DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Idm-E NO. 883

DMEA NO. 3826

Application
- [ ] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [x] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [x] Certification of Discovery - 9/4/56
- [x] Closing Letter
- [x] Cost Audits
- [x] Termination Notice or Agreement - 2/1/56
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [x] Contract with all exhibits and annexes - 9/29/55
- [x] Owner's Consent to Lien and Subordination Agreement
- [x] Application and attachments

Right Side

- [x] Project summary (final)
- [x] Work Comoleted analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project
- [x] Final Field Team Report (Tab) 6/18/56
- [x] Operator's Final Report (Tab) 6/5/56
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No. 2 : Reports
- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [x] Field Team Semi-Annual Report for Certified Project
- [ ] Field Team Interim Reports
- [x] Operator's Monthly Reports with transmittal, narrative and maps.

Folders No. _____ : Maps (Use pocket folder or envelope)

Folders No. _____ : Settlement Sheets

Folders No. _____ : Drill Logs

Folders No. _____ : Royalty material

17963

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 Idm-E883, Docket DMEA-1826 (lead-zinc), dated September 29, 1955, with

Western Development Company of Delaware
P. O. Box 1201
Santa Fe, New Mexico

for the purpose of determining the amount of royalty payable to the U. S. Government on sales of minerals from property referred to as the Bottom Dollar, Black Hornet, and Teresa prospects located in Santa Fe County, New Mexico, during the period August 8, 1959, through August 13, 1962.

A certification of discovery or development was issued on September 4, 1956, and, in accordance with Article 8 of the contract, royalty is payable on all minerals produced from the land described in Article 2 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 June 15, 1956, indicated accepted costs under the exploration contract amounting to $9,466.10 with the Government's contribution on a 50 percent basis being $4,733.05.

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

This review established no sales subject to the Government's royalty subsequent to the period covered by a prior Report of Royalty Review which found the sales subject to the Government's royalty through August 7, 1959, to be $3,240.04. The royalty account as of August 7, 1959, was:

Total Royalty Payable	$162.00
Total Royalty Paid	162.00
Balance of Royalty Due	$ -0-

As of August 13, 1962, the royalty account of this project was found to be:

Total Royalty Payable	$162.00
Total Royalty Payable	162.00
Balance of Royalty Due	$ -0-

E. D. Talbert

E. D. Talbert, OME Auditor

August 20, 1962

Idm-E883 Western Development Company of Delaware DMEA-3826

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

This contract provides that the Operator, as principal if the producer or as surety if not the producer, shall pay to the Government a percentage royalty on all minerals produced from the land thereunder. The land under the contract consists of the SW¼ of sec. 30, T. 15 N., R. 8 E., N.M.P.M., 160 acres more or less in the north portion of the Cerrillos mining district. At the time the contract was executed, the Operator stated it was in possession by virtue of a December 31, 1954, lease from Frank and Mary L. Staplin and Reese P. and Lorretta T. Fullerton, all of Santa Fe, New Mexico. In consideration of the contract the landowners executed a Consent to Lien on August 24, 1955.

Exploration work under the contract was discontinued during January 1956 and formally terminated effective February 1, 1956, by an agreement dated April 13, 1956. During the exploration period Western Mines, Incorporated, a wholly-owned subsidiary of the Operator, made three shipments aggregating 160.776 dry tons to the American Smelting & Refining Company's mill at Deming, New Mexico. The $3,240.04 proceeds on these shipments (averaging Au .017 oz./ton, Ag 3.20 oz./ton, Pb 9.69%, Zn 10.37%, and Cu 0.27%) are covered by a prior Report of Royalty Review.

On June 2, 1955, the Operator assigned its lease to Western Mines, Incorporated, which later assigned its interest to Mineral Products Corporation, 708 Morningside Drive, S. E., Albuquerque, New Mexico, by an instrument dated November 25, 1957. This latter assignment was specifically "subject to the lien and obligation in favor of Defense Minerals Exploration Administration".

Inspections of the property and inquiries by regional DMEA and OME representatives disclosed no production from the property after termination of the exploration through January 27, 1960. In an August 13, 1962, reply to a MME Form 63 inquiry Mineral Products Company advised that neither change in property status nor production had occurred since January 27, 1960.

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

(1) The files indicate that all production from the property under the contract has been reported and proper royalty thereon paid; 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.

File Copy
Surname

Livingston
J. Abe
Burton
Sturges
Appd. Sol. Off.
Talbot
Bishop
Lamb
Helfrey
Selfridge

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. W. E. Scorah, President
Western Development Company
of Delaware
Post Office Box 1201
Santa Fe, New Mexico

Pursuant to the provisions of Exploration Project Contract No. Idm-2883, dated September 21, 1955, Docket No. DMEA-3826, hereinafter called the "contract", between the Western Development Company of Delaware, a corporation, and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien thereon and on the land described in the contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration work.

The nature of said discovery or development is described broadly or indicated as follows: Diamond drilling from the surface has shown the existence of lead-zinc ores occurring within a shear zone in monzonite.

Dated September 4, 1956

FROM SOLICITOR

AUG 27 1956

FOR SIGNATURE

WRGriswold/er 8/23/56

Copy to:
Docket
Mr. C. A. Fredell, Dr., MD, EPS
Mr. ~~Gechan~~, USBM Frank Lamb
Mr. Kiilsgaard, USGS
Adm R File
Op. Committee
Cont. Adm & Audit Div
Finance Office
Base Metals
Region III (2)
Mr. F. E. Johnson
Mr. W. R. Griswold
Mr. & Mrs. Frank Staplin, Santa Fe, N.Mex.
Mr. & Mrs. Reese P. Fullerton, Santa Fe, N.Mex.
Chron.

THE UNITED STATES OF AMERICA

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

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-E883, Docket No. DMMA 3826 (Lead-Zinc) dated September 29, 1955, with

Western Development Company
P. O. Box 1201
Santa Fe, New Mexico

for the purpose of determining the amount of royalty due the United States Government on the sale of lead-zinc ores produced from the Bottom Dollar Mine, located in Santa Fe County, New Mexico, for the period September 29, 1955 to August 7, 1959.

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

My review established the total sales of lead-zinc ores for this period to be $3,240.04, (See Summary Attached). Royalty due the United States Government at the contract rate of 5 percent is $162.00. The royalty paid and the balance due are as follows:

Total Royalty Due	$162.00
Total Royalty Paid	162.00
Balance Royalty Due	0

August 18, 1959

Donald T. Finch
Donald T. Finch
OME Auditor

EXTRA COPY
O. M. E.
RECEIVED AUG 21 1959
DATE | INITIALS | CODE

STATUS OF PROJECT, DESCRIPTION OF REVIEW
AND REASONS THEREFOR

CONTRACT NO. IDM-H883 DOCKET NO. DMEA 3826

A Certification of Discovery or Development was issued on September 4, 1956, and accordingly royalty is payable on all production from the land described in Article 2 of the contract for a maximum period of 10 years from the date of the contract. A Report of Review in lieu of Final Cost Audit dated June 15, 1956, indicated accepted costs under the exploration contract amounting to $9,466.10, with Government contribution on a 50 percent basis being $4,733.05.

According to the Field Team's Semi-Annual Reports of Certified Project for the period June 20, 1956 to December 31, 1958, the property has remained inactive since the cessation of the exploration work. A memorandum from the examining engineer dated January 25, 1956, reports the shipment of 3 lots ore during the exploration operations.

My review included a tabulation and recomputation of all settlement sheets for ore sales to the American Smelting and Refining Company on file with the Executive Officer, reconciliation of reported production with examining engineer's memorandum, reconciliation of royalty paid with the records of the OME Finance Office, Denver, Colorado.

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

(a) All reported production was reconciled with memorandum from the examining engineer.

(b) All reported production was supported by liquidation settlement sheets which were examined during the review.

(c) 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.

CONTRACT NO. IDM-1883 DOCKET NO. DMEA 3826

WESTERN DEVELOPMENT COMPANY

SUMMARY OF PRODUCTION, SALES AND ROYALTY
For the Period September 29, 1955 to August 7, 1959

All Sales to American Smelting and Refining Company

Gross Weight; Pounds	334,780	
Moisture Content; Pounds	13,228	
Net Dry Weight; Pounds	321,552	
Net Dry Weight; Tons	160.776	
Gross Value		$4,868.53
Allowable Deductions		
Treatment Charges	$643.10	
Freight and Transportation Tax	701.88	
Haulage	283.51	
Total Allowable deductions		$1,628.49
Net Smelter Value, Subject to Royalty		$3,240.04
Average Value Per Dry Ton		$ 20.15
Royalty Percentage		5%
Total Royalty Due	$162.00	
Total Royalty Paid	162.00	
Balance of Royalty Due		0

MME Form 22
April 59

DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

CHECK SHEET OF EXAMINING ENGINEER

Operator's Name Western Development Company

Address P. O. Box 1201

Santa Fe, New Mexico

Exploration Contract No. Idm-E883 Docket No. DMEA 3826

BOTTOM DOLLAR MINE

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

9. Remarks: Questions 1-7 Inclusive not applicable. Latest Information available is that contained in the "Statement in Lieu of Semi-Annual Report" dated March 3, 1959.

August 18, 1959
Date

Mining Engineer
Executive Officer, OME
Field Team, Region III

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
8/21	Alley	800
8/21	Fisher	800
8/21	gad	220
8/24	Kiesnesch	500
		225

AUG 21 1959

Memorandum

To: Mr. Donald T. Finch, OME Auditor

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

Subject: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company
Contract No. Idm-E883

Your Report of Royalty Review on the subject contract is acceptable and distribution of the regional copies is authorized after changing the docket number in the first paragraph of the report to DMEA-3826.

AMAlley/ama
August 21, 1959

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

43683

[redacted]

[redacted] MINERALS DEMONSTRATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

Klugescheid
Betty

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JUN 18 1956

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Western Investment Company of Delaware
[redacted]
Santa Fe, New Mexico

pertaining to Exploration Project Contract No. [redacted], Docket No. [redacted], for the months of November, 1955 to January, 1956, inclusive, and Termination Agreement dated April 13, 1956, covering a project for the exploration of lead and zinc on property known as Rotten Dollar and Tarzan Veins, located in Santa Fe County, New Mexico.

My review included an examination of the Monthly Reports (Form [redacted]) 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:

(a) the administrative cost to the Government of an audit would be excessive in relation to the estimated amount of possible disallowances thereunder.

(b) a major portion ($8,239.10) of the costs incurred covered work performed at unit rates under independent contract;

(c) the Monthly Reports were supported by documentary proof of the costs incurred under the contract.

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

Total cost as billed by Contractor		$9,512.10
Exceptions: (Schedule attached)		
By DMEA Finance Officer	$ 0.00	
Deferrals	[redacted]	[redacted]
Total Accepted Cost		[redacted]

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 Four thousand, seven hundred thirty-three, and 05/100ths Dollars

"$4,733.05"

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.

June 15, 1956

T. H. Bunding, Auditor.

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JUN 18 1956

BUREAU OF INSPECTION

NATIONAL INSURANCE AGENCY OF DELAWARE

Contract No. [illegible] Period No. [illegible]

In reviewing for disbursements made on the November, 1955 NP-104, Quarter attached copy of payroll report of Vertugo Mines, Incorporated (a subsidiary of Vertugo Development Company of Delaware.) This payroll shows a deduction of $4.00 for G.A.D. on the salary of A. G. Halding for the period November 1 to 15, (or 2% on $200.00) and that $[illegible].00 of A. G. Halding's earnings are exempt from G.A.D. December documentation shows that all of A. G. Halding's earnings are exempt.

Based on information submitted by the Quarter, following disbursements are made:

Per Voucher		
G.A.D. 2% on $200.00	$ 4.00	
State Unemployment 2.7% on $500.00	13.50	
Federal Unemployment .3% on $500.00	1.50	
Total for November		$21.00
Per Voucher		
G.A.D. 2% on $500.00	$10.00	
State Unemployment 2.7% on $500.00	13.50	
Federal Unemployment .3% on $500.00	1.50	
Total for December		$25.00
Total Disbursed		$46.00

Docket [illegible]

Butler
Sluyter
"Appd. Sol. Off."
J. Alb
Griswold
Chambers
Hefferman
Selfridge

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APR [illegible]

TERMINATION AGREEMENT

It is agreed this 13th day of April, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Western Development Company of Delaware, hereinafter called the "Operator," parties to that certain Exploration Project Contract Lim-[illegible], Docket No. DMEA-3846, dated September 29, 1953, hereinafter called the "Contract," that:

1. Effective February 1, 1956, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute to allowable costs incurred prior to said effective date; and shall contribute to allowable costs incurred or to be incurred beginning with said effective date in performing winding-up and settlement actions provided for in the Contract, including the making and rendering of reports and accounts.

3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including the rendering of the final report and account.

4. All rights of the Government provided for in the Contract with respect to a certification of discovery or development and a percentage royalty and lien for its payment are preserved.

5. The Operator hereby releases and agrees to save the Government harmless from all claims or demands under or arising out of said Contract, except as otherwise provided in this termination agreement.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By C. P. Mitteldorf
Administrator, Defense Minerals
Exploration Administration

WESTERN DEVELOPMENT COMPANY OF DELAWARE

By Zane C. Sanderson
Secretary

OME
DEPARTMENT OF THE INTERIOR
SEP 8 1959
REGION III
DENVER, COLORADO

ASSIGNMENT OF MINING LEASES

THIS ASSIGNMENT, made and entered into this 27th day of November, 1957, by and between WESTERN MINES, INCORPORATED, a Delaware corporation, with offices at Sena Plaza, Santa Fe, New Mexico, hereinafter called "Assignor", and MINERAL PRODUCTS CORPORATION, a New Mexico corporation, with offices at 3000 Cerrillos Road, Station 1, Santa Fe, New Mexico, hereinafter called "Assignee",

W I T N E S S E T H:

That the undersigned Assignor, for and in consideration of the sum of Ten and No/100 Dollars, and other good and valuable considerations in hand paid by Assignee, the receipt and sufficiency of which is hereby acknowledged, does hereby sell, assign, transfer, set over and convey unto said Assignee, its successors and assigns, all of the Assignor's right, title and interest in and to the following mining leases, patented and unpatented mining claims:

1. Agreement dated December 31, 1954, between Frank Staplin, et al, as Lessor, and Western Development Company of Delaware, as Lessee, as modified by Agreement dated October 24, 1957, between said parties, insofar as said Agreement covers the following lands in Santa Fe County, New Mexico:

OMEA Idon-E883

SW/4 Section 30, Township 15 North, Range 8 East, N.M.P.M., and containing 160 acres, more or less,

Subject to the royalty and minimum royalty provided for in said Agreement, as modified.

Subject to the lien and obligation in favor of Defense Minerals Exploration Administration in the original sum of $4,733.05, payable out of 5% of the net smelter or other market returns and to the Indemnity Agreement dated August 24, 1955, wherein Western Development Company of Delaware and Western Mines, Incorporated indemnify

Reese F. Fullerton and the other owners of said mining property against any lien other than the lien upon the minerals to be produced by reason of said Defense Minerals Exploration Administration obligation.

2. Agreement made January 3, 1955, between Walter W. Simonson and Ethel Simonson, as Lessors, and Western Development Company of Delaware, as Lessee, insofar as said Agreement covers the following described property situated in Section 30, Township 15 North, Range 8 East, N.M.P.M., in Santa Fe County, New Mexico, to-wit:

   NE/4 (patented);

   The following unpatented mining claims;

   Tom Payne
   Black Eagle
   Yellow Jacket (one-half)

   Subject to the royalty and minimum royalty provided for in said Agreement.

