camp, Cochise County, Arizona - Operator's Monthly Progress Report for the month of April, 1955

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

The amount of $500.00 which was withheld from payment on the March, 1955 report is to be reinstated. An amount of $250.00 is to be withheld from the payment due the Operator on this April, 1955 report pending receipt of the Operator's Final Report and release of the Final Report of Review by the Contract Administration and Audit Division.

Remarks:

Date of Report.....May 21, 1955
Date Received in Field Office.....May 23, 1955
Date Received in Region Office.....May 27, 1955

W. M. Traver

W. M. Traver

Enclosures

RDB:sr

cc Sec. Op. Comm. (2)
Subject
Chron
Storms
Townsend w/copy Engrs. Report

DMEA
Date Rec'd.

RECEIVED MAY 27 1955 S

JUN 1 5 1955
BUREAU OF MINES
Denver, Colo.

May 25, 1955

Memorandum

To: W. H. Traver, Executive Officer, DMEA Field Team, Reg. XII

From: Superintendent, Southwest Experiment Station, Tucson, Ariz.

Subject: April 1955 Progress Report, DMEA Contract Idm-3522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;
(2) Operator's narrative report with map and drill hole logs;
(3) Forms MF-104 and MF-104A.

Also enclosed are 4 extra copies of our engineer's report.

All work is in accordance with the terms of the contract and its amendments. However, as all contract work has been completed, I recommend that the customary amount be withheld until a final report has been received from the operator.

Walter R. Storms

Walter R. Storms

cc - Traver (2)
DMEA-2746
WF
WRStorms/ts

RECEIVED 5

JUN 15 1955

May 25, 1955

Memorandum

To: Walter R. Storms, Supt., Southwest Experiment Station, Tucson

From: William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject: Progress Report for April 1955, Docket DMEA-2746, Contract Idm-[illegible], Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Arizona

The Republic mine was visited on May 16, 1955. Mr. Fred E. Gray, manager, was not at the mine. Results of the exploration program were discussed briefly with R. E. Bergman, geologist. However, Bergman did not know what the company's plans were. As the time limit of the contract expired on May 18, 1955, it is assumed that the operator will terminate the contract and submit a final report.

During April 1955, three underground diamond drill holes were completed from the 500-level for a total of [illegible] feet. These holes cut ore and proved the existence of a small pipe-like ore body along the hanging wall side of the E. 90 fault. The indicated diameter of this ore body is approximately 25 feet. This is much smaller than had been inferred; the grade indicated is 2.2 percent copper and 6.7 percent zinc.

The operator has presented Forms [illegible]-104, claiming reimbursement for the Government's agreed part of the cost of the 255 feet of underground diamond drill hole that was completed in April. This work was in accordance with the terms of the contract, as amended, and is approved. However, as this is the last voucher, it is recommended that no payment be made to the operator until it has submitted a final report on the project.

The status of this contract as of May 18 is as follows:

	April 1955	Total
Drifting and crosscutting	-	$[illegible],440.00
Surface drilling	-	[illegible],425.00
Underground drilling	$1,[illegible].00	[illegible],742.00
Total	$1,[illegible].00	$[illegible],[illegible].00
Less amount disallowed	-	580.00
Total	$1,[illegible].00	$87,045.00
Government's part (50%)	$ 510.00	$43,522.50

The total estimated cost of this project was $99,050.00. The actual expenditure is the total shown above. Attention is directed to the fact that the operator's reports have not been corrected to reflect the deduction of an amount of $580.00 that was disallowed in its January voucher.

William R. Hardwick

William R. Hardwick

cc - Traver (8)(& orig.)
DMEA-2746

RECEIVED
JUN 15 1955

May 21, 1955

Mr. Walter R. Storms, Chief
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA-2746
Contract Idm E522

Dear Mr. Storms:

Following is the report to accompany forms 104 and 104-A in connection with the work done under Contract Idm E522 for the full month of April.

DRIFTING. No drifting or crosscutting was done during the month under the DMEA contract. During April, 841.07 tons of ore averaging 2.87% Cu, 6.78% Zn were milled from the 370 WF Sub-Level Drift, 500 Level WF 320 stope, 500 Level WF 370 stope and 400 Level W 260 stope (tonnage and grade corrected to mill heads from car counts and grab samples).

DIAMOND DRILLING. (See sections and logs) Three underground diamond drill holes were drilled during the month of April. Diamond drill hole MU 170 A (DMEA # 23) was completed at a depth of 85'. Diamond drill hole MU 170 B (DMEA # 24) was completed at a depth of 72'. Diamond drill hole MU 170 C (DMEA # 25) was completed at a depth of 115'. Accompanying this report are sections showing assays and formations encountered in the drill holes.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG:k

4ccs to Mr. W. R. Storms
1 cc Mr. George D. Dub
1 cc Mine Office

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

Budget Bureau No. 42-R1036.5

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

Month of March, 1955 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper & Zinc Co. Minerals Cu - Zn
Address Box 44 Dragoon, Arizona
Contract Amount, $99,050.00 Government Participation: 50 % Amount, $49,525.00

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 Surface		$31,423.00	$31,423.00			
Bulldozing	$ 68.00	2,654.00	2,722.00			
Crosscutting		10,620.00	10,620.00			
Drifting	2900.00	38,920.00	41,820.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$2968.00	$83,617.00	$86,585.00	2968.00	83,617.00	86,585.00
				* 560.00	* 560.00	
					83,057.00	86,025.00

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 4-19-55 *Payee Coronado Copper & Zinc Company
Per [signature] Title Mine Manager

*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 $984.00
Signature Randell R. Cooper
(Authorized Certifying Officer)
Date 4/28/55 Vou. No. DMA-55-87
(See other side)

* Previous disallowance
** 500.00 Withheld

(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. DME S 22 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date 4/26/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Berk.

Signature W. M. Sanner Title Executive Officer Date APR 26 1955

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 March 195 5 Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper & Zinc Company Minerals Cu - Zn

Address Box 44 Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet	$2900.00	72.5	$41,820.00	1045.5	$40.00	1520	$40.00
Crosscutting				10,620.00	265.5	"		
Raising								
Shafts								
Winzes								
Drilling: Core AX	"			12,190.50	2709.0			4.50
Churn EX	"			19,232.50	5495.0		9060	3.50
Auger EX Underground	"	68.00	17	2,722.00	680.5			4.00
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$2968.00		$86,585.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$2968.00		$86,585.00				

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

REMARKS:

Date April 19, 1955 Operator Coronado Copper & Zinc Co.

Per Fred E. Gray Title Mine Manager

Fred E. Gray

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)

Checked with MF 104
William R Hardinge

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

Bureau Minerals
RECEIVED
MAY 20 1955

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION IV

Administrative Audit Difference Statement

Date: May 2, 1955
Payee's Reference: March 1955

Coronado Copper & Zinc Co.
1206 Pacific Mutual Bldg.
523 W. 6th Street
Los Angeles, Calif.

Dear Sir:

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ 2,968.00

Difference $

Amount Approved $ *2,968.00

The reason for the difference was due to:

* $500.00 withheld pending receipt of final report.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-IV-B & F Form No. 4
4-15-52 D

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

224 New Customhouse
Denver 2, Colorado

April 26, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper & Zinc Company's Republic Copper-Zinc Mine, Cochise County, Arizona - Operator's Monthly Progress Report for the month of March, 1955

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

An amount of $500.00 is to be withheld from the payment due the Operator pending receipt of the Operator's Final Report and release of the Final Report of Review by the Contract Administration and Audit Division.

Remarks:

Date of Report.....April 19, 1955
Date Received in Field Office.....April 21, 1955
Date Received in Region Office.....April 25, 1955

W. M. TRAVER,
W. M. Traver

Enclosures

RDB:sr

cc Subject
Chron
Secretary Op. Comm. (2)
Townsend
Storms

DMEA
Date Rec'd.

APR 25 1955

BUREAU OF MINES
Denver, Colorado

April 22, 1955

Memorandum

To : W. M. Trurer, Executive Officer, DMEA Field Team, Region III

From : Superintendent, Southwest Experiment Station

Subject : March 1955 Progress Report, DMEA Contract Kbs-2222, Docket DMEA-2746, Copperado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Graham County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;
(2) Operator's narrative report with map;
(3) Forms MF-154 and MF-154A.

Also enclosed are 4 extra copies of our engineer's report.

All work is in accordance with terms of the contract and its amendments. As all work under terms of the contract and its amendments had been completed by April 8, I recommend that an appropriate amount be withheld until the operator's final report has been received. If any funds remain after this deduction, I recommend that they be paid the operator if all royalty payments are up to date.

Walter R. Storms

Walter R. Storms

CC W. M. Trurer (3)
DMEA-2746
RF

WRStorms:frj

April 23, 1955

Memorandum

To : Walter R. Storms, Superintendent, Southwest Experiment Station, Region III

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for March 1955, Docket DMEA-2746, Contract IDa-2523, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic mine was visited on April 20, 1955. Mr. R. E. Bergman, Geologist for the company, assisted in examining the progress for March 1955.

On April 20, the 500 level W. F. drift had been advanced to a point 210 feet west of the starting point and three drill holes had been funneled upward through the ore zone at a point designated in Amendment No. 4.

The operator has presented Form MF-104, claiming reimbursement for the Government's agreed part of 72.5 feet of drift and 17 feet of underground diamond drill hole that were completed in March. This work was in accordance with the terms of the contract as amended and is approved. The status of this contract on March 31 was as follows:

	March 1955	Total
Drilling & crosscutting	$3,[illegible]	$[illegible],440.00
Surface drilling	-	31,421.00
Underground drilling	[illegible]	2,[illegible]
Total	$3,[illegible]	$[illegible]
Government's part	$1,434.00	$43,[illegible].50

During March, 847.79 tons of ore, averaging 2.97 percent copper and 7.23 percent zinc were reported from the 500 level W.F. 320 and 370 stopes in the DMEA participation area by the operator.

CC W. M. Trayer (orig. & 3)
DMEA-2746
WF

WRHardwick:frj

As of March 31, only a small amount of underground drilling remained to be completed under this contract unless additional work was requested. When the property was visited on April 30, this work had been completed. Government's part of the cost of this additional work will be approximately $300.00. If this is considered sufficient to assure a final engineering and geological report, then it is recommended that the operator be paid all of the amount due him for March.

The time limit of this contract is May 18, 1944.

William R. Hardwick

William R. Hardwick
Mining Engineer
Tucson, Arizona

April 19, 1955

Mr. Walter R. Storms, Chief
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA-2746
Contract Idm E522

Dear Mr. Storms:

Following is the report to accompany forms 104 and 104-A in connection with the work done under Contract Idm E522 for the full month of March.

DRIFTING. (See progress map) During the month, the 500 Level W F Drift was advanced under the DMEA contract 72.5 ft. to Station 505 R 21 plus 22.0 feet. Drifting was in limestone. The East 90 Fault was encountered on the North wall of the drift at Station 505 R 19 plus 22.0 ft. striking N 65° W and dipping 30 to 35 degrees to the SW. During March, 547.79 tons of ore averaging 2.97% Cu, 7.22% Zn were milled from the 500 Level W F 320 and 370 stopes in the DMEA participation area (tonnage and grade corrected from mill heads from car counts and grab samples).

DIAMOND DRILLING. Underground diamond drill hole MU 170 A (DMEA #23) drilled from the 500 Level W F Drift 15.5 feet N 55° W from Station 505 R 21, plus 90 degrees, cut limestone poor garnet to the present bottom at 17.0 feet. No other diamond drilling was done under the DMEA contract during the month of March.

EXPLANATION: No change has been made in our "to-date" figures shown on MF 104A and MF 104 to correct the footage or money shown on your "Audit Difference Statement" of March 25, 1955. We have not changed our figures as we fear that by so doing, we might complicate things further.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG:k

4 cos to Mr. W. R. Storms
1 co Mr. George D. Dub
1 co Mine Office

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

Budget Bureau No. 42-R1036.5

RECEIVED

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

Month of February, 1955 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper & Zinc Co. Minerals Cu - Zn
Address Dragoon, Arizona
Contract Amount, $99,050.00 Government Participation: 50 % Amount, $49,525.00

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 Surface		$31,423.00	$31,423.00			
Bulldozing Underground		2,654.00	2,654.00			
Crosscutting		10,620.00	10,620.00			
Drifting	$980.00	37,940.00	38,920.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$980.00	$82,637.00	$83,617.00	980.00	82,637.00	83,617.00
					560.00	560.00
					82,077.00	83,057.00

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

Date March 17, 1955 *Payee Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

*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: $490.00

Signature [signature] (Authorized Certifying Officer)

Date 4/1/55 Voucher No. DMA 55-76

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. DMA F572 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engr Date 3/25/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Bert F.

Signature W M Traver Title Executive Officer Date MAR 30 1955

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

Defense Minerals
RECEIVED
APR 14 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of February 195 5 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper & Zinc Co. Minerals Cu - Zn
Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	Feet	$980.00	24.5	$38,920.00	973.0	$40.00	1520	$40.00
Crosscutting				10,620.00	265.5	"		
Raising								
Shafts								
Winzes								
Drilling: Core AX				12,190.50	2709.0			$ 4.50
Churn EX				19,232.50	5495.0		9060	3.50
Auger EX Under								
Stripping ground				2,654.00	663.5			4.00
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$980.00		$83,617.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$980.00		$83,617.00				

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 March 17, 1955 Operator Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

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

REMARKS:

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 872894

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

224 New Customhouse
Denver 2, Colorado

March 30, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Co., Republic Copper-Zinc Mine, Johnson's Camp, Cochise County, Arizona - Operator's Monthly Progress Report for the period February, 1955

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report.....March 17, 1955
Date Received in Field Office.....March 21, 1955
Date Received in Region Office....March 28, 1955

W. M. Traver

W. M. Traver

Enclosures

RDB:sr

cc Subject
Chron
Sec. to Op. Comm. (2)
Storms

March 25, 1955

Memorandum

To : W. H. Trover, Executive Officer, DMEA Field Team, Region III

From : Superintendent, Southwest Exp. Station, Region III

Subject : February 1955 Progress Report, DMEA Contract Idm-6522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;
(2) Operator's narrative report with map;
(3) Forms MF-104 and MF-104A.

Also enclosed are 4 extra copies of our engineer's report.

All work is in accordance with terms of the contract and its amendments. If all royalty payments are up-to-date, I recommend that the Government's share of these costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. Trover (8)
DMEA-2746
DF

WRStorms:frj

DMEA
Date Rec'd.
MAR 28 1955
BUREAU OF MINES
Denver, Colorado

March 25, 1955

Memorandum

To : Walter A. Storms, Superintendent, Southwest Experiment Station, Region III

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for February 1955, Docket DMRA-2746, Contract Idm-5532, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic mine was visited on March 23, 1955 by John N. Faick, Geologist, U. S. Geological Survey and the undersigned engineer. Fred E. Grey, mine manager, was at the mine. The 300 level west footwall drift was measured and the 300 level west footwall 320 stope was examined.

During February 1955, the 300 level west footwall drift was advanced 24.5 feet. This advance is in accordance with the provisions of amendment No. 4 to the contract and is approved. The status of this contract as of February 28, 1955 is as follows:

	February	Total
Drifting and crosscutting	$[illegible].00	$49,540.00
Surface drilling	—	31,423.00
Underground drilling	—	2,654.00
Total	$980.00	$83,617.00
Government's part (50%)	$490.00	$41,[illegible].50

During February, 303.55 tons of ore was mined from the 300 level W.F. 320 stope. The grade (3.1% copper and 6.1% Zinc) is much better than was previously mined from this stope.

On March 23, Mr. Grey stated that the company would complete the additional 150 feet of drifting that had been requested but was not allowed in amendment No. 4. This work will be done at company expense.

CC W. M. Trower (Orig. & 8)
DMRA-2746
BF

WRHardwick:frj

The contract provides that the Government will participate to the extent of 50 percent of the agreed estimated cost of $40.00 per foot for drifting. It is recommended that the operator be paid the Government's agreed part of the cost of the work completed in February after all royalty due the Government has been paid.

The time limit of this contract is May 18, 1955.

William R. Hardwick

William R. Hardwick
Mining Engineer
Region III

March 17, 1955

Mr. Walter R. Storms, Chief
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA-2746
Contract Idm E522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm E522 for the full month of February.

DRIFTING. (See progress map) During the month, the 500 Level W F Drift was advanced 24.5 ft. to Station 505R-17 plus 66.5 ft. All of this advance was in the DMEA participation area. Drifting continued in limestone with wollastonite. During February, 503.55 tons of ore averaging 3.10% Cu, 6.15% Zn were milled from the 500 Level W F 320 Stope, 370 Raise, and 370 Stope in the participation area (tonnage and grade corrected to mill heads from car counts and grab samples).

DIAMOND DRILLING. No diamond drilling was done under the DMEA contract during the month of February.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG:rk

4 ccs to Mr. W. R. Storms
1 cc Mr. George D. Dub
1 cc Mine Office

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of Dec., 1954 Jan., 1955, 195 Docket No. DMEA 2746 Contract No. Ida 2522
Operator's Name Coronado Copper & Zinc Co. Minerals Copper & Zinc
Address Dragoon, Arizona
Contract Amount, $99,050.00 Government Participation: 50 % Amount, $49,525.00

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 Surface	XXX	$31,423.00	$31,423.00			
Bulldozing Underground	$ 608.00	2,046.00	2,654.00			
Crosscutting		10,620.00	10,620.00			
Drifting	$2,120.00	35,820.00	37,940.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$2,728.00	$79,909.00	$82,637.00	2168.00	79,909.00	82,637.00

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 2-7-55 *Payee Coronado Copper & Zinc Co.
Per [signature] Title Mine Manager

*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:

$1084.00

Signature [signature]
(Authorized Certifying Officer)
Date 3/25/55 Vou. No. DMA 55-75
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 1dm-F 522 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date 3/16/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Inman Title Executive Officer Date MAR 23 1955

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

DEPARTMENT OF THE INTERIOR
Minerals Administration
RECEIVED
APR 14 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Dec., 1954 / Jan., 1955 195____ Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper & Zinc Co. Minerals Copper & Zinc

Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet	$2,120.00	53.0	$37,940.00	948.5	$ 40.00	1520	$ 40.00
Crosscutting				10,620.00	265.5	"		
Raising								
Shafts								
Winzes								
Drilling: Core AX	"			12,190.50	2709.0			4.50
Churn EX	"			19,232.50	5495.0		9060	3.50
Auger EX Under-		608.00	152					
Stripping ground	"			2,654.00	663.5			4.00
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$2,728.00		$82,637.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$2,728.00		$82,637.00				

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 February 7, 1955 Operator Coronado Copper & Zinc Co.

Per Fred E. Gray Title Mine Manager

Fred E. Gray

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 872894

DEPARTMENT OF THE INTERIOR
Bureau Minerals Administration
APR 14 1955

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION IV

Administrative Audit Difference Statement

Coronado Copper & Zinc Co.
1206 Pacific Mutual Bldg.
523 North 6th Street
Los Angeles, California

Date: March 25, 1955
Payee's Reference: January 1955

Gentlemen:

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed	$ 2,728.00	
Difference	$ 560.00	14 feet at $40.00 per foot
Amount Approved	$ 2,168.00	

The reason for the difference was due to:
Since the amount of advance during the period from Dec. 13 to Jan. 31 cannot be broken down from the records to reflect the exact amount of drifting completed in that period before the effective date (Dec. 27) of the amendment, the total footage completed is divided according to the number of working days between Dec. 13, 1954 and Jan. 13, 1955. Payment is made for the part of the drifting that was completed after Dec. 27 according to the following computation.

Number of working days before Dec. 27	=	11
Number of working days after Dec. 27	=	30
Total	=	41
Total number of feet drifted	=	53

Number of feet of drift completed before Dec. 27 = 11/41 X 53 = 14 ft.
Number of feet of drift completed after Dec. 27 = 30/41 X 53 = 39 ft.

The above suspension is subject to reconsideration in the event evidence can be produced to show that the work was completed after the effective date of the contract amendment. Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-IV-B & F Form No. 4
4-15-52 D

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

224 New Customhouse
Denver 2, Colorado

March 23, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Company, Cochise County, Arizona -- Operator's Monthly Progress Report for the period of December 1954 through January 1955

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200(A), therefore we recommend that payment be made for 50 percent of the amount reported by the operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report, except for the following deduction:

14 feet of drifting at $40.00 a foot.....$560.00
(Basis for deduction detailed in engineer's report)

The inspecting engineer recommends withholding payment of the enclosed report pending payment by the operator of royalties presently due the Government. However, the operator has paid royalties on production through the month of October 1954 and at the present time royalty payments are outstanding on only a relatively small tonnage of ore produced during the months of November and December 1954. Therefore, payment of the enclosed report is recommended.

Remarks:
Date of operator's report..... 2/7/55
Date report received in DMEA Field Office..... 2/14/55
Date report received in Regional Office..... 3/21/55

W. M. TRAVER

W. M. Traver

Enclosures
JWT:jp
cc Subject
Chron
Sec. to Op. Comm. (2)
Storms

Memorandum March 10, 1955

To : W. H. Traver, Executive Officer, DMA Field Team, Region III

From : Superintendent, Southwest Exp. Station, Region III

Subject : December 1954 - January 1955 Progress Report, DMA Contract Idm-2522, Docket DMA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;
(2) Operator's narrative report with maps and drill hole logs;
(3) Forms MF-104 and MF-104A.

Also enclosed are 4 extra copies of our engineer's report.

As you will note, the operator's report was received on February 14. However, as Amendment No. 4 was dated December 27, 1954 and as the company's manager stated in his narrative report that some of the drifting had been done prior to that date, we spent some time trying to resolve this matter. As the manager had no records to show the amount of footage driven before December 27, we finally had to try to prorate the total footage as shown in Hardwick's report. It had been our understanding that drifting on the 500-foot level would start on December 27, therefore Hardwick recommended that date in his memorandum of January 3, 1955. However, Gray states that drifting actually started before that date.

I believe that the company acted in good faith and probably understood that the amendment would be dated December 24. As it was dated December 27, Hardwick has deducted 14 feet from the total and recommends approval of the remaining 39 feet. I concur with this recommendation, but suggest that no payment of the Government's share of the December-January costs be made until all royalty settlements have been made.

Walter R. Storms

Walter R. Storms

cc: W. H. Traver (0)
DMA-2746
[illegible]

WRStorms:[illegible]

March 16, 1955

Memorandum

To : Walter R. Storms, Superintendent, Southwest Experiment Station, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for December 1954 and January 1955, Docket DMEA-2746, Contract Idm-8522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic mine was visited on December 13, 1954 and again on January 18 and February 25, 1955. The cores from diamond drill holes No. DMEA-21 and DMEA-22 were examined on January 18, and the advance in the 300-level west footwall drift was measured on February 25, 1955.

On December 13, 1954, Fred E. Gray, Mine Manager, discussed the results of some drilling in the northwestern part of DMEA Area No. 1. This drilling had disclosed indications of an ore body and Gray inquired about Government assistance to explore this area. Gray was told that he should prepare a request for an amendment to the contract that would authorize this work and he should submit this request to the Field Team.

On December 27, 1954, Gray and George D. Dub, president of Coronado Copper and Zinc Co., visited the Tucson office of the U. S. Bureau of Mines, bringing with them a letter dated December 24, 1954 that requested an amendment to cover this work. A paragraph in this letter stated:

"While awaiting your approval we expect to drive the drift approximately 50 feet northwest of the 300 W. 330 X-cut as we need it for switching room for our motor haulage. We will be pleased if the amendment will include the cost of this 50 feet.

"We wish to get started on this work as soon as possible and, therefore, ask that you give us your answer on this request as soon as possible."

CC W. M. Treuer (Orig. & 8)
DMEA-2746
DF

WRHardwick:frj

On December 27, 1954, when Mr. Gray and Mr. Bub were in the Tucson office to present the application for an amendment, Gray again urged that he be informed as soon as possible as to whether the amendment would be approved or disapproved. In discussing a starting date, Gray said that preparations were already under way and that the drift would be started "probably today". In the memorandum report in which I recommended approval of this amendment, I also recommended that the effective date be December 27, 1954, as I did not feel justified in recommending an effective date prior to the date of the request. However, it was my understanding that no drifting had been done prior to December 27, 1954.

It now develops that Gray has discovered that some drifting was started before December 27, 1954. No drifting had been accomplished when the property was visited by me on December 13, 1954.

In his narrative report for December and January, Gray states, "I wish to call your attention, however, to the fact that a part of this footage was driven before December 27th. ——— As we had no means of knowing that the effective date of the amendment would be and we do not measure our drifts daily, we cannot advise you of the amount driven before the 27th, nor after the 27th of December - -".

The effective date of amendment No. 4 is December 27, 1954, or the date on which the operator requested the additional exploration. As the exact footage before and after December 27 is not known and as some drifting prior to the effective date of the contract is admitted by the operator, it is recommended that the total footage be prorated according to the number of working days between December 13, the last date that the property was visited, December 27, the effective date of the contract, and January 31, the end of the period.

When the mine was visited on February 25, 1955 the drift measured 68.9 feet from the survey station 505 N 15. Of this advance the operator reports that 53 feet were completed before January 31, 1955. An undetermined part of this was completed before December 27, 1954, the effective date of amendment No. 4. Other than meeting the time provision of the amendment this drifting is in accordance with the provisions of the amendment and is approved.

As the operator states that the amount of advance during the period cannot be broken down from the records to reflect the exact amount of drifting completed in that part of the period before the effective date of the amendment, it is recommended that the total footage completed be divided according to the number of working

days between December 13 and January 31, 1954. It is recommended that the operator be paid for the Government's agreed part of the drifting that was completed after the effective date of the contract according to this computation. The recommended division of the footage based on a six working day week, but excluding Christmas and New Years is as follows:

Number of working days before Dec. 27 ———	11
Number of days after December 27 ———	30
Total number of working days ———	41
Total number of feet of drift ———	53

Number of feet of drift completed before December 27

11/41 times 53 = 14 feet

Number of feet of drift completed after December 27

30/41 times 53 = 39 feet

The contract provides for Government participation in the costs of drifting to the extent of 80 percent of an agreed estimated cost of $40.00 per foot. The cost of the 39 feet that were believed to be completed in the period December 27, 1954 to January 31, 1955 as determined by the above analysis, was $1,560.00.

In addition to the drifting, two diamond drill holes were completed on the 400 level. The logs of these holes are included with the operator's report. One hole, DDH No. 21, cut some low-grade copper-zinc ore. The other hole, DDH No. 22, cut only small scattered spots of sulfide mineral. These two holes, totaling 188 feet, were in accordance with the provisions of the contract and amendments, and are approved.

During January 1955 the operator mined a small amount of ore from the 330 West footwall stope on the 300-level and in the subordinated area.

The status of the drifting on the 400 level drift is as follows:

No. of ft. recommended for approval	39,	Cost	$1,560.00
No. of ft. recommended for denial	14,	"	560.00
No. of ft. requested by operator	53,	"	$2,120.00

It is recommended that denial of the above footage be "without prejudice" and subject to reconsideration should the operator present evidence that the work was completed after the effective date of the contract amendment.

The status of this contract as of January 31, 1955 and assuming that the drifting is granted as above is as follows:

	December 1954 January 1955	Total
Drifting and crosscutting (30 ft.)	$1,560.00	$48,080.00
Surface drilling ———	——	31,423.00
Underground drilling ——	608.00	2,554.00
Total	$2,168.00	$82,077.00
Government's Part (50%)	$1,084.00	$41,038.50

This operator has been slow in paying royalties to the Government.

It is believed that the operator is reliable and will eventually pay all royalty due. However, as the end of the contemplated work under the contract is approaching, it is recommended that procedures pertaining to royalty payments be resolved before the operator is paid the Government's agreed part of the costs of this work.

The time limit in this contract is May 18, 1955.

William R. Hardwick

William R. Hardwick
Mining Engineer
Region III

February 7, 1955

Mr. Walter R. Storms, Chief
U . S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA-2746
Contract Idm E522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm E522 for the full months of December, 1954 and January, 1955.

DRIFTING. (See progress map) The 500 Level WF Drift was started off the 500 Level WF 320 X-cut 7 feet west of Station 505R7-15 and driven to its present face at Station 505R7-15 plus 60 feet. Total advance of the 500 Level WF Drift was 53 feet. Drifting was in limestone with wollastonite.

The footage of drifting reported is the total driven in December and January, and is a part of that approved in amendment No. 4 to our contract. I wish to call your attention, however, to the fact that a part of this footage was driven before December 27th. It is our opinion that the intent of the amendment was for the government to participate in all of the drift from the 500 WF 320 F/W X-cut as requested by us in our letter of December 24th regarding the amendment. As we had no means of knowing what the effective date of the amendment would be and we do not measure our drifts daily, we cannot advise you of the amount driven before the 27th, nor after the 27th of December, but do advise that none of it was driven before December.

During the month of December 150.37 tons of ore averaging 1.39 Cu, 6.22 Zn were milled from the 400 level 240 Raise in the participation area (tonnage and grade corrected from mill heads from car counts and grab samples). During the month of January, there was no ore mined from the participation area.

DIAMOND DRILLING. (See sections and logs) Two underground holes were drilled during the month of December. Diamond drill hole MU 163 (DMEA #21) was completed at a depth of 87 feet. Diamond drill hole MU 164 (DMEA #22) was completed at a depth of 65 feet.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray, Mine Manager

FEG:mk

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

Budget Bureau No. 42-R1036.5

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

Month of Nov., 1954 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper & Zinc Company Minerals Cu & Zn
Address Box 44, Dragoon, Arizona
Contract Amount, $ 99,050.00 Government Participation: 50 % Amount, $ 49,525.00

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 Surface		$31,423.00	$31,423.00			
~~Bulldozing~~ Underground	$412.00	1,634.00	2,046.00			
Crosscutting		10,620.00	10,620.00			
Drifting		35,820.00	35,820.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$412.00	$79,497.00	$79,909.00	412.00	79497.00	79909.00

I certify that the above bill is correct and just and that payment therefor has not been received.
Date Dec. 16, 1954 *Payee Coronado Copper & Zinc Co.
Per [signature] Title Mine Manager

*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:
$ 206.00
Signature [signature]
(Authorized Certifying Officer)
Date 3/25/55 Vou. No. DMA 55-75
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. dmE522 in accordance with the terms of the contract.

Signature William R. Hardwick WRH Title Mining Engineer Date 12/23/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Spanz Title Executive Officer Date MAR 23 1955

MONTHLY REPORT OF OPERATOR

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

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(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.

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

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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).

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

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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

Defense Minerals Administration
RECEIVED
APR 14 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Nov. 195 4 Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper & Zinc Company Minerals Copper & Zinc

Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	Feet			$35,820.00	895.5	$40.00	1520	$40.00
Crosscutting	"			10,620.00	265.5	40.00		
Raising								
Shafts								
Winzes								
Drilling: Core AX	"			12,190.50	2709.0		9060	4.50
Churn EX	"			19,232.50	5497.0			3.50
Auger EX Underground	"	$412.00	103.	2,046.00	511.5			4.00
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$412.00		$79,909.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$412.00		$79,909.00				

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 Dec. 16, 1954 Operator Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 872894

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

224 New Customhouse
Denver 2, Colorado

March 23, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper & Zinc Company, Cochise County, Arizona -- Operator's Monthly Progress Report for the month of November 1954

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 percent of the amount reported by the Operator on Form MF 104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Operator's report.....12-16-54
Date received in DMEA field office.12-20-54
Date received in regional office...1-5-55

The report has been deferred from processing pending resolution of matters relative to royalty payments and additional work to be performed.

W. M. TRAVER

W. M. Traver

Enclosures

JWT:jp
cc Subject
Chron
Sec. to Op. Comm. (2)
Storms

January 3, 1955

Memorandum

To : W. H. King, Executive Officer, DMEA Field Team

From : Superintendent, Southwest Experiment Station, Tucson, Ariz.

Subject : November 1954 Progress Report, DMEA Contract DMe-R522, Project DMEA-3746, Cornucopia Copper & Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;

(2) Operator's narrative report;

(3) Forms MP-104 and MP-104A.

Also enclosed are 4 extra copies of our engineer's report.

As all work is in accordance with terms of the contract and its amendments, I recommend that the Government's share of the costs be paid, as soon as all royalty payments have been settled.

Walter R. Storms

Walter R. Storms

CC W. H. King (8)
DMEA-3746
DF

WRStorms:frj

December 23, 1954

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for November 1954, Docket RMEA-2746, Contract Rm-R523, Cerrosuelo Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic Mine was visited on December 13, 1954. John N. Feick, geologist, U. S. Geological Survey, accompanied the undersigned engineer. Fred F. Grey, Mine Manager, was at the mine and the progress was discussed with him.