   Subject to that certain Agreement, made January 14, 1955, between Western Development Company of Delaware and Santa Fe Lead-Zinc Mines, Inc., wherein there was to be paid to Santa Fe Lead-Zinc Mines, Inc., its successors and assigns, the sum of $40,000.00 solely out of 5% of all net smelter and other market returns from ore or mineral mined, produced and marketed from or on the Tom Payne, Black Eagle and Yellow Jacket mining claims, payable to the accounts of the stockholders of said Santa Fe Lead-Zinc Mines, Inc. at the First National Bank of Santa Fe, New Mexico, in accordance with the stipulations of interest executed by said stockholders under date of March 1, 1955,

together with all rights and privileges thereunder or appurtenant thereto.

This assignment is made subject to all of the terms and conditions of the above mentioned Agreements and Modification of Agreement and to all other obligations, encumbrances and production payments as have been heretofore reserved or created affecting the properties described above.

The Assignee, by its acceptance of this assignment, assumes and agrees to hold Assignor harmless from all of the terms, covenants and conditions of said Agreements and Modification of Agreement and from all other obligations, encumbrances and production payments as have been heretofore created and/or reserved affecting the properties described above.

TO HAVE AND TO HOLD the same unto the said Assignee, its successors and assigns, forever, without warranty of title either express or implied.

IN WITNESS WHEREOF, This Assignment is executed, in duplicate, on the day and year first hereinabove written.

ATTEST: WESTERN MINES, INCORPORATED

Secretary By President

"ASSIGNOR"

ATTEST: MINERAL PRODUCTS CORPORATION

SEAL

Secretary By President

"ASSIGNEE"

STATE OF NEW MEXICO)
: ss.
COUNTY OF SANTA FE)

The foregoing instrument was acknowledged before me this 22nd day of November, 1957, by W. B. Scorah, President of WESTERN MINES, INCORPORATED, a Delaware corporation, on behalf of said corporation.

My commission expires: Notary Public

December 2, 1960

STATE OF NEW MEXICO)
: ss.
COUNTY OF SANTA FE)

The foregoing instrument was acknowledged before me this 22nd day of November, 1957, by

President of MINERAL PRODUCTS CORPORATION, a New Mexico corporation, on behalf of said corporation.

My commission expires: Notary Public

GENERAL CONVEYANCE AND ASSIGNMENT

WESTERN DEVELOPMENT COMPANY OF DELAWARE, a Delaware corporation (hereinafter called "Assignor"), acting through its Officers hereunto fully authorized, for a good and valuable consideration in hand paid by WESTERN MINES, INCORPORATED (hereinafter called "Assignee"), the receipt and adequacy of which consideration are hereby acknowledged, does hereby bargain, sell, transfer, assign, convey and deliver unto Assignee named above, its successors and assigns, all of the Assignor's properties listed on Schedule A hereof, together with all of the Assignor's right, title and interest in and to any agreements, contracts, rights and claims consisting a part of, relating to or arising out of the mineral interests and related rights transferred by Assignor herein to Assignee herein,

WITNESSETH execution hereof this 2nd day of June, 1955.

WESTERN DEVELOPMENT COMPANY OF DELAWARE

By William E. Frank
President

ATTEST:

James E. Henderson
Secretary

SCHEDULE A

1. That agreement made and entered into the 31st day of December, 1954, between Frank Staplin and Mary L. Staplin, his wife, and Reese P. Fullerton Loretta T. Fullerton, his wife, of Santa Fe, New Mexico, parties of the first part, and Western Development Company of Delaware, with offices at Santa Fe, New Mexico, party of the second part, covering property located in Santa Fe county, New Mexico, to-wit:

   Southwest Quarter (SW $\frac{1}{4}$) of Section Thirty (30), in Township Fifteen (15) North, Range Eight (8) East, containing 160 acres, more or less, with Government re-survey to be attempted by lessors.

DNEA
Edm-E883

2. That agreement made and entered into the 3rd day of January, 1955, between Walter W. Simonson and Ethel Simonson, his wife, of Oakland, California, parties of the first part, and Western Development Company of Delaware, with offices at Santa Fe, New Mexico, party of the second part, covering property located in Section Thirty (30), Township Fifteen (15) North, Range Eight (8) East, Santa Fe County, New Mexico, to-wit:

   The Northeast Quarter (NE $\frac{1}{4}$) (patented);
   The following unpatented mining claims:
   - Tom Payne
   - Black Eagle
   - Yellow Jacket (one-half)

3. That agreement made and entered into the 28th day of December, 1954, between Verne Byrne and La Vern Byrne, his wife, 113 Camino Escondido, Santa Fe, New Mexico, parties of the first part, and Western Development Company of Delaware, party of the second part, covering mining claims or real estate located in Sections 30 and 31, Township 15 North, Range 8 East, N. M. P. M., Santa Fe County, New Mexico, to-wit:

	Patent No.	Name
Group I:	455	Great Western
	533	Nick of Time
	1151	Silver King, Whalen, Maid of Erin
	1262	Silver King No. 3
	1325	Bob Ingersoll, Sure Winner, Bertha Farble, Owl, J. R. Weaver
Group II:	1932	Tom Moore
	Unpatented	Blue Jay
	Unpatented	Yellow Queen (Sharon)

4. That agreement made and entered into the 17th day of January, 1955, between John W. King, Jr. and Lucille King, his wife, 12220 LaSalle Street, Chicago, Illinois, parties of the first part, and Western Development Company of Delaware, with offices at Santa Fe, New Mexico, covering

   The patented mining claim No. 1664, known as the "Armington", hereafter sometimes referred to as "property", located in Sections 30 and 31, Township Fifteen (15) North, Range Eight (8) East, Santa Fe County, New Mexico

5. That agreement made and entered into the 11th day of February, 1955, between Samuel K. Carnes and Harriette L. Carnes, his wife, of Albuquerque, New Mexico, parties of the first part, and Western Development Company of Delaware, with offices at Santa Fe, New Mexico, party of the second part, covering property located in

   The Southeast one-quarter (SE $\frac{1}{4}$) of the Southeast one-quarter (SE $\frac{1}{4}$) of Section Nineteen (19), Township Fifteen (15), North, Range Eight (8) East, N. M. P. M., Santa Fe County, New Mexico

6. That agreement made and entered into the 19th day of February, 1955, between Richard McGhee and Helen McGhee, his wife, Box 74, Santa Fe, New Mexico, and Paul W. Reinhard, a single man, of Santa Fe, New Mexico, parties of the first part, and Western Development Company of Delaware, with offices at Santa Fe, New Mexico, party of the second part, covering unpatented mining claims located in the Cerrillos Mining District, Santa Fe County, New Mexico:

Name of Claim	Section	Twp.	Rge.	Document No. of Original Claim Notice
Antelope	6	14 N	8 E	202, 421
Silver Plume No. 1	31	15 N	8 E	202, 419
Silver Plume No. 2	31	15 N	8 E	202, 420

7. That agreement made and entered into the 14th day of January, 1955, by and between Western Development Company of Delaware, a corporation with an office and place of business in Santa Fe, New Mexico, party of the first part, and Santa Fe Lead-Zinc Mines, Inc., a corporation organized under the laws of the State of New Mexico, party of the second part, covering undivided one-half interest in and to the Yellow Jacket Mining Claim located in the SE $\frac{1}{4}$, Sec. 30, Twp. 15 N, R 8 E, N.M.P.M., together with Bill of Sale to the personal property described in a certain Bill of Sale of the party of the second part to the party of the first part of even date herewith.

8. That prospecting permit and agreement entered into the 14th day of January, 1955, by and between John Blackshere and Paula Blackshere, his wife, Grantors, and Western Development Company of Delaware with offices in Santa Fe, New Mexico, hereinafter called the Grantee, covering that certain Ranch Unit consisting of patented lands, state grazing lease lands, private lease lands, and Federal lease lands, located in Sandoval County, New Mexico, as more fully described therein.

9. That prospecting permit and option made and entered into the 13th day of December, 1954, by and between James Henry Trigg and Louise Baker Trigg, his wife, and Nellie Day Trigg, all of Cerrillos, New Mexico, parties of the first part, and Western Development Company of Delaware, of Santa Fe, New Mexico, party of the second part, covering certain property, including mineral rights, located in Santa Fe County, New Mexico, as more fully described therein.

10. Unpatented Mining Claim WILLIAM BILL #1, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954 at 3:10 p.m., in Book 94, Page 116.

11. Unpatented Mining Claim WILLIAM BILL #2, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954 at 3:11 p.m., in Book 94, Page 117.

12. Unpatented Mining Claim WILLIAM BILL #3, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954 at 3:12 p.m., in Book 94, Page 118.

13. Unpatented Mining Claim WILLIAM BILL #4, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954 at 3:13 p.m., in Book 94, Page 119.

14. Unpatented Mining Claim WILLIAM BILL #5, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954 at 3:14 pm, in Book 94, Page 120.

15. Unpatented Mining Claim WILLIAM BILL #6, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954 at 3:15 p.m., in Book 94, Page 121.

16. Unpatented Mining Claim WILLIAM BILL #7, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954 at 3:16 P.M., in Book 94, Page 122.

17. Unpatented Mining Claim WILLIAM BILL #8, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954 at 3:17 p.m., in Book 94, Page 123.

18. Unpatented Mining Claim WILLIAM BILL #9, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954 at 3:18 p.m., in Book 94, Page 124.

19. Unpatented Mining Claim WILLIAM BILL #10, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954 at 3:19 p.m., in Book 94, Page 125.

20. Unpatented Mining Claim WILLIAM BILL #11, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954 at 3:20 p.m., in Book 94, Page 126.

21. Unpatented Mining Claim TERENCE #1, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:57 p.m., in Book 94, Page 103.

22. Unpatented Mining Claim TERENCE #2, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:58 p.m., in Book 94, Page 104.

23. Unpatented Mining Claim TERENCE #3, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:59 p.m., in Book 94, Page 105.

24. Unpatented Mining Claim TERENCE #4, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 16th day of December, 1954, at 9:40 a.m., in Book 94, Page 248.

25. Unpatented Mining Claim TERENCE #5, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 16th day of December, 1954, at 9:41 a.m., in Book 94, Page 249.

26. Unpatented Mining Claim TERENCE #6, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 16th day of December, 1954, at 9:42 a.m., in Book 94, Page 250.

27. Unpatented Mining Claim TERENCE #7, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 21st day of December, 1954, at 9:30 a.m., in Book 94, Page 265.

28. Unpatented Mining Claim TERENCE #8, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 21st day of December, 1954, at 9:31 a.m., in Book 94, Page 266.

29. Unpatented Mining Claim TERENCE #9, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 21st day of December, 1954, at 9:32 a.m., in Book 94, Page 267.

30. Unpatented Mining Claim TERENCE #10, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 21st day of December, 1954 at 9:33 a.m., in Book 94, Page 268.

31. Unpatented Mining Claim SENTINEL #1, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 23rd day of December, 1954 at 9:04 a.m., in Book 94, Page 362.

32. Unpatented Mining Claim SENTINEL #2, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 23rd day of December, 1954, at 9:05 a.m., in Book 94, Page 364.

33. Unpatented Mining Claim SENTINEL #3, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 23rd day of December, 1954, at 9:06 a.m., in Book 94, Page 366.

34. Unpatented Mining Claim MARY LOUISE #1, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 3:00 p.m., in Book 94, Page 106.

35. Unpatented Mining Claim MARY LOUISE #2, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 3:01 p.m., in Book 94, Page 107.

36. Unpatented Mining Claim MARY LOUISE #3, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 3:02 p.m., in Book 94, Page 108.

37. Unpatented Mining Claim MARY LOUISE #4, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 3:03 p.m., in Book 94, Page 109.

38. Unpatented Mining Claim MARY LOUISE #5, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 3:04 p.m., in Book 94, Page 110.

39. Unpatented Mining Claim MARY LOUISE #6, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 3:05 p.m., in Book 94, Page 111.

40. Unpatented Mining Claim MARY LOUSE #7, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 3:06 p.m., in Book 94, Page 112.

41. Unpatented Mining Claim MARY LOUISE #8, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 3:07 p.m., in Book 94, Page 113.

42. Unpatented Mining Claim MARY LOUISE #9, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 3:08 p.m., in Book 94, Page 114.

43. Unpatented Mining Claim MARY LOUISE #10, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 3:09 p.m., in Book 94, Page 115.

44. Unpatented Mining Claim LULU #1, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:47 p.m., in Book 94, Page 93.

45. Unpatented Mining Claim LULU #2, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:48 p.m., in Book 94, Page 94.

46. Unpatented Mining Claim LULU #3, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:49 p.m., in Book 94, Page 95.

47. Unpatented Mining Claim LULU #4, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:50 p.m., in Book 94, Page 96.

48. Unpatented Mining Claim LULU #5, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:51 p.m., in Book 94, Page 97.

49. Unpatented Mining Claim LULU #6, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:52 p.m., in Book 94, Page 98.

50. Unpatented Mining Claim LULU #7, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:53 p.m., in Book 94, Page 99.

51. Unpatented Mining Claim LULU #8, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:54 p.m., in Book 94, Page 100.

52. Unpatented Mining Claim LULU #9, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:55 p.m., in Book 94, Page 101.

53. Unpatented Mining Claim LULU #10, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 14th day of December, 1954, at 2:56 p.m., in Book 94, Page 102.

54. Unpatented Mining Claim SILVER PLUME #1, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 16th day of December, 1954, at 9:43 a.m., in Book 94, Page 251.

55. Unpatented Mining Claim SILVER PLUME #2, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 16th day of December, 1954, at 9:44 a.m., in Book 94, Page 252.

56. Unpatented Mining Claim ANTELOPE, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 16th day of December, 1954, at 9:45 a.m., in Book 94, Page 253.

57. Unpatented Mining Claim MICHEAL #3, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 23rd day of December, 1954, at 9:02 a.m., in Book 94, Page 358.

58. Unpatented Mining Claim MICHAEL #4, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 23rd day of December, 1954, at 9:03 a.m., in Book 94, Page 360.

59. Unpatented Mining Claim SENTINEL #4, recorded in the Office of the County Clerk, Santa Fe County, New Mexico, on the 5th day of January, 1955, at 9:20 a.m., in Book 95, Page 7.

Docket copy RECEIVED

OCT 18 1955

MF-200
(Revised June 1954)

Docket No. DMEA -3826

Commodity Lead-Zinc

Contract No. Idm-E 883

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this SEP 29 1955 day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Western Development Company of Delaware, a Delaware corporation, ..., whose mailing address is P. O. Box 1201 Santa Fe, New Mexico, hereinafter called the "Operator," as follows:

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

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

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

(b) The Operator represents and undertakes that:

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

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

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title

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

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

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of lead-zinc. The work to be performed is described in Exhibit "A." The Operator on or before November 1, 1955, shall commence the work, and on or before March 31, 1956 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall either have completed the work or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A."

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $16,710.00. The Government shall contribute 50 percent of the allowable costs as they are incurred in a total sum not in excess of $8,355.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work or not in excess of the amount of the Government's contribution to the cost of property which is or may become subject to disposal as provided in Article 9(c), whichever is greater. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 7(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. "Costs incurred" mean costs that have been paid or have become due and payable, or that in the opinion of the Government have become an obligation. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

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

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

Subcategory (c)—Labor.

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 7. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. If the Government elects to audit said records and accounts relating to the exploration work by certified public accountant, it may do so as a cost of the work to which the Operator shall contribute. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing detailed costs incurred during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and costs incurred for each type of work; and (3) a Narrative Report of the work performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

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

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

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

ARTICLE 8. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 7) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

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

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

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

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

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½)

percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 10. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon: (1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon: (1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 10 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 11. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 12. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 13. *Changes and added provisions.*—

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By C. Mittendorf
Administrator, Defense Minerals
Exploration Administration

WESTERN DEVELOPMENT COMPANY
OF DELAWARE
(Operator)

By W. E. Scorah Pres.

Rubin
"Appd. Sol. Off."
J. Ace
Swinnel
Talbot
Selfridge
H. Johnson

I, Zane E. Henderson, certify that I am the secretary of the corporation named as Operator herein; that W. E. Scorah 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.

Zane E. Henderson
Secretary

[CORPORATE SEAL]

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

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OCT 1 1 1979

EXPLORATION PROJECT CONTRACT
WESTERN DEVELOPMENT COMPANY OF DELAWARE
DOCKET NO. DMEA-3826

ANNEX I

The land referred to in Article 2 of the contract form consists of the Southwest Quarter (SW¼) of Section Thirty (30), in Township Fifteen (15) North, Range Eight (8) East, in the North Cerrillos Area, Santa Fe County, New Mexico, consisting of 160 acres, more or less.

The land is shown on the attached map entitled: "Figure 2 - Proposed Exploration, Western Development Company, Cash Entry 101 . . . Santa Fe County, New Mexico, DMEA-3826."

EXPLORATION PROJECT CONTRACT
WESTERN DEVELOPMENT COMPANY OF DELAWARE
DOCKET NO. DMEA-3826

EXHIBIT "A"

Description of the Work

The work consists of diamond drilling, not less than BX size, a total of ten holes from the surface. Eight holes shall be drilled to explore the Bottom Dollar Vein, and two holes shall be drilled to explore the Teresa Vein. The approximate locations, inclinations, directions and depths of these holes are shown on the attached map, Figure 2. It is expected that about 3,150 feet of diamond drilling will be required to complete the project.

The locations, directions, inclinations, and depths of all holes are subject to the approval of the Government.

Estimated Costs of the Project

Category (1) Independent Contracts

3,150 feet of diamond drilling @ $4.50/ft.	$14,175.00

Category (2) Personal Services

Subcategories (a) & (b)
Supervision and Technical Services

1 - Supervising Engineer, 4 months @ $500.00/mo.	2,000.00

Subcategory (c) Labor

None

Category (3) Operating Materials and Supplies

(The one item listed below is the only item allowable under this category)

125 core boxes @ $1.00/box	125.00

Category (4) Operating Equipment

None

Category (5) Initial Rehabilitation and Repairs

None

Category (6) New Buildings, Fixtures, and Installations

None

Category (7) Miscellaneous

(The two items listed below are the only items allowable under this category)

60 samples assayed for silver, lead and zinc @ $3.50/sample	$ 210.00	
Payroll taxes and insurance	200.00	
Estimated Total Cost of Project		$16,510.00
Government's Participation @ 50%		$ 8,255.00

MF-203
Revised March 24, 1955

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AUG 29 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator Western Development Co. of Delaware
Docket No. DMEA-
Contract No. Idm-E
Contract Date

CONSENT TO LIEN

To the United States of America:

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

_____

_____

_____

_____,

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

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

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

_____

_____

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

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

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

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

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

5. Added provision: _____

Dated this 24 day of august, 1955.

Frank Stahlman [Seal]
Mary S. Stahlin [Seal]
Reese P. Fullerton [Seal]
Loretta T. Fullerton (Seal)

Owners.

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

_____
[Corporate Seal]

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

224 New Customhouse
Denver 2, Colorado

May 18, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA Assistance, (Lead-Zinc), Western Development Company of Delaware, SW $\frac{1}{4}$ Section 30, T-15-N, R-8-E, NPM, Cerrillos District, Santa Fe County, New Mexico

Enclosed are the original and two copies of the subject application for Government assistance to explore the property by diamond drilling.

The applicant proposes eight drill holes aggregating 3,079 feet of drilling at an estimated cost of $7.00 per foot, or the amount of $21,553.00.

We have retained a copy of the application in this office.

W. M. Traver

Enclosures

MF-103
(Revised April 1952)

DMEA
Date Rec'd.
MAY 18 1955
BUREAU OF MINES
Denver, Colorado

Form Approved.
Budget Bureau No. 42-R1055.2.

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 3826
Metal or Mineral Lead-Zinc
Date Received 5-23-55
Estimated Cost 21,553.00
Participation (Government %) 50

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Western Development Company of Delaware
P. O. Box 1201
Santa Fe, New Mexico

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized. See Rider.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. See Rider.

(*d*) If a partnership, add to the above statement the names and addresses of all partners. Not applicable.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract
State of New Mexico, Santa Fe County, Twp 15 North, Range 8 East, NMPM:
Section 30 - Southwest quarter
(See Map)

(*b*) State any mine name by which the property is known. See Rider

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise
Lessee with option to purchase

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. See copy of lease attached

(*e*) If you own the land, describe any liens or encumbrances on it Not applicable.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. The land is patented.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

See Rider for information responsive to this Item 4.

16—66551-1

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore See Rider for information responsive to this Item 5.

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 10 days and be completed within 3-4 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

[X] Money [ ] Use of equipment owned by you [ ] Other ( )

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated May 16, 1955

WESTERN DEVELOPMENT COMPANY OF DELAWARE
(Applicant)

By [signature]

W. E. Scorah, President

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.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 23 1955

WESTERN DEVELOPMENT COMPANY OF DELAWARE

P. O. BOX 1201, SANTA FE, NEW MEXICO

The following information is submitted in support of Western Development Company of Delaware's application on Form MF-103, dated May 16, 1955:

(1) Rider to application attached hereto.

(2) Exhibit A: Lease Agreement between Western Development Company of Delaware and Reese P. & Loretta T. Fullerton and Frank & Mary L. Staplin, dated December 31, 1954.

(3) Exhibit B: U. S. Department of the Interior Geological Survey of the North Mining Area, Cerrillos District, Santa Fe County, New Mexico, and U. S. Department of the Interior Geological Survey Report "Strategic Minerals Investigations Preliminary Report 3-205".

(4) Exhibit C: U. S. Department of the Interior Geological Survey Strategic Minerals Investigations Preliminary Maps 3-205, Noted as Figure 1.

(5) Exhibit D: U. S. Department of the Interior Geological Survey Strategic Minerals Investigations Preliminary Maps 3-205, Noted as Figure 2.

Name of Applicant: Western Development Company of Delaware
P. O. Box 1201, Santa Fe, New Mexico

U. S. DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

Rider to Application on Form MF-103

Item 1 (b) Applicant is a corporation organized under the laws of the State of Delaware.

Item 1 (c) Names and addresses of officers of Applicant:

Office	Name	Address
President	W. E. Scorah	P. O. Box 1201 Santa Fe, New Mexico
Vice President	A. E. Palmer, Jr.	40 Wall Street New York N. Y.
Secretary and Treasurer	Z. E. Henderson	P. O. Box 1201 Santa Fe, New Mexico

Item 3 (b) The area in which the exploration project is to be conducted lies in the North Mining Area, Cerrillos District, Santa Fe County, New Mexico. The Bottom Dollar and Black Hornet mine shafts are located on the specific property to be explored. The Tom Payne, Armington and Pennsylvania mine shafts are located in the immediate vicinity.

Item 4 (a) The following report, a copy of which is attached, covers the mining and exploration work done prior to 1945 on the applicant's mining property:

Strategic Minerals Investigations Preliminary Report 3-205
Department of Interior, Geologic Survey, Washington
The North Mining Area, Cerrillos District
Santa Fe County, New Mexico, by Walter C. Stoll

Since the time covered by the above report, some ore shipments and development work has been done in the Tom Payne and Pennsylvania Mines. The maps, originally prepared for Strategic Mineral Investigations Preliminary Report 3-205, and included herewith, have been brought up to date by the applicant by sketching in the present known workings. The map denoted Figure 1 of the foregoing locates (by Brunton Survey) the area of the exploration project (the property covered by the lease described in Item 3), with respect to the geologic work.

The work now being conducted by Western Development Company of Delaware consists of the following in the North Mining Area, Cerrillos District:

1. Rehabilitation of the Tom Payne Mine. All but the 300 level has been placed in condition to start mining operations. The 300 level is being re-timbered and placed in operating condition. At present the shaft station has been re-timbered and work has just commenced on the drifts.

The south air shaft is being re-timbered and has at present in place 5 sets of 2-compartment (4' x 8') new shaft timber. The Tom Payne Mine is accessible with the exceptions as noted above and on the mine map.

Production facilities now available and in use for the Tom Payne Mine include:

1 - hoist - Denver Engineering Works, S.O.No. 28286, Le Roi Engine P2577-17

2 - compressors - (1) Ingersoll Rand 105CF, PP62481, Waukesha Motor 75228, Model BUX64C, April 1925
(2) Same as above, PP74857, Waukesha Motor 115035, Model U 105A, August 1927

Mine rail, piping, air receivers, etc. are also available, as well as rock drills.

2. Rehabilitating the Bottom Dollar Shaft. The Bottom Dollar shaft is being completely re-timbered by an incline 4 x 8 2-compartment shaft. It had been sunk to a depth of approximately 200 ft. with an ore showing of good Pb and Zn measuring 21" at the bottom. The shaft is accessible to a depth of 50 ft. at present.

Facilities now available and in use at the Bottom Dollar Shaft include:

1 - compressor - Le Roi Model 105G Air Master, Serial No. 211X 3008

1 - hoist - Western Machinery Hoist, Jaeger Machine Co., Model 1-H-3, Serial No. 113883.

In this general area there are two other mine shafts on property controlled by applicant, the Black Hornet and the Pennsylvania:

1. Black Hornet Shaft. Work has not started at this shaft. Sill timber at the collar of the shaft as well as two to three shaft sets need replacing. It is at present not accessible and the included maps indicate the extent of the work done in this area.

Facilities now available for work in this area include:

1 - hoist - Fairbanks Morse 25H

Misc. rail, pipe and rock drills at surface and underground.

2. Pennsylvania Mine. This mine has been examined and the accompanying maps indicate the known work in the mine. The mine has been worked extensively. The main shaft is not now in operating condition and will have to be repaired before underground development can commence. There are no surface facilities at this shaft.

In addition to the facilities listed for the four working areas mentioned, there is available and in use a blacksmith and machine shop containing miscellaneous tools. A power hand saw is available for timber framing. There is sufficient equipment for exploration work.

Item 4 (b) Accurate historical production figures are not available. Several settlement sheets from previous operations indicate assays ranging as follows:

	From	To
Gold	.02	.0225
Silver	1.34	4.50
Lead	4.90	13.85
Copper	.20	.36
Zinc	9.33	27.835

Item 4 (c) The geology of the district is covered in the accompanying report and maps. Our exploration program is for the purpose of delineating the ore bodies in order to estimate the tonnage and grade available, so that a suitable mining and milling program can be planned and carried to completion.

Item 4 (d) The property is accessible by a 5½ mile graded dirt road connecting with U. S. Highway 85 fourteen miles southwest of Santa Fe. The mine is also accessible by a 9½ mile graded dirt road connecting with Los Cerrillos, a town located on the main line of the Santa Fe Railroad. Supplies are available in Santa Fe and Albuquerque. Residences are available in Santa Fe and neighboring towns.

Item 4 (e) There is available manpower, materials, supplies and equipment that can be acquired in the immediate area. It is contemplated to use diesel power, and a 200 ft. well is located on the property, having 50 gpm capacity. If necessary, more water can be developed on company holdings in the area.

Item 5 (a) Applicant is exploring for lead-zinc ores in the North Mining Area, Cerrillos District.

Item 5 (b) The proposed exploration work is illustrated on the Strategic Mineral Investigation Preliminary Maps 3-205, Fig. 1 in plan as well as in cross section. The proposed work is to consist of diamond drill holes totaling approximately 3,000 ft. As indicated on the map, such drilling will prove the lateral extent of the ore showings in the Bottom Dollar Shaft. It will also indicate the ore possibilities of the structures in the Black Hornet Shaft, as well as the relationship between the veins in the Bottom Dollar and Black Hornet areas.

The diamond drill holes proposed are as follows:

Hole No. 1 - 150 ft. north of Bottom Dollar shaft, 50 ft. west of line of strike. To cut vein at 125 ft. depth. The hole is calculated as having a length of 130.5 ft.

Hole no. 2 - Same location. To cut vein at 200 ft. depth. Calculated length 201.9 ft.

Hole No. 3 - 150 ft. south of Bottom Dollar Shaft, west of line of strike. To cut vein at 125 ft. depth. Calculated length 138.4 ft.

Hole No. 4 - Same location as No. 3. To cut vein at 200 ft. depth. Calculated length 207.8 ft.

Hole No. 5 - 150 ft. north of Black Hornet Shaft, 150 ft. west of line of strike. To cut structures at approximately 200 ft. depth, extending as noted to cut third structure at 400 ft. Approximate length of hole 600 ft.

Hole No. 6 - 450 ft. southerly from Bottom Dollar to cut Bottom Dollar vein at 200 ft. depth and extended to cut possible parallel structures. Approximate length of hole 600 ft.

Hole No. 7 - 900 ft. Southerly from Bottom Dollar. Same as Hole No. 6.

Hole No. 8 - 700 ft. northerly from Bottom Dollar. Same as Hole No. 6.

Item 5 (d) The applicant is in the business of owning and operating natural gas, oil and mining properties. The proposed exploration program will be under the supervision of A. C. Melting, who has had 20 years operating and exploration experience in lead, zinc, gold, iron, etc. mines. He is a licensed engineer (Philippine Islands #120, Dec., 1937; Texas No. 12181, Oct., 1954)

Item 6 (a) The proposed exploration is primarily a diamond drill program. It is proposed that this drilling be done by an independent contractor, and it is estimated that the drilling and expenses therewith will not exceed the sum of $7.00 per ft.

Items (b), (c), (d), (e), (f), (g) and (h) are therefore not applicable.

WESTERN DEVELOPMENT COMPANY
of Delaware
P.O. Box 1201, SANTA FE, NEW MEXICO

Exhibit A

A G R E E M E N T

THIS AGREEMENT made and entered into the 31 day of December, 1954, between FRANK STAPLIN and MARY L. STAPLIN, his wife, and REESE P. FULLERTON and LORETTA T. FULLERTON, his wife, of Santa Fe, New Mexico, parties of the first part and hereinafter sometimes referred to as Lessors, and WESTERN DEVELOPMENT COMPANY of DELAWARE, with offices at Santa Fe, New Mexico, party of the second part, hereinafter sometimes referred to as LESSEE,

WITNESSETH:

WHEREAS, the parties of the first part are the owners of the following described land and real estate, hereafter sometimes referred to as "property", located in Santa Fe County, New Mexico, to-wit:

Southwest Quarter (SW¼) of Section Thirty (30), in Township Fifteen (15) North, Range Eight (8) East, containing 160 acres, more or less, with Government re-survey to be attempted by lessors,

and

WHEREAS, the parties of the first part are desirous of leasing and selling said property to the party of the second part, and the party of the second part, subject to its final determination after examination and investigation as hereinafter provided, is desirous of leasing and purchasing said property from the parties of the first part;

NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements hereinafter contained, and the sum of Five Thousand ($5,000) Dollars, in hand paid by the lessee to the lessors, the receipt of which is hereby acknowledged, as advance royalty payments, and in further consideration of the royalties hereafter to be paid as herein provided, the lessors do hereby let, demise and lease unto the lessee the above described property for the term of ten (10) years from and after the date hereof, for the purpose only of exploring for and mining, taking out and removing therefrom, the minerals which are or which may hereafter be found on, in or under the land, together with the right to construct all buildings, make all excavations, openings, ditches, drains, roads, railroads and other improvements on the premises which are or may become suitable or necessary for the mining and removing of said minerals from the premises. It is understood and agreed that the above mentioned payment shall be applied upon and as advance royalty payments, from the first minerals severed and marketed from the premises, at the rate hereinafter specified, and is likewise to be applied upon the purchase price to be paid for said premises in event lessee exercises its option to purchase same as hereinafter provided.