During November, 103 feet of underground diamond drill hole was completed. This hole showed 13.5 feet of low-grade ore.

Mr. Grey stated that the company had done some exploration work at its own expense on the 500 level and would probably ask for an amendment to the contract to provide for some work under the contract on this level.

The status of this contract as of November 30, 1954 is as follows:

	November	Total
Drifting and crosscutting	-	$46,449.00
Surface diamond drilling	-	31,423.00
Underground diamond drilling	$412.00	2,046.00
Total	$412.00	$79,909.00
Government's part	206.00	39,954.50

CC W. H. King (Orig. & 8)
RMEA-2746
BF

WRHardwick:frj

The 103 feet of underground diamond drill hole, that was completed in November, is in accordance with the provisions of the contract as amended, and is approved. It is recommended that the operator be paid.

This contract will terminate on May 18, 1955.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

December 16, 1954

Mr. Walter R. Storms, Chief
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re; Docket No. DMEA-2746
Contract Idm E522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm E522 for the full month of November.

DRIFTING. No drifting or crosscutting was done during the month under the DMEA contract. During November 11.17 tons of ore averaging 1.46% Cu, 6.38% Zn were milled from the 400 Level W 200 Stope (tonnage and grade corrected to mill heads from car counts and grab samples).

DIAMOND DRILLING. Diamond drill hole MU 168 (DMEA No. 20) was completed at a depth of 167'. Log and section was enclosed with letter of November 24, 1954.

Very truly yours,

CORONADO COPPER AND ZINC COMPANY

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG-c

4 cos to Mr. W. R. Storms
1 cc Mr. George Dub
1 cc Mine Office

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of ~~November~~ October, 1954 Docket No. DMEA 2746 Contract No. IDM E 522

Operator's Name Coronado Copper & Zinc Company Minerals Copper & Zinc

Address Box 44 Dragoon, Arizona

Contract Amount, $ 99,050.00 Government Participation: 50% Amount, $ 49,525.00

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 Surface		31423.00	31423.00			
Bulldozing Underground	566.00	1068.00	1634.00			
Crosscutting		10620.00	10620.00			
Drifting	1420.00	34,400.00	35,820.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$1986.00	77,511.00	79,497.00	1986.00	77511.00	79,497.00

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

Date Nov. 20, 1954 Payee Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

*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:

$ 993.00

Signature [signature] (Authorized Certifying Officer)

Date 1-19-1955 Vou. No. DMA 55-56

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. DMF 520 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engr. Date 11/29/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Berk.

Signature W. M. Craven Title Executive Officer Date JAN 18 1955

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
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1954 Docket No. DMEA 2746 Contract No. IDM E 522
Operator's Name Coronado Copper & Zinc Company Minerals Copper & Zinc
Address Box 44 Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	feet	1420.00	35.5	35,820.00	895.5	40.00	1520	$40.00
Crosscutting	feet			10,620.00	265.5	40.00		
Raising								
Shafts								
Winzes								
Drilling: Core AX	feet			12,190.50	2709		9060	4.50
" Churn EX	feet			19,232.50	5497			3.50
Auger EX under ground	feet	566.00	141.5	1634.00	408.5			4.00
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		1986.00		79,497.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		1,986.00		79,497.00				

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 Nov. 20, 1954 Operator Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

224 New Customhouse
Denver 2, Colorado

January 18, 1955

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 1954 (Copper-Zinc), Contract Idm-E522. Coronado Copper and Zinc Co's. Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona-Operator's Monthly Progress Report for the period October, 1954

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 per cent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report.....Nov. 20, 1954
Date received in Field Office.....Nov. 24, 1954
Date received in Region Office.....Dec. 1, 1954

Held in Region Office pending receipt of royalty settlement.

W. M. TRAVER,

W. M. Traver

RDB:pw

ADMINISTRATIVE OFFICE REGION III
JAN 18 1955
BUREAU OF MINES
DENVER, COLORADO

cc: Subject
Chron
Sec. Op. Comm.(2)
Storms

November 29, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : October 1954 Progress Report, DMEA Contract DMs-E522, Docket DMEA-2746, Cerrosulo Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;

(2) Operator's Narrative report with 2 maps and drill hole log;

(3) Forms MF-104 and MF-104A.

Also enclosed are 4 extra copies of our engineer's report.

As all work was in accordance with terms of the contract and its amendments, I recommend that the Government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. King (8)
DMEA-2746
RF

WRStorms:frj

November 29, 1954

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for October 1954, Docket DMEA-2746, Contract IdM-2622, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic mine was visited on November 15, 1954. Fred E. Gray was not at the mine but the progress was measured with the assistance of his staff.

The operator reports 35.5 feet of drifting on the 400 level. One diamond drill hole (No. 18) was completed and the second (No. 20) was partly completed for a total of 141.5 feet of NX underground diamond drill hole. The drift and the core from the drill holes were examined on November 15, 1954. They are in accordance with the terms of the contract, including Amendment No. 3.

The status of the contract as of October 31, 1954 is as follows:

	October	Total
Drifting and crosscutting	$1,139.00	$46,440.00
Surface diamond drilling	———	31,423.00
Underground diamond drilling	856.00	1,624.00
Total	$1,986.00	$79,487.00
Government's part	$993.00	$39,748.50

No ore was discovered in October. A total of 533.62 tons of ore was reported to have been mined from the project area during October.

Mr. Gray has requested authorization to drill two additional short holes underground. This will complete the project insofar as presently authorized by the contract.

This contract will expire on May 18, 1955.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

CC W. H. King (orig.& 8)
DMEA-2746
MF

WHHardwick:rj

November 19, 1954

Mr. Walter R. Storms, Chief
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA-2746
Contract Idm E522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm E522 for the full month of October.

DRIFTING. (See progress map). During the month the 400 Level West Drift was advanced 35.5' to Station 415 N plus 56.5. All of this advance was in the DMEA participation area. Drifting was continued in siliceous limestone to a bedding fault at Station 415 N plus 23'. Displacement of this fault is unknown, but it is probably minor. West of this fault, to the face at the end of the month (Station 415 N plus 56.5'), was limestone. During October 533.62 tons of ore averaging 2.00% Cu, 6.93% Zn were milled from the 400 West 200 and 500 WF 320 Stopes in the participation area (tonnage and grade corrected to mill heads from car counts and grab samples).

DIAMOND DRILLING. Two underground holes, MU 155 and MU 158 (DMEA Nos. 19 and 20) were drilled during the month. Hole No. 155 (DMEA 19) cut siliceous limestone poor garnet to 17', limestone fair garnet to 26', limestone with bands of fair garnet to 39', some hornfels bands to 50' and tactite to the end of the hole at 77.5'. Hole No. 158 (DMEA 20) cut shaley limestone to 26' and limestone to the present bottom at 64'.

Very truly yours,

CORONADO COPPER AND ZINC COMPANY,

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG-c

4 cos to Mr. W. R. Storms
1 co Mr. George Dub
1 co Mine Office

Form MF-104 (Rev.) April 1952)

Budget Bureau No. 42-R1036.5

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

Month of September, 1954 Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc

Address P. O. Box 44, Dragoon, Arizona

Contract Amount, $ 99,050.00 Government Participation: 50 % Amount, $ 49,525.00

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 Surface		$31,423.00	$31,423.00			
~~Bulldozing~~ Underground		1,068.00	1,068.00			
Crosscutting		10,620.00	10,620.00			
Drifting	$4660.00	29,740.00	34,400.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$4660.00	72,851.00	$77,511.00	*4660.00	72851.00	77511.00

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

Date Oct. 19, 1954 Payee Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

*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:

$ 2830.00

Signature Randell R. Cooper (Authorized Certifying Officer)

Date 11/9/54 Vou. No. DMA-55-32

(See other side)

* Plus 500.00 withheld on June voucher

(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. 1mE522 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date 11/1/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature John F. Shaw for W. H. King Title Executive Officer Date NOV 3 1954

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 6 1954

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 195 4 Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc

Address P. O. Box 44, Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet	$4,660.00	116.5	$34,400.00	860.0	$40.00	1520	$40.00
Crosscutting	"			10,620.00	265.5	40.00		
Raising								
Shafts								
Winzes								
Drilling: Core AX	"			12,190.50	2709	$ 4.50	8500	4.50
Churn EX	"			19,232.50	5495	3.50		3.50
Auger EX (Underground)	"			1,068.00	267	4.00		4.00
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$4,660.00		$77,511.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$4,660.00		$77,511.00				

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

Date Oct. 19, 1954 Operator Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 872894

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

224 New Customhouse
Denver 2, Colorado

November 3, 1954

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Company, Cochise County, Arizona - Operator's Monthly Progress Report for the month of September 1954

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 percent of the amount reported by the operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

In addition reference is made to our memorandum of July 26, 1954 whereby we forwarded the Operator's Monthly Progress Report for the month of June 1954 and instructed you to withhold from reimbursement to the operator the amount of $500.00 pending resumption of operations or until all requirements relative to closing of the account had been accomplished. Work has been resumed under the contract, therefore we now recommend that the $500.00 withheld from reimbursement to the operator be reinstated and included with the reimbursement on the subject report.

Remarks:

Date of operator's report..... 10-19-54
Date report received in B.O.M. Branch Office.. 10-22-54
Date report received in Regional Office..... 11-3-54

Enclosures

for W. H. King

JWT:jp
cc Subject
Chron
Sec. to Oper. Comm. (2)
WRStorms
JWTownsend

November 1, 1954

Memorandum

To : Walter R. Storms, Chief, Mining Methods Branch, Mining Division, Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for September 1954, Docket DMEA-2746, Contract DMe-2522, Cerrosuda Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic mine was visited on October 4, 1954. Fred E. Grey, Mine Manager, was at the mine and the progress was discussed with him.

This contract was inactive during the latter part of July and all of August 1954. The operator requested permission to do additional drifting and underground diamond drilling on the 400 level and this request was approved by the DMEA Field Team, Region IV.

The additional work was started on September 7, 1954 and when the drift was measured on October 4, 1954, it had been advanced 135 feet. The operator states that 116.5 feet of this advance was completed in September. No other work was completed on the contract during September 1954.

The status of the contract as of September 30 is as follows:

	September	Total
Drifting & crosscutting	$4,660.00	$45,020.00
Surface diamond drilling	—	31,423.00
Underground diamond drilling	—	1,068.00
Total	$4,660.00	$77,511.00
Government's part	$2,330.00	$38,755.50

CC W. H. King (Orig. & 8)
DMEA-2746
DF

WRHardwick:frj

November 1, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : September 1954 Progress Report, BMEA Contract Bm-R522, Docket BMEA-2746, Coronado Copper & Zinc Co.'s Republic Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;

(2) Operator's narrative report with map;

(3) Forms MF-104 and MF-104A.

Also enclosed are 4 extra copies of our engineer's report.

As all work is in accordance with the terms of the contract and its amendments, I recommend that the Government's share be paid; also any funds that have been withheld pending receipt of a final report.

This report was held up while W. R. Hardwick was on other work.

Walter R. Storms

Walter R. Storms

CC W. H. King (8)
BMEA-2746
MF

WRStorms:frj

No ore was discovered in September. A total of 344.87 tons of ore was mined from the project area during September.

On October 4, 1954, Mr. Grey stated that he expected to complete the 150 feet of drift and start diamond drilling during October.

An amount of $500.00 was withheld from the June voucher. The voucher for July indicates $52.50 due the operator. The total amount due the operator is as follows:

Withheld from June voucher	$500.00
Due on July voucher	52.50
Due on September voucher	2,130.00
Total due operator	$2,682.50

It is recommended that the operator be paid this amount.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

October 20, 1954

Mr. Walter R. Storms, Chief
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA-2746
Contract Idm E522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm E522 for the full month of September:

DRIFTING: (See progress map). During the month the 400 Level West Drift was advanced 116.5', to Station 415 B plus 21.0'. All of this advance was in the DMEA participation area. Drifting was continued in garnetite to Station 415-A plus 3', where the Mammoth Fault was encountered. The Mammoth Fault Zone in the west drift was strongly sheared and oxidized, no mineralization. The footwall zone was N 61 E, dipping 35 S, and the hangingwall N 50 E, dipping 40 S. West of the fault, to the face at the end of the month (Station 415-B plus 21'), was siliceous limestone with small masses and thin beds of garnetite. This part of the drift had a bedding fault, which probably had little displacement. During September 344.87 tons of ore averaging 1.81% Cu, 6.26% Zn were milled from the 400 West 200 and 500 WF 320 Stopes in the participation area (tonnage and grade corrected to mill heads from car counts and grab samples).

DIAMOND DRILLING. No diamond drilling was done under the DMEA contract during the month.

Very truly yours,

CORONADO COPPER AND ZINC COMPANY,

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG-o

4 ccs to Mr. W. R. Storms
1 cc Mr. George Dub
1 cc Mine Office

Form MF-[illegible]4 (Rev. April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1954 Docket No. DMEA 2746 Contract No. Idm E 522
Operator's Name Coronado Copper & Zinc Co. Minerals Copper & Zinc
Address Dragoon, Arizona
Contract Amount, $ 99,050.00 Government Participation: 50 % Amount, $ 49,525.00

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 Surface	$105.00	$31,318.00	$31,423.00			
~~Exploring~~ Underground		1,068.00	1,068.00			
Crosscutting		10,620.00	10,620.00			
Drifting		29,740.00	29,740.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$105.00	$72,746.00	$72,851.00	105.00	71,746.00	71,851.00

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

Date Aug. 11, 1954 *Payee Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

*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:

$ 52.50

Signature Randell R. Cooper
(Authorized Certifying Officer)

Date 8-27-54 Vou. No. DMA-55-15
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 24 ES22 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date 8/19/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: R.D.B.

Signature W H King Title Executive Officer Date AUG 24 1954

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

SEP 17 1954

Month of July 1954 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper & Zinc Co. Minerals Copper & Zinc
Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	Feet			$29,740.00	743.5	$40.00	1520	$40.00
Crosscutting	"			10,620.00	265.5	40.00		
Raising								
Shafts								
Winzes								
Drilling: Core AX	Feet	$		12,190.50	2709	4.50	8500	4.50
Churn EX	"	105.00	30	19,232.50	5495	3.50		3.50
Auger EX (Under ground)	"			1,068.00	267	4.00		4.00
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$105.00		$72,851.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$105.00		$72,851.00				

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 August 11, 1954 Operator Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

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

224 New Customhouse
Denver 2, Colorado

August 24, 1954.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746 (Copper-Zinc), Contract No. Idm-E522, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona - Operator's Monthly Progress Report for the period July 1954.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 per cent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

The amount of $500.00 was withheld from payment from the June 1954 report. This is considered sufficient to insure receipt of the Operator's Final Report and 50 per cent of the amount claimed for July 1954 may be paid.

Remarks:

Date of Report	August 11, 1954
Date Received in Field Office	August 16, 1954
Date Received in Regional Office	August 23, 1954

W. H. King

Enclosures

RDB:cwm
cc: Contract
Secretary to the Oper. Comm. (2)
WRStorms
Chron.

August 19, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : July 1954 Progress Report, Docket DMRA-2746, Contract Ida-8522, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;

(2) Operator's narrative report with map, section and drill log;

(3) Forms MP-104 and MP-104A.

Also enclosed are 3 extra copies of our engineer's report.

All work is in accordance with terms of the contract.

As $500 was withheld from the June account, pending termination or additional work under terms of the contract, I recommend that the Government's share of the July costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. King (7)
DMRA-2746
DF

WRStorms:fvj

August 19, 1954

Memorandum

To : Walter R. Sterms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for July 1954, Docket DMEA-2746, Contract Idm-8522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic Mine was visited on August 9, 1954. Arthur Baker III, geologist, assisted in measuring the progress for July and a proposed amendment was discussed with Mr. Fred K. Gray, manager.

During July, surface diamond drill hole No. 18 was completed from a depth of 660 feet to a depth of 690 feet. This completes the currently authorized surface drilling. The 30 feet of prospect drill hole that was completed in July was EX size for which the contract provides an agreed estimated cost of $3.50 per foot.

The costs of the contract are as follows:

	July	Total
Drifting and crosscutting	---	$40,360.00
Surface diamond drilling	$105.00	31,423.00
Underground diamond drilling	---	1,068.00
Total	$105.00	$72,851.00
Government's part	$52.50	$36,425.50

No ore was discovered in July. The bottom 30 feet of drill hole No. DMEA-18 was in garnetized tactite, but showed no ore.

During July the operator mined 256.45 tons of ore from a small ore body that was discovered by the project in the 400 level drift.

CC W. H. King (Orig. & 7)
DMEA-2746
DF

WRHardwick:frj

The ore mined to date is as follows:

Month	Tons	Percent Copper	Percent Zinc	Royalty paid
Oct. 1953	458.93	1.68	4.97	$254.95
Nov.	220.00	1.65	6.43	127,97
Dec.	197.24	1.38	5.44	100.28
Jan. 1954	240.53	2.65	7.63	210.73
Feb.	194.57	2.31	7.74	149.75
Mar.	401.18	1.63	7.11	—
Apr.	174.04	1.30	6.20	—
May	390.31	1.47	6.61	—
Jan.	150.31	1.73	7.07	—
July	256.45	1.42	6.11	—
Total	2,683.56	1.70	6.41	$843.68

An amount of $500.00 was withheld from the June voucher. The operator has requested authority to do additional work on the project under the contract. If the additional work is authorized, it is recommended that the operator be paid the amount due for July in addition to the $500.00 that was withheld in June after additional work has been started.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

August 11, 1954

Mr. Walter R. Storms, Chief
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA 2746
Contract Idm E522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm E522 for the full month of July:

DRIFTING. No drifting or crosscutting was done this month. 256.45 tons of ore averaging 1.42% Cu, 6.11% Zn were milled from the 400 W 200 stope in the ore near Station 427 (tonnage and grade corrected to mill heads from car counts and car grab samples.

DIAMOND DRILLING. Surface DDH 119 (DMEA No. 18) was completed at a depth of 690'. The 30' drilled this month were in fairly-well garnetized siliceous limestone. This hole finished the drilling presently authorized under the DMEA contract.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG:rk

4 cos to Mr. W. R. Storms
1 co Mr. George D. Dub
1 co Mine Office

Form MF-1044 (Rev.)
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June 195 4 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper & Zinc Co. Minerals Copper & Zinc
Address Dragoon, Arizona
Contract Amount, $ 99,050.00 Government Participation: 50 % Amount, $ 49,525.00

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 Surface	$4496.00	$26,822.00	$31,318.00			
~~Bulkhead~~ Underground		1,068.00	1,068.00			
Crosscutting		10,620.00	10,620.00			
Drifting		29,740.00	29,740.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$4496.00	$68,250.00	$72,746.00			

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

Date July 15, 1954 Payee Coronado Copper & Zinc Co.

Per M. E. Gray Title Mine Manager

*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:

$ 1748 00

Signature Randel R. Cooper
(Authorized Certifying Officer)

Date 7-30-54 Vou. No. DMA-55-10

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. dm-F522 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date 7/22/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W H King Title Executive Officer Date JUL 26 1954

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-101A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of X June 1954 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper & Zinc Co. Minerals Copper & Zinc
Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet			$29,740.00	743.5	$40.00	1520	$40.00
Crosscutting	"			10,620.00	265.5	40.00		
Raising								
Shafts								
Winzes								
Drilling: Core AX	Feet	$765.00	170	12,190.50	2709	4.50	8500	4.50
Churn EX	"	$3731.00	1066	19,127.50	5465	3.50		3.50
Auger Ex (Underground)	"			1,068.00	267	4.00		4.00
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$4496.00		$72,746.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$4496.00		$72,746.00				

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 July 15, 1954 Operator Coronado copper & Zinc Co.

Per [signature] Title Mine Manager

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION IV

Administrative Audit Difference Statement

Date: July 30, 1954
Payee's Reference: Progress Report June, 1954

Coronado Copper & Zinc Co.
c/o R. W. Moore, President
1206 Pacific Mutual Bldg.
523 W. 6th Street
Los Angeles, Calif.

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed	$ 4496.00
50%	
Difference*	$ 2248.00
* See below -	500.00
Amount Approved	$ 1748.00

The reason for the difference was due to:

* $500.00 withheld pending resumption of operations.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-IV-B & F Form No. 4
4-15-52 D

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

224 New Customhouse
Denver 2, Colorado

July 26, 1954.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Company, Cochise County, Arizona. Operator's Monthly Progress Report for the month of June 1954.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report, except as follows:

Please withhold from reimbursement to the Operator the amount of $500.00 pending resumption of operations or until all requirements relative to closing the account have been accomplished.

Remarks:

Date of the Operator's Report	July 15, 1954.
Date Report received in Bureau of Mines Branch Office	July 19, 1954.
Date Report received in Regional Office	July 26, 1954.

W. H. King

Enclosures

JWT:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WRStorms
Chron.
JWTownsend

July 23, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : June 1954 Progress Report, DMEA Contract Idm-K522, Docket DMEA-2746, Cerrosada Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;
(2) Operator's narrative report with drill log and 2 maps;
(3) Forms MF-104 and MF-104A.

Also enclosed are 3 extra copies of our engineer's report.

All work is in accordance with terms of the contract and its amendments. As only a small amount of work was done under the contract in July and as that work may be the last done under the contract, I recommend that the usual sum be withheld until a final report is received and the remainder of the June amount be paid the company.

Walter R. Storms

Walter R. Storms

CC W. H. King (7)
DMEA-2746
MF

WRStorms:frj

July 23, 1954

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for June 1954, Docket DMEA-2746, Contract Ida-8522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic mine was visited on July 15, 1954. Arthur Baker, III, geologist for the company, assisted in measuring the progress for June.

During June, surface diamond drill hole DMEA No. 17 (company No. 118) was completed from a depth of 161 feet to a depth of 737 feet. Hole No. 18 (company No. 119) was started and had reached a depth of 660 feet on June 30, 1954. Surface drilling in June is summarized as follows:

Hole No.	AX	EX	Total
DMEA 17 (118)	-	576 ft.	576 ft.
DMEA 18 (119)	170 ft.	490 ft.	660 ft.
Total	170 ft.	1,066 ft.	1,236 ft.
Cost	$765.00	$3,731.00	$4,496.00

No ore was discovered in June. During that month, 150.31 tons of ore averaging 1.73 percent copper and 7.07 percent zinc was mined from the 400 W. 200 stope. The total ore mined from ore bodies discovered by the project is as follows:

CC W. H. King (orig. & 7)
DMEA-2746
DF

WRHardwick:frj

Month	Tons	PERCENT COPPER	PERCENT ZINC	KNOWN ROYALTY PAID
Oct. 1953	486.53	1.68	4.97	$334.98
Nov.	236.00	1.65	6.43	137.97
Dec.	197.34	1.38	5.44	100.28
Jan. 1954	240.53	2.65	7.63	210.73
Feb.	194.57	2.31	7.74	149.75
March	401.16	1.63	7.11	—
April	174.04	1.30	6.20	—
May	388.31	1.47	6.61	—
June	180.31	1.73	7.97	—
Total	2,437.11	1.73	6.43	$[illegible].66

When the Republic mine was visited on July 13, 1954, Diamond drill hole number 18 had been completed. This completes all of the exploration program originally contemplated under contract Idm-2321. Actually only 30 feet of NX drill hole ($85.00) will be presented on form MF-104 for July. The costs of the contract are as follows:

	Item	To date
Drifting and crosscutting	—	$40,388.00
Surface diamond drilling	$4,485.00	31,318.00
Underground diamond drilling		1,038.00
Total	$4,485.00	$72,744.00
Government's part	$2,240.00	$36,373.00

Baker was told that payment of a part of this voucher probably would be withheld until a final report is submitted. Fred E. Gray indicated that Coronado Copper and Zinc Co. would do some additional exploration work at its own expense and might then ask for additional Government assistance. Gray was advised to ask for a recess until the company had decided this issue and then to ask for an amendment to the current contract rather than to present a complete new application if additional work were contemplated.

In view of the fact that this will be the last significant reimbursement check to the operator it is recommended that the customary amount be withheld until a final report has been presented by the operator.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

July 15, 1954

Mr. Walter R. Storms, Chief
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA 2746
Contract Idn E522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idn E522 for the full month of June:

DRIFTING. No drifting or crosscutting was done this month. 150.31 tons of ore averaging 1.73% Cu, 7.07% Zn were milled from the 400 W 200 Stope in the ore near Station 427 (tonnage and grade corrected to mill heads from car counts and car grab samples).

DIAMOND DRILLING. Surface DDH 118 (DMEA No. 17) was completed at a depth of 737', and DDH 119 (DMEA No. 18) reached a depth of 660'. DDH 118 (DMEA No. 17) reached the favorable beds at 671', cut 19' of garnetite between 671 and 690, and continued in limestone to the bottom at 737'. DDH 119 (DMEA No. 18) reached the favorable beds at 608', and drilled garnetite to 660'. This hole was not completed on July 1st.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG:rk

4 cos to Mr. W. R. Storms
1 co Mr. George D. Dub
1 co Mine Office

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1954 Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc

Address Dragoon, Arizona

Contract Amount, $ 99,050.00 Government Participation: 50 % Amount, $ 49,525.00

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 Surface	$3325.50	$23,496.50	$26,822.00			
~~Building~~ Underground	184.00	884.00	1,068.00			
Crosscutting		10,620.00	10,620.00			
Drifting		29,740.00	29,740.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$3509.50	$64,740.50	$68,250.00	3509.50	64,740.50	68,250.00

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

Date June 5, 1954 *Payee Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

*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:

$17.54 75

Signature [signature]
(Authorized Certifying Officer)

Date 6/14/54 Voucher No. DMA 54-134

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. dmE-522 in accordance with the terms of the contract.

Signature William R Hardwick Title Mining Engineer Date 6/8/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W H Kung Title Executive Officer Date JUN 11 1954

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

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

Month of May 1954 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet			$29,740.00	743.5	$40.00	1520	$40.00
Crosscutting				10,620.00	265.5	40.00		
Raising								
Shafts								
Winzes								
Drilling: Core Ax	"	$1215.00	270	11,425.50	2539	4.50	8500	4.50
Churn Ex	"	2110.50	603	15,396.50	4399	3.50		3.50
Auger Ex-Underground	"	184.00	46	1,068.00	267	4.00		4.00
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$3509.50		$68,250.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$3509.50		$68,250.00				

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

Date June 5, 1954 Operator Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

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

224 New Customhouse
Denver 2, Colorado

June 11, 1954.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona. Operator's Monthly Progress Report for the month of May 1954.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 per cent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	June 5, 1954
Date Received in Field Office	June 7, 1954
Date Received in Region Office	June 11, 1954

W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WRStorms
Chron.

June 9, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : May 1954 Progress Report, Contract Idm-E522, Docket DMRA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;

(2) Operator's narrative report with drill logs and maps;

(3) Forms MF-104 and MF-104A.

Also enclosed are 2 extra copies of our engineer's report.

As all work is in accordance with the contract and its amendments, I recommend that the Government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
DMRA-2746
DF

WRStorms:frj

June 8, 1954

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for May 1954, Docket DMEA-2746, Contract Idm-E522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic Mine was visited on June 4, 1954. Mr. Arthur Baker, III, geologist for the company, assisted in measuring the progress for May. A possible amendment was discussed with Mr. Fred E. Grey, Manager.

No drifting was done in May. Of the four underground diamond drill holes that were authorized, three were completed in April and the fourth or final hole was completed to a depth of 46 feet in May. This completes the drifting and underground drilling that has been authorized.

Permission was received by the operator from the DMEA Field Team to drill three additional surface drill holes. One of these holes was completed to a depth of 712 feet and a second had reached a depth of 161 feet on June 1, 1954. Surface drilling in May is summarized as follows:

Hole No.	AX	EX	Total feet
16 (117)	120 ft.	592 ft.	712 ft.
17 (118)	150 ft.	11 ft.	161 ft.
Total	270 ft.	603 ft.	873 ft.
Cost	$1,215.00	$2,110.50	$3,325.50

No ore was discovered by either the underground hole or the surface holes. Ten feet of the surface hole was mineralized. This core was split and half was assayed for copper and zinc. The core ran 0.20 percent copper and 3.4 percent zinc.

CC W. H. King (Orig. & 6)
DMEA-2746
DF

WRHardwick:frj

In addition to the hole which the operator is now drilling, it contemplates a third hole from the surface. The operator estimates that there will remain approximately 500 feet of allowable drill hole footage under the present contract when the present hole is completed, and estimates that at least 700 feet will be required to reach the objective which the third hole should explore. Mr. Grey was advised to submit a request for an amendment to cover the additional 200 feet that will be required to complete the hole.

The costs of the contract are as follows:

	May	To date
Drifting and crosscutting	—	$40,360.00
Surface diamond drilling	$3,325.50	26,822.00
Underground diamond drilling	184.00	1,068.00
Total	$3,509.50	$68,250.00
Government's part	$1,754.75	$34,125.00

During May the operator mined 390.31 tons of ore which averaged 1.47 percent copper and 6.61 percent zinc. The total ore mined from ore bodies discovered by the DMEA project is as follows:

Month	Tons	Percent copper	Percent zinc
Oct. 1953	458.93	1.68	4.97
Nov.	220.00	1.65	6.43
Dec.	197.24	1.38	5.44
Jan. 1954	240.53	2.65	7.63
Feb.	194.57	2.31	7.74
Mar.	401.18	1.63	7.11
Apr.	174.04	1.30	6.20
May	390.31	1.47	6.61
Total	2,276.80	1.73	6.40

Records at the Tucson office of the U. S. Bureau of Mines indicate that Coronado Copper and Zinc Co. has made one royalty payment in the amount of $133.38.

The 46 feet of underground diamond drill hole, 270 feet of AX surface diamond drill hole, and 603 feet of EX surface diamond drill hole are in accordance with the provisions of the contract and are approved. It is recommended that the operator be paid the Government's agreed part as provided by the contract.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

CC W.H.King (Orig. & 6)
DMEA-2746
DF

WRHardwick:frj

June 5, 1954

Mr. Walter R. Storms, Chief
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA 2746
Contract Idm 8522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm 8522 for the full month of May:

DRIFTING. No drifting or crosscutting was done this month. 390.31 tons of ore averaging 1.47% Cu, 6.61% Zn were milled from the 400 W 200 Stope in the ore near Station 427 (tonnage and grade corrected to mill heads from car counts and car grab samples).

DIAMOND DRILLING. One underground hole, MU 142 (DMEA No. 12) was drilled during the month. This hole cut garnetite to 29' and limestone to the bottom at 46'. This completed the underground drilling.

Surface diamond drilling was resumed. One hole, DDH 117 (DMEA No. 16) was completed at a depth of 712', and DDH 118 (DMEA No. 17) reached a depth of 161'. DDH 117 (DMEA No. 16) reached the favorable beds at 595', and cut limestone to 615' and garnetite from there to the bottom at 712'. Ten feet of core between 624' and 634' assayed 0.20% Cu, 3.45 Zn.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Grey
Fred E. Grey
Mine Manager

FEG-c

4 cys to Mr. W. R. Storms
1 cc Mr. George Dub
1 cc Mine Office

CORONADO COPPER AND ZINC CO.
Johnson Camp Unit
SURFACE DIAMOND DRILLING FOR
THE MONTH OF MAY, 1954
(Under DMEA Contract No. IDM-E 522)

DDH #117	5/14							Rig arrived
	5/15					1	shift	Setting up (3 men)
	5/16	Sunday						
	5/17	00	to	51	51	1	"	0-20 AX, remainder EX. Two crews.
	5/18	51	"	124	73	2	"	Cemented
	5/19					2	"	6 hrs drilling cement, 10 hrs reaming AX to 120'.
	5/20	124	"	191	67	2	"	5 hrs casing to 120'
	5/21	191	"	271	80	2	"	
	5/22	271	"	366	95	2	"	
	5/23	366	"	396	30	1	"	
	5/24	396	"	468	72	2	"	
	5/25	468	"	538	70	2	"	
	5/26	538	"	591	53	2	"	
	5/27	591	"	656	65	2	"	
	5/28	656	"	708	52	2	"	
	5/29	708	"	712	4	2	"	Finished Moving and setting up.
DDH #118	5/30	00	"	41	41	1	"	
	5/31	41	"	161	120	2	"	Cased to 150'. AX to 150', EX remainder.

Month footage 873 28 shifts

270' drilled AX
603' drilled EX
21 hours Coronado lost time

Arthur Baker III
June 2, 1954

orig - L.A.
1 cc - Continental
1 cc - M.H.
1 cc - F.E.G.
1 cc - engr.
5 cc - DMEA

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April 4 1954 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper & Zinc Co. Minerals Copper & Zinc
Address Dragoon, Arizona
Contract Amount, $ 99,050.00 Government Participation: 50 % Amount, $ 49,525.00

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 Contracts:						
Short Form Ax & Ex		$23,496.50	$23,496.50			
Drilling Ex (underground)	$ 884.00		884.00			
Bulldozing		10,620.00	10,620.00			
Crosscutting	160.00	29,580.00	29,740.00			
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):						
TOTALS	$1044.00	$63,696.50	$64,740.50	1044.00	63,696.50	64,740.50

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

Date May 10, 1954 *Payee Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

*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:

$ 522.00

Signature Randel R. Cooper
(Authorized Certifying Officer)

Date 5-21-54 Vou. No. DMA-54-127
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 1 Jan 1 5 5 7 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date 5/17/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: W.R.B.

Signature W H King Title Executive Officer Date MAY 20 1954

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of April 1954 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper & Zinc Co. Minerals Copper & Zinc
Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	Feet	$ 160.00	4	$29,740.00	743.5	$40.00	1520	$40.00
Crosscutting	Feet			10,620.00	265.5	40.00		
Raising								
Shafts								
Winzes								
Drilling: Core AX	Feet			10,210.50	2269	4.50	8500	4.50
Churn Ex	"			13,286.00	3796	3.50		3.50
Auger Ex (underground)								
Stripping	"	884.00	221	884.00	221	4.00		4.00
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$1,044.00		$64,740.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$1,044.00		$64,740.50				

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

Date May 10, 1954 Operator Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

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

REMARKS:

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

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

224 New Customhouse
Denver 2, Colorado

May 20, 1954.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper-Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Arizona. Operator's Monthly Progress Report for the period April 1954.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 per cent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	May 10, 1954.
Date Received in Field Office	May 13, 1954.
Date Received in Region Office	May 20, 1954.

W H King
W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Operating Comm. (2)
WRStorms
Chron.

May 17, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : April 1954 Progress Report, DMEA Contract Idm-E522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;

(2) Operator's narrative report with drill hole logs and maps.

(3) Forms MF-104 and MF-104A.

Also enclosed are 2 extra copies of our engineer's report.

As all work is in accordance with the terms of the contract, I recommend that the Government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
DMEA-2746
MF

WRStorms:frj

Memorandum May 17, 1954

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for April 1954, Docket DMEA-2746, Contract Idm-8522, Coronado Copper&Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic Mine was visited on May 5, 1954. Mr. Arthur Baker III, geologist for the company, assisted in measuring the progress for April.

The west 400 hanging wall drift was advanced 4 feet in April to the boundary of the DMEA project. With this advance the total drifting and crosscutting to date is as follows:

	Drift	Crosscut	Total	Cost
To March 31, 1954	739.5 ft.	265.5 ft.	1,005.0 ft.	$40,200.00
April advance	4.0	—	4.0	160.00
To April 30	743.5 ft.	265.5 ft.	1,009.0 ft.	$40,360.00

In March, the Operators request for permission to drill four underground diamond drill holes was approved, and in April three of these holes were completed as follows:

Hole No.	Depth	Cost
DMEA-13	64	$ 256.00
DMEA-14	66	264.00
DMEA-15	91	364.00
Total	221	$ 884.00

In addition to underground drilling, the contract provided for surface diamond drilling. A total of 6,065 feet of surface diamond drilling has been completed at a cost of $23,496.50.

The total costs of the project to date are as follows:

CC W. H. King (Orig. & 6)
DMEA-2746
DF

WRHardwick:frj

	April	To date
Drifting and crosscutting	$160.00	$40,360.00
Surface diamond drilling	-	23,496.50
Underground diamond drilling	884.00	884.00
Total	$1,044.00	$64,740.50
Government's part	$522.00	$32,370.25

No ore was discovered during April by the drift or underground drill holes. Mr. Grey stated that he does not expect to do any further drifting on the 400 level.

During April, the Operator reported mining 174.04 tons of ore that averaged 1.30 percent copper and 6.20 percent zinc from the 400 west 200 stope. The ore discovered under the contract and mined to date is listed below by months:

	Tons	Percent Copper	Percent Zinc
October 1953	458.93	1.68	4.97
November	220.00	1.65	6.43
December	197.24	1.38	5.44
January 1954	240.53	2.65	7.63
February	194.57	2.31	7.74
March	401.18	1.63	7.11
April	174.04	1.30	6.20
Total	1,886.49	1.79	6.32

Records at the Tucson office of the U. S. Bureau of Mines indicate that Coronado Copper and Zinc Co. has made one royalty payment in the amount of $135.38.

The operator has presented forms MF-104 and MF-104A, together with a progress map and narrative report. Payment has been requested for the Government's agreed part, or 50 percent of the costs of the 4 feet of drift and 221 feet of underground diamond drill hole that was completed in April. This work was in accordance with the terms of the project and is approved. It is recommended that the operator be paid as provided by the contract.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

May 10, 1954

Mr. Walter R. Storms, Chief
U.S. Bureau of Mines
P.O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA-2746
Contract Idm E522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm E522 for the full month of April:

DRIFTING. During the month the 400 W NW. Drift was advanced 7', to Station 449 plus 39.5'. Only 4' of this advance was in the DMEA participation area. There was no change in the rock. The drifting and crosscutting under Stage I of the DMEA contract is now completed. During April 174.04 tons of ore averaging 1.30% Cu, 6.20% Zn were milled from the 400 West 200Stope in the ore near Station 427 (tonnage and grade corrected to mill heads from car counts and car grab samples.

DIAMOND DRILLING. Three under ground holes, MU 135, 137 and 140 (DMEA Nos. 15, 14 and 13) were drilled during the month. Hole No. MU 135 (DMEA 15) cut garnetite to 22' and limestone and fair garnetite to the bottom at 91'. Hole No. MU 137 (DMEA 14) cut limestone and poor to fair garnetite to the bottom at 66'. Hole No. MU 140 (DMEA 13) cut low-grade ore to 9' and limestone and fair garnetite to the bottom at 64'.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG-o

4 ccs to Mr. W. R. Storms
1 cc Mr. George Dub
1 cc Mine Office

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March, 1954 Docket No. DMEA 2746 Contract No. Lim 3522
Operator's Name Coronado Copper & Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona
Contract Amount, $ 99,050.00 Government Participation: 50% Amount, $ 49525.00

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 AZ XX		23,496.50	23,496.50			
Bulldozing		10,620.00	10,620.00			
Crosscutting	2420.00	27,160.00	29,580.00			
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):						
TOTALS	$2420.00	$61276.50	$63696.50			

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

Date April 12, 1954 *Payee Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

*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:

$ 1210.00

Signature [signature]
(Authorized Certifying Officer)

Date 4/20/54 Vou. No. DMA 54-111

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. DMEA 522 in accordance with the terms of the contract.

Signature William R. Hardwick WRH Title Mining Engineer Date 4/14/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: R. DB.

Signature W S Kenny Title Executive Officer Date APR 19 1954

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March 195 54 Docket No. DMEA 2746 Contract No. Idm 8522
Operator's Name Coronado Copper & Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet	$2420.00	60.5	$29,580.00	739.5	$40.00	1520	$40.00
Crosscutting				10,620.00	265.5	40.00		
Raising								
Shafts								
Winzes								
Drilling: Core AX	Feet			10,210.50	2269	4.50	8500	4.50
Churn AX	"			13,284.00	3796	3.50		3.50
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$2420.00		$63,696.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$2420.00		$63,696.50				

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 April 12, 1954 Operator Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

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

REMARKS:

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

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

224 New Customhouse
Denver 2, Colorado

April 19, 1954.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Johnson's Camp, Cochise County, Arizona. Operator's Monthly Progress Report for the period March 1954.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 per cent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	April 12, 1954.
Date Received in Field Office	April 14, 1954.
Date Received in Region Office	April 16, 1954.

W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WRStorms
Chron.

April 14, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : March 1954 Progress Report, DMEA Contract Idm-5522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate are

(1) Bureau of Mines engineer's report;
(2) Operator's narrative report with map;
(3) Forms MF-104 and MF-104A.

Also enclosed are 2 extra copies of our engineer's report.

As all work is in accordance with the terms of the contract, I recommend that the Government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
DMEA-2746
DF

WRStorms:frj

April 14, 1954

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for March 1954, Docket DMEA-2746, Contract XDm-8522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic mine was visited on April 9, 1954. Mr. Arthur Baker, III, Geologist for the company, assisted in measuring the progress for March.

The 400 west hanging wall drift was advanced 60.5 feet during the month of March under the DMEA contract. No diamond drilling was done under the contract in March.

On March 17, Mr. Fred E. Grey, manager of the company, requested authorization to drill four holes from the 400 west hanging wall drift. This request was approved by the Field Team, Region IV, on March 29, and Mr. Baker stated that the company would probably start this work in April.

With the advance of 60.5 feet during March, the total drifting and crosscutting to date is as follows:

	Drift	Crosscut	Total	Cost
To February 28, 1954	679.0 ft.	265.5 ft.	944.5	$37,780.00
March	60.5	—	60.5	2,420.00
To March 31, 1954	739.5	265.5	1,005.0	40,200.00

In addition to underground work the contract provided for surface diamond drilling. A total of 6,065 feet of surface drilling has been completed at a cost of $23,496.50.

The total costs to date are as follows:

	February	To Date
Drifting and crosscutting	$2,420.00	$40,200.00
Surface diamond drilling	—	23,496.50
Underground diamond drilling	—	—
Total	$2,420.00	$63,696.50
Government's part	$1,210.00	$31,848.25

CC W. H. King (Orig. & 6)
DMEA-2746
DF

WRHardwick:fri

No ore was discovered by the drifting during March. The operator continued to work in the 400 west 200 stope and has started a new raise. During March the operator reports 401.18 tons of ore with a grade of 1.63 percent copper and 7.11 percent zinc. The ore discovered under the contract and mined to date is listed below by months:

	Tons	Percent Copper	Percent Zinc
October 1953	458.93	1.68	4.97
November	230.00	1.65	5.43
December	197.34	1.38	5.44
January 1954	240.53	2.65	7.63
February	194.57	2.31	7.74
March	401.18	1.63	7.11
Total	1,712.45	1.84	6.38

Records at the Tucson office of the U. S. Bureau of Mines indicate that Coronado Copper and Zinc Co. has made one royalty payment in the amount of $135.38.

The operator has presented Forms MF-104 and MF-104A, together with a map and narrative report for the month of March. Payment has been requested for the Government's agreed part or 50 percent of the cost of the 60.5 feet of drift, that was completed in March, at the agreed unit cost of $40.00 per foot. The 60.5 feet of drifting was in accordance with the provisions of the contract and is approved. The total cost of the 60.5 feet of drift was $2,420.00 and the Government's agreed part is $1,210.00. It is recommended that the operator be paid this amount as provided by the contract.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

April 12, 1954

Mr. Walter R. Storms, Chief
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA-2746
Contract Idm X522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm X522 for the full month of March:

DRIFTING. (See progress map). The 400 Level West Hanging Wall Drift was continued, but various difficulties slowed the advance. The white tactite-garnetite contact was offset about 10' by a fault in the last few feet of last month's drifting. The drift was turned to reach the contact again, and then followed the contact as usual. Total advance for the month was 60.5', with the face on April 1st being at station 449 plus 32.5'. During March 401.18 tons of ore averaging 1.63% Cu, 7.11% Zn were milled from the 400 West 200 Stope in the ore near Station 427 (tonnage and grade corrected to mill heads from car counts and car grab samples).

DIAMOND DRILLING. No diamond drilling was done under the DMEA contract during the month.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG:rk

4 cos to Mr. W. R. Storms
1 cc Mr. George Dub
1 cc Mine Office

U. S. BUREAU OF MINES
APR 1 2 1954
TUCSON, ARIZONA

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February, 1954 Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc

Address Dragoon, Arizona

Contract Amount, $ 99,050.00 Government Participation 50 % Amount, $49,525.00

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 Ax & Ex		$23,496.50	$23,496.50			
Bulldozing						
Crosscutting		10,620.00	10,620.00			
Drifting	$2980.00	24,180.00	27,160.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$2980.00	$58,296.50	$61,276.50	2980.00	58,296.50	61,276.50

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

Date March 9 *Payee Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

*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:

$1490.00

Signature [signature]
(Authorized Certifying Officer)

Date 3/24/54 Vou. No. 54-96

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. dm E 522 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date 3/18/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: R.A.B.

Signature John F. Shaw for W.H. King Title Executive Officer Date MAR 22 1954

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

RECEIVED
MAR 29 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of February 1954 Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc

Address Dragoon, Arizona

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting	Feet	$2,980.00	74.5	$27,160.00	679.0	$40.00)	1520	$40.00
Crosscutting				10,620.00	265.5	40.00)		
Raising								
Shafts								
Winzes								
Drilling: Core AX	Feet			10,210.50	2269	4.50)	8500	4.50
Churn EX	Feet			13,286.00	3796	3.50)		3.50
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		$2,980.00	74.5	$61,276.50				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		$2,980.00		$61,276.50				

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

Remarks:

Date March 9, 1954 Operator Coronado Copper and Zinc Company

Per W. E. Gray Title Mine Manager

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

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

224 New Customhouse
Denver 2, Colorado

March 22, 1954.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Company's Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona. Operator's Monthly Progress Report for the period February 1954.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for per cent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	March 9, 1954.
Date Received in Field Office	March 12, 1954.
Date Received in Region Office	March 22, 1954.

John F. Shaw
John F. Shaw
For W. H. King

Enclosures

RDB: cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WRStorms
Chron.

March 18, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : February 1954 Progress Report, Contract Idm-E522, Docket DMEA-2746, Cananea Copper Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, CochiseCounty, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineers report;

(2) Operator's narrative report with map;

(3) Forms MF-104 and MF-104A.

Also enclosed are 2 extra copies of our engineer's report.

As all work is in accordance with the terms of the contract, I recommend that the Government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
DMEA-2746
DF

WRStorms:frj

March 18, 1954

Memorandum

To : Walter R. Stearns, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for February 1954, Docket DMEA-2746, Contract Idm-8522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

John M. Faick, Geologist, U. S. Geological Survey, and the undersigned visited the Republic Mine on March 17, 1954. Royalty payments, an amendment to the contract to authorize additional surface drilling, and underground drilling authorized by Stage II of the contract were discussed with Mr. Fred E. Grey, mine manager, and Mr. Arthur Baker III, Geologist for the company. Mr. Baker assisted in measuring the progress for February and examining the 400 W. 200 Raise which is in ore that was discovered by the project.

This contract provides for underground crosscutting and drifting and surface diamond drilling.

Surface Diamond Drilling

Stage I of the contract provides for "11 EX or AX size drill holes totaling approximately 6,500 feet but averaging 590 feet per hole". In November 1953, the operator had completed 11 holes for a total of 6,065 feet at a cost of $23,496.50. No ore was discovered by this drilling but subsurface geological features were found that appeared to have a possible significance on ore deposition. Mr. Arthur Baker is making a detailed geological survey. Although not yet complete, this survey has developed information that indicates two, or possibly three additional drill holes from the surface might be successful in finding ore. Mr. Grey was advised to submit a request for an amendment to the contract to allow these holes. As the work now stands it appears that this amendment will not increase the initial total estimated cost of the project.

CC W. H. King (Orig. & 6)
DMEA-2746
DF

WRHardwick:frj

In addition to the above surface drilling, Mr. Grey proposed some underground drilling which is authorized under Stage II of the contract. He was advised to submit a request for approval to start this work.

No diamond drilling was done in February.

Drifting and Crosscutting

During February, the 400 level west hanging wall drift was advanced a total of 74.5 feet. The total drifting and crosscutting to date is as follows:

	Drift	Crosscut	Total	Cost
To January 31,1954	604.5 ft.	265.5 ft.	870.0 ft.	$34,800.00
February 1954	74.5 ft.	-	74.5 ft.	2,980.00
To February 28,1954	679.0 ft.	265.5	944.5	$37,780.00

The total costs for the month of February are:

	February	To Date
Drifting and crosscutting	$2,980.00	$37,780.00
Diamond drilling	—	23,496.50
Total	$2,980.00	$61,276.50
Government's part	$1,490.00	$30,638.25

During the month of February, the operator continued work in the 400 W. 200 raise at its own expense in ore discovered by the project. The total ore mined to date is as follows:

	Tons	Percent copper	Percent zinc
October	458.93	1.68	4.97
November	220.00	1.65	6.43
December	197.24	1.38	5.44
January	240.53	2.65	7.63
February	194.57	2.31	7.73
Total	1,311.27	1.90	6.15

Records at the Tucson office of the U. S. Bureau of Mines indicate that the Coronado Copper & Zinc Co. has made one royalty payment in the amount of $135.38. Royalty payments were discussed with Mr. Grey on March 17 and he stated that he was cognizant of the fact that the company was behind with respect to royalty payments, but that these came under the direction of Mr. C. W. Six, treasurer of the company, who had been very busy in connection with income tax work and who very soon would be able to get the royalty payments straightened out.

The operator has presented Forms MF-104 and MF104A, together with a map and narrative report for the month of February. Payment is requested for the Government's agreed part, or 50 percent of the cost of the 74.5 feet of drift that were completed in February. The total cost of this work was $2,980.00 and the Government's part is $1,490.00. This drifting was in accordance with the terms of the contract and is approved. It is recommended that the operator be paid $1,480.00.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

March 9, 1954

Mr. Walter R. Storms, Chief
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA-2746
Contract Idm 8522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm 8522 for the full month of February:

DRIFTING. (See progress map). The 400 Level West Hanging Wall Drift was continued on a one shift per day basis, following the contact between white tactite and garnetite. The contact was offset about three feet by a small fault at Station 445 plus 9 feet, and again at Station 447 plus 5 feet. Total advance for the month was 74.5 feet, with the face on March 1st being at Station 447 plus 13 feet. During the month 194.57 tons of ore averaging 2.31% Cu, 7.73% Zn were milled from the 400 W 200 Raise in the ore near Station 427 (tonnages and grade corrected to mill heads from car counts and car grab samples).

DIAMOND DRILLING. No diamond drilling was done under the DMEA contract during the month.

Very truly yours,

CORONADO COPPER AND ZINC COMPANY

By Fred E. Gray
Fred E. Gray - Mine Manager

FEG-o

4 cos to Mr. W. R. Storms
1 co Mr. George Dub
1 co Mine Office

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

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

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

Month of January, 1954 Docket No. DMEA 2746 Contract No. Idm E 522
Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona
Contract Amount, $99,050.00 Government Participation: 50 % Amount, $ 49,525.00

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 Ax & Ex		$23,496.50	$23,496.50			
Bulldozing						
Crosscutting		10,620.00	10,620.00			
Drifting	$ 4980.00	19,200.00	24,180.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$4980.00	$53,316.50	$58,296.50	4980.00	53,316.50	58,296.50

I certify that the above bill is correct and just and that payment therefor has not been received.
Date Feb. 6, 1954 Payee Coronado Copper and Zinc Co.
Per Mel G. Gray Title Mine Manager

*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:
$2490.00
Signature
(Authorized Certifying Officer)
Date 2/26/54 Voucher No. DMA 54-84
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. dmE 522 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date 2/11/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: WRH R.B.B.

Signature W. H. King Title Executive Officer Date FEB 15 1954

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
Received
FEB 8 - 1954

Month of Jan. 1954 Docket No. DMEA 2746 Contract No. Idm E 522
Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet	$4980.00	124.5	$24,180.00	604.5	$40.00)	1520	$40.00
Crosscutting				10,620.00	265.5	40.00)		
Raising								
Shafts								
Winzes								
Drilling: Core Ax	Feet			10,210.50	2269	4.50)	8500	4.50
Churn EX	Feet			13,286.00	3796	3.50)		3.50
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$4980.00	124.5	$58,296.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$4980.00		$58,296.50				

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 Feb. 6, 1954 Operator Coronado Copper and Zinc Co.

Per [signature] Title Mine Manager

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

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

224 New Customhouse
Denver 2, Colorado

February 15, 1954.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona. Operator's Monthly Progress Report for the period January 1954.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 per cent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	February 6, 1954.
Date Received in Field Office	February 10, 1954.
Date Received in Region Office	February 15, 1954.

W. H. King

W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WRStorms
Chron.

February 11, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : January 1954 Progress Report, Contract Idm-E522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;

(2) Operator's narrative report with map;

(3) Forms MF-104 and MF-104A.

Also enclosed are 2 extra copies of our engineer's report.

As all work is in accordance with the terms of the contract, I recommend that the Government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
DMEA-2746
DF

WRStorms:frj

February 6, 1954

Mr. Walter R. Storms, Chief
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket No. DMEA-2746
Contract IDM E522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm E522 for the full month of January:

DRIFTING. (See progress map). The 400 Level West Hanging Wall Drift was continued along the contact between white tactite and poorly garnetized limestone, offset about three feet by two small faults. Total advance for the month was 124.5', with the face on February 1st being at Station 445 plus 8'. During the month 240.53 tons of ore averaging 2.65% Cu, 7.63% Zn were milled from the 400 W 200 Raise in the ore near Station 427 (tonnage and grade corrected to mill heads from car counts and car grab samples).

DIAMOND DRILLING. No diamond drilling was done under the DMEA contract during the month.

Very truly yours,

CORONADO COPPER AND ZINC COMPANY

By Fred E. Gray
Fred E. Gray - Mine Manager

FEG-c

4 cos to Mr. W. R. Storms ✓
1 cc Mr. George Dub
1 cc Mine Office

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
FEB 4 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of December 1953 Docket No. DMEA 2746 Contract No. Idm B 522
Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona
Contract Amount, $ 99,050.00 Government Participation: 50 % Amount, $ 49,525.00

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: Ax & Ex		$23,496.50	$23,496.50			
Drilling						
Bulldozing		10,620.00	10,620.00			
Crosscutting	$4,520.00	14,680.00	19,200.00			
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):						
TOTALS	$4,520.00	$48,796.50	$53,316.50	4,520.00	48,796.50	53,316.50

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

Date Jan 19, 1954 *Payee Coronado Copper & Zinc Company

Per [signature] Title Mine Manager

*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:

$ 2260.00

Signature [signature]
(Authorized Certifying Officer)

Date 1/25/54 Voucher No. 54-74

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. DMF 522 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date 1/14/53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: R. D. B.

Signature W. H. King Title Executive Officer Date JAN 20 1954

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of December 195 3 Docket No. DMEA 2746 Contract No. Ida E 522

Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc

Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet	$4520.00	113	$19,200.00	480	$40.00)	1520	$40.00
Crosscutting				10,620.00	265.5	40.00)		
Raising								
Shafts					745			
Winzes								
Drilling: Core Ax	Feet			10,210.50	2269	4.50)	8500	4.50
Churn Ex	Feet			13,286.00	3796	3.50)		3.50
Auger								
Stripping					6065			
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$4520.00	113	$53,316.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$4520.00		$53,316.50				

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 Jan. 9, 1954 Operator Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

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

224 New Customhouse
Denver 2, Colorado

January 20, 1954.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona. Operator's Monthly Progress Report for the period December 1953.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	January 9, 1954.
Date Received in Field Office	January 13, 1954.
Date Received in Region Office	January 18, 1954.

W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WRStorms
Chron.

January 14, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : December 1953 Progress Report, Contract Idm-2522, Docket RMA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;

(2) Operator's narrative report with maps;

(3) Forms MF-104 and MF-104A.

Also enclosed are 2 extra copies of our engineer's report.

As all work is in accordance with the terms of the contract, I recommend that the Government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
RMA-2746
MP

WRStorms:frj

January 14, 1954

Memorandum

To : Walter M. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William H. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for December 1953 Docket DMEA-2745, Contract Idm-8822, Coronado Copper and Zinc Co.'s Republic copper-zinc mine, Cochise County, Ariz.

The Coronado Copper & Zinc Co.'s Republic Mine was visited on January 7, 1954. Mr. Joe Sierakowski, Mine Engineer, assisted in measuring the progress for the month.

In the month of December 1953, the 400 level west hanging wall drift was advanced 113 feet. The favorable beds, which had been displaced by a N. 80° W. fault, again were encountered and followed although no ore was found.

The status of the drifting and crosscutting under the contract is shown by the following tabulation:

	Drift	Crosscut	Total	Cost
Completed by November 30	367 ft.	265.5 ft.	632.5 ft.	$25,300.00
Advance in December	113 ft.	—	113. ft.	4,520.00
Completed to December 31	480 ft.	265.5 ft.	745.5 ft.	$29,820.00

No diamond drilling was done in December. The company geologist is making an extensive surface survey to aid in the location of future prospect drilling. To date, 3,965 feet of diamond drill hole have been completed at a cost of $23,496.50.

The total costs for the month of December are as follows:

	December	To date
Diamond drilling	———	$23,496.50
Drifting	$4,520.00	29,820.00
Total	4,520.00	53,316.50
Government's part	$2,260.00	$26,658.25

CC W. H. King (Orig. & 6)
DMEA-2740
MF

WHHardwick:frj

During the month of December, the operator started a raise and mined 197.24 tons of ore from the area on the 400-level where ore had been discovered in October. No ore was discovered by the drifting in December.

The ore mined to date is as follows:

	Tons	Percent Copper	Percent Zinc
October	458.93	1.68	4.97
November	220.00	1.68	6.43
December	197.24	1.38	5.44
Total	876.17	1.68	5.40

The Coronado Copper and Zinc Company has made one royalty payment in the amount of $135.38. This royalty payment was intended to cover the royalty due the Government on the ore that was mined in October. However, the royalty was computed on the value of the ore as mined and not on the value of the concentrate as sold. The correct method of computing the royalty was explained to Mr. Fred K. Gray, Mine Manager, on January 7, 1954.

The Operator has presented a Form MP-104 on which it claims reimbursement for the Government's agreed portion of the costs of the 113 feet of drifting that were completed in December 1953. An acceptable narrative report and map accompany the voucher. The 113 feet of drifting are in accordance with the provisions of the contract and are approved. The contract provides that the Government reimburse the Operator to the amount of 50 percent of an agreed estimated cost of $40.00 per foot of drifting. The total cost of the 113 feet of drifting that were completed in December, was $4,520.00, and the Government's part of this is $2,260.00. It is recommended that the operator be paid this amount as provided by the contract.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

January 9, 1954

Mr. . Walter R. Storms, Chief
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson 5, Arizona

Re: Docket No. DMEA-2746
Contract Idm-E522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm-E522 for the full month of December:

DRIFTING. (See progress map). The 400 Level West Hanging Wall Drift was continued making a total advance for the month of 113'. For the first 35' the drift continued in white tactite, crosscutting at a small angle toward the favorable bed. At Station 437 plus 21' the hanging wall of the favorable bed was reached, at its intersection with the N 80° W Fault encountered last month. A two-foot band of sulfides extended out along the hanging wall about six feet from this intersection, but no farther. The drift was turned to follow the hanging wall and by the end of the month had been driven 72' (to Station 439 plus 71.5') in limestone with very little garnetite. During the month 197.24 tons of ore averaging 1.38% Cu, 5.25% Zn, were milled from slabbing and raising in the ore near Station 427 (tonnage and grade corrected to mill heads from car counts and car grab samples).

DIAMOND DRILLING. No diamond drilling was done under the DMEA contract during the month.

Very truly yours,

CORONADO COPPER AND ZINC COMPANY

By Gray
Fred H. Gray - Mine Manager

FHG-o

4 ccs to Mr. W. R. Storms
1 cc Mr. George Dub
1 cc Mine Office

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

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

RECEIVED
JAN 6 1954

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

Month of November 1953 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona
Contract Amount, $ 99,050.00 Government Participation: 50 % Amount, $ 49,525.00

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 AX & EX	$2789.00	$20,707.50	$23,496.50			
Bulldozing						
Crosscutting		10,620.00	10,620.00			
Drifting	3040.00	11,640.00	14,680.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$5829.00	$42,967.50	$48,796.50	5829.00	42,967.50	48,796.50

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

Date Dec. 8, 1953 *Payee Coronado Copper and Zinc Company

Per [signature] Title Mine Manager

*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:

$ 2914.50

Signature [signature]
(Authorized Certifying Officer)

Date 12/18/53 Voucher No. 54-61

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. DMEF522 in accordance with the terms of the contract.

Signature William R. Hardinge Title Mining Engineer Date 12/14/53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: R.D.B.

Signature W H Kung Title Executive Officer Date DEC 17 1953

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED
DEC 6 1953

Month of November 195 3 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet	$3040.00	76	$14,680.00	367	$40.00)	1520	$40.00
Crosscutting				10,620.00	265.5	40.00)		
Raising								
Shafts								
Winzes								
Drilling: Core AX	Feet	1084.50	241	10,210.50	2269	4.50)	8500	4.50
Churn EX	Feet	1704.50	487	13,286.00	3796	3.50)		3.50
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		5829.00	804	48,795.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		5829.00		48,796.50				

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

REMARKS:

Date Dec. 8, 1953 Operator Coronado Copper and Zinc Co.

Per [signature] Title Mine Manager

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

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

224 New Customhouse
Denver 2, Colorado

December 17, 1953.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746 (Copper-Zinc), Contract Idm-E522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Arizona - Operator's Monthly Progress Report for the period November 1953.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	December 8, 1953.
Date Received in Field Office	December 11, 1953.
Date Received in Region Office	December 16, 1953.

W. H. King

W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WRStorms
Chron.

December 14, 1953

Memorandum

To : W.H. King, Chief Mining Division, Region IV

From : Chief, Mining Methods Branch, Tucson, Arizona

Subject : November 1953 Progress Report, Contract Idm-X522, Docket DMEA-2746, Coronado Copper & Zinc Co's. Johnson Camp Republic Copper-Zinc Mine, Cochise County, Arizona

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;
(2) Operator's narrative report with maps and drill hole logs;
(3) Forms MF-104 and MF-104A.

Also enclosed are two extra copies of our engineer's report.

As all work is in accordance with the terms of the contract, I recommend that the Government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

cc: King (6)

MINING DIVISION
REGION IV

December 14, 1953

Memorandum

To : Walter R. Storms, Chief, Mining Methods Branch, Mining Division, Region IV, Tucson, Ariz.

From : William H. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for November, 1953, Docket DMRA-2746, Contract Idm-2528, Coronado Copper & Zinc Co's Republic Copper-Zinc Mine, Cochise County, Ariz.

The Coronado Copper & Zinc Company's Republic Mine at Johnson Camp was visited on December 2, 1953. Joe Sierakoski, mine engineer, assisted in measuring the advance.

On December 2, the face of the 480 level drift was found to be 21 feet west of survey station 433. This gives a total advance of 80 feet of which the operator states 76 feet were completed in November.

The status of the drifting under the contract is shown by the following tabulation:

	Drift	Crosscut	Total	Cost
Completed by October 31	291	265.5	556.5	$ 22,260.00
Advance in November	76	-	76	3,040.00
Completed to November 30	367	265.5	632.5	25,300.00
Government's part				12,650.00

None of the drifting completed in November discovered ore. However, the drift was enlarged in the area where ore had previously been discovered and from this work 220 tons of ore, averaging 1.65 percent copper and 6.43 percent zinc, was mined.

project one?

The ore mined to date is as follows:

Month	Tons	Percent Copper	Percent Zinc
October	458.93	1.68	4.97
November	220.00	1.65	6.43
Total	678.93	1.67	5.44

Two diamond drill core holes were completed during the month. They were DMKA No. 9 which was started and reached a depth of 306 feet in October and completed to a depth of 548 feet in November; and DMKA No. 10 which was started in November and completed to a depth of 486 feet. This work completes stage 1 of the drilling program. The footage and costs of the Diamond Drilling in November are as follows:

Hole No.	Ax	Nx	Total feet
9 (115)	-	242	242
10 (116)	241	245	486
Total	241	487	728
Cost	$ 1,084.50	$ 1,704.50	$ 2,789.00

Stage I of the surface diamond drilling program is now complete. The footage and costs are as follows:

	Ax	Nx	Total	Cost
Completed to October 31	2,028	3,809	5,837	$ 20,707.50
November	241	487	728	2,789.00
Total Stage I	2,269	4,296	6,565	$ 23,496.50

No ore was discovered by the drilling program. The operator has requested a drilling recess to allow time for further surface geological work.

The total costs for the month of November are as follows:

	November	To date
Diamond Drilling	$ 2,789.00	$ 23,496.50
Drifting	3,040.00	25,300.00
Total	5,829.00	48,796.50
Government's part	$ 2,914.50	$ 24,398.25

All of the 728 feet of diamond drill hole and the 75 feet of drifting are in accordance with the contract and are approved. The government's agreed part of the cost is $2,914.50 as shown. It is recommended that the operator be paid this amount as provided by the contract.