In consideration of such demise, the lessee does covenant and agree with the lessors as follows:

(a) To enter upon said property and to work the same in accordance with good mining practice and in accordance with the laws, rules and regulations of the State of New Mexico or any appropriate agency thereof relating to mine and mining practices in said state.

(b) To allow said lessors, their agents or representatives, at reasonable times to enter upon and onto all parts of any mine or excavation upon said premises for the purposes of inspection, and to allow said lessors and their agents to promptly view all ore or mineral shipment returns and to make accounting thereunder as hereinafter provided; provided that all

such inspections and examinations shall be at such times as to not interfere with the mining and development operations of the lessee, and provided further that such parties making such inspections on behalf of lessors shall do so at their own personal risk, accepting the premises in their then working conditions, and lessee shall in no event be liable to or for any injuries or damages suffered or sustained by such parties conducting such investigations.

(c) To keep continuously posted on said premises during the existence of this lease or any continuance thereof, in a conspicuous place, such notice or notices as may be furnished by the lessors indicating that lessors shall not be responsible for any labor or materialmen's liens or for any damages from accidents upon the property or connected therewith.

(d) The lessee, before commencing any work under the provisions of this lease, shall procure workmen's compensation insurance, or qualify as a self-insurer, as required by the Workmen;s Compensation Act of New Mexico, and shall keep such compensation insurance in full force and effect at all times during the continuance of this lease.

(e) To pay to lessors ten (10%) per cent royalty on all net smelter, or other market, returns, payable as said returns are received by lessee and at least monthly, said royalties to be deposited to the account of the lessors in the First National Bank of Santa Fe, New Mexico, or at such other bank or places of deposit in said City, as lessors may direct in writing. The lessee shall keep proper books and records showing the mining operations conducted under this lease and the proceeds therefrom, and the lessors shall have the right themselves and/or through their agents or representatives, to examine the accounts of lessee with respect to all amounts received from the sale or other disposition of minerals which are produced hereunder. The lessee covenants and agrees that the minimum monthly royalty payments shall equal or exceed the sum of $200.00 per month during the term of this lease.

(f) Upon the expiration or termination of this lease, the lessee shall have a period of ninety (90) days after notice in writing by the lessors within which to remove from the premises all of its machinery, equipment and other property owned by lessee or installed by it under the provisions of this lease, provided that the lessee shall leave the property in a workable condition.

This Agreement and the provisions herein contained is subject to force majeure and is contingent upon any omission or circumstance occasioned by any act of God, strikes, War, public enemy, restrictions imposed by any Government or governmental agency, adverse price levels for metals or minerals produced from the lands so that the same cannot be reasonably worked, mined, milled and produced at a reasonable profit, or other similar cause not within the control of the lessee, and which it is unable to prevent or overcome with due diligence; PROVIDED, HOWEVER, that in event of any shutdown of operations on the property for a period exceeding three months, the minimum royalty or rental payment as herein provided shall be increased to $400.00 per month during the period of such shutdown and work stoppage.

It is understood and agreed the lessee shall have the right and option, but shall not be required, at any time during the term hereof, or during any extension of such term, to purchase all the minerals, elements and property hereinabove described for the sum of $75,000.00, and in the event said lessee shall exercise such option, the purchase price shall be reduced to the extent of all payments of royalties hereunder, including any advance royalty payments, made to the lessors under the provisions of the foregoing lease. Such option may be exercised by the mailing of a written notice of lessee's election to make said purchase addressed to the last known address of lessors. Within thirty (30) days after mailing such notice, lessors shall order an abstract of title to said premises, brought down to a date later than the notice of such election, which abstract shall disclose good and merchantable title in the lessors, free and clear of all liens and encumbrances. Said sale and purchase price of said property may be paid either in cash or solely out of the ten (10%) per cent of the net proceeds from lessee's operation of the property as provided in the within and foregoing lease. Upon payment in full of the

sale and purchase price, lessors shall make, execute and deliver their good and sufficant warranty deed conveying said property to the lessee; provided, however, that at any time following the aforesaid election to purchase, the lessors, upon request or demand of lessee, shall make, execute and deliver their said deed to said property, depositing the same in escrow with one of the banks in Santa Fe, New Mexico, with appropriate instructions to deliver said deed unto lessee upon receipt by said escrow agent of satisfactory evidence of the payment in full of the aforesaid sale and purchase price.

The provisions of this instrument shall extend to and be binding upon the heirs, executors, administrators, successors and assigns of the parties hereto.

IN WITNESS WHEREOF the parties have executed this instrument in duplicate originals the day and year first above written.

Frank Staplin

Mary V. Staplin

Pierce P. Fullerton

Loretta T. Fullerton

OWNERS

WESTERN DEVELOPMENT COMPANY of DELAWARE

By _____
Its President

ATTEST:

_____
Secretary

STATE OF NEW MEXICO)
ss
COUNTY OF SANTA FE

On this 6th day of January, 1955, before me personally appeared FRANK STAPLIN and MARY L. STAPLIN, his wife, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

Witness my hand and seal the day and year last above written.

Agnes Coombs
Notary Public

My Commission expires: Aug. 13, 1958

STATE OF NEW MEXICO)
ss
COUNTY OF SANTA FE)

On this 6th day of January, 1955, before me personally appeared REESE P. FULLERTON and LORETTA T. FULLERTON, his wife, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

Witness my hand and seal the day and year last above written.

Agnes Coombs
Notary Public

My Commission expires: Aug 13, 1958

STATE OF NEW MEXICO)
ss
COUNTY OF SANTA FE)

On this 6th day of January, 1955, before me personally appeared WILLIAM E. SCORAH, to me personally known, who being by me duly sworn, did say that he is President of WESTERN DEVELOPMENT COMPANY of DELAWARE, a corporation organized under the laws of the State of Delaware, and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation, by authority of its board of directors, and said WILLIAM E. SCORAH acknowledged said instrument to be the free act and deed of said corporation.

Witness my hand and seal on this the day and year first above written.

Agnes Coombs
Notary Public

My Commission expires: Aug. 13, 1958

C
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DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

GEOLOGICAL SURVEY

For Release June 21, 1946

NORTH MINING AREA, CERRILLOS DISTRICT, SANTA FE COUNTY, NEW MEXICO

The Geological Survey has completed a preliminary report on the North area in the Cerrillos district, Santa Fe County, New Mexico, Survey Director W. E. Wrather today reported to Secretary of the Interior J. A. Krug.

The North mining area, approximately 18 miles southwest of the city of Santa Fe, includes the Tom Payne, Bottom Dollar, Pennsylvania and Black Hornet mines. Production from these mines has come from ore-bearing veins which contain zinc and lead with minor quantities of copper and silver.

The accessible mine workings and the surrounding mineralized area were studied and mapped during the summer and fall of 1945 by W. C. Stoll and W. J. Powell. The results of this investigation are summarized in a preliminary report consisting of a brief text which describes the geologic structure and mineralization of the area, and two accompanying illustrations -- a geologic and topographic map of the North mine area, and a map of the underground workings of the Tom Payne, Pennsylvania and Black Hornet mines.

Copies of the text and maps are now available as Preliminary Map 3-205, Strategic Minerals Investigations series, and may be obtained by persons directly interested in the area upon application to the Director, Geological Survey, Washington 25, D. C.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Washington
1946

Strategic Minerals Investigations
Preliminary Report 3-205

THE NORTH MINING AREA, CERRILLOS DISTRICT, SANTA FE COUNTY, NEW MEXICO

By Walter C. Stoll

The Cerrillos mining district, in Santa Fe County, N. Mex is about 18 miles southwest of the city of Santa Fe. It contains small deposits of zinc-lead-copper-silver ore which have been mined intermittently since the district was first discovered by the Spaniards prior to 1680. Between 1904 and 1930 the district is reported to have produced 1,155,527 pounds of zinc, 842,340 pounds of lead, and 160,620 pounds of copper. The latest period of mining activity started in 1942 and has continued to the present time.

Two mining areas lie in the Cerrillos Hills; the North area includes the Tom Payne, Bottom Dollar, Pennsylvania and Black Hornet mines, and the South area includes the Mine del Tiro, Cash Entry, Franklin, and Grand Central mines. Surface and underground maps of the North mining area were recently completed by the Geological Survey as part of a geologic study of the Cerrillos Hills. They accompany this report. Figure 1 is a geologic and topographic map showing roads, mine workings, prospect pits and geology, including the metalliferous veins. Figure 2 shows the underground workings and geology of the Tom Payne, Pennsylvania and Black Hornet mines.

The Cerrillos Hills are underlain by monzonite and finer-grained porphyritic rocks of similar composition, which occur as a major laccolith partly surrounded by smaller laccoliths, dikes, and sheets intrusive into sedimentary rocks of Cretaceous Age. In the North mining area, the rocks include quartzite, monzonite and trachyte porphyry. The quartzite and monzonite are cut by dikes and flat sheets of trachyte porphyry.

The North area contains some 30 metalliferous veins, which strike N 5° W to N 20° E, and dip mainly to the west at steep angles. Along strike the veins are traceable, with concealed intervals, for distances of a few hundred feet to as much as 21,00 feet. The Tom Payne vein, the most extensively developed of the deposits, has a vertical extent of at least 435 feet. The veins are narrow ones of shear and alteration, not commonly wider than 10 feet, in which are distributed shoots of coarse sphalerite-galena ore containing minor quantities of chalcopyrite and from 1 to 3 ounces silver to the ton. The ore shoots are for the most part thin, ranging in thickness from about 6 inches to 3 feet, with an average of perhaps 1 foot. Along strikes they continue, with local variations of thickness, for distances of 25 to about 300 feet. The vertical extent of the ore shoots is not well shown but appears to be comparable to the horizontal extent; in the Pennsylvania shaft, however, one ore shoot, exposed laterally on the 187-foot level for 50 feet, is continuous on dip for more than 150 feet. The veins strike and dip regularly, but minor variations of altitude are present which may have some bearing on the position of ore shoots. No post-mineral cross faults have been found although minor strike faults are present in the Tom Payne and Black Hornet mines. Minor veins or fractures branching from the major veins are

not common; such junctions do not appear to affect the localization of ore.

Adjacent to the oreshoots, as well as in the barren parts of the veins, the wall rocks are sheared and strongly bleached by hydro-thermal alteration. Alteration processes were chiefly sericitizations, accompanied by introduction of fine-grained carbonate, microcrystalline quartz, and scattered fine pyrite. Chloritized wall rocks are present locally. The whitest altered rock contrasts markedly with the dark gray color of the fresh monzonite.

Although the immediate walls of an ore shoot are odrinarily highly sheared, the ore itself is solid and unfractured. Banding due to successive deposition is the most common internal structural feature of the ore shoots. The ore is mostly coarse-grained, but individual crystals of galena and sphalerite may range in size from more than 2 inches to a small fraction of an inch. The two chief ore minerals are present in roughly equal proportions in most ore shoots. At some points they are intergrown, and in others they may have formed separate, monomineralic bands or masses. A pocket of ore in the Black Hornet mine consisted almost solely of coarse brown spalerite with but minor quantities of galena and pyrite. Both honey-yellow and brown spalerite are present in the North area, the former being the more common. Chalcopyrite is sporadically present as small isolated crystals, blebs, or streaks, and is in some places coated with thin films of covellite. Small amounts of finely crystallized pyrite are present in all the ores. Gold, in the amount of about 0.02 ounces per ton, is present in much of the ore from the North area, though higher assays have been reported from the South area. Gangue minerals include carboneate; quartz, in part amethystine, yellowish-brown opal, chalcedony, and barite. Some of the carbonate is calcite but other varities are pink and may be manganiferous. The Gangue minerals chiefly quartz and carbonate are intermixed with the ore minerals in sparse to moderate quantities. The ore of the Tom Payne mine contains more quartz than that from the other mines. Altered wall rock is the most common matrix of the ore minerals where the latter are not solidly intergrown.

The veins are thoroughly leached and oxidized to depths of 50 to 100 feet below the surface, and partial oxidiation extends to depths of more than 200 feet in places. In most prospect pits the vein exposures consist solely of light-colored, altered rock, more or less stained by limonite. Other exposures show narrow bands of hard, cellular gossan composed mainly of quartz, limonite, and manganese oxide. Malachite, opal, and chalcedony are locally present, and a few surface exposures contain residual galena. Sphalerite is leached from the zone of weathering except for scattered crystals. Zones of supergene sulphides of copper or silver have apparently not been found.

Whether on the hillsides or in the valleys, the veins outcrops are mostly covered by a rocky creep mantle several feet thick. Veins are indicated by float and in rare instances by outcrops. Prospecting, both by shaft sinking and by drifting from the surface, is handicapped by the relatively great depth of the leached zone. Past experience in the district indicated that it is more advisable to explore by sinking and drifting on a vein than by crosscutting.

DEVELOPMENT COMPANY
[illegible]
[illegible] FE, NEW MEXICO

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code

PROJECT SUMMARY REPORT

By: J. W. Alt March 7, 1957

1. Docket No. DMEA-3826 (Lead-Zinc)
Contract No. Idm-E883
Property: Bottom Dollar & Black Hornet Prospects
Santa Fe County, New Mexico

Operator: Western Development Company of Delaware
Post Office Box 1201
Santa Fe, New Mexico

Operator's Property Rights: Mining Lease: Frank and Mary L. Staplin and Reese P. and Loretta T. Fullerton - December 31, 1954.

Consent to Lien: Dated August 24, 1955.

2. Contract dated September 29, 1955. To complete March 31, 1956.

Work Authorized

The work consists of diamond drilling, not less than BX size, a total of ten holes from the surface. Eight holes shall be drilled to explore the Bottom Dollar vein, and two holes shall be drilled to explore the Teresa vein.

Estimated Costs of the Project

Category (1) Independent Contracts		
3,150 feet of diamond drilling @ $4.50/ft.		$14,175.00
Category (2) Personal Services		
1 - Supervising Engineer, 4 months @ $500.00/mo.		2,000.00
Category (3) Operating Materials and Supplies		
125 core boxes @ $1.00/box		125.00
Category (7) Miscellaneous		
60 samples assayed for silver, lead and zinc @ $3.50/sample	$210.00	
Payroll tax and insurance	200.00	410.00
Estimated Total Cost of Project		$16,710.00
Government's participation @ 50%		$ 8,355.00

8623

Amendments

None

Work Completed

Diamond Core drilling, 1831 feet @ $4.50/ft.	$ 8,239.50
Total Cost of Contract	$ 9,512.10
Government's participation, 50%	$ 4,756.05

Work on the project was started on October 25, 1955. Project work was mutually terminated February 1, 1956.