William R. Hardwick

William R. Hardwick
Mining Engineer, Mining Methods Branch,
Mining Division, Region IV

cc: King (6)

December 8, 1953

Mr. W. R. Storms
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson 5, Arizona

Re: Docket No. DMEA-2746
Contract Idm-E522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm-E522 for the full month of November::

Drifting. (See Progress Map). The 400 Level West Hanging Wall Drift was continued on a one shift per day basis, the second shift being used to widen the part of the drift in ore to lay a double track. Total advance of the drift for the month was 76'. At Station 431 a fault was encountered which moved the hanging wall of the favorable beds an unknown distance to the right. For the next 53', to Station 433 plus 24' the drift was in slightly garnetized limestone and was turned to the right to crosscut somewhat toward the hanging wall. Advance was stopped two days to test the footwall with diamond drill hole MU 133, which cut only rock similar to that in the walls of the drift. This hole was not charged against the DMEA contract. At Station 433 plus 24' a fault with the attitude N 80° W, 68° S was encountered, and beyond this fault hanging wall tactite was found. The drift was turned left to follow along the fault; this direction crosscuts the beds at a small angle toward the footwall, so that eventually the intersection of the fault and the favorable beds will be reached, and it will be possible to resume drifting along the favorable beds. At the end of the month the face was at Station 435 plus 17', still in hanging wall tactite. During the month 220 tons of ore averaging 1.65% Cu, 6.43% Zn were milled from the slabbing (tonnage and grade corrected to mill heads from car counts and car grab samples).

Diamond Drilling. (See Logs and Sections). Two holes, Coronado Nos. 115 and 116 (DMEA Nos. 9 and 10) were completed during the month. Hole No. 115 (No. 9) reached the favorable beds at 418' and cut 118' of garnetite from that point to 536'. From 536' to the end at 548' was bleached limestone with some garnet and wollastonite. There was no mineralization. Hole No. 116 (No. 10) reached the favorable beds at 385' and cut 85' of garnetite with some limestone from there to 470'. From 470' to the end at 486' was chiefly wollastonite rock with some garnet. There was no mineralization. This completed Stage 1 of the surface diamond drilling. Application has been made for a recess in the drilling, to allow time for further surface geologic work before laying out new holes.

Very truly yours,
CORONADO COPPER & ZINC CO,

By _____
Fred E. Grey - Mine Manager

FEG-c
4 ccs to Mr. W. R. Storms
1 cc Mr. George Dub,
1 cc Mine Office

Form MF-101 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 1953 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona
Contract Amount, $ 99,050.00 Government Participation: 50% Amount, $ 49,525.00

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 AX & EX	6,082.00	14,625.50	20,707.50			
Bulldozing						
Crosscutting		10,620.00	10,620.00			
Drifting	4,840.00	6,800.00	11,640.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	10,922.00	32,045.50	42,967.50	10,922.00	32,045.50	42,967.50

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

Date Nov. 11, 1953 *Payee Coronado Copper and Zinc Co.

Per [signature] Title Mine Manager

*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:

$ 5461.00

Signature [signature]
(Authorized Certifying Officer)

Date 12/1/53 Vou. No. 54-63

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 1dmE 522 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date 11/17/53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W H Kung Title Executive Officer Date NOV 27 1953

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1953 Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc

Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	Feet	4,840.00	121	11,640.00	291.0	$40.00)	1520	$ 40.00
Crosscutting				10,620.00	265.5	40.00)		
Raising								
Shafts								
Winzes								
Drilling: Core AX	Feet	3,303.00	734	9,126.00	2028	4.50)	8500	4.50
Churn EX	Feet	2,779.00	794	11,581.50	3309	3.50)		3.50
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		10,922.00	1649	42,967.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		10,922.00		42,967.50				

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

Date Nov. 11, 1953 Operator Coronado Copper and Zinc Co.

Per [signature] Title Mine Manager

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

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

224 New Customhouse
Denver 2, Colorado

November 27, 1953.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746, Contract Idm-2522 (Copper-Zinc), Coronado Copper and Zinc Co.'s Johnson Camp Republic Copper-Zinc Mine, Cochise County, Arizona. Operator's Monthly Progress Report for the period October 1953.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 per cent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	November 11, 1953.
Date Received in Field Office	November 17, 1953.
Date Received in Region Office	November 25, 1953.

W. H. King

W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WRStorms
Chron.

November 23, 1953

Memorandum

To: W.H. King, Chief, Mining Division, Region IV, Denver, Colorado

From: Chief, Mining Methods Branch, Mining Division, Region IV, Tucson, Arizona

Subject: October 1953 Progress Report, Contract Idm-E 522, Docket DMEA-2746, Cerenado Copper & Zinc Co.'s Johnson Camp Republic Copper-Zinc Mine, Cochise County, Arizona

Enclosed in quintuplicate are the following:

1. Bureau of Mines engineer's report;
2. Operator's narrative report with drill hole logs and maps;
3. Forms MF-104 and MF-104A.

Also enclosed are two extra copies of our engineer's report.

As all work is in accordance with the terms of the contract, I recommend that the government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

cc: WHKing (6)

November 23, 1953

Memorandum

To: Walter H. Storms, Chief, Mining Methods Branch, Mining Division, Region IV, Tucson, Arizona

From: William R. Hardwick, Mining Engineer, Tucson, Arizona

Subject: Progress Report for October, 1953 Docket DMA-3746, Contract Ida-E 522, Coronado Copper & Zinc Company's Republic Mine, Cochise County, Arizona

The Coronado Copper and Zinc Company's Republic mine at Johnson Camp was visited on November 5, 1953. The drill core for the month of October was inspected and the underground advance was measured.

Drifting and Crosscutting

On the 400 level of the Moore shaft, the drift on the favorable beds was advanced 121 feet.

The status of the underground work is shown by the following tabulation:

	Drift	Crosscut	Total	Cost
Completed by September 30	170 ft.	265.5 ft.	435.5	$ 17,430.00
Advance in October	121 "	-	121.0	4,840.00
Completed to October 31	291 "	265.5 "	556.5	22,260.00
Government's part				$ 11,130.00

Of the 121 feet of drift completed during October, 75 feet were in ore and the operator mined 498.93 tons of ore which averaged 1.68 percent copper and 4.97 percent zinc. The drift was in waste on November 5 when the mine was visited but small masses of sulfides were reported.

Diamond Drilling

Two diamond drill holes were completed during the month. They were DMA Holes Numbers 8 and 11. A third hole, DMA No. 9, was started and at the end of the month had reached a depth of 306 feet. The operator requested and received from the Government, prior approval to drill hole number 11 at a point 70 feet southwest of the location originally proposed. The other holes were drilled as indicated in the original plan.

The status of the drilling program is summarized as follows:

Hole No.	Diamond Drill Holes in October AX	BX	Total feet
8 (114)	221 ft.	318 ft.	539
11 (113)	281 "	402 "	683
9 (115)	232 "	74 "	306
Total	734 ft.	794 ft.	1,528
Cost	$3,303.00	$2,779.00	$6,082.00

All Diamond Drill Holes to Date	AX	BX	Total	Cost
Completed by September 30	1,294	2,415	3,809	$ 14,625.50
October	734	794	1,528	6,082.00
Total to date	2,028	3,209	5,237	$ 20,707.50
Government's part				$ 10,353.75

The total costs for the month of October and of the Contract to date are:

	October	To date
Diamond drilling	$ 6,082.00	$ 20,707.50
Drifting and Crosscutting	4,840.00	22,260.00
Total	$10,922.00	$ 42,967.50
Government's part	$ 5,461.00	$ 21,483.75

All of the 1,528 feet of diamond drill hole and the 121 feet of drifting for October are in accordance with the terms of the contract and are approved. The Government's agreed part of the cost is $5,461.00 as shown. It is recommended that the operator be paid this amount as provided by the contract.

William R. Hardwick
William R. Hardwick

cc: WMKing (6)

November 13, 1953

Mr. W. R. Storms
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson 5, Arizona

Re: Docket No. BMRA-2746
Contract Idm-B522

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm B522 for the full month of October:

Drifting. (See Progress Map). The 400 Level West Hanging Wall Drift was continued along the hanging wall of the favorable beds; total advance for the month was 121'. At Station 423 plus 20', a thin band of sulfides was encountered at the hanging wall, and this continued to Station 423 plus 42', where it widened so that the entire drift was in ore. The true thickness of ore exposed is 13' but the footwall is not yet known, so the full thickness is not known. The drift continued in ore to Station 429 plus 13', a total length in ore of 75'. From the end of the ore to the face at the end of the month (Station 429 plus 29') the drift was in waste with occasional small masses of sulfides and some oxidation. On October 26th slabbing of the footwall side of the drift was begun near Station 427, to widen the drift enough to lay a double passing track. While this slabbing is being done, the drift will be advanced only one shift per day. During the month 458.93 tons of ore averaging 1.68% Cu, 4.97% Zn were milled from the drift and slabbing (tonnage and grade corrected to mill heads from car counts and car grab samples).

Diamond Drilling. (See logs and sections). Two holes, Coronado Nos. 113 and 114 (BMRA Nos. 11 and 8) were completed during the month, and a third hole Coronado No. 115 (BMRA No. 9) was started. Hole No. 113 (No. 11) was drilled AX and cased to 281' and continued EX to the bottom at 683'. Hole No. 114 (No. 8) was drilled AX and cased to 221' and continued EX to the bottom at 539'. Hole No. 115 (No. 9) was drilled AX and cased to 232' and continued EX. At 244' in Hole No. 115 (No. 9) the bit was broken off and lost and four shifts were spent reaming and fishing for it. This reaming was done at the driller's expense. The hole was 306' deep at the end of the month. With Mr. Storm's permission, Hole No. 113 (No. 11) was drilled 70' southwest of the location originally proposed, to test a fractured zone that was found in surface mapping. The hole reached the favorable beds at 561' and cut garnetite from that point to 576'. From 576' to 648' was limestone with some garnetite, and from 648' to the end at 683' was limestone. Two mineralized zones were assayed: 564.0 - 571.6: 7.6' @ 0.20% Cu, 2.2% Zn, and 622.0 - 622.8: 0.8' @ 2.53% Cu, 5.95% Zn. In Hole No. 114 (No. 8) which continued the fence begun in August, the favorable beds were reached at 461'. The hole is garnetite from this point to 523' and in limestone from 523' to the end at 539'. No mineralization was encountered. At the end of the month, Hole No. 115 (No. 9) was still 150' short of the favorable beds.

Very truly yours,
CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray - Mine Manager

FEG-o
4 cos to Mr. W. R. Storms
1 co Mr. R. W. Moore 1 co Mine Office

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 30 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of Sept. 3, 195 Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc

Address Dragoon, Arizona

Contract Amount, $ 99,050.00 Government Participation: 50 % Amount, $ 49,525.00

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 AX & EX	4452.50	10,173.00	14,625.50			
Bulldozing						
Crosscutting	$4,660.00	$5960.00	$10,620.00			
Drifting	240.00	6560.00	6,800.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	9352.50	22693.00	32045.50	9352.50	22,693.00	32,045.50

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

Date 10/8/53 *Payee Coronado Copper & Zinc Co.

Per [signature] Title Mine Manager

*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:

$476.25

Signature [signature]
(Authorized Certifying Officer)

Date 10/23/53 Vou. No. DMA 54-41

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. DMEA 522 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date October 13, 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature John F. Shaw for W. H. KING Title Executive Officer Date OCT 20 1953

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Defense Minerals Administration
RECEIVED
OCT 30 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of Sept. 195 3 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet	$ 240.00	6.0	$6800.00	170.0	$ 40.00	1520	$ 40.00
Crosscutting	Feet	4660.00	116.5	10620.00	265.5	40.00		
Raising					435			
Shafts								
Winzes								
Drilling: Core AX	Feet	1276.50	277.0	5823.00	1294.0	4.50	8500	4.50
Drilling: Core EX	Feet	3206.00	916.0	8802.50	2515.0	3.50		3.50
Churn								
Auger					3809			
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		9352.50	1315.50	32045.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		9352.50		32045.50				99050.00

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 10/8/53 Operator Coronado Copper & Zinc Co.

Per Fred E. Gray Title Mine Manager

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 30 1953

224 New Customhouse
Denver 2, Colorado

October 20, 1953.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746, Contract Idm-2522 (Copper-Zinc), Coronado Copper and Zinc Co.'s Johnson Camp Republic Copper-Zinc Mine, Cochise County, Arizona. Operator's Monthly Progress Report for the period September 1953.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	October 8, 1953.
Date Received in Field Office	October 12, 1953.
Date Received in Region Office	October 19, 1953.

John F. Shaw
John F. Shaw
For W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WRStorms
Chron.

DEPARTMENT OF THE INTERIOR
Defense Materials Administration
RECEIVED
OCT 20 1953

MINING DIVISION
REGION IV

October 13, 1953

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : September 1953 Progress Report, Contract Idm-M522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Johnson Camp Republic Copper-Zinc Mine, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;

(2) Operater's narrative report with drill logs and maps;

(3) Forms MF-104 and MF-104A.

Also enclosed are two extra copies of our engineer's report.

As all work is in accordance with the terms of the contract, I recommend that the Government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
DMEA-2746
DF

WRStorms:frj

MINING DIVISION
REGION IV

September 28, 1953

Mr. Fred E. Gray
Mine Manager
Johnson Camp Unit
Coronado Copper & Zinc Co.
Dragoon, Ariz.

Re: Contract Idm-E522,
Docket DMEA-2746,
Republic Copper-Zinc Mine,
Cochise County, Ariz.

My dear Mr. Gray:

Recently you telephoned this office to request that you be allowed to slightly change the location of the site of drill hole No. 11, and I, as the local Defense Minerals Exploration Administration representative for the Bureau of Mines, granted this request. Recent geological work had shown that a site some 75 feet from the original proposed location, seemed more favorable than the original site.

This letter merely is to confirm in writing the fact that you formally requested a change in the location of drill hole No. 11, and that this request was granted.

Sincerely yours,

Walter R. Storms

Walter R. Storms, Chief
Mining Methods Branch
Mining Division, Region IV

CC W. H. King (5)
DMEA-2746
DF

WRStorms:frj

MINING DIVISION
REGION IV

October 13, 1953

Memorandum

To : Walter A. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for September 1953, Docket DMEA-2746, Contract Idm-E522, Coronado Copper and Zinc Company's Republic Mine, Cochise County, Arizona.

The Coronado Copper and Zinc Company's Republic mine at Johnson Camp was visited on October 7, 1953. The progress for the month of September was measured with the assistance of Mr. Arthur Baker, geologist for the company. The exploration contract provides for underground drifting and crosscutting, and surface diamond drilling.

Drifting and Crosscutting

On the 400 level of the Moore shaft the crosscut authorized by the contract and named by the operator the "West 150 North Crosscut", was continued for a distance of 116.5 feet, where the tactite hanging wall, or favorable beds were reached. A drift was started to the west along the favorable beds. This drift had advanced a distance of 30.2 feet when the property was visited. The operator stated that 6 feet of this work was completed in September.

The status of the underground work to date is shown by the following tabulation:

	Feet			
	Drift	Crosscut	TOTAL	Cost
Completed by August 31 --------	164	149	313	$12,520.00
Advance in September ----------	6	116.5	122.5	4,900.00
Completed to September 30 -----	170	265.5	435.5	17,420.00
Government's part ----------				8,710.00

When the crosscut reached the tactite hanging wall a narrow band of ore was discovered. However, this ore was less than one foot wide and was not considered wide enough to mine. The operator is drifting on this ore with the hope that it will widen to a minable width.

CC W. H. King (Orig. & 6)
DMEA-2746
DF

WRHardwick:frj

Diamond Drilling

A study of the Moore ore body by Mr. Baker with relation to surface structures indicated a possible relation between that ore body and a series of small faults and joints exposed on the surface. A similar surface structure is exposed near the location of Hole No. 11, and on Mr. Baker's recommendation, Mr. Fred E. Grey, Mine Manager, requested permission from the Tucson Office of the U. S. Bureau of Mines to move this hole 75 feet to the southwest. This permission was granted. This move would place the hole in the same relative position with respect to the surface structure near it, as the Moore ore body with respect to a similar structure. Hole No. 11 will be started in October.

Two Diamond Drill holes were completed during the month. They were holes 6 and 7. Both penetrated the favorable beds but found no ore. The footage and cost of these holes is shown in the following tabulation:

Diamond Drill Holes in September

Hole No.	AX	EX	Total Feet	Cost
6 (111)	201	408	609	
7 (112)	76	508	584	
Total	277	916	1,193	$4,452.50

Total diamond drill work to date is summarized in the following tabulation:

		AX	EX	Total	Cost
Completed by August 31.		1,017	1,599	2,616	$10,173.00
	September	277	916	1,193	4,452.50
Total	To date	1,294	2,415	3,809	$14,625.50
Government's part					7,312.75

The total costs for the month of September and for the contract to date are:

	September	To date
Diamond drilling ----------	$4,452.50	14,625.50
Drifting and crosscutting ----	4,900.00	17,420.00
Total	$9,352.50	32,045.50
Government's part	4,676.25	16,022.75

All of the 1,193 feet of diamond drill hole and the 122.5 feet of drift and crosscut was in accordance with the provisions of the

contract and is approved. The Government's agreed part is $4,676.25 as shown. It is recommended that the operator be paid this amount as provided by the contract.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch, Mining Division
Region IV, Tucson, Ariz.

October 8, 1953

Mr. W. R. Storms
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson 5, Arizona

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Ida 8522 for the full month of September:

Drifting & Crosscutting (See Progress Map) The 400 Level West 150 North Crosscut was continued. From Station 419 plus 35' to Station 419 plus 95' (Station 421) slightly mineralized garnet averaging 0.1% Cu, 0.2% Zn was encountered. Beyond this, to Station 421 plus 43' was limestone and siliceous limestone with a little garnetite. From Station 421 plus 90' (Station 423 plus 20') was garnetite with some mineralization in the last 15'; our grabs in this last 15' assayed 0.15% Cu, 0.5% Zn. At Station 421 plus 90' (Station 423 plus 20') the tactite hanging wall was reached, so the crosscut was stopped at Station 423 plus 12', and the 400 Level West Hanging Wall Drift was begun to the westward. Little advance was made in this heading before the month ended; all of the work was in garnetite.

Diamond Drilling (See Logs and Sections). Two holes were drilled during the month: Coronado Nos. 111 and 112 (HMRA Nos. 6 and 7). These holes continued the fence begun last month. Hole No. 111 (No. 6) was drilled AX and cased to 201' and continued EX to the bottom at 609'. Hole No. 112 (No. 7) was drilled AX and cased to 76' and continued EX to the bottom at 584'; this hole was finished on the last day of the month. In Hole No. 111 (No. 6) the favorable beds were reached at 490' and the hole was in garnetite from that point to 605', at which point it passed into footwall limestone and continued in that rock to the bottom at 609'. In Hole No. 112 (No. 7) the favorable beds were reached at 474' and the hole was garnetite to 570' except for 16' of limestone between 499' and 515'. From 570' to 580' was partially oxidized material, which may be a fault, or may be simply oxidization of the footwall of the garnetite, a not uncommon feature. From 580' to the end at 584' was footwall limestone. With the permission of Mr. Storms, the Tucson representative of the U.S. Bureau of Mines, proposed Hole No.11 will be drilled next in a new location 75' southwest of the original location. The decision to drill this hole next and to change its location, was based on the discovery of a very favorable-looking geologic structure on the surface at this point.

Yours very truly,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG-o
4 cos Mr. W. R. Storms
1 co Mr. R. W. Moore 1 co Mine Office

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT - 2 1953
Idm B522

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August 3 195 Docket No. DMEA 2746 Contract No.
Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona
Contract Amount, $ 99,050.00 Government Participation: ____% Amount, $ 49,525.00

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: Ax & Ex	$5489.50	4683.50	10,173.00			
Drilling						
Bulldozing	5960.00	-	5,960.00			
Crosscutting	-	6560.00	6,560.00			
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):						
TOTALS	$11449.50	11243.50	22693.00	11449.50	11243.50	22693.00

I certify that the above bill is correct and just and that payment therefor has not been received. 9/1/53 Coronado Copper & Zinc Co.

Date _____ *Payee _____

Per Fred E. Gray Title Mine Manager

*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:

$ 5,724.75

Signature _____
(Authorized Certifying Officer)

Date 9/24/53 Vou. No. DMA 54-31
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. dmE 522 in accordance with the terms of the contract.

Signature William R. Hardwick Title Mining Engineer Date Sept 14, 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: L.D.B.

Signature W. H. Kemp Title Executive Officer Date SEP 18 1953

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 2 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 1953 Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc

Address Dragoon, Arizona

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting	Feet	$5960.00	149	$12,520.00	313	$40.00	1520	$40.00
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core AX	Feet	1377.00	306	4,576.50	1017	4.50)	8500	4.50
Churn EX	Feet	4112.50	1175	5,596.50	1599	3.50)		3.50
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		$11449.50	1630	$22,693.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
TOTAL COSTS								$99050.00

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 9/11/53 Operator Coronado Copper & Zinc Co.

Per Fred E. Gray Title Mine Manager

Fred E. Gray

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED

224 New Customhouse
Denver 2, Colorado

September 18, 1953.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746, Contract Idm-E522 (Copper-Zinc), Coronado Copper and Zinc Co.'s Johnson Camp Republic Copper-Zinc Mine, Cochise County, Arizona. Operator's Monthly Progress Report for the period August 1953.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	September 11, 1953.
Date Received in Field Office	September 14, 1953.
Date Received in Region Office	September 17, 1953.

W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WRStorms
Chron.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT - 2 1953

MINING DIVISION
REGION IV

September 15, 1953

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : August 1953 Progress Report, Contract Idm-E522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Johnson Camp Republic Copper-Zinc Mine, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;

(2) Operator's Narrative report with maps and drill hole logs;

(3) Forms MF-104 and MF-104A.

Also enclosed are two extra copies of our engineer's report.

As all work is in accordance with terms of the contract, I recommend that the Government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
DMEA-2746
DF

WRStorms:frj

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT - 2 1953

MINING DIVISION
REGION IV

September 14, 1953

Memorandum

To : Walter R. Storms, Chief, Mining Methods Branch, Mining Div., Region IV, Tucson, Arizona

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for August 1953, Docket DMEA-2746, Contract Idm-E522, Coronado Copper and Zinc Company's Republic Mine, Dragoon, Arizona.

The Coronado Copper and Zinc Company's Republic Mine at Johnson Camp was visited on September 8, 1953. The progress for the month of August was measured with the assistance of Joe Sierakoski, Engineer, and the geology was discussed with Arthur Baker, geologist, for the company. The exploration contract provides for underground drifting and crosscutting and surface diamond drilling.

The 400 level drift had reached a point 164 feet from the starting point on the first of August. A short exploration crosscut was started to the north near the end of the drift which at a distance of 18 feet encountered the Mammoth Fault. This crosscut then was extended northward toward the area in which the favorable beds were presumed to be located and at the time of the visit had reached a point 180 feet northwest of its starting point.

In the drilling program three diamond drill holes were completed. The depths and breakdown as to size of these holes are shown below:

Hole No.	AX	EX	Drilled last month	Total Depth
108	39	344	146	529
109	191	360	---	551
110	76	471	---	547
Total	306	1,175	146	1,627

Of the holes drilled to date two have cut mineralized ground for a short distance. The assay value of these holes is low as shown by the narrative report of the operator, and it is questionable as to whether any material cut is ore. Of interest is the molybdenum assay for hole No. 109 which for 15.5 feet assayed 0.50 percent molybdenum.

CC W. H. King (Orig. & 6)
DMEA-2746
DF

WRHardwick:frj

Of the 180 feet of crosscut measured when the property was visited, the operator states that 149 feet were completed in August. This crosscut is in accordance with the provisions of the contract and is approved.

During August, 306 feet of AX and 1,175 feet of EX drill hole were completed in accordance with the terms of the contract and are approved.

All work completed on the contract during August is listed below with the contract price.

Item	Feet completed	Price per foot	Total cost
Crosscut	149	$40.00	$5,960.00
AX drill hole	306	4.50	1,377.00
EX drill hole	1,175	3.50	4,112.50
Total			$11,449.50

Of the total estimated cost of $11,449.50, the contract provides that the Government will provide 50 percent or $5,724.75. It is recommended that the operator be paid this amount in accordance with the terms of the contract.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

September 11, 1953

Mr. W. R. Storms
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson 5, Arizona

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm 8522 for the full month of August:

Drifting (See Progress Map). On the first of the month, the 400 Level West 150 North Crosscut was started from the 400 Level West Drift at Station 415. It was intended to drive the crosscut 15 or 20 feet to check the offset on a small fault at Station 413 plus 36', and then drive both the crosscut and the drift on opposite shifts. However, at 18' in the crosscut the Mammoth Fault was encountered, so no more work was done in the drift, as it would reach the projected location of the Mammoth Fault in about 15'. The Mammoth Fault zone in the crosscut was a strongly sheared and oxidized zone 24' wide; there was no mineralization. The footwall of the zone was N 60°E dipping 32° S, and the hanging wall N 40° E dipping 37° S. North of the fault, to Station 415 plus 100', was siliceous limestone with small masses and thin beds of garnetite; this part of the crosscut also had a minor Northeaster fault, which probably had little displacement. From Station 415 plus 100' to the face at the end of the month (Station 419 plus 34.5') was limestone, partially bleached, with occasional bands of garnetite and wollastonite rock.

Diamond Drilling (See Logs and Sections). Three holes were completed during the month - Coronado Nos. 108, 109 and 110 (DMEA Nos. 3, 4 and 5). These holes form the beginning of a fence extending southeasterly from the fence completed by Holes No. 106 and 107 (DMEA 1 and 2) which were drilled last month. Hole No. 108 (No. 3) which was 146' deep at the beginning of the month, was drilled EX to the bottom at 529' but because of caving ground was reamed and cased to 185'. Hole No. 109 (No. 4) was drilled AX and cased to 191', and drilled EX to the bottom at 551'. Hole No. 110 (No. 5) was drilled AX and cased to 76' and EX to the bottom at 547'; this hole was finished on the last day of the month. In Hole No. 108 (No. 3) the favorable beds were reached at 453'; from 453' to 475' was garnetite, and from 475' to the bottom at 529' was limestone with a little garnetite. There was no mineralization. In Hole No. 109 (No. 4), the favorable beds were reached at 441'; the twenty feet from 441' to 461' were garnetite assaying .07% Cu, .32% Zn and .19% Mo; from 461 to 480 was limestone with a little garnetite; from 480' to 533' was garnetite with the 15.5' between 499.0' and 514.5' assaying .04% CU, .65% Zn, and .50% Mo., the remainder of the hole, from 533' to 551' was limestone. In Hole No. 110 (No. 5) the favorable beds were reached at 449'; from 449' to 462' was garnetite, with the 4' between 458 to 462' assaying .06% Cu and 5.2% Zn; from 462 to 494 was limestone; from 494 to 543' was garnetite, with the 4.2' between 507.8 to 512.0' assaying .30% Cu, 3.5% Zn; from 543' to the end at 547' was limestone with much wollastonite. In this hole a few small spots of molybdenite were noted, but these were so few that no assay for molybdenum was made. Molybdenite is not uncommon in the district, although no commercially workable deposits have been found. Molybdenite usually occurs associated with copper and zinc sulfides,

both in orebodies and in non-commercial stringers not associated with orebodies.

Yours very truly,

CORONADO COPPER & ZINC CO.

By _____
Fred K. Gray
Mine Manager

FKG-o

4 cos Mr. W. R. Storms
1 co Mr. R. W. Moore
1 co Mine Office

Form MF-101 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1953 Docket No. DMEA 2746 Contract No. Idm E522
Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc
Address Dragoon, Arizona
Contract Amount, $ 99,050.00 Government Participation: 50 % Amount, $ 49,525.00

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 AX & EX	$4683.50	-	$4683.50			
Bulldozing						
Crosscutting						
Drifting	6560.00	-	6560.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$11,243.50	-	$11,243.50	11243.50	--	11,243.50

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

Date 8-8-53 *Payee Coronado Copper and Zinc Company

Per [signature] Title Mine Manager

*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:

$ 5621.75

Signature [signature]
(Authorized Certifying Officer)

Date 8/24/53 Vou. No. 54-19

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm P-572 in accordance with the terms of the contract. WRH

Signature William R. Hardwick Title Mining Engineer Date 8/11/53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature John F. Shaw for W. H. Kenny Title Executive Officer Date AUG 14 1953

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 3 1953 Docket No. DMEA 2746 Contract No. Idm E522

Operator's Name Coronado Copper and Zinc Company Minerals Copper & Zinc

Address Dragoon, Arizona

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting	Feet	6560.00	164	$6560.00	164	40.00	1520	40.00
Crosscutting								
Raising								
Shafts								
Winzes AX	Feet	3199.50	711	3199.50	711	4.50)	8500	4.50
Drilling: Core EX	Feet	1484.00	424	1484.00	424	3.50)		3.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		$11,243.50	1299	$11,243.50				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		$11,243.50	1299	$11,243.50				$99,050.00

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 8-8-53 Operator Coronado Copper & Zinc Co

Per Fred E. Gray Title Mine Manager

Remarks:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 83-38475

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 3 - 1953

MINING DIVISION
REGION IV

August 12, 1953

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Progress Report, June 23-July 31, 1953, Contract Idm-E522, Docket DMEA-2746, Coronado Copper & Zinc Co's. Johnson Camp Republic Copper-Zinc Mine, Cochise County, Ariz.

Enclosed in quintuplicate are the following:

(1) Bureau of Mines engineer's report;

(2) Operator's narrative report with 3 maps and 2 drill hole logs;

(3) Forms MF-104 and MF-104A.

Also enclosed are two extra copies of our engineer's report.

As all work is in accordance with the terms of the contract, I recommend that the Government's share of the costs be paid.

Walter R. Storms

Walter R. Storms

CC W. H. King (6)
DMEA-2746
DF

WRStorms:frj

MINING DIVISION
REGION IV

August 11, 1953

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Progress Report for the Period June 23 to July 31, 1953 Docket DMEA-2746, Contract Idm-E522, Coronado Copper and Zinc Co.'s Republic Mine, Johnson Camp, Cochise County, Ariz.

Johnson camp was visited on August 11, 1953 and the advance in the exploration drift on the 400 level of the Moore shaft was measured. Mr. Arthur Baker, Geologist, assisted, and the measurements were discussed with Fred E. Gray, manager.

A part of the exploration program consists of diamond drilling. This part was started on July 10, 1953. By July 31, two holes had been completed and a third hole had been started. The core from these holes was examined.

No ore has been discovered.

The progress for the period was found to consist of the following:

Drifting, 164 feet @ $40.00	$6,560.00
Diamond drill hole, AX, 711 feet @ $4.50	3,199.50
Diamond drill hole, EX, 424 feet @ $3.50	1,484.00
Total	$11,243.50

All drifting and diamond drill holes were in accordance with the terms of the contract and are approved. It is recommended that the contractor be paid in accordance with the terms of the contract for the above work.

William R Hardwick
William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

CC W. H. King (Orig. & 6)
DMEA-2746
DF

WRStorms:frj

August 8, 1953

Mr. W. R. Storms
U.S. Bureau of Mines
P. O. Box 4097
University Station
Tucson 5, Arizona.

Dear Mr. Storms:

Following is the report to accompany Forms 104 and 104-A in connection with the work done under Contract Idm-B522 for the last few days of June and the full month of July:

Drifting (See Progress Map.) At the contract starting point, the face was mostly tactite waste, with the hanging wall of the garnetite, the favorable bed, near the right side. The drift was continued westerly, crosscutting the beds at a slight angle to 20 feet from starting point at which point the hanging wall was in the upper right corner of the drift. The topmost 6' of the favorable beds here were converted to diopside rock, rather than the usual garnetite, and the top of the garnetite was low on the left wall. The drift was turned to about N 65° W, to carry the true hanging wall in the upper right corner and the top of the garnetite in the left wall. At 77' a little mineralization was encountered in the topmost garnetite, and this continued to about 107'. A slab into this mineralized ground showed that it was only about 2' thick. A test hole into the mineralized garnetite at 100' assayed 0.12%Cu and 2.6% Zn. At 115' the drift was turned to about N 80° W to expose the garnetite better and continued in this direction to 164' at the end of July. At 134' a small cross-fault was encountered which offset the hanging wall of the garnetite northward, so that the garnetite hanging wall was exposed in the upper right corner of the drift.