3. Audit - Report of Review - in lieu of a final audit dated June 15, 1956.

Total Cost as billed by Contractor	$ 9,512.10
Exceptions	46.00
Total accepted cost	$ 9,466.10
Government's Participation, 50%	$ 4,733.05

Operator's final report dated June 6, 1956.
Field Team's final report dated June 18, 1956 (received August 13, 1956)

4. Certificate of Discovery or Development. Dated September 4, 1956.

The nature of said discovery or development is described broadly or indicated as follows:

Diamond drilling from the surface has shown the existence of lead-zinc ores occurring within a shear zone in monzonite. The estimated ore reserves were 33,000 with a grade of 2.05 oz. silver per ton, 5.3 per cent lead and 6.8 per cent zinc.

5. Comments

Work under the contract was done satisfactorily under competent supervision and with ample financing. Objectives were reached, although core recovery was low in the mineralized zones.

Six holes were drilled under the contract. Two holes provided for in the contract were drilled at the Operator's expense prior to the signing of the contract, and two holes remained to be drilled.

Rehabilitating the shaft and drifting, which were not included in the contract, were carried on at the Operator's expense. From the bottom of the 125 foot shaft, drifts have been driven 155 feet northerly and 120 feet southerly. A shipment of 160.776 tons of ore which contained 0.017 ounce of gold and 3.2 ounces silver per ton, 9.6 per cent lead, 10.37 per cent zinc, and 0.27 per cent copper is reported by the Operator as coming from a small stope above the south drift.

The Field Team recommended that a certificate of discovery or development be issued and that no further Government funds be expended on this property at this time.

J. W. Alt

J. W. Alt

JWAlt/er
Copy to: Docket
Mr. Johnson
Chron.

DMEA Form 17
Feb. 58

DEFENSE MINERALS EXPLORATION ADMINISTRATION

WORK COMPLETED ANALYSIS

After final audit or review report is received, prepare original only and file in official docket

Operator: Western Development Company of Delaware		Actual Cost	x
State: New Mexico		Agreed Unit Cost *	x
Final Report of Audit		Commodity: Lead-Zinc	Docket No. DMEA-3826
Final Report of Review	X		Contract No. Idm-E883

Operation	Authorized by Contract and Amendments		Completed		Net cost after sale of Government Property
	Units	Cost	Units	Cost	
Drifting & Crosscutting					
Raising					
Shafts					
~~Winzes~~ Supervising Eng. 4 mos. @ $500.00*		$2,000.00	3 mos.	$987.33	$ 987.33
Drilling Diamond (BX)* (Specify)	3,159' @ $4.50	14,175.00	1,831'	8,239.50	8,239.50
125 core Boxes @ $1.00* ~~Surface Excavation~~		125.00	125	125.00	125.00
Underground Excavation					
~~Roads and Trails~~ 60 assays @ $3.50 *		210.00	17	59.50	59.50
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Payroll Taxes & Insurance		200.00		54.77	54.77
Totals		$16,710.00		$9,466.10	$9,466.10 *

* Net cost total must agree with final report of audit or review.

Prepared by W. P. Klugescheid/er Date 4/2/58

31398

☒ Audited 6/15/56. RK ANALYSIS SHEET - DMEA PROJE ☒ Actual Cost

☒ Certified 9/4/56. Analysis as of Report of Lemier ☒ Agreed Unit Costs

Incl. Voucher for Jan. 1956.

Name WESTERN DEVELOPMENT COMPANY OF DELAWARE Docket No. 3,826

State NEW MEXICO Commodity LEAD-ZINC Idm-E No. 883

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts					
~~Winzes~~ Supervising Engineer 4 mos. @ 500.00 *		$2,000.00	3 mo.	$987.33	
Drilling (Specify) Diamond (BX) *	3,150' @ 4.50	14,175.00	1,831'	8,239.50	
~~Surface Excavation~~ 125 Core Boxes @ 1.00 *		125.00	125	125.00	
Underground Excavation					
~~Roads and Trails~~ 60 assays @ 3.50 *		210.00	17	59.50	
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Payroll Taxes & Insurance		200.00		54.77	
Totals		$16,710.00		9,466.10	

Termination agreement signed April 13, 1956.

Checks audit

Total Royalty Payments to to date $ 162.00

Total dry tons shipped to date 160.781 Tons Ore

Operator's Final Report received June 11,1956.

Contract date--September 29,1955.

Field Team Final Report received-August 9,1956.

Certification of Discovery recommended.

Prepared by W. P. Klugescheid

Estimated Ore Reserves:

33,000 **tons @** 2.05 **oz. Ag. per ton,** 5.3 **% Pb,** 6.8 **% Zn.**

71626

Independent Contracts

not less than BX 3150' D.D. @ ~~4~~ 4.50	$14,175.00
1 Supervising Engineer 4 mo @ 500.00	2,000.00
125 Core boxes @ 1.00	125.00
60 Assays (Ag, Pb, Zn) @ 3.50	210.00
Payroll taxes + Insurance	200.00
	$16,710.00

Spent. ~~Dec~~ ~~Nov~~ 1955 1956 Jan

Supervising Engineer		1,033.33 ~~1,000.00~~ ~~500.00~~
Diamond Drilling @ 4.50	1831' ~~1431'~~	8,239.50 ~~6,439.50~~
17 Samples @ 3.50		59.50
Core Boxes @ 1.00	125	125.00
Taxes + Insurance		54.77 ~~53.00~~ ~~26.50~~
		~~7,091.00~~ ~~9,417.50~~ 9,512.10

Spent.

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
10/20	Cu leave	120
10/20	Johnson	110
		220

OCT 20 1965

Western Development Company of Delaware
P. O. Box 1201
Santa Fe, New Mexico

Re: NMEA-3026 (Lead-Zinc)
Western Development Company
of Delaware
Bottom Dollar & Black Hornet Prospects
Santa Fe County, New Mexico
Contract Ldr-5883

Gentlemen:

By the terms of the subject Exploration Project Contract and the certification of discovery or development dated September 4, 1956, all minerals mined or produced from September 29, 1955, to September 29, 1965, 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 therefrom. 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,

(signed) FRANK E. JOHNSON (glo)

Frank E. Johnson
Chief, Office of
Minerals Exploration

GCSelfridge/mm (9/29/65)
cc: Director's Reading File
Division File
Economic Geology File
Region III w/cy of inc. 63
C. Curtin
Br. of Budget & Finance, 5408
OME File
OME Reading File
Mr. Selfridge
120M
Minerals Products Company
Mr. and Mrs. Frank Staplin
Mr. and Mrs. Reese P. Fullerton

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
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10/20	Johnson	110
		220

OCT 20 1965

Mr. and Mrs. Frank Staplin

Santa Fe, New Mexico

Re: EMEA-3826 (Lead-Zinc)
Western Development Company
of Delaware
Bottom Dollar & Black Hornet Prospects
Santa Fe County, New Mexico
Contract Idm-2883

Dear Mr. and Mrs. Staplin:

Enclosed is a copy of a self-explanatory letter of today to Western Development Company of Delaware.

This correspondence relates to the Consent to Lien executed by you on August 24, 1955, under the Defense Minerals Exploration Administration program.

Sincerely yours,

(signed) FRANK E. JOHNSON (gls)

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

GCSelfridge/mm (9/29/65)
cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Region III
Mr. Selfridge
120M

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

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10/20	Johnson	110
		120

OCT 20 1965

Mineral Products Company
708 Morningside Drive, N. E.
Albuquerque, New Mexico

Re: DMEA-3826 (Lead-Zinc)
Western Development Company
of Delaware
Bottom Dollar & Black Hornet Prospects
Santa Fe County, New Mexico
Contract Idm-X883

Gentlemen:

Enclosed is a copy of a self-explanatory letter of today to Western Development Company of Delaware.

This correspondence relates to the Assignment of Mining Leases dated November 25, 1957, between Western Mines, Incorporated and Mineral Products Corporation.

Sincerely yours,

(signed) FRANK E. JOHNSON (gla)

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

GCSelfridge/mm (9/29/65)
cc: Director's Reading File
Division File
Economic Geology File
OME File
Region III
120M
OME Reading File
Mr. Selfridge

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
10/20	On leave	120
10/20	Johnson	110
		120

OCT 2 0 1965

Mr. and Mrs. Reese F. Fullerton

Santa Fe, New Mexico

Re: DMEA-3826 (Lead-Zinc)
Western Development Company
of Delaware
Bottom Dollar & Black Hornet Prospects
Santa Fe County, New Mexico
Contract Idm-E883

Dear Mr. and Mrs. Fullerton:

Enclosed is a copy of a self-explanatory letter of today to Western Development Company of Delaware.

This correspondence relates to the Consent to Lien executed by you on August 24, 1955, under the Defense Minerals Exploration Administration program.

Sincerely yours,

(signed) FRANK E. JOHNSON (gla)

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

GCSelfridge/mm (10/20/65)
cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Region III
Mr. Selfridge
120M

23263

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

March 11, 1965

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Re: DMEA-3826 (Lead-Zinc)
Western Development Co.
Bottom Dollar & Black
Hornet Prospects
Santa Fe County, N. M.
Contract Idm-E883

Mr. John F. Mendel
Mineral Products Company
708 Morningside Drive, S. E.
Albuquerque, New Mexico

Dear Sir:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

George C. Selfridge

George C. Selfridge, Chief
Division of Exploration Operations

OFFICIAL
COPY
O. M. E.
RECEIVED
JUL 12 1965

INITIALS	CODE
FJ	110
7/13 m	120 m
	120
	R20

DMEA-3826
Idm-E883

MME Form 63
Revised 3-62

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since **February 1964**, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Don't know Yes ☐ No ☐

Is the November 31, 1954, "Agreement" between Frank Staplin and Mary L. Staplin, and Reese P. Fullerton and Loretta T. Fullerton, and Western Development Company of Delaware, covered by the Nov. 5, 1957, "Assignment of Mining Leases" between Western Mines, Inc. and Mineral Products Corporation still in full force? If not, please give details. Yes ☐ No ☐

2. Since **February 1964**, has there been any production from the land subject to the contract? Yes ☐ No ☒

A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value

B. If stockpiled awaiting sale, state quantity, grade, and location.

NO PRODUCTION

Type	Quantity	Estimated Grade	Location
Ore	Tons		
Concentrates	Tons		
Other	Tons		

3. Since , has any production been transported through workings (see of contract)? Yes ☐ No ☒

A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value
NO PRODUCTION		

Submitted by:

Name John F. Mendel Title

Address 708 Morningside Dr. S.E. Date 7-8-65

4511

220

DMEA 3826

3826

#1-INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Deliver *ONLY* to addressee

☒ Show address where delivered

(Additional charges required for these services)

RETURN RECEIPT

Received the numbered article described on other side.

SIGNATURE OR NAME OF ADDRESSEE *(must always be filled in)*

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

DATE DELIVERED	ADDRESS WHERE DELIVERED *(only if requested in item #1)*
3-15-65	708 Morning pike Pk. E.

CSS—16—71548-4 GPO

Building 20 - Federal Center
Denver 25, Colorado

O. M. E
RECEIVED AUG 27 1962

DATE	INITIALS	CODE
8/27	gla	500
		22d

August 23, 1962

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: DMEA-3826 (Lead-Zinc)
Contract Idm-E883
Western Development Company of Delaware
(Bottom Dollar and Black Hornet Prospects)
Santa Fe County, New Mexico

Attached is the original Report of Royalty Review on the subject property dated August 20, 1962 covering the period August 8, 1959 through August 13, 1962.

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. E883
Chron

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

August 20, 1962

Memorandum

To: Acting Field Officer, Region III

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

Subject: DMEA-3826 (Lead-Zinc)
Western Development Company of Delaware
Bottom Dollar and Black Hornet Prospects
Santa Fe County, New Mexico
Contract Idm-E883

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

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

(b) One copy for your files.

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

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

Enclosures

EDTalbert/ama 8-20-62

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

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Building 20 - Federal Center
Denver 25, Colorado
January 25, 1960

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 2 1960
DATE | INITIALS | CODE
DEPARTMENT OF THE INTERIOR
JAN 2 1960
REGION III
DENVER, COLORADO

Mr. John Franklin Mendel
Mineral Products Company
708 Morningside Drive, S. E.
Albuquerque, New Mexico

Re: Docket No. DMEA 3826 (Lead-Zinc)
Contract No. Idm-E883
Western Development Company
(Bottom Dollar & Black Hornet Prospects)
Santa Fe County, New Mexico

Dear Mr. Mendel:

In reference to the "Certification by the United States of America of a Discovery or Development under an exploration Project Contract" and the instructions in the Washington Office letter of transmittal of the Certification on the captioned project, please indicate your answer to the following questions and return one copy of the questionnaire immediately to this office.

Very truly yours,

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

1. Has the property been sub-leased or any change made in ownership other than this office has been notified? Yes ___ No No. If yes, please furnish details of the transaction on a separate sheet and include a true or signed copy of any instrument that was executed in conjunction with the matter.

2. Has there been production from the land subordinated under the referenced contract since January 1, 1959? Yes ___ No No. If yes, and shipments made, who was the purchaser? _____

3. Is any of the following material stockpiled? Yes ___ No No.

(a) Ore, Tons _____ Estimated grade _____
(b) Concentrates, lbs. _____ Estimated grade _____
(c) Low grade ore, tons _____ Estimated grade _____
Place stockpiled _____

Signed John F. Mendel

Title Vice President Date Jan 27 1960

Chmn (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Building 20 - Federal Center
Denver 25, Colorado
October 28, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 30 1959

DATE	INITIALS	CODE
10/30	gad	110
4	[illegible]	110
11/2	[illegible]	800
11/2	[illegible]	500
		225

Memorandum

TO: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 3826 (Lead-Zinc) Contract No. Idm-E883
Western Development Company of Delaware (Bottom Dollar and Black Hornet Prospects) Santa Fe County, New Mexico

Enclosed are the original and two copies of a memorandum dated October 22, 1959, from T. M. Romslo, Mining Engineer, Bureau of Mines, covering an on-site inspection of the subject certified project.

As our inquiries to the Operator regarding the status of operations at the property have failed to bring a reply, the project was inspected by Mr. Romslo when he was in the immediate vicinity on another assignment.

J. W. Townsend

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Building 20 - Federal Center
Denver 25, Colorado

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 30 1959

DATE	INITIALS	CODE

October 22, 1959

Memorandum

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

From: T. M. Romslo

Subject: Docket No. DMEA 3826 (Lead-Zinc) Contract No. Idm-E883, Western Development Company of Delaware (Bottom Dollar and Black Hornet Prospects) Santa Fe County, New Mexico

The following information relative to the status of the captioned project was obtained from Mr. John Franklin Mendel, during a telephone conversation at Albuquerque, New Mexico on October 13, 1959.

Mr. John Franklin Mendel, not Frank Mendel as addressed in your letter of September 28, 1959, is acting president of the Mineral Products Company, present lessee of the subject subordinated property. The company's office is maintained at Mr. Mendels home, 708 Morningside Drive, S. E. Albuquerque, N. Mexico - phone ALpine 6-3958. A president of the company to replace Mr. Hans Zassenhaus, who recently resigned, will be elected at a stockholder's meeting which will soon be held.

Mr. Mendel reported that operations at the subject property were terminated early in 1959 after completion of the unhoused up-grading plant mentioned in Carl Belser's Statement in Lieu of Semiannual Report, dated March 3, 1959. Failure to obtain a market for the anticipated production from the mine dumps was the reported reason for termination of the operations. At present, the property is inactive and the company has no plans for reactivating the property.