Diamond Drilling. (See logs and sections). Two holes (Coronado Nos. 106 and 107, DMEA Nos. 1 and 2) were completed and a third, Coronado No. 108 (DMEA No. 3) was begun. When the drill rig arrived it was equipped only for drilling AX hole, so hole No. 106, (No. 1) was drilled AX to its bottom at 453'. Hole No. 107 (No. 2) was drilled AX to 39' and EX to the bottom at 536', but because of caving ground it was necessary to ream and case to 159'. Hole No. 108 (No. 3) was drilled AX to 99' and EX thereafter to 146', the bottom at the end of the month. In hole No. 106 (No. 1) the favorable beds were reached at 355'; several marker beds were recognizable above this horizon. At the top of the favorable beds was 20' of garnetite, underlain by limestone and slightly garnetized siliceous limestone. Only very rare specks of sulfide were found. Hole No. 107 (No.2) reached the favorable beds at 464', after cutting several marker beds. Like Hole No.106 (No. 1) this hole had 20' of garnetite at the top of the favorable beds, underlain by limestone. From 503 to 525 was garnetite again, underlain by siliceous limestone. Only very rare specks of sulfide were found. At the end of the month Hole No. 108 (No.3) at 146' was still in dolomite about 300' above the favorable beds.

Yours very truly,
CORONADO COPPER AND ZINC COMPANY

By FEG
Fred E. Gray - Mine Manager

4 ccs: Mr. W. R. Storms
1 cc Mr. R. W. Moore
1 cc Mine Office

FEG-e

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
(Received)
AUG 3 1953

224 New Customhouse
Denver 2, Colorado

August 14, 1953.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 2746, Contract Idm-E522 (Copper-Zinc), Coronado Copper and Zinc Company, Cochise County, Arizona. Operator's Monthly Progress Report for the period from June 23, 1953 to July 31, 1953.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 50 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

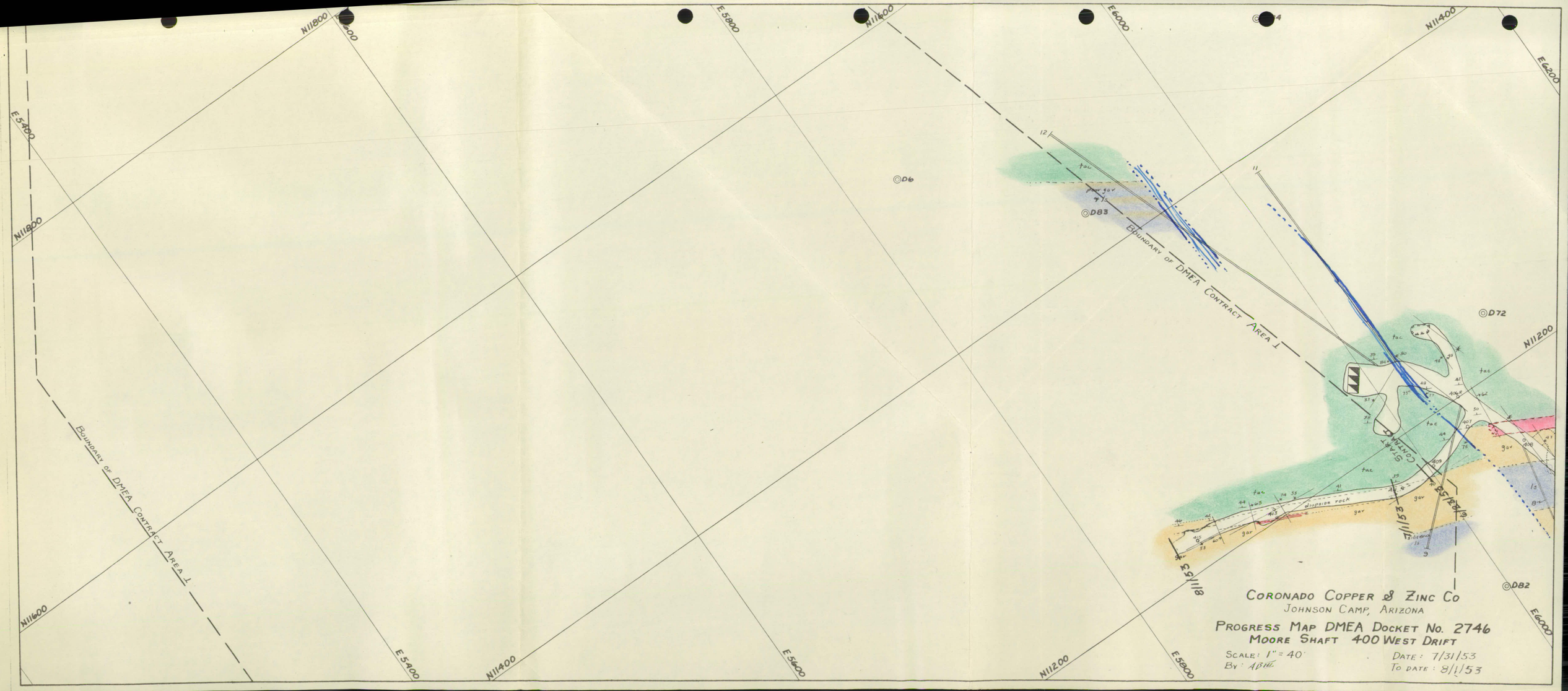
Date of Operator's Report	August 8, 1953
Date Report received in Field Office	August 10, 1953
Date Report received in Regional Office	August 14, 1953

for John F. Shaw
W. H. King

Enclosures

JWT:cwm

cc: Contract
WRStorms
Secretary to the Oper. Comm. (2)
Chron.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N11400
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E5800
E6000
D6
D83
D72
D82
BOUNDARY OF DMEA CONTRACT AREA I
BOUNDARY OF DMEA CONTRACT AREA I
SHAFT CONTRACT
7/1/53
8/1/53
tac
gar
CORONADO COPPER & ZINC CO
JOHNSON CAMP, ARIZONA
PROGRESS MAP DMEA DOCKET NO. 2746
MOORE SHAFT 400 WEST DRIFT
SCALE: 1" = 40'
BY: ABHL
DATE: 7/31/53
TO DATE: 8/1/53

Collar Location:

Level: Surface
N: 10515.74
E: 6613.48
Elevation: 5040.79
Bearing: --
Angle: - 90°

Length: 453.0
Hor: 0.0
Vert: 453.0
Logged by: ABIII
Date: 8/1/53

D. D. HOLE NO. 106 (DMEA # 1)

Date Started: 7/11/53
Date Finished: 7/18/53
Size: AX
Casing: 40' (pulled)

Objective: Ore crossing D 34C Fence. Downward extension of Copper Chief Orebody.

Results: No ore.

Footage			Assays		Core recovery	Log	Description and Averages
From	To	Interval	Cu%	Zn%			
0.0	40.0	40.0			--		Core discarded.
40.0	52.0	12.0			83		Grey partially dedolomitized rock; thin brown streaks. Equivalent of chloritized upper part of Ma 6.
52.0	95.0	43.0			65		Grey mdol; moor core.
95.0	112.0	17.0			88		Ma 5 serpentine ls; about 60% tactite.
112.0	161.0	49.0			100		Fair-poor tactite with bands dol.
161.0	167.5	6.5			100		White quartzite; grains about 1.5 mm.
167.5	171.0	3.5			100		Black siltstone, pyrite cubes; quartzite marker.
171.0	198.0	27.0			85		Poor tactite; much limy dol.
198.0	202.5	4.5			44		White xls, 3 mm. grains.
202.5	233.0	30.5			85		Poor tactite grey dol. @ 227', 6" with spots sulfides.
233.0	312.0	79.0			98		Fair tactite, quite uniform. @ top, a little serpentine.
312.0	355.0 375.0	43.0			100		Poor tactite with hnf bands. Some 1' beds dolomite.
355.0	~~332~~0	20.0			90		Garnet. Rare bands up to 1' of grey xls.
375.0	398.0	23.0			100		Grey xls. About 20% garnet in bands up to 2' thick.
398.0	447.0	49.0			90		Poor garnet siliceous ls. @ top 3" band with chalcopyrite specks. 435-436 occasional spots sphalerite.
447.0	453.0	6.0			100		Siliceous ls with some wollastonite bands.

Collar Location:

Level: Surface
N: 10602.65
E: 6736.58
Elevation: 5037.51
Bearing: --
Angle: - 90°

Length: 536.0
Hor: 0.0
Vert: 536.0
Logged by: ABIII
Date: 8/1/53

D. D. HOLE NO. 107 (DMEA # 2)

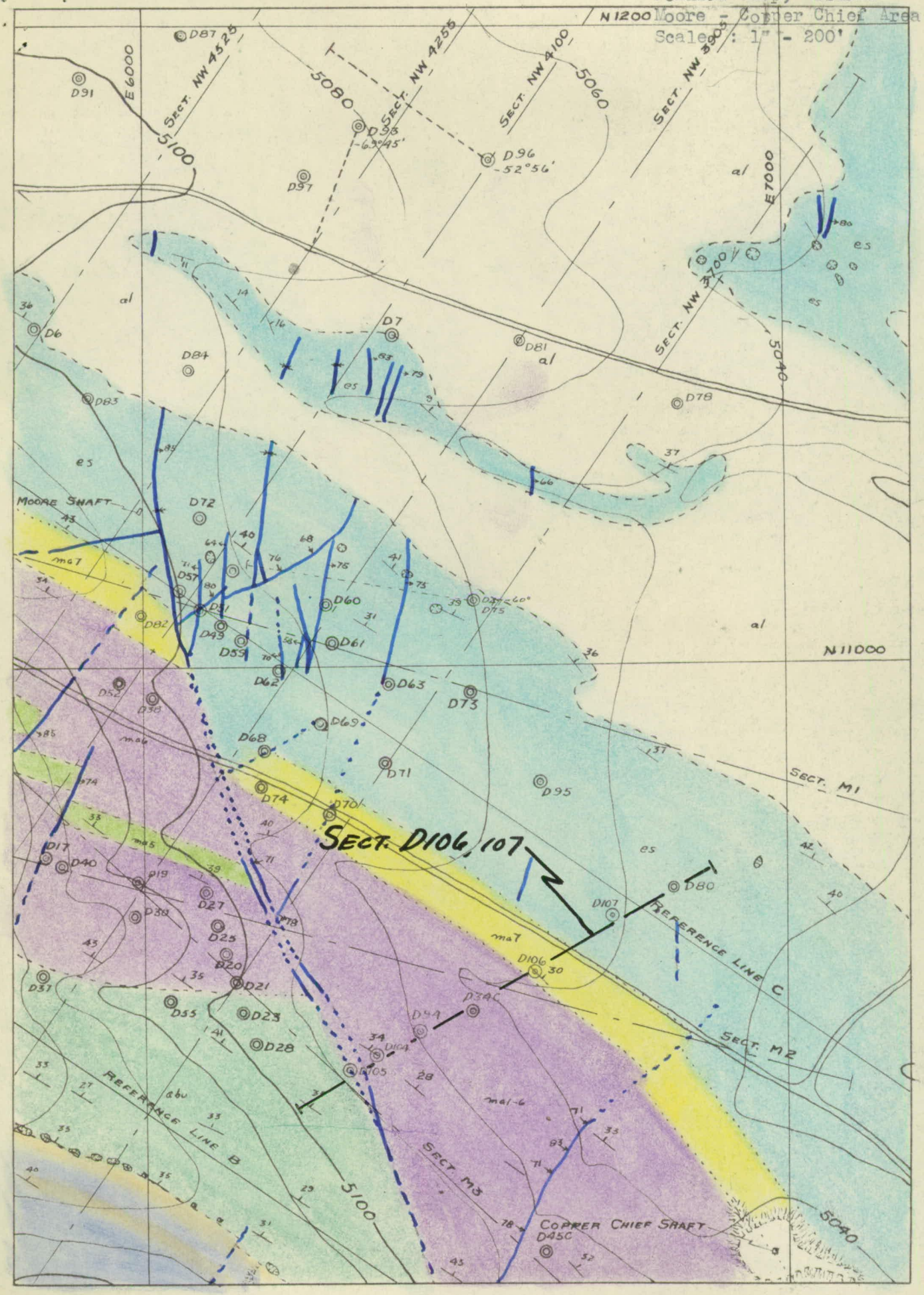
Date Started: 7/19/53
Date Finished: 7/28/53
Size: EX
Casing: 159' (pulled)

Objective: Ore crossing D 340 Fence. Downward extension of Copper Chief Orebody.

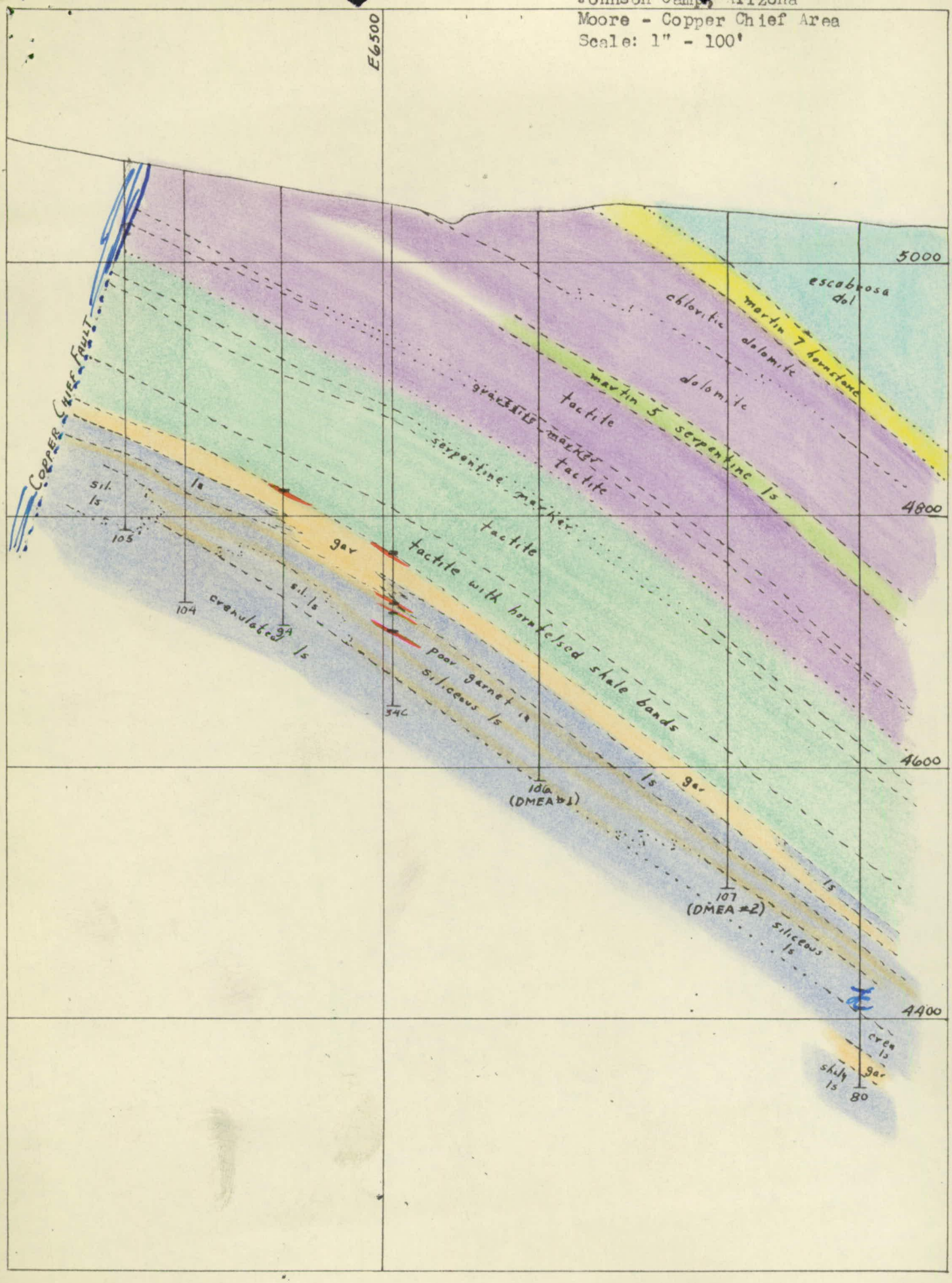
Results: No ore.

Footage			Assays		Core recovery	Log	Description and Averages
From	To	Interval	Cu%	Zn%			
0.0	20.0	20.0			--		Core discarded.
20.0	39.0	19.0			95		Limy fine dol, partially tactitized.
39.0	69.0	30.0			45		Ma 7 hornstone. In upper 10' rare pyrite.
69.0	120.0	51.0			69		Limy dol, little chlorite.
120.0	185.0	65.0			43		Grey mdol, poor core. Locally much broken before drilling, with open cracks
185.0	202.0	17.0			100		Ma 5 serpentine ls. About 30' poor tac.
202.0	265.0	63.0			90		Fair tactite. 240-249 rare spots sulfides.
265.0	278.0	13.0			46		Soft dark siltstone, no pyrite. Probably quartzite marker.
278.0	338.0	60.0			60		Tactite. Very rare spots sulfides.
338.0	347.0	9.0			100		Serpentine ls. About 50% tactite.
347.0	430.0	83.0			87		Tactite, no sulfides.
430.0	464.0	34.0			100		Tactite with occasional hnf bands.
464.0	484.0	20.0			80		Fair-poor garnet in grey xls.
484.0	503.0	19.0			58		Grey xls, occasional garnet bands.
503.0	525.0	22.0			86		Fair garnet, rare sulfides.
525.0	536.0	11.0			73		Siliceous ls, some wollastonite and some garnet.

D. D. Holes 106 & 107 (DMEA 1 & 2)
Johnson Camp, Arizona
Moore - Copper Chief Area
Scale: 1" = 200'



D. D. Holes 106 & 107 (DMEA #1 & #2)
Johnson Camp, Arizona
Moore - Copper Chief Area
Scale: 1" - 100'



MAY 22 1963

Cyprus Mines Corporation
523 West Sixth Street
Los Angeles 14, California

Re: DMEA-2746 (Copper-Zinc)
Cornucopia Copper and Zinc Company
Republic Copper-Zinc Mine
Cochise County, Arizona
Contract Ldm-8523

Gentlemen:

By the terms of the subject Exploration Project, as amended, and the certification of discovery or development dated February 2, 1954, all minerals mined or produced from May 15, 1953, to May 15, 1963, were subject to the Government's royalty as set forth in said contract.

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

Sincerely yours,

George Fumich, Jr.

Director

MMerrithew/mm
5/20/63
cc: Director's Reading File
Region III (2)
✓CAAA Division
Docket
Code 500

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

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

To: Mr. George D. Dub, President
Coronado Copper and Zinc Company
1206 Pacific Mutual Building
523 West Sixth Street
Los Angeles, California

Pursuant to the provisions of Exploration Project Contract No. Idm-8528, dated May 18, 1953, Docket No. DMEA-2746, hereinafter called the "contract", between you and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien thereon and on the land described in the contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration work.

The nature of said discovery or development is described broadly or indicated as follows: Drifting and crosscutting on the 400 and 500 levels of the mine, and diamond drilling have proved the existence of copper-zinc ores occurring as replacements in garnetized limestone.

Dated SEP 2 1956

THE UNITED STATES OF AMERICA

By C. P. Mitteudorf
Administrator, Defense Minerals
Exploration Administration

WRGriswold/er rewritten 2/1/56
Copy to:
Docket
Mr. C. A. Fredell, Dr.,MD,EPS
Mr. Geehan, USBM
Mr. Killsgaard, USGS
Admr R. File
Op. Committee
Base Metals
Region III (2)
Cont.Adm.&Audit Div.
Finance Office
Mr. F. E. Johnson
Mr. W. R. Griswold
Chron.

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

Mr. George D. Dub, President
Cerenado Copper and Zinc Company
1206 Pacific Mutual Building
523 West Sixth Street
Los Angeles, California

FEB - 2 1956

Re: Docket No. DMEA-2746 (Copper-Zinc)
Cerenado Copper and Zinc Company
Republic Copper-Zinc Mine
Cochise County, Arizona
Contract No. Idm-K522

Dear Mr. Dub:

Transmitted herewith is a certification of discovery or development related to the Exploration Project Contract No. Idm-K522, dated May 18, 1953, on the lands described in the contract.

By the terms of the Exploration Project Contract and of the Certification, all production from the land described in the contract after May 18, 1953, the date of the contract, is subject to the Government's percentage royalty as set forth in the said contract until the sum of $43,522.50, which the Government has advanced as its participating interest is repaid, or until May 18, 1963, whichever occurs first.

Payments should be made to Mr. W. M. Traver, Executive Officer, DMEA Field Team, Region III, 224 New Customhouse Building, Denver 2, Colorado. Checks should be drawn in favor of the Defense Minerals Exploration Administration. The purchaser should be advised to deduct royalties from the amount due on each shipment and forward the checks to the Executive Officer.

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

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

Sincerely yours,

Administrator

Enclosure

Finance Office
Mr. F. E. Johnson
Mr. W. R. Griswold
Chron.

Admr R. File
Op. Committee
Base Metals
Region III (2)
Cont.Adm.&Audit Div.

WRGriswold/er (1/27/56)
Copy to: Docket
Mr. C. A. Fredell, Dr.,MD,EPS
Mr. Geehan, USBM
Mr. Killgaard, USGS

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

FEB - 2 1956

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

Re: Docket No. DMEA-2746 (Copper-Zinc)
Coronado Copper and Zinc Company
Republic Copper-Zinc Mine
Cochise County, Arizona
Contract No. Idm-8522

Dear Mr. Fredell:

Enclosed is a copy of a certification of discovery or development related to Exploration Project Contract No. Idm-8522.

The contract was dated May 18, 1953, with the Government participating to the extent of 50 per cent in an exploration project estimated to cost $99,850.00. Actual expenditures were $87,045.00, with the Government's share being half of such amount, or $43,522.50.

The total amount of work provided for under the contract consisted of 1,670 feet of crosscutting and drifting and 9,660 feet of diamond drilling. Work actually done consisted of 1,297 feet of crosscutting and drifting and 9,140 feet of diamond drilling.

The discovery consisted of copper-zinc ores occurring as replacements in garnetized limestone rocks. The ore reserve resulting from such work was estimated to consist of 62,300 tons, with a grade of 2.18 per cent copper and 7.70 per cent zinc.

Sincerely yours,

C. E. Mitendorf

Administrator

Enclosure

WRGriswold/ar (1/27/56)
Copy to: Docket
Mr. Geehan, USBM
Mr. Killingsard, USGS
Admr R. File
Op. Committee
Base Metals
Region III (2)
Cont.Adm.Audit Div.
F. E. Johnson
W. R. Griswold
Chron.

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

224 New Customhouse
Denver 2, Colorado

March 22, 1955

Mr. C. W. Six, Treasurer
Coronado Copper and Zinc Company
1206 Pacific Mutual Building
523 West Sixth Street
Los Angeles, California

Re: Docket DMEA 2746 (Copper-Zinc)
Contract Idm-E522

Dear Mr. Six:

Your attention is directed to an inadvertent error in the first paragraph in Amendment No. 4.

Please change your copy of the amendment so that the figure 1520 will read 1161. Government Field Offices and the Washington Office DMEA are advised of the change by copies of this letter.

Very truly yours,

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

JWT:sr

cc Fred E. Gray
Chairman Op. Comm. (3)
Harshman
Storms
Faick
Townsend
Amendment File
Chron

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
FEB 17 1955

No. 4

AMENDMENT OF CONTRACT: No. IDM E522

Contract Docket No. DMEA 2746, dated May 18, 1953, between the United States of America and Coronado Copper and Zinc Company is hereby further amended as follows, effective December 27, 1954:

Whereas ~~1520~~ 1161* feet of drifting and crosscutting, and 8717.5 feet of surface and underground drilling has been performed at a total reported cost of $79,909.00; and whereas funds in the amount of $19,141.00 remain unexpended under the contract; and whereas additional exploration work is deemed desirable; now therefore it is agreed by the parties concerned that a portion of the additional exploration work to be performed under the contract will consist of the following:

1. Drift northwesterly from the 500 WF drift a maximum distance of 150 feet.

2. Drill a maximum of 600 feet of drill holes from the drift under the above item.

The above work will be performed at the agreed unit cost established in the contract for that particular type of work.

The work under items 1 and 2 is shown on the map titled "Plan and Sections, Proposed Exploration, Moore Shaft, 'F' ore body, Coronado Copper & Zinc Co., DMEA 2746" which is attached and made a part of this amendment. Only three drill holes are shown on the map; the location of any additional holes will depend upon conditions encountered as a result of that drilling and the location and extent of additional holes within the maximum of 600 feet must be acceptable to the Government.

Any additional drifting, crosscutting and/or drilling to be performed under the contract, other than under the foregoing items 1 and 2 is subject to the prior written approval of the DMEA Field Team, Region III, based upon a request in writing from the operator. The operator in requesting the Government's approval of additional exploration work will provide an analysis showing units accomplished and costs thereof of all work performed to date of his request.

* per ltr. Ex. off to Ofr. 3/22/55

This amendment shall not be construed to increase the estimated total cost of the project, the amount of the Government's contribution, or any item of allowable cost which is expressly designated "allowable maximum".

Dated FEB 3 1955

CORONADO COPPER AND ZINC COMPANY

By George D. Dub, President

UNITED STATES OF AMERICA

By W.M. Traver, Executive Officer
DMEA Field Team, Region III

Seal

IN REPLY REFER TO:

Date Rec'd. JAN 18 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver 2, Colorado

BUREAU OF MINES
Denver, Colorado

RECEIVED FEB 7 1955

January 17, 1955

Memorandum

To: DMEA Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 2746 (copper-zinc), Contract Idm-E522, Coronado Copper and Zinc Company, Republic Copper-Zinc Mine, Cochise County, Arizona - Request for amendment

Enclosed are the original and 8 copies of a memorandum report by J. N. Faick of the U. S. Geological Survey concurring with the Field Team's recommendation that exploration on the 500-foot level of the Republic mine be limited to drifting about 150 feet northwesterly from the 500 WF drift and drilling a maximum of 6 holes from the end of the new drift to explore for an extension of the 320 stope ore body.

The program outlined by Faick includes 150 feet of drifting, 200 feet of diamond drilling (3 holes), and 200 feet of tentative diamond drilling (3 holes).

Nine copies of a map showing the location and bearing of the proposed drift and the location, altitude, and bearing of the 3 proposed drill holes are attached for use in preparing the amendment. The three tentative holes are to be drilled only with prior approval of DMEA and at locations acceptable to both the operator and DMEA. Their locations, altitudes, and bearings are therefore not given by Faick.

The program suggested by the Field Team and shown on the accompanying map has my approval.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (18)

MINERAL DEPOSITS
DMEA
RECEIVED
JAN 17 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Box 4126 University Station
Tucson, Arizona

January 12, 1955

MEMORANDUM

To: E. N. Harshman

From: J. N. Faick

Subject: Proposed Additional Exploration in Subordinated Area No. 1: DMEA 2746, Contract Idm-E522, Coronado Copper and Zinc Company's Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona

In a telephone conversation of January 10, 1955, it was agreed by Harshman and Faick that the operator's proposed revisions of the above subject contract, submitted under date of December 24, 1954, should be revised to comply with the policies and intent of DMEA. The operator's proposal was explained in Hardwick's memorandum of January 3 and Faick's memorandum of January 4. The possibility that the operator's proposed work might be considered as development rather than exploration was discussed with Mr.Gray when he delivered the request to Mr.Storms on December 27, and again on January 7 when I visited his office in Johnson Camp.

The revised program which I am submitting herewith is essentially the first half of the applicant's program which, we believe, should be reduced in size in order to avoid the implication of doing development work rather than exploration.

In this revision we are proposing the driving of 150 feet of drift on 500 level and the drilling of 3 short diamond drill holes, each about 100 feet in length; this proposed exploration is illustrated on the attached figure A. It is assumed that 3 short holes will prove the existence of ore, but in case these fail to find ore the drilling of about 3 additional holes should be tentatively provided for, the locations of which will be selected at a later date by the operator with DMEA approval. Adequate funds have been provided for this project, the cost of which will be about $6800 at a minimum, and $7600 for a maximum, depending on how many holes are drilled and the depth to which they are drilled. The cost will be about as follows:

150 ft. drifting @ $40/ft.	$6,000
200 ft. of drilling @ $4.00	800
Total minimum	$6,800
200 ft. additional drilling (optional)	800
Total maximum	$7,600

As the mineralized zone previously has been penetrated in 5 places it is believed this additional drifting and drilling from 500 level will prove the existence of ore without doubt; therefore this revised project is recommended.

J. N. Faick

John N. Faick

JNF:ms

cc. Harshman (8)
Storms

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver 2, Colorado

Date Rec'd.
JAN 11 1955
BUREAU OF MINES
Denver, Colorado

January 10, 1955

Memorandum

To: Field Team, Region IV

From: E. N. Harshman

Subject: Proposed Additional Exploration in Subordinated Area No. 1: DMEA 2746, Contract Idm-E522, Coronado Copper and Zinc Company's Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona

Enclosed are the original and 8 copies of a memorandum report by J. N. Faick, U. S. Geological Survey on the above subject contract.

In a letter of December 24, 1954 the operator submitted a request for amendment No. 4 to permit drifting on and diamond drilling from the 500-foot level of the Republic Mine to explore for the extension ore cut in several recently completed diamond drill holes. The holes were drilled by the operator and cut ore believed to be an extension of the ore body mined in the 320 stope.

Faick calls a ttention to the fact that the operators' proposal impinges on development and suggests an alternative plan of exploration on and from the 400-foot level of the mine. The alternative plan has merit and is considered sound exploration but as Faick points out, its execution would involve subordination of additional ground by the operator. Conversations between Faick and the operator indicated a reluctance on the part of the operator to consider the alternative proposal.

Since it is not the policy of DMEA to coerce an operator to do exploration not specified in the contract and not acceptable to him, it appears that action on the part of the Field Team should be limited to processing the request for amendment contained in the operators' letter of December 24, 1954.

The proposed drifting and diamond drilling on and from the 500-foot level of the Republic mine is certainly desirable from the operator's point of view, but the work is believed to be more extensive than required to establish the presence of ore between the operator's diamond drill holes and the 320 stope. It appears that the new target

area can be explored by drifting a maximum of 150 feet northwest from the end of the 500 level crosscut, near the 320 stope, and drilling a maximum of 6 diamond drill holes upward from the new drift. This plan of attack is of advantage to the Government in that it will assure exploitation of any ore that may be found by drilling. It is of advantage to the operator, for development work by the operator can be done from the exploration drift and an extension of that drift.

Following discussions with the Executive Officer, Field Team Region IV, Mr. Faick was requested by telephone on January 10, 1955 to formulate a program of exploration similar to that proposed by the operator, but restricted in scope as suggested in the preceding paragraph. Nine copies of a plan map of the target area and accompanying geologic sections will be submitted by Faick to assist in preparing the amendment. These illustrations will show the location of the proposed drift on the 500-foot level, and the location, bearing and altitude of at least 2 of a possible 6 diamond drill holes.

Unexpended funds are available to complete the above suggested work and to complete at least a part of the work proposed by Faick in the area northwest of the ore discovered in the drill holes completed by the operator.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures 9

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Box 4126 University Station
Tucson, Arizona

January 4, 1955

MEMORANDUM

To: A. H. Koschmann

From: J. N. Faick

Subject: Proposed Additional Exploration in Subordinated Area No. 1: DMEA 2746, Contract Idm-E522, Coronado Copper and Zinc Company's Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona

In a letter dated December 24 Mr. F. E. Gray, Manager, Coronado Copper and Zinc Company, Johnson Camp, Arizona, submitted a request for amendment No. 4 to contract Idm-E 522 to permit additional exploration of the subordinated area No. 1. The request is properly documented by a description of the proposed work in Gray's letter and by mine maps and sections submitted with it. The proposed work can be accomplished without increasing the allowable cost as $19,141 remain of the original appropriation.

During recent months the operators, at their own expense, diamond drilled several holes into the northeastern part of area No.1, and encountered a mineralized zone which apparently extends southeasterly across area No. 1 and lies about 100 feet southwest of the northeast boundary of the area. This mineralized zone was first encountered west of the subordinated area, and was then traced into it by diamond drilling. Inspection of the data submitted by the operation (refer to operator's map) reveals that the ore zone has been penetrated by drill holes at cross section A-A', B-B', C-C' and at a point about 100 feet northwest of section C-C'. The ore zone is believed to be an extension of the ore body exposed by the 320 stope. As pointed out in Gray's letter, this ore body may be similar to the "D" ore body, except that it is along the upper or hanging wall side of the E-90 fault.

It is now proposed to supplement the operator's preliminary exploration by drifting on the 500 level beneath the ore, and by drilling upward from the drift into the ore zone with about 1200 feet of diamond drill holes. The purpose of the exploration is to determine the location and dimensions of the ore body, determine the grade, and to prove, if possible, that the ore is an extension of the ore in the 320 stope.

This request for an amendment No. 4 introduces a problem of interpretation of the intent of DMEA. The proposed work is undoubtedly desirable from the operator's point of view, because the drift will be used as a base for blocking out the ore by diamond drilling, and will later be used as an extractive base for mining purposes. From the Government point of view the drift may also be

desirable because it would help to assure exploitation of the ore during a reasonable life of the contract. It might also be desirable to accept the proposal because the Government has not paid any of the direct cost of the drilling that established the presence of ore, and it might be to the Government's interest to participate in the actual discovery.

I believe the Government's interest could be served best by spending the remaining money in exploring this ore body northwestward from cross-section A-A, in which direction the ore body apparently becomes larger and richer. The northwest extension of this ore body could be explored by drifting northwest from 400 level, and by drilling downward to the ore. I suggest that this be considered as an alternate to Gray's proposal. This alternate proposal would be nearly identical to the Company proposal, in methods and costs, but would involve driving above the ore rather than below it, and would require drilling downward instead of upward. This proposal would have the advantage of exploring outward beyond the limits of presently known or reasonably inferred ore.

In order to execute this alternate proposal it would have to be requested by the applicant and the area of subordination would have to be increased. This alternate exploration possibility seemed to have considerable merit; therefore, I discussed briefly the plan with Gray by telephone. He seemed reluctant to consider the alternate proposal, but agreed to study it, although he felt that his original proposal was best for the Company.

I have not had adequate opportunity to discuss with Gray the details of the many factors that should be considered in offering an alternate proposal, but a decision must be made because of the necessity of fitting the work into an operating time schedule.

I believe that either Gray's proposed program or my alternate proposal could be considered as suitable exploration. Therefore I am recommending the following.

1. Someone in authority, preferably Denver, should contact Gray and propose to him that the remainder of the exploration funds be used to explore by drifting and drilling on the 400 level northwestward for the A-A' section, and that the subordinated area be increased to cover the new proposal.

2. If the operator is unwilling to accept the above alternate proposal, then the Government should accept Gray's proposal and participate in exploration by drifting and drilling on the 500 level.

J. N. Faick

J. N. Faick

JNF:ms
cc Koschmann (8)
Storms

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

DEPARTMENT OF THE INTERIOR
Minerals Administration
RECEIVED
FEB 7 1955

SOUTHWEST EXPERIMENT STATION
Box 4097
UNIVERSITY STATION
TUCSON, ARIZONA

January 3, 1955

Memorandum

To : W. H. King, Executive Officer, DMEA Field Team

From : Superintendent, Southwest Experiment Station

Subject : Request for Amendment to DMEA Contract Idm-E522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

Enclosed in sextuplicate are

(1) Operator's request (with map) for an amendment to Exploration Project Contract No. Idm-E522, so an additional 300 feet of drifting and 1,200 feet of diamond drilling may be done in the project area;

(2) Bureau of Mines engineer's recommendation.

Also enclosed are 3 extra copies of our engineer's report.

As a significant amount of copper-zine ore may be discovered by the proposed work and as the total project cost will not be enlarged by the proposed work, I recommend that this request for an amendment be approved. There has been some argument that the proposed drifting might be termed development work as ore already has been cut by diamond drill holes. However, the ore has merely been cut and not outlined in any way so it seems to me that the proposed work may be classed as exploration, and not development.

Walter R. Storms

Walter R. Storms

CC W. H. King (8)
J. N. Faick
DMEA-2746
DF

WRStorms:frj

9RS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

SOUTHWEST EXPERIMENT STATION
Box 4097
UNIVERSITY STATION

TUCSON, ARIZONA

January 3, 1954

Memorandum

To : Walter R. Storms, Superintendent, Southwest Experiment Station, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Request for additional drifting and drill holes on 500 level, Docket DMEA-2746, Contract Idm-E522, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

On Monday, December 27, 1954, Fred E. Grey, mine manager, Johnson Camp Unit, Coronado Copper and Zinc Company, and George D. Dub, president of the same company, visited the Tucson office of the U. S. Bureau of Mines and discussed a request for additional exploration work under contract Idm-E522 with John N. Faick, geologist, U. S. Geological Survey, Walter R. Storms, Chief, Mining Methods Branch, and the undersigned engineer. When the mine was visited on December 13, 1954 for the purpose of measuring the progress during the month of November 1954, Mr. Grey stated that this proposal was being drawn up. On December 27, 1954 Mr. Grey asked that he be informed as soon as possible as to what decision was made on his request.

When the 400 W 200 ore body was discovered, the operator attempted to prove the downward extension of this ore by a diamond drill hole but the hole passed out of ore a few feet below the 400 level. The hole was extended and did cut ore near the 500 level. The operator then drilled a horizontal drill hole from the 500 level and cut ore near the same location. The operator then drove a drift from the 500 level to this location and mined a small amount of ore. This location is shown on the map, that accompanies the operator's application, as 500 W 320 stope.

From the point where the 400 level drift (driven with DMEA assistance) ends, the operator has driven north for an additional 300 feet at its own expense. Drill holes from this drift cut ore and the operator believes that this ore may connect with the ore in the 500 W 320 stope.

CC W. H. King (Orig. & 8)
J. N. Faick
DMEA-2746
DF

WRHardwick:frj

The operator proposes to drive a drift to the northwest from the 500 W 320 stope and then to probe for the inferred location of the ore body with diamond drill holes. The proposed drift is 65 feet inside the north boundary of the block of ground that has been subordinated for royalty purposes and is parallel to that boundary. The drill holes will be fanned upward into the inferred location of the ore body.

As the contract now stands, the operator has completed all exploration that is authorized by the contract. This contract originally provided for an estimated total cost of $99,050.00. The total cost of the exploration that has been completed to date is $79,909.00; thus, $19,141.00 has not yet been expended. The cost of the new work that has been requested is as follows:

300 ft. drifting @ $40.00/ft.	$12,000.00
1,200 ft. underground diamond drilling @ $4.00/ft.	4,800.00
Total	$16,800.00

The total cost of the additional work requested by the operator is less than the unexpended amount of the original contract, thus the additional work that is requested by the operator can be completed without increasing the estimated total cost of the project.

Further exploration in the area proposed by the operator will probably result in the discovery of a significant amount of ore. This operator has an excellent operating record and has been very efficient in completing the exploration project to date. It is recommended that the operator's request for 300 feet of drifting and 1,200 feet of diamond drill hole on the 500 level be approved.

Unless amended this contract will expire on May 18, 1955. No extension of time will be required to complete the additional work. The operator has requested that if approved the effective date of the amendment be December 27 and it is recommended that this request be granted.

William R. Hardwick

William R. Hardwick, Mining Engineer

CORONADO COPPER AND ZINC COMPANY
1206 PACIFIC MUTUAL BUILDING
523 WEST SIXTH STREET
LOS ANGELES 14, CALIFORNIA
TELEPHONE MADISON 6-3231

REPLY TO
JOHNSON CAMP UNIT
DRAGOON, ARIZONA

December 24, 1954

Mr. W. H. King,
Executive Officer, DMEA
Field Team, Region IV
224 New Customhouse
Denver 2, Colorado

Re: DMEA Contract Idm E522
Docket DMEA - 2746

Dear Mr. King:

We have completed the diamond drilling covered by Amendment No. 3 to the above captioned contract. As we did not get any ore in the diamond drill hole No. 22, it appears that the ore shoot stopped against the Mammoth Fault. It does not appear that any further drilling in that area is indicated at this time.

In the last few months we have done some diamond drilling into the Northeastern part of the DMEA Area No. 1 from some of our underground workings. This work has disclosed what appears to be an orebody on the upper side of the E 90 Fault which, from the exploration done, may be an ore shoot similar to our "D" orebody except on the upper side of the fault. We have not asked for your financial participation in this drilling as most of it was done from without the participation area.

We wish to do some more exploration work on this orebody to determine its dip length and grade and also to make sure that it connects with the low grade ore in our 500 WF 320 Stope in the DMEA participation area. Although the grade of ore found in the drill holes is much higher than in the 500 WF 320 Stope in the participation area, it is our opinion that the ore found in those holes connects to that in the 500 WF 320 Stope. Although this ore shoot can be drilled from our underground workings in the "D" orebody, the holes are relatively long and also will interfere with our stoping operations now in progress. Furthermore, if the ore shoot lies as we think, it will be necessary to drive a drift under it, which if done now will materially decrease the footage of diamond drilling necessary and will provide a better angle for the holes. A plan, longitudinal section and sections normal to the strike, are enclosed herewith. I wish to add that we have just finished drilling one other hole into this area about 100 feet west of the 500 WF 320 X-cut. Assays of the core are not yet completed, but it is now known that there is ore at that point.

To date we have spent $79,909.00 of the $99,050.00 approved under the above captioned contract. We ask, therefore, that an amendment be made to the contract providing for your participation in drifting northwestward on the 500 Level for 300 feet as shown on the accompanying drawings, and in diamond drilling from the drift a total of approximately 1200 feet in 12 holes numbered 23 to 34 inclusive.

On the accompanying plan we have shown the approximate location, bearings and vertical angles of holes Nos. 23, 24, 25 and 26 to be drilled on proposed section designation 370 W. On proposed section 440 W we wish to drill three holes, on proposed section 520 W three holes and on proposed 600 W, two holes. The bearings and vertical angles of the holes on section 440 W, 520 W and 600 W should be decided upon as we progress with the drilling, but will be in approximately the same pattern as those specified in section 370 W. The total footage of all of the holes should not exceed 1200 feet.

While awaiting your approval we expect to drive the drift approximately 40 to 50 feet northwest of the 500 W 320 X-cut as we need it for switching room for our motor haulage. We will be pleased if the amendment will include the cost of this 50 feet.

We wish to get started on this work as soon as possible and, therefore, ask that you give us your answer on this request as soon as possible.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG-o

6 ccs Mr. W. R. Storms
2 ccs Mr. George D. Dub
1 cc Mine File

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

224 New Customhouse
Denver 2, Colorado

December 3, 1954

Mr. Fred E. Gray
Mine Manager
Coronado Copper and Zinc Company
Johnson Camp Unit
Dragoon, Arizona

Re: Docket DMEA 2746 (Copper-Zinc)
Contract Idm-5522

Dear Mr. Gray:

Referring to your letter of November 24, 1954, and confirming advice in our telegram of December 1, 1954, you are hereby authorized to drill Hole No. 21 and one additional hole under the provisions of Amendment No. 3 as you have requested.

Nothing in this work authority shall be construed to increase the estimated total cost of the project, the amount of the Government's contribution, or any item of allowable cost which is expressly designated "allowable maximum".

Very truly yours,

W. H. King

W. H. King

for A. H. Koschmann

A. H. Koschmann

DMEA Field Team, Region IV

JWT:jp
cc Amendment File
Chron
Christensen
Contract Corresp.) with
Chairman, Op. Comm. 3) copy
Contract Corresp. File) of
Storms) support-
Faick) ing
Koschmann) data
Townsend)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver 2, Colorado

December 3, 1954

Memorandum

To: Field Team, Region IV

From: A. H. Koschmann

Subject: Request for additional exploration under Contract Ida-E322, DMEA Docket 2746, Coronado Copper and Zinc Company, Cochise County, Arizona

I have reviewed the contractor's request for drilling 2 additional holes (Nos. 21 and 22) on the subject property as tentatively provided for in Amendment No. 3 to Contract Ida-E322. A memorandum of November 29, 1954, by W. H. Hardwick, U. S. Bureau of Mines, and J. M. Falck, U. S. Geological Survey, has recommended drilling the holes as requested by the contractor. I concur in their recommendation.

E. M. Hanchman
for A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

November 29, 1954

Memorandum

Air Mail

To : W. A. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Request for additional core drilling under Amendment No. 3, DMEA Contract Idm-8522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in quintuplicate is a request from the above company for permission to drill two additional diamond drill holes on the 400-foot level under Amendment No. 3 to Exploration Project Contract No. Idm-8522. This amendment provided for two holes (Nos. 19 and 20), the locations of which were given, but it stated that "the location and extent of any additional holes to be drilled must be acceptable to the Defense Minerals Exploration Administration".

As ore was found in Hole No. 20, the operator proposes to drill two additional holes to try to determine the extent and trend of this ore shoot. I recommend that permission be granted the operator to drill these additional two holes and that Mr. Fred A. Gray, manager at the mine, be so notified by telegram.

A memorandum report by W. R. Hardwick of the Bureau of Mines is attached, recommending this additional work. It has been signed by John A. Faick of the Geological Survey who concurs with Hardwick's recommendation.

Walter R. Storms

Walter R. Storms

cc: W. A. King (8)
J. A. Faick
DMEA-2746
MF

WRStorms:frj

November 29, 1954

Memorandum

To : Walter A. Starrs, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Request for additional drill holes, Docket DMEA-2746, Contract Idm-4522, Cerrosado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

On November 29, 1954, a letter from Fred E. Gray requested permission to drill two short underground diamond drill holes.

The possibility that the two holes now proposed would be desirable exploration was foreseen when Amendment No. 3 was requested but the location of the holes was dependent on the results of drill holes No. 19 and 20. The opportune location for these holes now has been determined by the operator, based on the results of holes No. 19 and 20.

Amendment No. 3 provides that "the location and extent of any additional holes to be drilled must be acceptable to the Defense Minerals Exploration Administration". The total cost of the two additional holes (Nos. 21 & 22) will not exceed the amount authorized by Amendment No. 3.

The core from diamond drill holes No. 19 and 20 was examined on November 15, 1954. Mr. Gray was not at the mine at that time but the possibility of additional holes was discussed with his staff. It is believed that the two holes, (Nos. 21 and 22) that are requested by the operator, are good exploration and may result in the discovery of additional ore. Therefore, it is recommended that approval be granted to drill these holes as proposed by the operator and under the provisions of Amendment No. 3, contract Idm-4522.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV.

I concur with the above recommendations.

J. R. Faick

John R. Faick, Geologist
U. S. Geological Survey

CC: W. A. King (Orig. & 8)
J. R. Faick
DMEA-2746

Br WRHardwick:frj

CORONADO COPPER AND ZINC COMPANY
1206 PACIFIC MUTUAL BUILDING
523 WEST SIXTH STREET
LOS ANGELES 14, CALIFORNIA
TELEPHONE MADISON 6-3231

REPLY TO
JOHNSON CAMP UNIT
DRAGOON, ARIZONA

November 24, 1954

U. S. D.
NOV 30 1954
TUCSON, ARIZONA

Mr. W. H. King, Executive Officer, DMEA
Field Team, Region IV
224 New Customhouse
Denver 2, Colorado

*3 Re: DMEA Contract Idm E522
Docker DMEA - 2746
Amendment to Idm E522 - dated September 15, 1954

Dear Mr. King:

We have completed drilling underground diamond drill hole Nos. 19 and 20 as provided in the amendment. Our geologist has prepared a section showing the results of this drilling, and it is enclosed herewith.

As we found the ore in hole No. 20, but not in 19, the ore shoot if it extends down dip from surface holes Nos. 65 and 66 must have changed its trend. If it turned more down dip it probably is cut off on the Mammoth Fault not far below holes 65 and 66. If it turned the other way we should find it south of hole No. 19.

We, therefore, request your approval of another hole to be designated No. 21 to be drilled from 11210 N, 5765 E, bearing due south and inclined plus 66 degrees. If that finds the ore we would then wish to drill another hole from 11215 N, 5848 E on a bearing due south and inclined plus 50 degrees. Neither of these holes should exceed a depth of 100 feet so that if both holes are drilled, the total footage drilled under the Amendment will be well under the 560 feet authorized in the amendment.

Your approval of these two holes will be appreciated as soon as convenient.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG-o

Encl.

4 ccs Mr. W. R. Storms
2 ccs Mr. George D. Dub
1 cc Mine File

Collar Location:

Level: 400 Level W Drift
N: 11200
E: 5697
Elevation: 4730
Bearing: S 78 W
Angle: plus 55

Length: 167'
Hor: 84'
Vert: 137'
Logged by: R.E.B.

Date: 11/23/54

D. D. HOLE NO. NT 158 (DDH #20)

Date Started: 10/23/54
Date Finished: 11/15/54
Size: EX

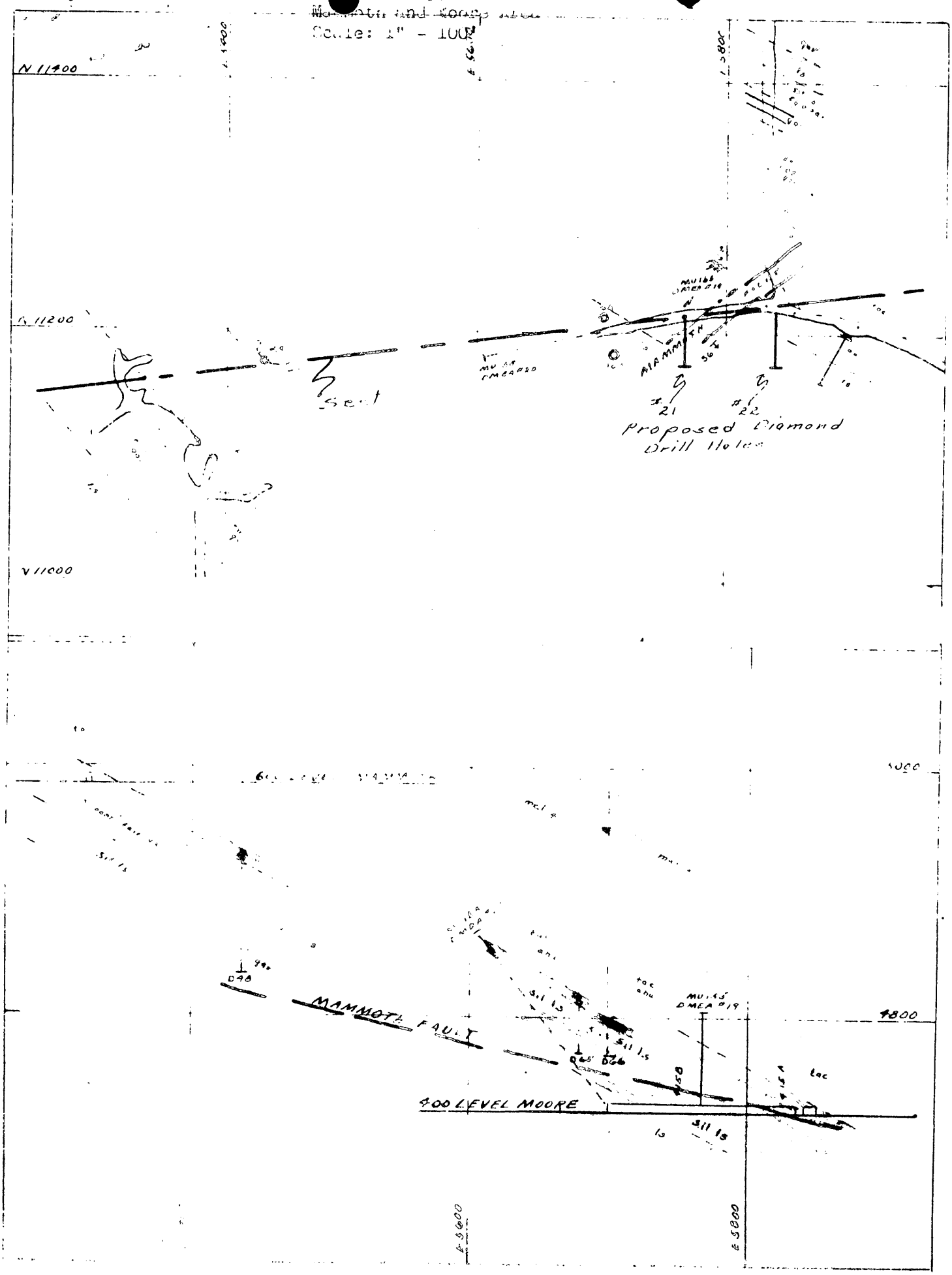
Casing: None

Objective: Test for ore in ore horizon west of DDH 65 and DDH 66.

Results: Some ore.

Footage From	Footage To	Footage Interval	Assays Cu%	Assays Zn%	Core recovery	Log	Description and Averages
0.0	16.0	16.0			89		Shaley limestone
16.0	26.0	10.0			60		
26.0	56.0	30.0			70		Limestone poor garnet. Iron stained 45' to 46'
56.0	63.0	7.0			3		poor recovery
63.0	66.0	3.0			8		Siliceous limestone poor garnet
66.0	77.0	11.0			100		
77.0	80.0	3.0			100		Fault, dark green (chlorite), altered, some calcite, sheared.
80.0	91.0	11.0			100		
91.0	110.0	19.0			100		Limestone poor fair garnet
110.0	126.0	16.0			100		Siliceous limestone poor garnet
126.0	143.5	17.5			91		Siliceous limestone fair garnet
143.5	146.5	3.0	2.75	2.6	94		
146.5	148.0	1.5	7.40	11.6	100		
148.0	152.0	4.0	2.40	4.2	100		143.5-157.0: 13.5' @ 3.02, 4.2
152.0	153.0	1.0	7.60	3.1	100		
153.0	157.0	4.0	1.05	3.0	100		
157.0	167.0	10.0			95		Tactite, some hnf bands, hard, a little siliceous

MU 158 (DMEA #20)
J[illegible]n Camp, [illegible]
[illegible] and Camp [illegible]
Scale: 1" - 100'



SEP 17 1954

AMENDMENT OF CONTRACT: No. Idm-E522 No. 3

Contract Docket No. DMEA 2746, dated May 18, 1953, between the United States of America and Coronado Copper and Zinc Company is hereby amended as follows, effective August 27, 1954:

> Referring to EXHIBIT "A" attached to Exploration Project Contract Form MF-200(A) (February 1952), captions "Description of the Work" and "Agreed Unit Costs", sub-headings "Stage I" and "Stage II", whereas the diamond drilling accomplished to date has been performed at a unit cost less than that used as a basis for computing the total agreed cost of performing the drilling, and as a result of which, funds are available within the total agreed cost for the performance of additional footage of diamond drilling, it is therefore agreed that the footage of drilling used as a basis to compute the total agreed cost of drilling will be increased by approximately 560 feet of additional drilling. The additional footage will be expended in drilling holes numbers 19 and 20 and such additional holes as are considered desirable depending upon the results of and after completion of holes numbers 19 and 20. The location and attitude of holes numbers 19 and 20 are shown on the map titled "Coronado Copper and Zinc Co., Johnson Camp, Arizona, Proposed Work on the Moore 400 West Drift Under Contract No. Idm-E522, Docket No. 2746, Date: 8/7/54" which is attached hereto and made a part of this amendment.
>
> The location and extent of any additional holes to be drilled must be acceptable to the Defense Minerals Exploration Administration. The additional drilling herein described will be performed at the unit cost stipulated for the type of drilling accomplished as outlined under said EXHIBIT "A", caption "Agreed Unit Costs".

This amendment shall not be construed to increase the estimated total cost of the project, the amount of the Government's contribution, or any item of allowable cost which is expressly designated "allowable maximum".

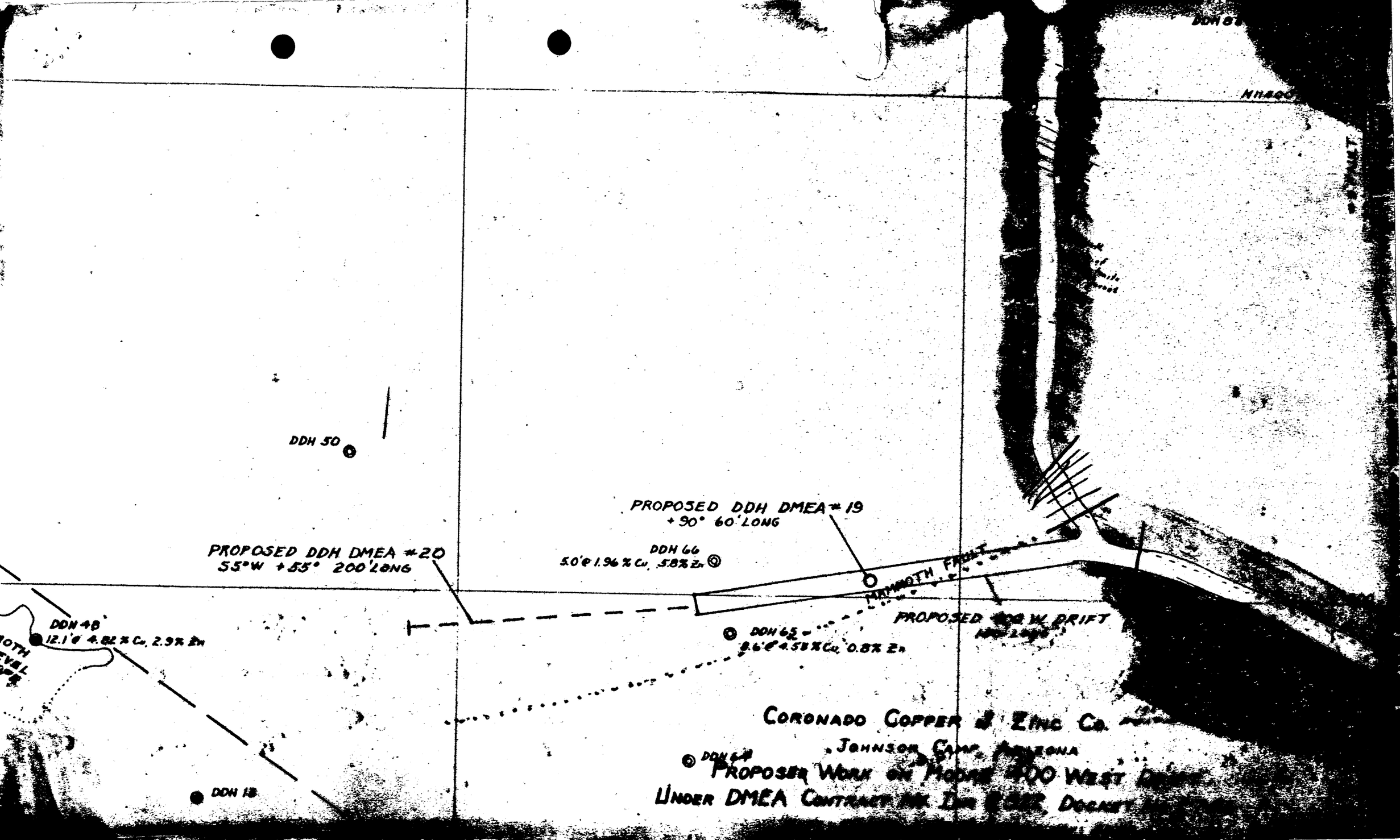
Dated SEP 15 1954

CORONADO COPPER AND ZINC COMPANY

By [signature]
President

UNITED STATES OF AMERICA

By [signature]
W.H. King, Executive Officer
DMEA Field Team, Region IV


DDH 50
PROPOSED DDH DMEA #19
+90° 60' LONG
PROPOSED DDH DMEA #20
55°W +55° 200' LONG
DDH 66
5.0' @ 1.96% Cu, .58% Zn
MAMMOTH FAULT
PROPOSED 400 W. DRIFT
DDH 48
12.1' @ 4.82% Cu, 2.9% Zn
DDH 65
8.6' @ 4.58% Cu, 0.8% Zn
DDH 64
DDH 13
CORONADO COPPER & ZINC CO.
JOHNSON CAMP, ARIZONA
PROPOSED WORK ON MAMMOTH 400 WEST DRIFT
UNDER DMEA CONTRACT

COPY

224 New Customhouse
Denver 2, Colorado

August 27, 1954

Mr. Fred E. Gray, Mine Manager
Coronado Copper and Zinc Company
Johnson Camp Unit
Dragoon, Arizona

Re: Docket No. DMEA 2746 (Copper-Zinc), Contract Idm-E522

Dear Mr. Gray:

Reference is made to your letter of August 9, 1954 which was acknowledged by our letter of August 19, 1954 relative to authorization of additional work under Contract Idm-E522.

In regard to your request for authorization to extend the 400 Level Drift from the Moore Shaft 150 feet in addition to the 1009 feet of drifting and crosscutting completed to date, you are referred to Stage 1, first paragraph of the contract, which authorizes approximately 1220 feet of drifting and crosscutting on the 400 Level. Therefore, no additional authorization for work up to that extent is required.

In regard to the additional diamond drilling requested, an amendment to the contract will be prepared authorizing the drilling as outlined by you.

Very truly yours,

W. H. King
Executive Officer
DMEA Field Team
Region IV

JWT:es

cc: Contract
Chron.
Storms
Townsend
Koschmann
Faick

August 26, 1954

Memorandum

To: Mr. A. H. Koschmann AHK

From: J. N. Falck

Subject: DMEA Docket 2746, Contract Idm-6522, Coronado Copper and Zinc Company's Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona - Proposed additional work

On August 9, 1954, Mr. F. E. Gray, Manager, Coronado Copper and Zinc Company, Johnson Camp, Arizona, requested permission to drive an additional 150 feet of drift and to drill a maximum of 560 feet of underground diamond drill holes. This exploration work, which is to be done on the 400-foot level of the Moore shaft area, is intended to explore for extensions of the ore found in surface holes No. 65 and 66, and is intended to supplement exploration already completed in Area I, under terms of the original contract.

This proposed exploration was previously anticipated and an effort was made to provide for it when the contract was drawn up. As 211 feet of the drifting authorized by contract remain unused, it should not be necessary to amend the contract to provide the requested drifting. Only 29 feet of the previously authorized drilling remain, therefore it is necessary to amend the contract to provide the 560 feet of drill holes requested by the operator. This proposed drilling will not increase the total cost of the project because not all of the funds allowed for drilling have been spent, and the remaining funds are more than sufficient to pay the cost of the additional drilling.

The proposed drifting and drilling will explore a zone which is geologically favorable for the occurrence of ore, therefore it is recommended that the operator's request be granted.

August 11, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Proposed Additional Work, DMEA Contract Idm-E522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in sextuplicate are the following:

(1) Request from Coronado Copper & Zinc Co. for additional drifting (or crosscutting), and diamond drilling on the Republic Copper-Zinc mine 400-foot level;

(2) Memorandum report by William R. Hardwick of the Bureau of Mines recommending that this request be approved.

Also enclosed are 2 extra copies of Hardwick's report.

According to terms of the contract, it would seem that the additional 150 feet of drift on the 400-foot level could be authorized without an amendment. However, an amendment will be necessary for the additional diamond drilling.

I discussed this proposed work with Mr. Fred E. Gray, mine manager of Coronado Copper & Zinc Co.'s Johnson Camp Unit, several days ago and recommend that the proposed work be authorized. The amount of ore already discovered by work under terms of the contract does not seem to be sufficient to repay the Government's share of the loan. The proposed work has a good chance of discovering additional substantial quantities of ore.

John N. Faick of the Geological Survey is on a field trip and probably will not return before Friday. When he will send in his report on this request, I do not know.

Walter R. Storms

Walter R. Storms

CC W. H. King (7)
John N. Faick
DMEA-2746
DF

WRStorms:frj

August 11, 1954

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Proposed Amendment to Contract Idm-8522, Docket DMEA-2746, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic mine was visited on August 9, 1954. At that time, Fred E. Grey, mine manager, discussed a proposal to drive an additional 150 feet of drift and do additional diamond drilling on the 400 level of the Moore shaft.

This proposed drift was contemplated by the original exploration plan and it would appear to me that it is authorized under Stage I of the contract. The plan of the proposed work, that is a part of the contract, shows a proposed drift in the approximate location in which the operator now desires to drive a drift.

Stage I of the contract provided for 1,220 feet of drift or crosscut at an estimated cost of $48,800.00. As of July 31, 1954, the operator had completed 1,090 feet of drift and crosscut at a cost of $49,360.00. This leaves 130 feet of drift or crosscut that is authorized by the contract but not used by the operator. In addition to this footage, there was 300 feet of drift or crosscut authorized by Stage II, none of which has been used by the operator.