Regarding your letter of September 28, 1959, Mr. Mendel said it probably was delivered when he was out of town and that it probably was picked up by one of the company's representatives. Upon being informed as to the contents of the letter, Mr. Mendel said that the requested information would soon be furnished even though the letter was not found.

The status of the project was found to be as above described by Mr. Mendel when it was visited by me October 14, 1959.

TMRomslo

T. M. Romslo

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 21 1959

DATE	INITIALS	CC
8-21	gad	1170
8/21	[illegible]	800
8/24	Grisgwold	500
		225

Building 20 - Federal Center
Denver 25, Colorado
August 18, 1959

Mr. Zane E. Henderson
Secretary
Western Development Company of Delaware
Sena Plaza
Santa Fe, New Mexico

Re: Docket No. DMEA 3826 (Lead-Zinc)
Contract No. Idm-E883
Western Development Company of Delaware
(Bottom Dollar and Black Hornet Prospects)
Santa Fe County, New Mexico

Dear Mr. Henderson:

By your letter of February 20, 1958, to Mr. W. M. Traver you advised that the lease on the property subordinated under the reference contract had been sold to the Minerals Products Company. It appears that an intermediary in the transaction was Western Mines, Inc.

As contract Idm-E883 was between the Government and Western Development Company of Delaware, it is necessary that our files contain a record of all changes in title to the property subordinated under the contract. Therefore, we will appreciate it if you will forward two copies each of any and all instruments that have been executed transferring the property rights from Western Development Company of Delaware to the present holder.

Very truly yours,

Original signed by

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

JWT/cg

cc: Chmm. Op. Comm. (2)
Roy. Corres. file Idm-E883
Chron.

DMEA
DEPARTMENT OF THE INTERIOR
FEB 24 1958
REGION III
DENVER, COLORADO

Western Development Company of Delaware

SENA PLAZA, SANTA FE, NEW MEXICO
TELEPHONE 3-5568

February 20, 1958

3/7 220
3/7 800
3/10 ~~500~~

Mr. W. M. Traver, Executive Officer
Field Team, DMEA Region 324
New Customs House
Denver 2, Colorado

Re: DMEA Docket 3826 (Lead-Zinc),
Contract IDM-E883

Dear Mr. Traver:

Please be advised that our wholly owned subsidiary, Western Mines, Incorporated, has sold the lease which it had upon the Bottom Dollar Mine in the Cerrillos Basin of Santa Fe County, New Mexico. The above captioned contract was granted in connection with exploration on this property.

The Minerals Products Company, 3900 Cerrillos Road, Santa Fe, New Mexico, is the company which purchased this lease from us and they have, in accordance with the terms of the sale, assumed all obligations in connection with this contract.

Yours very truly,

WESTERN DEVELOPMENT COMPANY
of Delaware

Zane E. Henderson
Secretary

ZEH:bh

PHOTO CY TO
SEC OPR COMM-2
HARSHMAN
DMEA/DFC-2
CORRESP. E 883
3/4/58

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

RECEIVED
SEP - 4 1956

September 4, 1956

Re: DMEA 3826; Contract Idm E-883
Lead-zinc; $ 16,710
Western Development Co.,
of Delaware
Bottom Dollar Mine
Santa Fe County, New Mexico

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, Branch of Base Metals

Subject: Field team final report of August 3, received August 9, 1956.

The original contract provided for a one-stage drilling program of 10 holes (3,150 feet) to test the Bottom Dollar shear zone along a strike length of 1,900 feet.

The work estimated to cost $16,710 was begun October 25, 1956. Of the 10 projected holes 1, 2, 5, 6, 7 and 8 were drilled under the contract, holes 3 and 4 were drilled by the applicant prior to contract execution, and holes 9 and 10 were not drilled.

In reviewing the exploration results, the field team presents adequate data to support the view that a "discovery" was made. Although the report states the tonnage factor, ore limits assumed, and adjustments made in computations, I find it somewhat difficult to follow the computations with relation to ore thickness and grade, and believe the report would be considerably strengthened by data on core recovery, tabulation of holes with angles, sludge assays (if any) etc.

I concur that a "discovery" was made and that certification to that effect is in order.

O. M. Bishop

O. M. Bishop

Copy to: Division of Minerals
Mr. Kiilsgaard
Mr. Geehan
Mr. Bishop
Files

File Copy
Surname
Griswold
Talbert
Lamb
Nelson
Selfridge

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

SEP - 4 1956

Mr. Frank Staplin
and
Mrs. Mary L. Staplin

Santa Fe, New Mexico

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company
of Delaware
Bottom Dollar & Black Hornet
Prospects
Santa Fe County, New Mexico
Contract No. Idm-E883

Dear Mr. and Mrs. Staplin:

For your information, we are enclosing a copy of a certification of discovery or development covering the cited property, which has been issued according to the provisions of the contract. We are also enclosing a copy of our letter of transmittal of this certification.

The above are in connection with the Consent to Lien signed by you on August 24, 1955.

Sincerely yours,

Frank E. Johnson
(by ESF)

ACTING Administrator

WRGriswold/er rewritten
8/29/56 (8/22/56)
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Lamb, USBM
Mr. Kiilsgaard, USGS
Region III (2)
Mr. Chambers, DMEA
Chron.

Enclosures 2

File Copy
Surname

Griswold
Talbut
Ramt
Nelson
Selfridge

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

SEP - 4 1956

Mr. Reese P. Fullerton
and
Mrs. Loretta T. Fullerton

Santa Fe, New Mexico

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company
of Delaware
Bottom Dollar & Black Hornet
Prospects
Santa Fe County, New Mexico
Contract No. Idm-E883

Dear Mr. and Mrs. Fullerton:

For your information, we are enclosing a copy of a certification of discovery or development covering the cited property, which has been issued according to the provisions of the contract. We are also enclosing a copy of our letter of transmittal of this certification.

The above are in connection with the Consent to Lien signed by you on August 24, 1955.

Sincerely yours,

WRGriswold rewritten
8/29/56 (8/22/56)
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Lamb, USBM
Mr. Kiilsgaard, USGS
Mr. Chambers, DMEA
Region III (2)
Chron.

Frank E. Johnson
(by ESF)
ACTING Administrator

Enclosures 2

File Copy
Surname

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

SEP - 4 1956

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

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company
of Delaware
Bottom Dollar & Black Hornet
Prospects
Santa Fe County, New Mexico
Contract No. Idm-E883

Dear Mr. Fredell:

Enclosed is a copy of certification of discovery or development related to Exploration Project Contract No. Idm-E883.

The contract was dated September 29, 1955, with the Government participating to the extent of 50 per cent in an exploration project estimated to cost $16,710.00. Actual expenditures totalled $9,466.10, with the Government's share being half of such amount, or $4,733.05.

The total amount of work provided for under the contract consisted of 3,150 feet of diamond drilling. Work completed comprised 1,831 feet of diamond drilling.

The discovery consisted of lead-zinc ores occurring within a shear zone in monzonite. The estimated ore reserves were 33,000 tons with a grade of 2.05 oz. silver per ton, 5.3 per cent lead and 6.8 per cent zinc.

FROM SOLICITOR

AUG 27 1956

FOR SIGNATURE

Sincerely yours,

Frank E. Johnson
(by SSF)
ACTING Administrator

Enclosures

WRGriswold/er 8/23/56
Copy to:
Docket
Mr. ~~Geehan~~, USBM
Mr. Kiilsgaard, USGS
Cont. Adm & Audit Div.
Admr R File
Op. Committee
Base Metals
Region III (2)
F. E. Johnson
W. R. Griswold
Chron.

File Copy
Surname

J. All
Rybur
Thompson
Tackat
Bishop
Lamb
Nelson
Selfridge

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

SEP - 4 1956

Mr. W. E. Searah, President
Western Development Company
of Delaware
Post Office Box 1201
Santa Fe, New Mexico

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company
of Delaware
Bottom Dollar & Black Market
Prospects
Santa Fe County, New Mexico
Contract No. Idm-2883

Dear Mr. Searah:

Transmitted herewith is a certification of discovery or development related to the Exploration Project Contract No. Idm-2883, dated September 29, 1955, 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 from September 29, 1955, the date of the contract, is subject to the Government's percentage royalty as set forth in the said contract until the sum of $4,733.05 which the Government has advanced as its participating interest is repaid, or until September 29, 1955, 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.

FROM SOLICITOR

AUG 27 1956

FOR SIGNATURE

R.C.S.

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

You are requested to notify Mr. 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,

Frank E. Johnson (ayes7)

ACTING Administrator

Enclosure

WRGriswold/er 8/23/56
Copy to:
Docket
Admr R File
Mr. C. A. Fredell, Dr.MD.,EPS
~~Mr. Geehan, USBM~~ Mr Lamb, USBM
Mr. Kiilsgaard, USGS
Op. Committee
Cont.Adm & Audti Div
Finance Office
Base Metals
Region III (2)
Mr. F. E. Johnson
Mr. W. R. Griswold
Mr. & Mrs. Frank Staplin, Santa Fe, New Mex.
Mr. & Mrs. Reese P. Fullerton, Santa Fe, N. Mex.
Chron.

FILE COPY
Surname:

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

Memorandum

To: Director
Office of Minerals Exploration

From: Acting Associate Solicitor
Division of Mineral Resources

Subject: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company of Delaware
Bottom Dollar and Black Hornet Prospects
Santa Fe County, New Mexico
Contract No. Idm-E883

Your recent memorandum to the Associate Solicitor, Division of Mineral Resources, asks us to determine whether the Government's interests in the subject contract are properly protected in some transfers of property rights by the Western Development Company.

The exploration contract is dated September 29, 1955, and is with Western Development Company of Delaware, which represents and undertakes that it holds the land under a lease and option dated December 31, 1954. Among the papers you sent us is a General Conveyance and Assignment dated June 2, 1955, by which Western Development Company transferred all its interests in the land to Western Mines, Inc. Thus, it appears that at the date of the exploration contract and thereafter, Western Development Company actually had no interest in the land which was the subject of the contract.

However, by letter dated February 28, 1958, to the Executive Officer, Field Team, Western Development Company advised the Government that Western Mines, Inc., "our wholly owned subsidiary" had sold the lease to Minerals Products Corporation. Apparently this is the first time that the Government was aware that Western Development Company, the party to the exploration contract, did not own or control the land which was the subject of

the contract except insofar as it may be said to do so from the fact that the land was held by its wholly owned subsidiary.

We are now asked if an "Assignment of Mining Leases", dated November 25, 1957, by Western Mines to Mineral Products Corporation properly protects the Government's interests. We think that it does. It makes an express reference to the Government's royalty interest under the exploration contract. The exploration contract was terminated by agreement with Western Development Company dated April 13, 1956. We think that the fact that the land was actually held by a subsidiary of the contracting corporation, rather than the corporation itself, is now water-under-the-bridge, and that no detriment to the Government has resulted from this fact or can result from the assignemnt by the subsidiary to Mineral Products Corporation.

The foregoing statement is made in some detail for the sake of the record and for ready reference should any further questions arise under this contract.

J. L. Hofflund

J. L. Hofflund
Acting Associate Solicitor

JLHofflund/jfg 9/18/59
cc: Solicitor's Docket
Mr. Soller
Mr. Hofflund
Mr. Lynch

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9/15	[illegible]	500
9/17	J. Lynch	500
		140

SOLICITOR

SEP 15 1959

INTERIOR DEPT.

RECEIVED
SEP 15 1959
ASSOC. SOLICITOR
MINERAL RESOURCES

Memorandum

To: Associate Solicitor
Division of Mineral Resources

From: W. R. Griswold, Chief
Division of Minerals

Subject: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company of Delaware
Bottom Dollar and Black Hornet Prospects)
Santa Fe County, New Mexico
Contract No. Idm-E883

SOLICITOR

SEP 18 1959

INTERIOR DEPT.

Please review the attached General Conveyance and Assignment between the Western Development Company of Delaware and the Western Mines, Incorporated, and the Assignment of Mining Leases between the Western Mines, Incorporated, and the Minerals Products Corporation, to determine whether the Government's interest in the cited contract is protected.

W R Griswold

Attachments

JWAlt/gla
9-15-59
cc to: Docket
Chron

8623

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

Building 20 - Federal Center
Denver 25, Colorado

September 8, 1959

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 3826 (Lead-Zinc) Contract Idm-E883 Western Development Company of Delaware (Bottom Dollar and Black Hornet Prospects) Santa Fe County, New Mexico

Enclosed are one copy each of General Conveyance and Assignment, Assignment of Mining Lease, and the Operator's letter of September 3, 1959 pertaining to the assignment of the property subordinated under Contract Idm-E883 from Western Development Company of Delaware to Mineral Products Corporation.

J. W. Townsend

OFFICIAL FILE COPY
O. M. E.
RECEIVED SEP 14 1959

DATE	INITIALS	CODE
9-14	gad	VVO
		~~VVO~~
~~9-14~~	~~dbt~~	~~FOO~~

Western Development Company *of Delaware*

SENA PLAZA
SANTA FE NEW MEXICO

OFFICIAL FILE COPY
O. M. E.
RECEIVED SEP 14 1959

DATE	INITIALS	CODE

September 3, 1959

OME
DEPARTMENT OF THE INTERIOR
SEP 1959
REGION III
DENVER, COLORADO

Mr. J. W. Townsend
Executive Officer, OME
Field Team, Region III
U. S. Department of the Interior
Building 20 - Federal Center
Denver 25, Colorado

Re: Docket No. DMEA 3826 (Lead-Zinc) Contract No. Idm-E883 Western Development Company of Delaware (Bottom Dollar and Black Hornet Prospects) Santa Fe County, New Mexico

Dear Mr. Townsend:

In accordance with the request in your letter of August 18, 1959, please find enclosed two copies of General Conveyance and Assignment of certain mining properties from Western Development Company of Delaware and two copies of Assignment of Mining Leases from Western Mines, Incorporated to Mineral Products Corporation which affect the property rights of the two above captioned mining prospects.

If we can be of any further assistance in this matter, please let us know.

Yours very truly,

WESTERN DEVELOPMENT COMPANY
of Delaware

Zane E. Henderson
Secretary

ZEH:dh

Enc.

ACTION ON INTERIM
OR FINAL FIELD EXAMINER REPORT
Date 8-14-56

Referred to:

1. ~~Mr. Mittendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. ~~Docket Control Mails and Files~~
5. ~~Bus. Ops.~~ Division
6. Docket Control Mails and Files

Note comments in report regarding:

1. Water deadline on this
2.
3. Certification Pending
4.

and take appropriate action.

- - - - - - - -

Action taken by Division:

Proposed certification referred to Legal for approval 8/23/56

Robert E. Adams

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

RECEIVED
AUG - 9 1956

Final Field Team Report

224 New Customhouse
Denver 2, Colorado

August 3, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA 3826 (Lead-Zinc), Contract Idm-E883, Western Development Company of Delaware (Bottom Dollar mine), Santa Fe County, New Mexico - FINAL REPORT

Enclosed are the original and three copies of a joint engineering and geologic report covering the work performed under the subject contract.

The original and one copy of the Operator's final report were forwarded to the Washington Office by memorandum of June 8, 1956.

The contract was terminated April 13, 1956, effective as of February 1, 1956, prior to completion of all the work outlined under the contract.