With respect to the additional drilling that has been requested by the operator, it would appear that an amendment would be necessary. The contract provides for 8,500 feet of drill hole, including all Stages, and the operator has completed 8,471 feet as of July 31. The estimated cost of the 8,500 feet of drilling was $38,250.00, but the actual cost as reported by the operator was $32,491.00. This smaller cost resulted from the fact that the operator drilled a larger portion of the footage with a smaller bit than was anticipated. Thus, although the additional drilling which

CC W. H. King (Orig. & 7)
J. N. Faick
DMEA-2746
DF

WRHardwick:frj

operator has requested will not exceed the total cost of drilling as authorized by the contract, it will exceed the total footage. It is recommended that an amendment be added to the contract to allow the additional footage of drill hole that is requested by the operator.

The additional work proposed by the operator has an excellent chance of finding an additional ore body and it is recommended that it be authorized.

The operator is anxious to start the additional work and it is recommended that Mr. Grey be notified as soon as possible if the drift does not require an amendment and is approved, so the work can be started. The amendment for the additional drilling can then be processed.

William R. Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

August 9, 1954

Mr. W. H. King, Executive Officer, DMEA
Field Team, Region IV
224 New Customhouse
Denver 2, Colorado

Re: DMEA Contract Idm R522
Docket DMEA - 2746

Dear Mr. King:

We have been giving considerable study as to what further exploration work may be worthwhile under the above captioned contract. We have come to the conclusion that further work is advisable in Area I. We request that approval be granted for an additional 150 ft. of drifting and a maximum of 560 ft. of underground diamond drilling.

In the contract under Exhibit A, Stage I in Area I approximately 1220 ft. of drifting and crosscutting was approved to disclose the downward extension of the mineralization indicated by surface drill holes Nos. 65 and 66. Of this approved footage, we have driven only 1009 ft. The low grade ore discovered by the work in what is now known as the 400 W 200 stope was thought to be an extension of that mineralization in the footwall of the Mammoth Fault. On account of the great difference in the character of the ore in the two places it seems doubtful if that is true. Regardless of whether or not it is true there should be considerable ore on the hangingwall side of the Mammoth Fault between it and the floor of the Mammoth W 700 Level 30 stope. The location of this ore is not known except as indicated in surface holes Nos. 65 and 66. It is our opinion that this ore rakes eastward from the Mammoth W 700 Level 30 stope, through diamond drill holes Nos. 65 and 66. We formerly thought that this ore would reach the 400 Level at about coordinates 11200 N, 5900 E. Work under this contract in the 400 W Drift and underground diamond drill hole No. 142 (DMEA No. 12) proved that the ore does not reach the level at that point. The ore may have turned slightly to the north, thus either reaching the level ahead of the present face of the drift or more probably it is cut off by the fault before it reaches the level.

The indicated grade of ore to be expected is good, as shown by surface holes Nos. 48, 65 and 66 on the accompanying sketch. The tonnage that we might expect would be about 10,000 to 12,000 tons.

We propose continuing the 400 W Drift on to the west about 150 ft. as shown in green on the accompanying sketch. From this drift we propose drilling two diamond drill holes as indicated, probably totaling 260 ft. We would also like to have approval of another 300 ft. of diamond drilling if the first two holes are not successful or indicate more drilling to be advisable. The location of these additional holes will be decided upon after analyzing the results of the first two holes.

I believe that the 150 ft. of drifting is covered by our contract and will therefore require no change in the contract, but merely your approval of the work. The diamond drilling may require an amendment as we have completed drilling all but 29 feet of the diamond drilling provided in the contract althe there remains the sum of $5759 provided for diamond drilling that has not been used.

We hereby request approval of 150 feet of drifting as outlined above and also approval or an amendment authorizing an additional 560 feet of diamond drilling as outlined above. We will start this work as soon as approval is granted. We hope that action on this request will be taken as soon as possible.

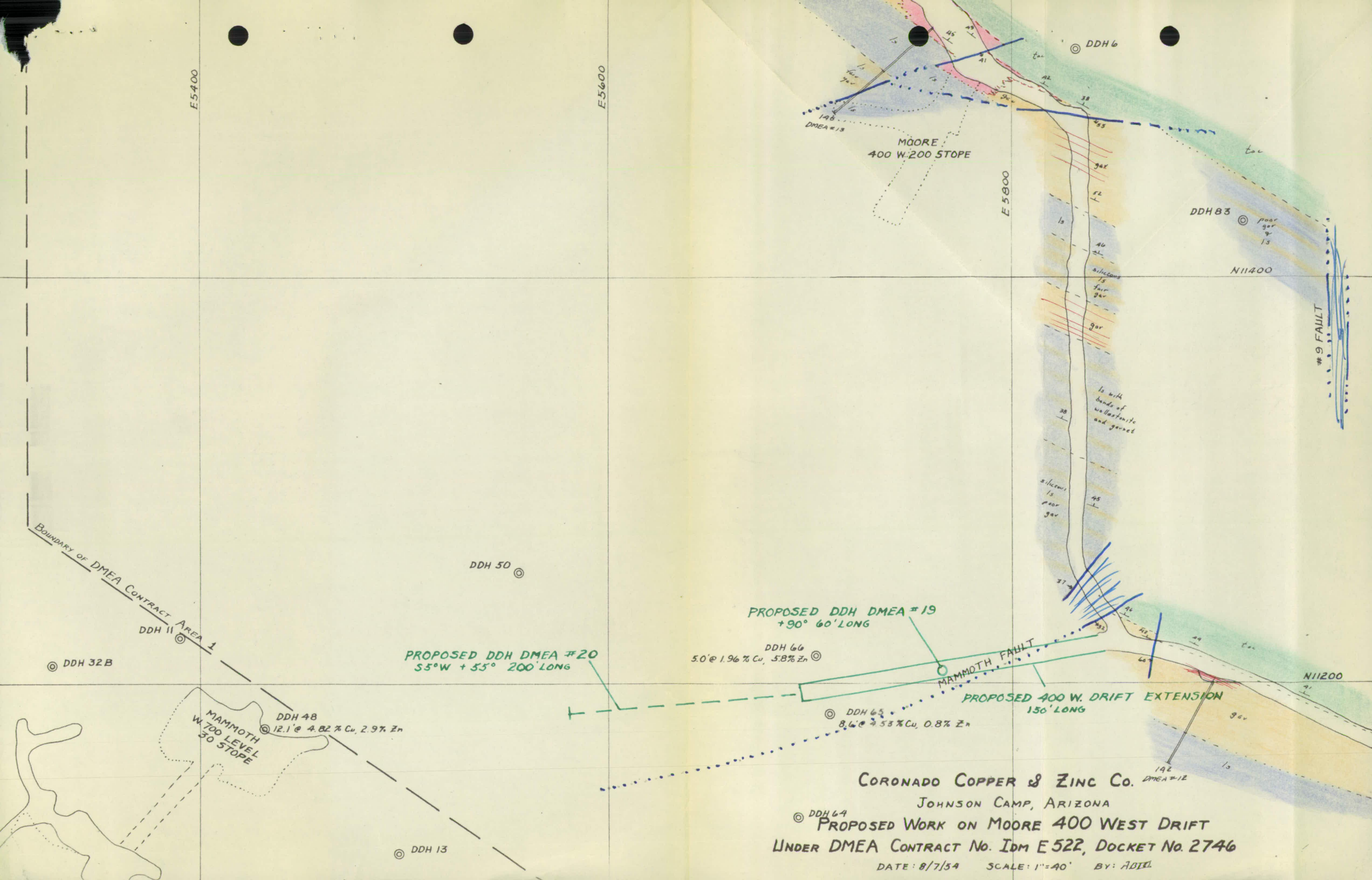
Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG:rk

cc:- 6 Enclosed
1 Mr. George D. Dub
1 Mine Office



CORONADO COPPER & ZINC CO.

JOHNSON CAMP, ARIZONA

PROPOSED WORK ON MOORE 400 WEST DRIFT

UNDER DMEA CONTRACT NO. IDM E 522, DOCKET NO. 2746

DATE: 8/7/54 SCALE: 1" = 40' BY: ABH

AMENDMENT OF CONTRACT: No. IDM-E522 No. 2

Contract Docket No. DMEA 2746, dated May 18, 1953, between the United States of America and Coronado Copper and Zinc Company is hereby amended as follows, effective July 15, 1954:

It is agreed by the parties concerned, as indicated by signature affixed hereto, that work operations under the terms of Contract IDM-E522 will be recessed effective July 15, 1954, contingent on the following conditions:

1. Normal operations under the terms of the contract will be resumed on or before January 15, 1955.

2. A sum of not to exceed $500.00 will be withheld from reimbursement to the operator, under the terms of the contract, from Form MF-104 "Operator's Monthly Progress Report and Voucher" for the period prior to the recess of operations, pending resumption of operations.

3. The operator will preserve and protect the work performed prior to the recess of operations, to the best interest of the parties concerned, without charge to the DMEA project.

This amendment shall not be construed to increase the estimated total cost of the project, the amount of the Government's contribution, or any item of allowable cost which is expressly designated "allowable maximum".

Dated AUG 9 1954

CORONADO COPPER AND ZINC COMPANY

By George D. Dub
George D. Dub, President

Seal

UNITED STATES OF AMERICA

By W.H. King
W.H. King, Executive Officer
DMEA Field Team, Region IV

July 19, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Request for Recess, DMEA Contract Idm-E522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed are original and 5 copies of a request for a 6-months recess from Coronado Copper & Zinc Co. at its Republic copper-zinc mine, Johnson Camp, Cochise County, Ariz., DMEA Exploration Project Contract No. Idm-E522. I assume the recess will be from July 15.

John N. Faick of the Geological Survey, and W. R. Hardwick and I recommend that this recess request be granted.

Walter R. Storms

Walter R. Storms

CC W. H. King (5)
J. N. Faick
DMEA-2746
DF

WRStorms:frj

July 15, 1954

Mr. W. H. King, Executive Officer, DMEA
Field Team, Region IV
224 New Customhouse
Denver 2, Colorado

Re: DMEA Contract Idm E522
Docket DMEA - 2746

Dear Mr. King:

At the time of this writing we have completed Diamond Drill Holes 16, 17, 18, none of which encountered any ore. Log of the last hole will be submitted with our July report. We are now doing some diamond drilling east of area No. 2 and also further surface geological work in the general area. Perhaps these holes of ours or the geological work may indicate more drilling may be advisable a little later in the areas covered by our contract. Until further information is obtained we have no further exploration work to suggest.

In view of the above considerations we request that we be granted a recess of 6 months before doing any more exploration work under the contract.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray, Mine Manager

FEG:rk

ces-6 Enclosed
1 Mr. George D. Dub
1 Mine Office

No. 1

AMENDMENT OF CONTRACT: No. IDM-E522

Contract Docket No. DMEA 2746, dated May 18, 1953, between the United States of America and Coronado Copper and Zinc Company is hereby amended as follows, effective April 20, 1954:

> Referring to EXHIBIT "A" attached to Exploration Project Contract Form MF-200(A) (February 1952), second page, footnote "1/", change the ending period to a comma and add the following: "except that footage and funds not expended on work described under Stage I may be added to that estimated for Stage II. The extent and location of additional work performed under Stage II, in conformance with the foregoing, is subject to prior mutual agreement between the operator and the Government and the additional work will be performed at the established unit costs applicable to that type of work.

This amendment shall not be construed to increase the estimated total cost of the project, the amount of the Government's contribution, or any item of allowable cost which is expressly designated "allowable maximum".

Dated MAY 10 1954

CORONADO COPPER AND ZINC COMPANY

By [signature]
President

UNITED STATES OF AMERICA

By [signature]
W.H. King, Executive Officer
DMEA Field Team, Region IV

Seal

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

224 New Customhouse
Denver 2, Colorado

May 10, 1954

Mr. Fred E. Gray
Mine Manager
Coronado Copper and Zinc Company
Johnson Camp Unit
Dragoon, Arizona

Re: Docket DMA 2740 (Copper-Zinc)
Contract DMA-1522

Dear Mr. Gray:

Enclosed is the operator's copy of Amendment No. 1 to Contract DMA-1522 which provides that footage and funds not used under Stage I may be used in the performance of work under Stage II.

Consistent with the stipulations contained in the contract relative to the Government's approval of work, and with the provisions of amendment No. 1, you are hereby authorized to perform the drilling of diamond drill holes No. 16, 17 and 18 in conformance with the plan of operations outlined in the second paragraph of your letter of April 16, 1954

Very truly yours,

W H King

W. H. King
Executive Officer, DMEA
Field Head, Region IV

Enclosure

JWT:jp
cc Corresp. File
Amdt. File
TAChristensen
MMBorme
AHKoschmann
JWTownsend
COWittendorf (3)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Box 4126 University Station
Tucson, Arizona

April 16, 1954

Memorandum

To: Mr. A. H. Koschmann, Denver 2, Colorado

From: John N. Faick, Geologist, Tucson, Arizona

Subject: Coronado Copper and Zinc Company
Johnson camp, Cochise County, Arizona
DMEA 2746, Idn E-522

We have received a request, dated April 10, 1954, from the operator of the above project for permission to drill additional surface drill holes in DMEA Area No. 2. These holes are requested because recent geological studies, and data obtained from previous drilling under this project, have revealed an unexplored zone which the operators believe is worthy of exploration. If the proposed drilling is permitted, then the total footage will exceed the amount of drilling authorized by Stage II of the contract; however, adequate funds are available to do the additional drilling. Mr. Gray, Mine Manager, for Coronado Copper Zinc Corporation, reports that it has not been necessary to do all the drifting or crosscutting provided by the contract, and that a balance of $35,193.50 remains of the $99,050 which were originally allowed for the entire project. Thus adequate funds are available for the proposed drilling, although the holes were not specifically provided for in the contract.

The proposed drilling is based on results of the diamond drilling which has been completed under the DMEA program, and on surface geological mapping in and around DMEA Area 2. The proposal is supported by several maps and a short report prepared by Baker, and submitted with the applicant's request. These proposed surface holes were discussed by Hardwick and Faick with the operators when the project was examined on March 17, 1954. At that time Mr. Arthur Baker III, geologist for the operating Company, had not completed compiling his field data for locating these holes, but the data and maps available at that time were examined in anticipation of this proposed addition to Stage II of the contract. This writer again reviewed the proposed drilling with Mr. Gray when he brought the proposal and the supporting data to the Tucson office.

Drilling completed to date indicates that most of Area 2 is underlain by a large mass of garnetite, but that blanket type ore bodies apparently are not associated with it. Drill holes 109, 110, and 113 (see operators' drawing JGA 6 and 9) have penetrated low-grade mineralization, which apparently is concentrated near the north edge of the garnetite mass.

Operators' drawings JGA 6 and Sections B-B' and C-C' show 2 fracture zones, D 112 and D 113, in which minor, small-displacement fractures are concentrated. The fractures in Zone D 113 are interpreted by Baker to be slumpage or subsidence fractures that are spacially related to the north edge of the garnetite mass which underlies Area 2. The D 112 fracture zone projects from the surface to about the center of the garnetite mass, and has been partly explored by drill holes 112, 114 and 115, but no ore was discovered by the holes.

A fracture zone is associated with the Moore "A" ore body, (see operators' map JGA 6) and Baker's reconnaissance work indicates that a zone of similar fractures is concentrated above the Moore "D" ore body. The similarity of the fracture zones over the Moore "A" and "D" ore bodies to the fracture zone D 113 indicates that an ore body could be present in the "favorable" limestone beds where intersected by the D 113 fracture zone.

Some of the ore bodies in the Johnson Camp Area lie along the lateral edges of garnetite masses, in the same beds as the barren garnetite. An example of this type is found in the Republic Manto ore body which has a cross-section of about 30 by 40 feet and a length of 900 feet, and which lies along the down-dip edge of a mass of garnetite. The Moore "A" ore body, with a cross-section about 60 feet by 130 feet also lies along the down-dip side of a garnetite mass. A few ore bodies are associated with very small masses of garnetite, which occur along the lateral edges of the ore body. The Moore "C" and "D" ore body is of this type; and has a cross-section of about 20 by 40 feet.

The proposed diamond drilling is exploration for an ore body similar to the Moore "C" and "D" ore body. It is thought that an elongate ore body, having a small cross-section, could be present in the favorable limestones where they are intersected by the D 113 fracture zone. This intersection is thought to correspond closely to the northern, down-dip margin of the large garnetite mass that underlies most of Area 2. Thus, Baker's suggestion that ore may be present in this area is supported by the presence of the garnetite mass, the D 113 fracture zone, the presence of receptive or "favorable" limestones, and by low-grade mineralization penetrated by drill holes 109, 110 and 113.

Three diamond drill holes, having a total footage of 2550 feet, according to Baker, or 2700 feet, according to Gray, are proposed for testing the edge of the garnetite mass as inferred from the fracture zone. Two other diamond drill holes, totaling 1800 feet of drilling, are requested but their location is left to be decided on the basis of the results of the first three. The location of these holes and the order of drilling is shown on the applicant's maps and sections. It may not be necessary to drill all 3 holes, but if neither No. 16 nor No. 17 find ore, but indicate that the formation may be favorable, then No. 18 would be necessary.

The geology of the area, for which drilling is proposed, appears to be favorable for the concurrence of ore and the proposed holes could result in a discovery. There is no other feasible method by which this zone can be explored at this time. Therefore, it is recommended that the operators' request for drilling holes 16, 17 and 18 be approved.

John W. Faick
Geologist

APR 1954
RECEIVED
U.S. Geological Survey
Mineral Deposits Branch
Denver

JWF:ms

cc Koschmann (8)
Storms
Faick

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 13 1954

April 20, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Proposed Amendment, DMEA Contract Idm-E522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

Enclosed in sextuplicate are

(1) Company's request for further diamond drilling, with maps;

(2) Bureau of Mines engineer's recommendation.

The company has asked for additional diamond drilling under Stage II, and also for additional dirfting and/or cross-cutting. As the requested work will not increase the total cost of the project and as there is a good chance of discovering additional ore, I recommend that the company's request be granted.

Walter R. Storms

Walter R. Storms

CC W. H. King (5)
J. N. Faick
DMEA-2746
DF

WRStorms:frj

April 20, 1954

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Amendment to Contract Idm-E522, Docket DMEA-2746, Coronado Copper and Zinc Co.'s Republic Copper-Zinc Mine, Cochise County, Ariz.

The Republic Mine was visited by John N. Faick, geologist, U. S. Geological Survey, and the undersigned engineer on March 17, 1954. The mine was again visited on April 9, 1954 by the undersigned and the proposed amendment was discussed with Arthur Baker,III geologist for the mining company, and Fred E. Grey, manager of the Johnson Camp unit.

The contract provides for a Stage II, which when approved will authorize an additional 2,000 feet of surface diamond drilling. However, the operator believes that 2,700 feet will be necessary to explore an area on which Mr. Baker has made a special study. Mr. Grey has requested an amendment to permit additional surface drilling. This change will not increase either unit costs or the total amount authorized by the contract. The additional funds will come from an unused portion of Stage I.

The total estimated costs under the contract are compared with the actual expenditures to April 1, 1954 in the following table:

	Contract Estimate		Actually Spent	
Stage I	Feet	Cost	Feet	Cost
Drift and/or crosscut	1,200	$48,800.00	1,005	$40,200.00
Surface Diamond drill	6,500	29,250.00	6,065	23,496.50
Stage II				
Drift and/or crosscut	300	12,000.00		-
Diamond drill	2,000	9,000.00		
Total		$99,050.00		$63,696.50
Government participation		49,525.00		$31,848.25

CC W. H. King (orig. & 5)
J. N. Faick
DMEA-2746
DF

WRHardwick:frj

Although this project has found only one small ore body to date, the operator, the Coronado Copper and Zinc Company, has been exceptionally cooperative and efficient in the execution of the exploration program. The technical men of the company have done an outstanding job of recording and reporting the results. The company is very reliable and it is believed that the program proposed in this request has merit. It is recommended that the additional surface diamond drilling that has been requested by the operator be approved.

William R Hardwick

William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

April 10, 1954

Mr. W. H. King, Executive Officer, DMEA,
Field Team, Region 17,
224 Customhouse,
Denver 2, Colorado

Re: Docket No. DMEA-2746
Contract Idn E522

Dear Mr. King:

We are enclosing, herewith, various geological maps and a report by our Geologist, Mr. Arthur Baker, III. These maps and the geological report are submitted to you in support of the following request for approval of further diamond drilling in Area No. 2 of the above captioned project.

You will note that the spacing of the three diamond drill holes, specified in this request, is only 75 feet which may seem rather small for holes of 800 to 900 feet depth. We have located them with this close spacing because the type of orebody we expect in this location is one similar to our "C" orebody. A spacing greater than 75 feet could have straddled the "C" orebody, yet the "C" orebody will produce 60,000 tons of good ore even without its westward extension known as the "D" orebody. We advise, however, that we recommend drilling these holes in the order of their numbering and thus it may not be necessary to drill No. 18, but if neither No. 16 nor No. 17 find ore but indicate that the formation may be favorable between them, No. 18 would then be necessary.

As of April 1st, approximately 4 ft. of drifting remained to be done to complete all of the work provided in Stage I in both Area No. 1 and Area No. 2. At the same time, however, we have spent far less money than was approved for this work. Out of the $99,050 approved for the entire project, we have spent $63,696.50 to April 1st, leaving a balance of $35,353.50 which has been approved for the entire project. Only approximately $160 of this will be needed to complete Stage I, thus leaving approximately $35,193.50 approved in money but not in footage to be drilled, drifted and/or in crosscuts.

At this time we respectfully ask your approval for approximately 2700 feet of surface diamond drilling in the three locations numbered DMEA 16, 17 and 18 on the accompanying maps. As this is more footage of diamond drilling than provided in the contract in Stage II, it may require a change in the contract. In the event a change in the contract is necessary, we suggest that the contract be amended to allow additional diamond drilling, drifting and/or crosscutting to be done up to but not exceeding a total cost for the project of $99,050.00 which has been approved; at the same time providing that the amount and location of such work shall be mutually agreed upon by the government and ourselves. If approved in this manner we assume that the time necessary for approval of further work under the project will be minimized as all that would be necessary thereafter would be approval of your engineers on the location and amount of other diamond drill holes, drifts and/or crosscuts.

We request your decision on this matter as soon as possible so that work under this project may proceed without interruption.

Very truly yours,

CORONADO COPPER & ZINC CO.

By Fred E. Gray
Fred E. Gray
Mine Manager

FEG:rk

Encls.

Geology and Drill Hole Recommendations
For DMEA Area 2, Johnson Camp, Arizona

Docket No. DMEA 2746
Contract Ldn 8522

Drawings accompanying this report:
Surface Geologic Map of the Copper Chief Area. Scale: 1" - 100'.
Section A-A', Longitudinal Section through DMEA Fence and B22 Fence. Scale: 1" - 100'.
Section B-B', Cross Section thru D.D. Holes 41 and 112, Scale: 1" - 100'.
Section C-C', Cross Section thru D.D. Hole 115, Scale 1" - 100'.
Structure Contour Map, Copper Chief Area Study, Scale 1" - 100'

SUMMARY AND CONCLUSION

All of the orebodies in the district are associated with garnetite masses, some lying as blanket-like bodies on top of garnetite masses, and others as pipe-like bodies along the lateral edges of garnetite masses. The results of diamond drilling in and around the DMEA Area 2 indicate that a garnetite mass underlies part of this area, but that no blanket-type orebody overlies it. However, there is light mineralization near one edge of the garnetite mass. A fracture zone on the surface is believed to be related to this edge of the garnetite mass. Three diamond drill holes totaling ~~2250'~~ 2550' of hole are proposed to test the edge of the garnetite mass, as located by the fracture zone, some 600' from the known mineralization. Two other diamond drill holes, totaling 1800' of drilling, are recommended, but their location is left to be decided on the basis of results of the first three

INTRODUCTION

The diamond drilling recommended in this report is based on information gained from diamond drilling under the DMEA program and on surface geologic mapping in and around DMEA Area 2. The principal diamond drill data are shown in Section A-A', and more detailed information about the drilling is available in the logs of the individual holes. The surface data are shown on the surface geological map.

The surface map is a preliminary print showing the area mapped to date in a project that ultimately will cover the entire district. This mapping was undertaken in hope of finding new orebodies through fractures appearing on the surface, such as fracture patterns, type and intensity of metamorphism, and scattered mineralization. So far, the last two features show little promise; both are widely distributed, but there are no concentrations that appear likely to indicate ore. Several well-defined fracture zones have been found, however, and the proposed drilling is intended to test one of these.

Since the primary purpose of the mapping is to distinguish rock types and fracturing little attempt has been made on this print to separate formations or members, although some beds can be traced without difficulty through the area. Nearly all of the mapped area is in the Escabrosa formation. Along the southwestern edge of the map is the Martin 7 hematite, mapped because it is an excellent marker bed. In the northeast corner of the map, a part of Cooper's Unnamed formation was mapped; this bed and the uppermost beds of the Escabrosa are here duplicated by faulting.

Several of the strong faults mapped in the Escabrosa formation on the surface (601, 602, 603, 604, 605 Faults) do not appear in the lower beds on Section A-A', where the closely-spaced diamond drill holes would be sure to show them if they were present. Evidently the Escabrosa was involved in some deformation that did not affect the beds below. The 607, 608 and 609 Faults, which offset the Martin 7 member, as well as the

Keenbrook beds, evidently persist down to the favorable Abrigo beds.

OCCURRENCES OF ORE IN THE DISTRICT

Sixteen important orebodies have been mined in the district. One of these, the Peabody Orebody, lay in the Naco formation, and will not be considered here. The other fifteen were in the favorable beds of the Middle Abrigo member, the beds that have been tested by the BMMA drifting and diamond drilling to date. At the present time, all exploration work in the district is done in these beds.

ASSOCIATION WITH GARNETITE

All of the orebodies are intimately associated with garnetite. Layers of high-grade sulfides several inches thick are interbedded with layers of barren or low-grade garnetite of about the same thickness. On a larger scale, the orebodies as a whole are closely associated with large masses of barren garnetite, but the spatial relationship between orebody and garnetite mass is variable.

Some orebodies lie in the beds immediately above the accompanying garnetite mass. The Republic Northeast Winze Orebody, typical of this type, is 700' long, 200' wide and 15' thick, and lies on a garnetite mass with about the same lateral dimensions but 40' thick.

Other orebodies lie along the lateral edges of garnetite masses, in the same beds as the barren garnetite. One such orebody is the Republic Manto Orebody, which has an average cross-section of about 30' by 40' and a length of 900'. This orebody lies along the down-dip (north) edge of a mass of garnetite (and some other metamorphic rocks) having a cross-section 350' by 300'. Another example of this type is the Moore "A" Orebody, which, with a cross-section of about 60' by 130', lies along the down-dip edge of a garnetite mass with a cross-section of about the same dimensions.

Finally, there are a few orebodies that are associated with very small masses of garnetite, having only a thin fringe of garnetite on the lower side or lateral edge of the orebody. An example of this type is the Moore "C" and "D" Orebody (genetically a single orebody separated by post-mineral faulting) with a cross-section of about 20' by 40' and a fringe of garnetite 10' to 20' thick on two or three sides.

STRUCTURAL LOCALIZATION

Several kinds of structures are known to localize individual orebodies and also garnetite shoots. Three sets of faults are present in the district - Northeastern, Northwestern and Eastern, all named for the direction of their strike. At least some faults of each set were premineral, but the major displacements were postmineral. In addition, there are two sets of shallow folds, one set trending easterly, the other set northerly.

Most of the orebodies lie within a few hundred feet of major faults, - faults with 50' to 300' displacement. In only one case - that of the Moore "C"-"D" Orebody - is there any clear evidence that the major fault was an important factor in localizing the ore. In most cases, the faults pass near or even through the orebodies with no effect other than displacement. Possibly these major faults were important in large-scale ground preparation, but were not important in the localizing of individual orebodies.

The known orebodies lie in two distinct clusters, one in the Republic Mine, in an area cut by several major Eastern Faults, and one in the Moore Mine and vicinity,

in an area cut by a Northwester fault and several large Easter and Northeaster faults. The DMEA Area 2 covers part of the untested ground between these two clusters. Two orebodies are definitely localized by faults. The Moore "B"-"D" Orebody, mentioned above, lies along the intersection of the favorable beds with the East 90 Fault, a fault striking N 45° W and dipping 45° SW. This is the only known fault in the district with this attitude. The Mammoth 467 Orebody lies at the intersection of the favorable beds with a Northeaster fault. Both of these orebodies are pipelike bodies with relatively small equidimensional cross-sections and great length.

Several orebodies in the Republic and Moore Mine are localized by folds of both the northerly and easterly trending groups. In general, the northerly trending folds localized broad, rather thin orebodies lying on top of garnetite masses. An exception to this is the Moore "A" Orebody, which has a triangular cross-section about half as thick as it is broad, and lies at the edge of the garnetite mass. The easterly-trending folds localized pipe-like orebodies, such as the Republic Manto Orebody described above.

For some orebodies, no localizing structure is discernable.

SURFACE GEOLOGY

At the northwest end of the map area is exposed a group of closely-spaced limonite-stained fractures, labeled the "A" Orebody Fracture Zone. These fractures trend about N 5° W, and dip steeply west. The strike of these fractures, and of the zone as a whole, is approximately parallel to the long axis of the Moore "A" Orebody, and if projected downward at about 70° W dip, the fracture zone coincides with the "A" Orebody. Fracturing with a similar attitude is common in the "A" Orebody, and probably represents the continuation of the fracture zone exposed on the surface.

On the surface above the Moore "D" Orebody (not mapped), reconnaisance work shows a similar group of fractures, with their strikes about parallel to the axis of the orebody (about N 45° W). Above the Moore "B" and "C" Orebodies there are only scattered small outcrops, so there is no way to determine whether or not fracture zones mark these orebodies too.

In the DMEA Area 2, two fracture zones similar to the "A" Orebody Fracture Zone have been found. These are labeled on the map as the D113 Fracture Zone and the D112 Fracture Zone. Both of these zones strike about S 75° E and the individual fractures dip south, though for the most part the dips are not so steep as those of the "A" Orebody fractures. Both zones are well developed only where they lie in the unaltered dolomite near the bottom of the Escabrosa formation, and more or less disappear where they enter the beds above and below. The manner of their disappearance, and the manner of disappearance of individual fractures on the ground indicates that the zones do not end where they pass out of the dolomite, but rather that in the new host rocks the fractures are too inconspicuous to be mapped. A group of fractures near N 10250, E 8100 is probably the continuation of the D113 Fracture Zone, and is shown as such on the map.

INTERPRETATION OF THE SURFACE GEOLOGY

When the D113 Fracture Zone was mapped, it was hoped that this marked a new orebody, and DDH 113 (DMEA No. 11) was drilled to test the favorable beds below the fracture zone. The hole cut only thin garnetite and two thin stringers of sulfides.

A new interpretation, based principally on the distribution of garnetite in the DMM drill holes and others in the area, is that this fracture zone is related to the north edge of a garnetite mass. Section B-B' is a cross-section through this garnetite mass at right angles to the strike of the fracture zone and to the inferred axis of the garnetite shoot. Diamond drill holes in the surrounding area have been projected to the section, and the thickness of garnetite in each hole shown, to demonstrate the relationship between the fracture zone and the edge of the thick garnetite mass.

Although the cross-section demonstrates a spatial relationship between the D113 Fracture Zone and the edge of the garnetite mass, there is no evidence as to a genetic relationship. The writer thinks it is quite possible that the fracture zone was caused by slight slumpage resulting from volume loss during formation of the garnetite mass. Cooper (1950, p. 35) has discussed some of the evidence for loss of volume during metamorphism in this district. The concentration of the slumpage effects into a narrow zone of parallel fractures presumably results from two features: 1) the transition from thick garnetite to unaltered limestone is quite abrupt at this edge, so that the zone of differential movement above this transition area would be quite narrow; and 2) the axis and edge of the garnetite shoot are parallel to the plane of weakness elsewhere marked by Keuter faults.

According to this reasoning, there should be at the south edge of the garnetite mass a similar fracture zone, and between the two fracture zones should be a tively unbroken area, where the rocks have been dropped with little differential movement because of this uniform volume loss of the underlying garnetite. If such a fracture zone is present at the extreme south edge of the shoot, it cannot be recognized on the surface, because the beds in which it outcrops mask the fracturing.

The wide D112 Fracture Zone projects to the favorable beds at about the center of the garnetite mass. In this particular area, the garnetite is some 50' thicker than in the adjoining parts of the shoots (see Section B-B'), and this irregularity may have produced the fracture zone. Somewhere west of the exposure of the D112 Fracture Zone, the garnetite shoot evidently divided (see Structure Contour Map), and this division may have produced the fracturing.