Final payment to the Operator was processed by this office June 26, 1956 in conformance with the final Report of Review of contract expenditures by the Contract Administration and Audit Division dated June 15, 1956 which was released to this office June 26, 1956.

The exploration work completed consisted of 1,831 feet of core drilling at a total accepted cost of $9,466.10, toward which the Government contributed 50%, or an amount of $4,733.05.

Certification of the project as a discovery or development was recommended by this office February 29, 1956, on which we were advised by letter of April 16, 1956 from your office that a certification would be issued upon return to the Washington Office of executed copies of the proposed Termination Agreement. Executed copies of the Termination Agreement were forwarded to you by memorandum of April 30, 1956.

Reviewed by
DMEA OPERATING COMMITTEE
8-13-56
(date)

W. M. Traver

E. N. Harshman

Enclosures

Maps filed in brown envelope at rear of docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

DMEA
Date Rec'd
AUG 2 1956
BUREAU OF MINES
Denver, Colorado

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
July 31, 1956

Memorandum

RECEIVED
AUG - 3 1956

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman
John F. Shaw

Subject: Final Engineering and Geologic Report, Docket DMEA 3826, Contract Idm-E883, Western Development Company of Delaware, (Lead-Zinc) Santa Fe County, New Mexico.

Enclosed is the original and seven copies of the Final Engineering and Geologic Report by D. R. MacLaren, geologist and W. D. McMillan, mining engineer, covering the work performed under the contract Idm-E883.

Western Development Company of Delaware explored on the Cash Entry 101 claim for lead and zinc under contract Idm-E883 for six surface core drill holes at a total cost of $9,512.10. The amount of government participation was $4,756.05. It is concluded that the project resulted in the discovery of 33,089 tons of indicated and inferred ore containing 0.01 ounce gold and 2.05 ounces of silver per ton and 12.09 percent combined lead and zinc.

It is recommended that a discovery be certified and that no additional exploration be performed on the property with government funds at this time.

E. N. Harshman
E. N. Harshman
Member Field Team

John F. Shaw
John F. Shaw
Supervising Mining Engineer

JFS:sh
Enclosures

cc: 7
Harshman
DMEA 3826
Chron.

Reviewed by
DMEA OPERATING COMMITTEE
8-13-56
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY.

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
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REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3826

Contract Idm-E883

Western Development Company of Delaware

Bottom Dollar, Black Hornet, and Teresa Vein

Cash Entry 101 Claim

North Cerrillos Area, Santa Fe County, New Mexico

Lead - Zinc

Joint Final Engineering and Geological Report

by

D. R. MacLaren, Geologist
Geological Survey

W. D. McMillan, Mining Engineer
Bureau of Mines

June 18, 1956

Reviewed by
DMEA OPERATING COMMITTEE
8-13-56
(date)

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DMEA DOCKET 3826, CONTRACT IDM E-883

WESTERN DEVELOPMENT COMPANY OF DELAWARE
BOTTOM DOLLAR, BLACK HORNET, AND TERESA VEIN
CASH ENTRY 101 CLAIM
NORTH CERRILLOS AREA, SANTA FE COUNTY, NEW MEXICO

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INTRODUCTION AND SUMMARY

The Western Development Company of Delaware, P. O. Box 1201, Santa Fe, New Mexico, applied for DMEA assistance to explore for lead and zinc ore bodies on the Cash Entry 101 claim, North Cerrillos mining district, Santa Fe County, New Mexico. The original application proposed drilling eight diamond drill holes totalling 3,079 feet at an estimated total cost of $21,553.00. This proposal was later amended to include two additional holes totalling 435 feet to be drilled on the Teresa vein and increasing the cost to $24,598.00 (Government's share 50 percent or $12,299.00).

The property was examined July 26, 1955, by W. D. McMillan of the Bureau of Mines, D. R. MacLaren and W. R. Griffitts of the Geological Survey, accompanied by A. C. Melting, Superintendent, and Richard McGhee, foreman, representing the applicant. A one-stage drilling program consisting of ten holes totalling 3,150 feet, estimated to cost $16,710.00 (Government's share 50 percent or $8,355.00) was recommended and provided for in contract Idm-E883.

Drilling operations under the contract started October 25, 1955, and were stopped by the end of December, 1955. Two holes provided for in the contract were drilled at the operator's expense prior to the signing of the contract, and two holes remained to be drilled. In a letter dated February 15, 1956, the operator requested that contract, Idm-E833, be terminated without completing the two remaining holes. On April 13, 1956, a Termina-

tion agreement between Defense Minerals Exploration Administration and Western Development Company was signed, effective February 1, 1956, with the provision that all rights of the Government with respect to a certification of discovery or development and a percentage royalty and lien for its payment are preserved.

Six holes were drilled under the contract at a cost of $9,512.10 of which the Government's participation was $4,756.05.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that the project resulted in the discovery of 33,089 tons of indicated and inferred ore containing 0.01 ounce gold and 2.05 ounces silver per ton, and 12.09 percent combined lead and zinc.

It is recommended that a discovery be certified, and that no additional Government funds be spent on this property at this time.

LOCATION AND ACCESSIBILITY

The Bottom Dollar, Black Hornet, and Teresa prospects are located in the SW $\frac{1}{4}$ Sec. 30, T. 15 N., R. 8 E., N.M.P.M., in the north half of the Cerrillos mining district, about 20 miles southwest of Santa Fe, Santa Fe County, New Mexico (fig. 1). They are accessible throughout the year by U. S. Highway 85 by traveling 15 miles southwesterly from Santa Fe, New Mexico, thence southeasterly on a graded road for about 5 miles to the Bottom Dollar shaft. The mean altitude in the vicinity of the property is 6,350 feet with a relief of about 100 feet. Peaks to the east and west attain altitudes of 7,000 feet.

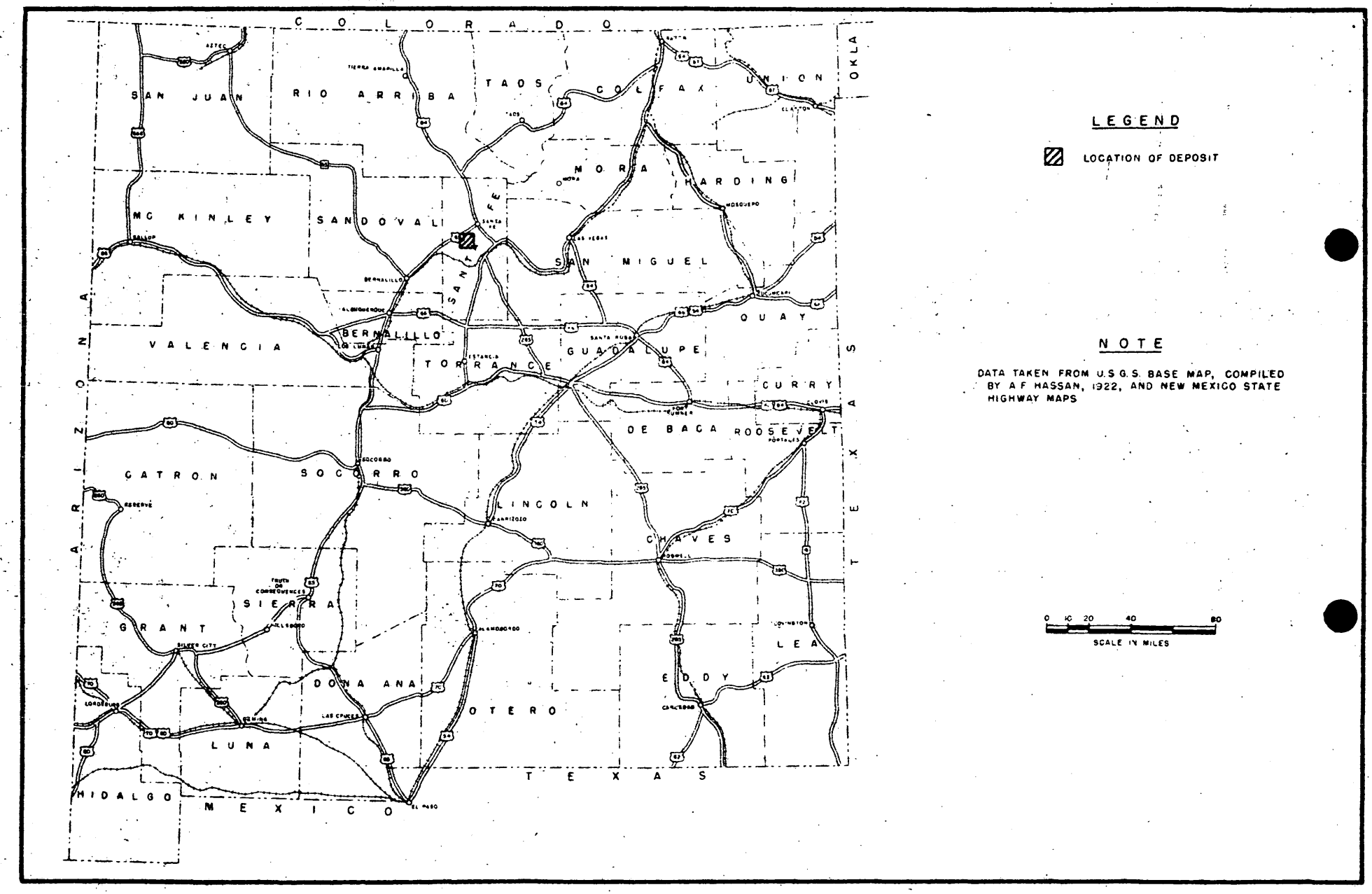

FIGURE 1 - LOCATION MAP, WESTERN DEVELOPMENT COMPANY OF DELAWARE, SANTA FE COUNTY, NEW MEXICO. DMEA 3826

Vegetation consists of mountain cedar, pinon pine, cacti, and native grasses and shrubs. There is very little timber suitable for mining purposes. There are no permanent streams in the area. Annual precipitation, most of which results from summer thunder storms, averages about 20 inches. Winter snowstorms are usually not severe. Temperatures range from 95° in the summer to below zero for brief periods in the winter.

There are no living accommodations on the property, but a labor force can be housed at Santa Fe, 20 miles distant.

PROPERTY

The Bottom Dollar, Black Hornet, and Teresa prospects are on the patented claim, Cash Entry 101, which was located by Enos Cudray on July 6, 1872 and was recorded in Santa Fe, New Mexico on September 9, 1881. A. Frank Staplin and Mary L. Staplin, his wife, Reese P. Fullerton and Loretta T. Fullerton, his wife, purchased the Cash Entry 101 claim, consisting of 160 acres, more or less.

On March 31, 1954, an agreement was made between the owners and Western Development Company for a ten year lease with a 10 percent royalty and an option to purchase for $75,000. The records show that Western Development Company has a valid lease.

The Tom Paine and the Pennsylvania mines are in the NE $\frac{1}{4}$ of sec. 30, T. 15 N., R. 8 E., N.M.P.M. and adjoin the Cash Entry 101 claim to the northeast and east, respectively.

MINE WORKING AND PLANT

Bottom Dollar

Mine workings consist of a timbered inclined 125-foot shaft with

drifts to the northeast and southwest for a total distance of about 275 feet. These workings are in good condition, but due to heavy ground, timbering is necessary in the shaft, and locally in the drift.

Black Hornet

The Black Hornet shaft is inaccessible, but according to reports, workings on the 100-foot level follow two weakly mineralized veins for 150 feet to the northeast.

Teresa

Workings are on a shear zone and consist of two shallow pits filled with debris and two pits over 10 feet deep.

At the Bottom Dollar workings, a gasoline driven blower with ventube is used for ventilation, and an electrically driven centrifugal pump handles mine water. Other equipment consists of 1 Le Roi Model 105G Air Master Compressor, 1 Western Machinery Model 1 H-3 hoist; a Fairbanks Morse 25-H.P. hoist, blacksmith and machine shop containing miscellaneous tools, including a power saw for timber framing, and pneumatic drills, rail, pipe, and cable.

GEOLOGY

Rocks of the Cerrillos mining district are Cretaceous sandstone and shale that have been intruded by monzonite and trachyte. Tertiary and Quaternary continental sediments and basaltic flows overlie the Cretaceous rocks. The intrusives and the ore deposits are older than the Tertiary and Quaternary rocks.

The Cretaceous sediments dip at angles of 15° to 20° in an easterly direction except locally where they have been disturbed be faults and intrusives.

The monzonite mass is exposed over an area of about 10 square miles, and may well extend another 10 square miles under the remaining Cretaceous, Tertiary, and Quaternary rocks. Several geologists describe the monzonite as a laccolithic mass, but the available evidence does not establish that there is a floor underneath the mass, and therefore it may well be a stock with a laccolith-like expansion at or near the present surface.

In the northern half of the Cerrillos district, lead-zinc ore bodies are localized in shear zones that range in strike from due north to about N 30° E and in dip from vertically to steeply west between walls of monzonite. The outcrops of the shear zones are generally covered by surface debris and topsoil and are therefore difficult to trace for long distances. However, they have been exposed locally by numerous surface trenches and pits. They range in width from one to seven feet where exposed on the surface and are spaced from a few tens to several hundred feet apart. Some individual shear zones appear to range in length from a few hundred to over 2,000 feet.

Within the shear zones the veins are composed of vuggy, crystalline or dense greyish quartz, carbonate minerals, remnants of altered wall rock, yellow to brown sphalerite, galena, and a small amount of pyrite. Where they are not too siliceous and contain considerable galena and sphalerite the veins show clear cut to crude banding. Where the quartz is more dense, banding is inconspicuous or absent and the sulfides are localized as fillings of small irregular vugs. The veins range in thickness from about 1 inch to 3 feet. They are well oxidized and leached from the surface to depths ranging from 50 to 100 feet. Three shear zones, the Bottom Dollar, the Black Hornet, and the Teresa, were explored by diamond drilling under the DMEA contract (figs. 2 and 3).

The Bottom Dollar shear zone has been traced for about 2,000 feet along the surface by trenches, and to a depth of 125 feet by a shaft. From the bottom of the shaft, drifts have been driven 155 feet northerly and 120 feet southerly. Where seen underground the vein, ranging in width from 8 inches to 3 feet, is a series of bands of moderately silicified monzonite, quartz, galena, and sphalerite. On the 118-foot level, about 25 feet north and 10 feet south of the shaft, the operator took two groups of five samples each across the shear zone. The assays, reported from the foot wall to the hanging wall, are:

Width, Inches	Percent		Location
	Lead	Zinc	
7	0.4	0.25	25 ft. N. of shaft
21	1.5	2.45	" " " " "
16	0.4	0.4	" " " " "
38	1.1	2.8	" " " " "
3	7.7	37.5	" " " " "
4½	0.3	0.8	10 " S. " "
2	6.5	15.9	" " " " "
17	0.3	0.7	" " " " "
16	3.8	14.7	" " " " "
20	0.2	0.3	" " " " "

These assays indicate a streak of ore 3.4 feet wide along the hanging wall of the shear zone 25 feet north of the shaft containing 1.58 percent lead and 5.34 percent zinc, and a streak of ore 2.9 feet wide in the center of the shear zone, 10 feet south of the shaft containing 2.25 percent lead and 7.97 percent zinc.

A shipment of 160.776 tons of ore which contained 0.017 ounce of gold and 3.2 ounces silver per ton, 9.69 percent lead, 10.37 percent zinc, and 0.27 percent copper is reported by the operator as coming from a small stope above the south drift (fig. 4). Rehabilitating the shaft and drifting, which were not included in the contract, were carried on at the operator's expense.