One point made very clear by the DMM drilling to date is that there is no Northeast Winze-type orebody associated with this garnetite mass — all of the holes drilled into the main part of the garnetite were completely barren, proving that there is no blanket of ore overlying the garnetite. The low-grade mineralization that has been found associated with the garnetite mass is all near the edge of the shoot, and particularly near the north edge — in D.D. Holes 109, 110 and 113, and in D.D. Hole 79, if this hole is in the same garnetite mass. Thus, the available evidence shows that there is a concentration of mineralization near the north edge of the garnetite mass. Further exploration of this area is recommended, in hopes of finding an orebody similar to the Republic Monte Orebody.

The location of only one point on the north edge of the garnetite shoot is known - in the vicinity of D.D. Holes 109, 110 and 113. If the relationship between the D113 Fracture Zone and the garnetite edge is as described above, however, the trend of the garnetite edge can be determined from the location of the fracture zone. This has been done on the Structure Contour Map and on Sections B-B' and C-C'. An average dip for the fracture zone of 70° S has been assumed; the basis for this assumption is the evidence that the D113 Fracture Zone in the vicinity of DMM 113 (see log of DMM 113) and also the "A" Orebody Fracture Zone both have that dip angle. The three diamond drill holes proposed below are located on the basis of this projection.

Proposed DMEA No. 16, at N 10133, E 7522, vertical down, approximately 800' long.
Proposed DMEA No. 17 at N 10277, E 7560, vertical down, approximately 900' long.
Proposed DMEA No. 18 at N 10205, E 7540, vertical down, approximately 850' long.

These holes are designed to test the north edge of the garnetite mass about 600' east of D.D. Hole 113, close to the 609 Fault. The 609 Fault is steep, but whether its average dip is east or west is not known. The fence of holes is laid out on ~~this~~ the assumption that it is vertical, but a dip as flat as 70° either east or west will probably not affect the chance of finding ore, since the garnetite edge is presumably the controlling feature, and as described above, orebodies are not generally limited to the immediate vicinity of major faults.

The holes are intended to be drilled in the order of their numbering. Number 16 is laid out to fall somewhat within the garnetite mass, since D.D. Holes 109 and 110 show that mineralization persists 100' or more in from the edge. It is assumed that this hole, then, will intersect thick garnetite; if it finds no ore, Hole No. 17 is located 150' north, to be sure that the edge of the garnetite has been found. It should intersect thin garnetite; if it finds no ore, Hole No. 18 is located midway between 16 and 17. This final 75' spacing should find any but a very narrow orebody along the garnetite edge. If Hole No. 17 should intersect thick garnetite, the proposed location of No. 18 can be abandoned, and the hole drilled at some distance further north of Hole No. 17.

Arthur Baker III

Arthur Baker, III

April 5, 1954.

224 New Customhouse
Denver 2, Colorado

March 29, 1954

Mr. Fred E. Gray
Mine Manager
Coronado Copper and Zinc Company
Johnson Camp Unit
Dragoon, Arizona

Re: Docket DMEA 2746 (Copper-Zinc)
Contract IDM-E522

Dear Mr. Gray:

Reference is made to your letter of March 17, 1954, wherein you request authorization to drill diamond drill holes No. 12, 13, 14 and 15.

Consistent with the stipulations contained in Exhibit "A" attached to Exploration Project Contract Form MF-200(a) of Contract IDM-E522, Docket DMEA 2746, this constitutes the Government's approval and your authorization to perform the drilling as outlined in your letter of March 17, 1954, and as shown on the photostat copy of the map supplied by you which is attached herewith and made a part of this work authority.

Nothing in this work authority shall be construed to increase the estimated total cost of the project, the amount of the Government's contribution, or any item of allowable cost which is expressly designated "allowable maximum".

Very truly yours,

John F. Shaw

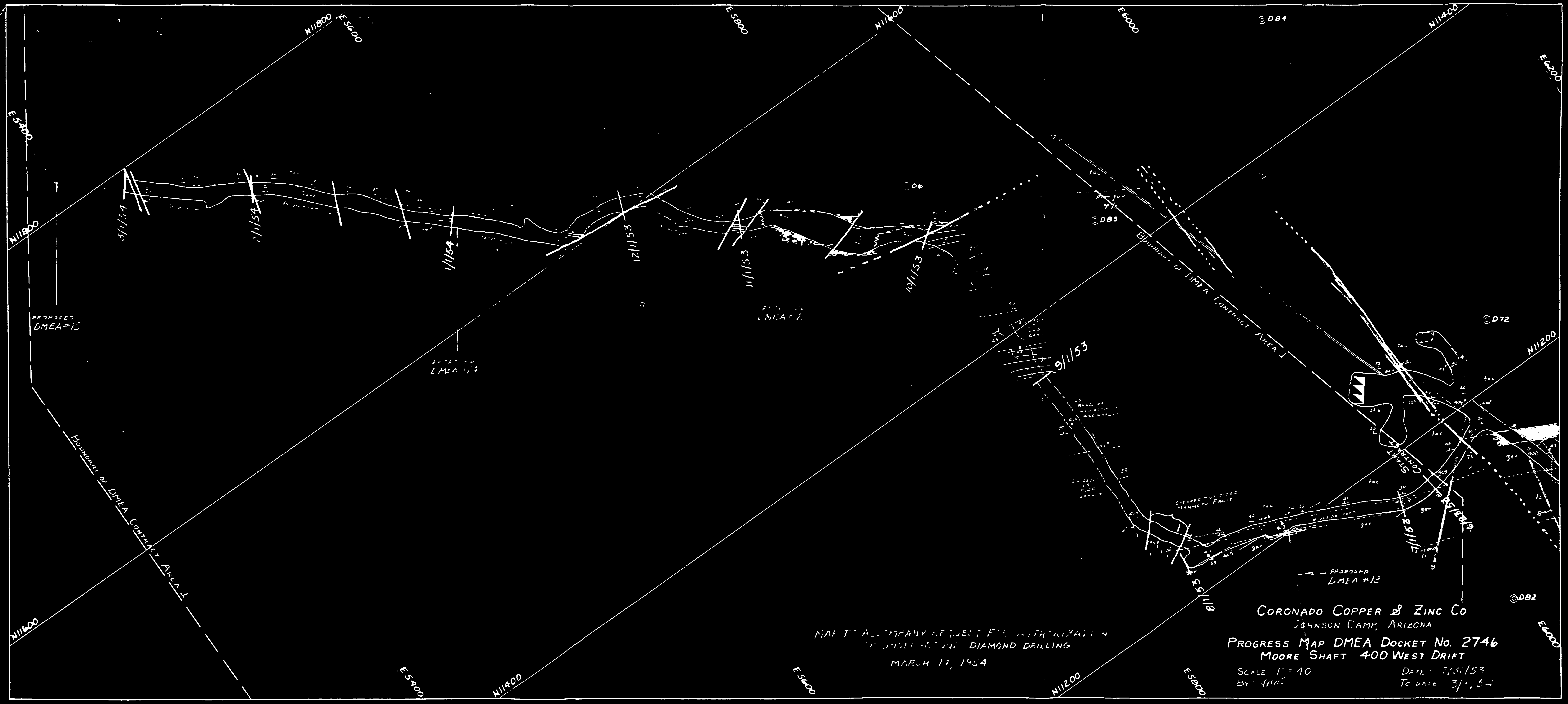
John F. Shaw
for W. H. King

A. H. Koschmann

A. H. Koschmann

DMEA Field Team, Region IV

JWT:jp
cc Contract
Amdt/
Chron
TAChristensen
AHKoschmann w/encls
WRStorms) w/copy geol.rept.
AFShride) & opr's request
COMittendorf (3)
JWTownsend


N11800
E5600
E5800
N11600
E6000
D84
N11400
E6200
E5400
N11800
5/1/54
2/1/54
1/1/54
12/1/53
11/1/53
10/1/53
D6
D83
Boundary of DMEA Contract Area 1
D72
N11200
PROPOSED
DMEA #15
9/1/53
Start Contract
N11600
Boundary of DMEA Contract Area 1
8/15/53
PROPOSED
DMEA #12
D82
Coronado Copper & Zinc Co
Johnson Camp, Arizona
Progress Map DMEA Docket No. 2746
Moore Shaft 400 West Drift
Scale 1" = 40
Date 7/31/53
DIAMOND DRILLING
MARCH 17, 1954
E5400
N11400
E5600
N11200
E5800
E6000

March 19, 1954

m

: W. H. King, Chief, Mining Division, Region IV

: Chief, Mining Methods Br., Mining Div., Region IV

ct : Request for Approval to Start Stage II, DMEA Contract Idm-E522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in sextuplicate are

(1) Request from the Coronado Copper & Zinc Co. to start Stage II of Contract Idm-E522 by first drilling four horizontal diamond drill holes from the drift driven under Stage I, then possibly other Stage II work at a later date.

(2) Bureau of Mines engineer's recommendation.

At this time the company requests permission to start diamond drilling under Stage II by drilling four horizontal holes from the drift, which was driven under Stage I, as shown on the map accompanying the company's request. Later, the company proposes to again drill from the surface, but is not prepared to designate surface drill hole sites at this time.

As the four underground holes, as proposed by the company, will explore the footwall portion of this mineralized area with the possibility of discovering additional ore shoots, I recommend that the company's request to drill these holes at this time under Stage II be granted.

I believe John N. Faick of the Geological Survey, who accompanied Hardwick to the mine on March 17, also concurs with this request, and will submit a separate report with his recommendation.

Walter R. Storms

Walter R. Storms

CC W. H. King (5)
A. F. Shride
DMEA-2746
DF

WRStorms:frj

March 19, 1954

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Request for Approval to Start Stage II, DMEA Contract Idm-E522, Docket DMEA-2746, Coronado Copper & Zinc Co.'s Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Ariz.

Enclosed in sextuplicate are

(1) Request from the Coronado Copper & Zinc Co. to start Stage II of Contract Idm-E522 by first drilling four horizontal diamond drill holes from the drift driven under Stage I, then possibly other Stage II work at a later date.

(2) Bureau of Mines engineer's recommendation.

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I believe John N. Faick of the Geological Survey, who accompanied Hardwick to the mine on March 17, also concurs with this request, and will submit a separate report with his recommendation.

Walter R. Storms

Walter R. Storms

CC W. H. King (5)
A. F. Shride
DMEA-2746
DF

WRStorms:frj

March 19, 1954

Memorandum

To : Walter R. Storms, Chief, Mining Methods Br., Mining Div., Region IV, Tucson, Ariz.

From : William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject : Request for approval to start Stage II, Docket DMEA-2746, Contract Idm-8523, Coronado Copper & Zinc Co.'s Republic Mine, Cochise County, Ariz.

The Republic mine was visited on March 17, 1954. At that time John N. Faick, Geologist, U. S. Geological Survey, and the undersigned discussed Stage II with Mr. Fred E. Grey, Mine Manager, and Mr. Arthur Baker III, Company Geologist. In a letter dated March 17, 1954 the Coronado Copper & Zinc Co. has requested approval of four diamond drill holes to be drilled underground from favorable locations.

The operator has completed 944.5 feet of drifting and cross-cutting at a cost of $37,780.00. One small, but significant copper-zinc ore body has been found from which 1,311.27 tons of ore, containing 1.90 percent copper and 6.15 percent zinc, has been mined. The limits of this ore have not been defined, but a rough guess of 10,000 to 20,000 tons seems reasonable at this time.

The prospect holes proposed by the operator have been located at favorable points and the combined total depth seems reasonable. In other parts of the mine, ore has been found under similar conditions and it seems reasonable to expect that ore might be found by the holes proposed.

Therefore, it is recommended that the operators request be approved.

William R. Hardwick
William R. Hardwick, Mining Engineer
Mining Methods Branch
Mining Division, Region IV

CC W. H. King (Orig. & 5)
A. F. Shride
DMEA-2746
DF

WRHardwick:frj

March 17, 1954

Mr. W. H. King, Executive Officer, DMEA,
Field Team, Region IV,
224 Customhouse,
Denver 2, Colorado.

Dear Mr. King: DMEA 2746, Contract IDM-N 522

We expect to complete the drifting approved in Stage 1, Area 1 early in April. As we encountered the Mammoth Fault sooner than expected, the total drifting and crosscutting necessary to complete the work as approved will be approximately 214 feet less than the amount approved. This amounts to $8560 less than the amount of money approved for this purpose.

In Stage 11 an additional 2000 feet of diamond drilling either from the surface or underground in Area 1 and/or 2, and 300 feet of drifting and/ or crosscutting in Area 1 has been approved if in the opinion of the government it is advisable.

As soon as the drifting under Stage 1 is finished we wish to explore the ground in the footwall of the drift. On the accompanying map we have located four holes for this purpose, numbered DMEA Nos. 12, 13, 14 and 15. The first two, Nos. 12 and 13, will start in garnet and will explore the footwall portion of the garnet. The other two, Nos. 14 and 15, will start in poorly garnetized limestone and will explore the possibilities of a garnet and ore horizon in the footwall of the drift. In that area we may have a similar situation to that existing on the 500 level in the "g" orebody. In that area on the 500 level, we have approximately 50 feet of poorly garnetized limestone between the ore and the tactite.

We are hereby requesting approval of the four diamond drill holes, Nos. 12, 13, 14, and 15 mentioned above. The depth of the holes is not known, but the combined total depth of them is not expected to exceed 265 feet and may be somewhat less. In the event any of these holes are encouraging, we may then wish to crosscut and drift to explore further. this would be covered by the 300 feet of additional drifting and/or crosscutting allowed in this area under Stage 11.

We are not yet ready to spot the additional holes from the surface provided in Stage 11 in Area 2, but expect to be ready within two or three weeks. At that time we will apply to you for approval of them.

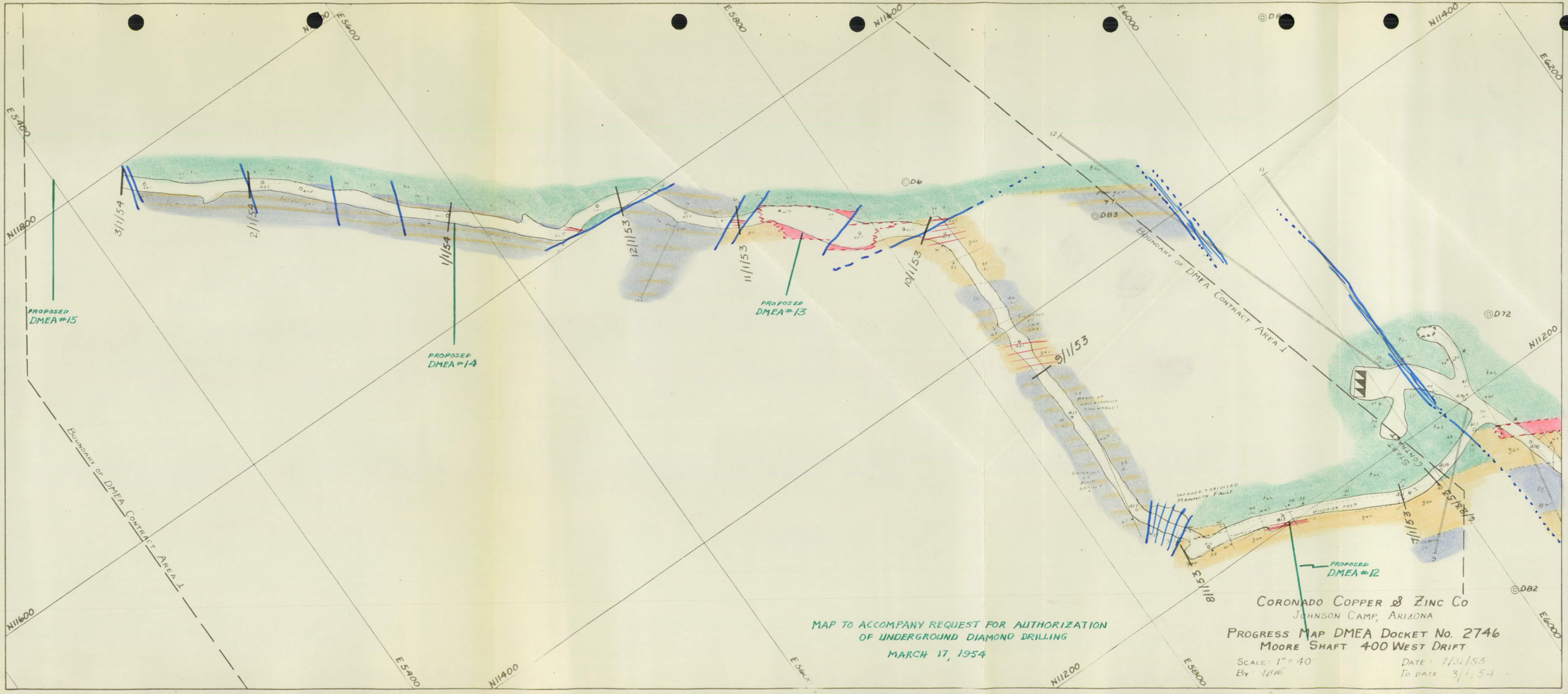
As the time is short between now and the time we will complete the drifting, we request that approval of the four diamond drill holes, Nos. 12, 13, 14, and 15, be granted as soon as possible so that a recess in our DMEA operations will not be necessary.

Very truly yours,

Fred E. Gray

Fred E. Gray
Mine Manager. Coronado Copper and Zinc Company

CC
DMEA 5
Mr. George Dub
File



MAP TO ACCOMPANY REQUEST FOR AUTHORIZATION
OF UNDERGROUND DIAMOND DRILLING

MARCH 17, 1954

CORONADO COPPER & ZINC CO
JOHNSON CAMP, ARIZONA

PROGRESS MAP DMEA DOCKET NO. 2746
MOORE SHAFT 400 WEST DRIFT

SCALE: 1" = 40'
BY: [illegible]

DATE: 1/31/53
TO DATE: 3/1/54

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Box 4126
Tucson 5, Arizona

March 26, 1954

Memorandum

To: A. H. Koschmann AHK

From: John M. Faick

Subject: Request for approval to start Stage II, DMEA Docket 2746, Contract Idm-E522, Coronado Copper and Zinc Company, Republic Copper-Zinc Mine, Johnson Camp, Cochise County, Arizona

On March 17, 1954, W. R. Hardwick, engineer, U. S. Bureau of Mines, and this writer visited the Republic mine for the purpose of examining the work thus far completed under Stage I of the above project, and also for the purpose of appraising the initial work which is being proposed under Stage II.

Under Stage I 944.5 feet of drifting have been completed at a cost of $37,730. The operators estimate that the total drifting and crosscutting that will be required to complete Stage I will be 214 feet less than the amount originally approved and that the cost will be about $8,560 less than estimated.

The work completed has explored a contact between garnet or garnetized limestone, and tactite (diopside). This work resulted in the discovery of an ore body from which about 1300 tons of ore containing about 2 percent copper and about 6 percent zinc have been produced. The reserve in this ore body is not established but this writer estimates reserve in this ore body is not established but this writer estimates (tentatively) that it contains about 20,000 tons.

The initial work proposed by the operators under Stage II is the drilling of 4 diamond drill holes (see map submitted by the operator) to explore a zone on the footwall side of the drift which is being driven under Stage I. This footwall zone is thought to be favorable for localization of ore because of the nature of the metamorphism of the limy beds, because of faults and fractures in the metamorphosed zone, and because conditions are similiar to those in vicinity of the "C" ore body in another part of the mine. The "C" ore body was separated from the garnet-tactite contact by about 50 feet of garnet. It is, therefore, advisable to determine if ore exists under similiar conditions in the zone being explored with DMEA assistance.

The four proposed holes are located in areas favorable for exploration and will explore the footwall zone for a relatively small cost. The length of the holes is not known, but the combined total depth is not expected to exceed 265 feet. If encouraging results are obtained from these holes, then additional work in this footwall zone may be required at a later date.

The operators are not ready to undertake all of the exploration allowed under Stage II, but in order to avoid any future delay, it is proposed to start Stage II by drilling the 4 holes mentioned above, as was requested in a letter dated March 17, 1954, from the operator to Mr. W. H. King.

As the four underground holes proposed by the operator will explore the footwall portion of a mineralized zone in which additional ore may be discovered, it is recommended that the request to drill these holes under Stage II be granted.

/s/ John M. Faick

John M. Faick
Geologist

Docket No. 2746

Commodity Copper-Zinc

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

STRATEGIC AND CRITICAL MINERALS EXPLORATION PROGRAM

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

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

Contract No. Idm-E 522

Date of Contract ~~or amendment~~: May 18, 1953

Name and Address of Operator:

Coronado Copper and Zinc Company
Johnson Camp
Cochise County, Arizona

Amount of Government participation _____ $ 49,525.00

Percent of Government participation 50 %

Region: III State: Arizona

Note: Please release $6,002.50

E R Talbert
(Name)
for J. L. Chambers, Chief
Contract Administration and Audit Division

(Title)

Date Delivered to Bureau of Mines, Washington.
9/20/55

54458

Docket No. [illegible]

Commodity Copper-Zinc

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

STRATEGIC AND CRITICAL MINERALS EXPLORATION PROGRAM

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

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Contract No. Idm-E 522

Date of Contract ~~or Amendment~~: May 18, 1953

Name and Address of Operator:

Coronado Copper and Zinc Company
Johnson Camp
Cochise County, Arizona

Amount of Government participation $ 49,525.00

Percent of Government participation 50 %

Region: IV State: Arizona

(Name)

J. L. Chambers,
Chief, Contract Administration and Audit Division

(Title)

Date Delivered to Bureau of Mines, Washington. May 18, 1953

13908

MF-200 (A)
(February 1952)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 25 1953

DOCKET NO. DMEA-2746

COMMODITY Copper-Zinc

Government Copy

IDM-E 522

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

EXPLORATION PROJECT CONTRACT[1]
(Short Form)

IT IS AGREED this 18th day of May, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Coronado Copper and Zinc Company - a corporation duly organized Johnson Camp and existing under and by virtue Cochise County, Arizona of the laws of the State of Nevada

hereinafter called the "Operator," as follows:

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

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of Arizona, County of Cochise, described as ~~follows~~ set forth in Annex I attached hereto and made a part hereof, and as indicated on the map entitled "Figure 2-DMEA 2746, Horizontal Projection of Mine Workings and Proposed Exploration, Coronado Copper & Zinc Company," attached hereto and made a part hereof,

the Operator represents and undertakes:[4]

(*a*) That the Operator is the owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached:

None

~~(b) That the Operator is a lessee, in possession and entitled to possession, and that the owner's consent is attached.~~

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

ARTICLE 3. *Exploration project.*—The Operator, within 90 days from the date of this contract shall commence work on a project of exploration for[5] Copper and Zinc

in or upon the described land; and shall bring the project to completion within a period of 2 years from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay 50 percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $49,525.00, which is 50 percent of $99,050.00, the agreed, estimated total cost of the project in which the Government will participate: *Provided,* That until the Operator's final report and final accounting have been rendered to the Government and any final check or auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground:

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided*, that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* After the word "contract," on the 5th line of Article 6, the following is inserted: "including any mined or produced from any extension of the ore bodies known to be in drill holes 65 and 66, or in the west winze of the Mammoth mine indicated on the map attached hereto, made a part hereof, and entitled "Figure 2 - DMEA-2746 - Horizontal Projection of Mine Workings and Proposed Exploration, Coronado Copper & Zinc Company,"

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By [signature]
Administrator, Defense Minerals Exploration Administration

CORONADO COPPER & ZINC COMPANY
(Operator)

By Roy W. Moore President

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

[signature] [CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66329-1

EXPLORATION PROJECT CONTRACT
CORONADO COPPER AND ZINC COMPANY
DOCKET NO. DMEA-2746

ANNEX I

As indicated on Figure 2, the land referred to in Article 2 consists of the following mining claims in Area 1:

Blue Grass, patent applied for, Mineral Survey No. 4340
Arizona, patent applied for, Mineral Survey No. 4340
Miantenomah, patented, Mineral Survey No. 330

and the following mining claims in Area 2:

Blue Lead, patented, Mineral Survey No. 3242
Southern Cross, patented, Mineral Survey No. 3242
A-Number One, patent applied for, Mineral Survey No. 4314
A-Number Two, patent applied for, Mineral Survey No. 4314
Blue Lead Extension, patented, Mineral Survey No. 3242
Dwarf, patented, Mineral Survey No. 3242
Little Bush, patented, Mineral Survey No. 3242

Area 1 is more particularly described as follows:

Beginning at Corner No. 1 of the Blue Grass claim as the initial point, Corner No. 1 of Area No. 1 bears North 62° 20' West 180.6 feet; thence S. 35° 00' West 294.0 feet to Corner No. 2; thence North 55° 00' West 638.0 feet to Corner No. 3; thence due North 445.0 feet to Corner No. 4; thence North 35° 00' East 310.0 feet to Corner No. 5; thence South 55° 00' East 422.0 feet to Corner No. 6; thence South 15° 48' East 605.7 feet to Corner No. 1, the place of beginning.

Area 2 is more particularly described as follows:

Starting from Corner No. 1 of the Blue Grass claim as the initial point, Corner No. 1 of Area No. 2, the place of beginning, bears South 85° 55' East 268.7 feet; thence North 32° 35' East 428.5 feet to Corner No. 2 which is on the common side line of the North Star and Blue Lead claims, both patented under Mineral Survey No. 3242; thence South 47° 23' East 1,257.5 feet along that common side line to Corner No. 3; thence South 49° 58' East 596.8 feet to Corner No. 4; thence South 30° 02' East 970 feet to Corner No. 5; thence North 50° 13' West 1,402.0 feet to Corner No. 6; thence North 3° 31' West 818.4 feet to Corner No. 1, the place of beginning.

EXPLORATION PROJECT CONTRACT
CORONADO COPPER AND ZINC COMPANY
DOCKET NO. DMEA-2746

EXHIBIT "A"

Description of the Work

The objective of this project is the exploration of the areas designated on the map, Figure 2, as Area 1 and Area 2. As shown on the said map, the work is to be performed in 2 stages and is as follows:

STAGE I

Area 1 is to be explored by drifting and crosscutting in cross section a minimum of 6 by 8 feet in the clear, approximately 1220 feet in a northwesterly direction on the 400 level of the Moore shaft, to disclose the downward extensions of mineralization indicated by surface drill holes No. 65 and No. 66.

Area 2 is to be explored to test an unexplored area between the Moore shaft area and the Republic mine area, by diamond drilling from the surface through the middle Abrigo formation 11 EX or AX size drill holes totaling approximately 6500 feet but averaging 590 feet per hole.

The location of these drill holes is spotted on the said map in regular pattern for convenience; but it is intended that information gained from any drill hole may dictate a change in the location, attitude, and extent of succeeding holes. All such changes shall be subject to prior approval of the Government.

STAGE II

If, in the opinion of the Government, the work under Stage I is sufficiently favorable, then, in this stage, about 2000 feet of additional diamond drilling, either from the surface or underground locations in Area 1 and/or Area 2, and 300 feet of additional drifting and/or crosscutting in Area 1 may be undertaken. This work may be done concurrently or consecutively.

The location, direction, and extent of the diamond drilling and drifting or crosscutting shall be subject to the prior approval of the Government.

Agreed Unit Costs

Stage I		
Drift and/or crosscut 1220 feet @ $40.00/ft.	$48,800.00	
Diamond drill 6500 feet @ $4.50/ft. per AX hole and $3.50/ft. per EX hole 1/	29,250.00	$78,050.00
Stage II		
Drift and/or crosscut 300 feet @ $40.00/ft.	$12,000.00	
Diamond drill 2000 feet @ $4.50/ft. per AX hole, @ $3.50/ft. per EX hole, and @ $4.00/ft. of underground drilling 1/	9,000.00	21,000.00
Total Agreed Unit Costs of Project		$99,050.00
Government Participation at 50%		$49,525.00

1/ As the amount of drilling of AX or EX sized holes, or of drilling underground, cannot be determined in advance, the total footage stated may be distributed between AX, EX, and underground drilling, as necessary, provided the total cost thereof here estimated is not exceeded.

June 12, 1953

Registered

Mr. Walter R. Storms, Chief
Mining Methods Branch
Mining Division, Region IV
Southwest Experiment Station
P.O. Box 4097 University Station
Tucson, Arizona

Re: Docket DMEA-2746
Contract Idm-E522
Johnson Camp
Cochise County, Arizona

Dear Mr. Storms:

Herewith you will find five copies of contract between the Government and Coronado Copper & Zinc Company covering certain exploration work at our Johnson Camp copper-zinc property in Cochise County, Arizona (Docket DMEA-2746, Contract Idm-E522).

All five copies have been signed by the President, signature has been certified by the company secretary and corporate seal affixed.

Also herewith you will find the three additional copies of Plate I, Figure 1, "Surface Geology of Johnson Camp," and Plate II, Figure 3, "Structure Contour and Garnetite Isopach Map, Johnson Camp."

This morning Mr. Fred E. Gray, Mine Manager at Johnson Camp, phoned me from your office relative to certain provisions of the contract that we would like to have clarified. Mr. Gray advised that you would like to have us call Mr. C. O. Mittendorf, Administrator, Defense Minerals Exploration Administration, in order to obtain the information desired. Immediately after talking with Mr. Gray, the undersigned called Mr. Mittendorf in Washington; the following provisions of the contract were discussed with Mr. Mittendorf and Mr. A. G. Keating, Acting Chief, Base Metals Division, and conclusions reached as indicated.

Article 9 - Changes and Added Provisions

The following wording clarifies or adds to the provisions of Article 6. "After the word 'contract', on the fifth line of Article 6, the following is inserted: 'Including any mine ore produced from any extension of the orebodies known to be in drill holes 65 and 66, or in the west winze of the Mammoth mine indicated on the map attached hereto, made a part hereof, and entitled

'Figure 2 DMEA-2746 - Horizontal Projection of Mine Workings and Proposed Exploration, Coronado Copper & Zinc Company'."

The undersigned was advised by both Mr. Mittendorf and Mr. Keating that the above wording was added to the contract to make sure that applicant would not claim prior discovery of ore encountered in drill holes 65 and 66 and the downward continuation of possible ore below the Mammoth west winze in the vicinity of the figure 48 near the southern boundary of Area 1. We wish to state herewith that Coronado Copper & Zinc Company does not make any reservations with respect to ores discovered in drill holes 65 and 66 nor to any extension of the ore shoot below the west winze of the Mammoth that may continue on its dip below the surface of Area 1, whether or not such a shoot connects with the orebody indicated by drill holes 65 and 66.

The point we wanted to have cleared up with respect to the wording of Article 9 is whether the Government is claiming extralateral rights on any ore shoots outside Area 1. The undersigned was advised by Mr. Keating that the Government does not claim extralateral rights and pointed out that metes and bounds of Area 1 and Area 2, as entered under Annex I, limit the extent of orebodies in which the Government is to share in order to be repaid for funds contributed by the Government under this contract.

In brief, the applicant expects to pay royalty to the Government on any ore produced from within the vertical boundaries of Areas 1 and 2 in accordance with the provisions of the contract.

Another point the applicant wanted to have cleared up is the following: In the description of the boundaries of Area 1, as defined in Annex 1, you will note that the wording is as follows:

"Beginning at Corner No. 1 of the Blue Grass claim as the initial point, Corner No. 1 of Area No. 1 bears North 62° 20' East 180.6 feet;." With the permission of Mr. Mittendorf we have changed the word "East" to "West" to conform with the original application and maps, said original application being dated October 15, 1952. An error was made by this office in typing the supplementary agreement which is under date of February 5, 1953. Therefore, as agreed to by Mr. Mittendorf, the word East has been crossed out and the word West entered. This change is initialed in the margin by the undersigned.

The third point we wanted to have cleared up was the question of the amount of accounting that has to be done by the applicant in order to satisfy the requirements of the DMEA. It is our understanding, according to the advice of Messrs. Mittendorf and Keating, that the Form 104, which will have to be filled out monthly, will show costs equal to the estimated costs

shown under "Agreed Unit Costs" stated on the third typewritten page of the contract.

A signed copy of this letter is being attached to each of the five copies of the contract enclosed herewith.

Mr. Gray expects to start work on the drifting called for on the 400 level just as soon as the present drift has been examined and measured by your representative.

Diamond drilling from the surface will be started just as soon as the Continental Drilling Company can send the necessary equipment to Johnson Camp, probably within two weeks.

Very truly yours,

Roy W. Moore Jr.

R. W. Moore, President
CORONADO COPPER & ZINC CO.

RWM:b

cc: one for each contract