The Bottom Dollar shear was explored with DMEA assistance by diamond drilling holes Nos. 1, 2, 5, and 6; holes Nos. 3 and 4 were drilled at the Operator's expense prior to signing the contract. Holes Nos. 1 and 2, 180 feet N. 15° W. of the Bottom Dollar shaft and holes Nos. 3 and 4, 160 feet S. 38° W. of the shaft (figs. 2 and 4), indicate a main vein having a combined lead-zinc content of 16.14 percent over an average width of 1.42 feet and a branch vein having a combined lead-zinc content of 6.06 percent over an average width of 1.8 feet. The junction of the two veins is about 85 feet vertically below the surface 150 feet north of the shaft and about 125 feet vertically below the surface 160 feet south of the shaft. The main vein strikes about N. 28° E. and dips 75° to 80° NW. The branch vein strikes about N. 26° E. and dips 60° to 68° NW. Hole No. 6 (fig. 3) cut the main vein about 400 feet southwesterly of the Bottom Dollar shaft at a vertical depth of about 100 feet. An 8-foot core sample, representing a vein width of 4.1 feet, has a combined lead-zinc content of 4.43 percent. Hole No. 5 cut a vein, believed to be the Bottom Dollar, about 1,300 southwesterly of the Bottom Dollar shaft at a vertical depth of about 430 feet. The vein is poorly mineralized having a combined lead-zinc content of only 0.42 percent.

The Black Hornet shear, which is actually two shears 40 feet apart on the surface, is about 260 feet west of the southern part of the Bottom Dollar. It was explored by diamond drill hole No. 5 from a drill station about 265 feet northwest of the Black Hornet shaft (fig. 2). Three weakly mineralized veins were cut at vertical depths of about 110, 160, and 210 feet respectively. The combined lead-zinc content and the width of the veins, numbered from west to east, are:

Vein No.	Percent Pb-Zn	Width, feet
1	0.67	4.8
2	0.38	3.7
3	1.75	0.8

The Black Hornet shaft is inaccessible. According to the operator, workings from on the 100-foot level have followed two weakly mineralized shear zones for about 150 feet. Veins 2 and 3 in drill hole 5 correspond to the two shear zones. They both strike N. 26° E., vein 2 dipping 72° NW and vein 3 dipping 82° NW.

The Teresa shear, about 350 feet west of the Bottom Dollar shaft, was explored by diamond drill holes Nos. 9 and 10. (fig. 2) Both holes show the vein to be narrow and weakly mineralized. Hole No. 9 cut two veins about 5 feet apart, the first one containing 3.13 percent combined lead and zinc over a width of 0.6 feet, and the second one containing 1.48 percent combined lead and zinc over a width of 0.5 feet. Hole No. 10 cut only one vein containing 5.09 percent combined lead and zinc over a width of 0.6 feet. The Teresa shear strikes N. 26° E. and dips 69° to 72° NW.

THE PROJECT

Contract Idm-E883 provided for the drilling of ten diamond drill holes totalling 3,150 feet (fig. 5). Holes Nos. 1 through 8 were set up to test the Bottom Dollar shear zone over a length of about 1,900 feet. Hole No. 5 was located so that it would also test two known veins near the Black Hornet shaft. Holes Nos. 9 and 10 were planned to test the Teresa vein at two points about 200 feet apart. Holes Nos. 3 and 4 were drilled by the operator at his own expense before the contract was signed, and holes Nos. 7 and 8 remained to be drilled when the contract was terminated.

The core from each hole was sampled and split, and separate assays were made by the Bureau of Mines and by the operator. In the following table the assays in parentheses were obtained by the operator; all others were made by the Bureau of Mines.

Hole No.	Depth From	Depth To	Feet Width	Ounces Per Ton Au	Ounces Per Ton Ag	Percent Pb	Percent Zn	Cu
1	136	139	3.0	0.02	0.20	0.07 (1.52)	0.30 (3.88)	0.05
	141	144	3.0	0.005	0.10	0.05 (0.20)	0.20 (0.51)	0.05
	144	145	1.0	0.02	3.10	17.90 (13.75)	15.9 (12.65)	0.17
	145	146.5	1.5	0.005	0.20	0.07 (0.17)	0.15 (0.37)	0.05
2	206	208	2.0	0.02	0.70	1.80 (0.22)	2.65 (0.34)	0.25
3	120	124	4.0	0.01	2.20	7.75 (7.40)	7.65 (8.10)	0.25
4	160	162	2.0	0.005	0.70	2.30 (0.40)	1.90 (2.94)	0.05
	182	185	3.0	0.02	0.80	2.40 (2.05)	6.20 (6.10)	N.A.
5	172	177	5.0	0.005	0.20	0.10 (0.50)	0.20 (0.55)	0.17
	248	252	4.0	0.005	0.10	0.05 (0.14)	0.20 (0.38)	0.15
	333	334	1.0	<0.005	0.10	0.07 (0.28)	1.45 (1.72)	0.05
	678	680	2.0	<0.005	< 0.10	0.05 (0.10)	0.15 (0.54)	0.05
6	150	158	8.0	0.02	0.60	2.00 (1.40)	2.50 (2.96)	0.17
	387	388	1.0	0.005	0.10	0.05 (0.40)	0.25 (0.38)	0.05

< Less than

Hole No.	Depth From	Depth To	Feet Width	Ounces Per Ton Au	Ounces Per Ton Ag	Percent Pb	Percent Zn	Cu
7	Not drilled							
8	Not drilled							
9	150	151	1.0	0.02	4.60	0.50 (1.76)	1.40 (2.61)	0.28
	157	158	1.0	<0.005	0.10	0.05 (0.21)	0.25 (2.46)	0.05
10	82	82.7	0.7	0.01	0.50	1.22 (3.16)	2.30 (3.50)	0.05

< Less than

ORE RESERVES

The only material of ore grade indicated by the drilling program is in the Bottom Dollar shear zone where it is cut by holes Nos. 1 and 3. Hole No. 4 indicated material of marginal grade in the same shear zone about 67 feet below the ore in hole No. 3. Assays furnished by the operator are of samples taken in the drift from locations between drill holes Nos. 1 and 3, and in the stope from which he shipped about 160 tons of ore.

Indicated ore reserves were calculated as follows:

1. The assays of 1 foot of core in hole No. 1 were adjusted to represent a width of 3 feet.
2. Assays of the cut samples at the north end of the stope were weighted with the assays of the ore shipment, making one set of assays considered to be effective at the center of the stope.
3. The bottom limit of the indicated block was taken to be a line passing through points half way between the vein intercepts of holes Nos. 1 and 2, and holes Nos. 3 and 4.
4. The north and south limits of the indicated block were taken to be ver-

tical lines passing 50 feet northerly from hole No. 1 and 50 feet southerly from hole No. 3.

5. The assays of hole No. 1 were assumed to be effective from the northerly limit of the block to a point half way between hole No. 1 and the samples taken 25 feet north of the shaft; the assays of the samples taken 25 feet north of the shaft, to be effective from a point half way to hole No. 1 to a point half way to the center of the stope; the combined assays of the sample taken at the north end of the stope and those of the ore shipped, to be effective from a point half way to the samples taken 25 feet north of the shaft and a point half way to drill hole No. 3; and the assays of hole No. 3, to be effective from a point half way to the center of the stope to the southerly block limit.
6. A tonnage factor of 13 cubic feet to the ton was used.
7. The average width of the block is the average of the sampled widths, using 2 feet for the width of the stope as given by the operator.

The indicated block is 408 feet long, 164 feet high and 3.23 feet thick and contains 16,625 tons, of which 160 tons have been mined, leaving an indicated reserve of 16,464 tons. The estimated grade of this ore is: 0.01 ounce gold and 2.05 ounces silver per ton, 5.26 percent lead and 6.83 percent zinc.

It is reasonable to infer that the ore will extend three-quarters of the distance to the undrilled hole No. 8, or 300 feet north, and one-half the distance to hole No. 6 which has an average combined lead-zinc content of 4.43 percent. Thus, the inferred ore would contain at least as many tons as the indicated block before mining, or 16,625 tons, and the grade is in-

ferred to be the same. Thus, the reserves resulting from this program are:

	Tons	Ounces Per Ton. Au	Ag	Percent Pb	Zn
Indicated	16,464	0.01	2.05	5.26	6.83
Inferred	16,625	0.01	2.05	5.26	6.83
Total	33,089	0.01	2.05	5.26	6.83

CALCULATIONS

Tonnage: $\frac{408 \times 164 \times 3.23}{13} = 16,625.05$ Tons indicated
less 160.78 Tons mined
16,464.27 Tons Indicated Ore

LEAD:	Width	Effect. Length	Grade			ZINC: Grade		
DDH No. 1	3.0	x 98	= 294.0	x 5.27	= 1549.38	294.0	x 4.76	= 1399.44
N. Channel	3.4	x 87	= 295.8	x 1.58	= 467.36	295.8	x 5.34	= 1579.57
S. Channel-Stope	2.5	x 106	= 265.0	x 5.29	= 1401.85	265.0	x 8.95	= 2371.75
DDH No. 3	4.0	x 117	= 468.0	x 7.57	= 3542.76	468.0	x 7.87	= 3683.16
Totals	12.9		1322.8		6961.35	1322.8		9033.92
Average	3.225			5.26			6.83	

(Gold and silver assays are available only from drill holes and stope)

GOLD						SILVER		
DDH No. 1	3.0	x 137	= 411	x .006	= 2.466	411	x 1.03	= 423.33
Stope	2.0	x 154	= 308	x .017	= 5.236	308	x 3.20	= 985.60
DDH No. 3	4.0	x 117	= 468	x .01	= 4.680	468	x 2.20	= 1029.60
Totals			1187		12.382	1187		2438.53
Average				0.01			2.05	

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that this project resulted in the discovery of a total reserve of 33,089 tons of indicated and inferred ore containing 0.01 ounce gold and 2.05 ounces silver per ton, 5.26 percent lead, and 6.83 percent zinc.

It is recommended that a certificate of discovery be issued and that no further Government funds be expended on this property at this time.

Work under the contract, as executed by Western Development Company of Delaware, was done satisfactorily under competent supervision and with ample financing. Objectives were reached, although core recovery was low in the mineralized zones. This may have been because the holes were drilled at a steeper angle than specified.

OPERATOR'S FINAL REPORT

The operator's final report was submitted on June 5, 1956. The narrative report and the exhibits are adequate, although Exhibit F of the work done by the company indicates the north drift on the 125-foot level was in the hanging wall, and therefore did not follow the vein as shown by Hole No. 1 on the 125-foot level at a point 20 feet east of the company's drift.

SUMMARY OF FACTUAL DATA

Units of work completed and unit costs

Diamond Core Drilling 1831 ft. at $4.50/foot	$ 8,239.50
Total amount of contract	$16,710.00
Total cost of contract	$ 9,512.10
Government's participation at 50%	$ 4,756.05
Value of production during project	$ 3,201.81
Value of Government's royalty during project	$ 162.00

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

RECEIVED
AUG 13 1956

224 New Customhouse
Denver 2, Colorado

August 9, 1956

Zane E. Henderson
P. O. Box 1201
Santa Fe, New Mexico

Re: Docket DMEA 1631X(Uranium), Contract Idm-E236, The Excalibur Uranium Corporation (Bow Knot Area), Emery County, Utah

Docket DMEA 3826 (Lead-Zinc), Contract Idm-E883, Western Development Company of Delaware (Bottom Dollar Mine), Santa Fe County, New Mexico

Dear Mr. Henderson:

Enclosed is a copy of our letter dated August 9, 1956 to Arthur Young & Company, wherein the amount due the Government as of June 30, 1956 on Contract Idm-E236 is stated at $48,448.90. This complies with the request made in your letter of June 6, 1956 relative to Contract Idm-E236.

We are unable to comply with the request made in your letter dated June 6, 1956 relative to Contract Idm-E883, as the amount of $4,594.05 stated by your letter to be the balance of contract as of June 30, 1956 is not in agreement with our records.

Forty-six dollars was disallowed as the result of the Report of Review of Contract Expenditures dated June 15, 1956. The report was made by the Contract Administration and Audit Division, DMEA. Disallowance was made inasmuch as payroll taxes and insurance was claimed on the total salary of A. C. Malting for the months of November and December 1955. Three hundred dollars of the November salary as well as the entire salary for the month of December were exempt. The Government participated in this contract at 50%, which resulted in a $23.00 deduction. The correct net balance of the contract as of June 30, 1956 is therefore $4,571.05.

We have accordingly not written Arthur Young & Company relative to balance which may be due the Government as of June 30, 1956 on Contract Idm-E883 .

MHM/vj
cc: Royalty File E883 w/cys Opers.ltrs.
Corresp. File E883 w/Opers. ltrs
Sec. Opr. Comm. (2) w/photo cys Opers. ltrs.
J. F. Shaw (2)
Townsend
Marshall Chron.
Enclosure

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

WESTERN MINES, INCORPORATED
P. O. BOX 1201
SANTA FE, NEW MEXICO

RECEIVED
AUG 13 1956

DMEA
Date Rec'd
AUG 8 1956

BUREAU OF MINES
Denver, Colorado

August 6, 1956

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

Dear Mr. Traver:

Re: DMEA Docket 3826 (Lead-Zinc), Contract IDM-E083

Arthur Young & Company, 1930 Sherman Street, Denver, Colorado, are making an audit of the books of Western Mines, Incorporated, and they would like to have confirmation of the balance of the above-captioned contract with DMEA. Our records indicate that the balance of this contract as of June 30, 1956 was $4,594.05.

Our records also indicate that there is a balance of $247.30 due Western Mines, Incorporated under this contract. If these two balances are in accord with your records, we would like to request that you confirm them on the enclosed copy of this letter and mail it direct to Arthur Young & Company in the enclosed envelope.

Yours very truly,

WESTERN MINES, INCORPORATED

Jane E. Henderson

Jane E. Henderson
Secretary

JEH:ba

Encs.

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

RECEIVED
JUL 27 1956

[illegible] New Customhouse
Denver 2, Colorado

July 5, 1956

Mr. R. C. Anderson
New Mexico Bureau of Mines & Mineral Resources
Socorro, New Mexico

Re: Contract DMEA-3806 (Lead-Zinc),
Contract [illegible], Western Development Co.
of Delaware, (Bonham Dollar Mine) Santa Fe
County, New Mexico

Dear Mr. Anderson:

Reference is made to our telephone conversation of yesterday concerning the drill cores on the captioned DMEA project.

The Defense Minerals Exploration Administration has no objection to you removing the core from the property for use in correlating the underground and surface geology in the area, providing you have the permission of Western Development Company. As I recall it you stated they have already agreed. So far as our Agency is concerned there is no need to preserve the core for future use unless you or the operating company care to do so.

With best personal regards,

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

Copy to: Western Development Company

WMT/pw

cc: Sec.Op.Comm. (2)
Harshman
Shaw (2)
R883 Corres.
Chron

Talbert

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

JUN 19 1956

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

Re: Report of Review
Western Development Company
of Delaware
Idm-2883, DMEA-3626

Dear Mr. Brading:

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

In the fifth line of the introductory paragraph of the Schedule of Exceptions attached to the report it appears that the second reference to "$200.00" should be "$300.00". I have corrected the three Washington copies accordingly. If you concur please correct all other copies, after which normal distribution is authorized.

In the preparation of future Reports of Review, wherein reason (a) is applicable and exceptions are taken, the word "further" should be inserted between the words "possible" and "disallowances". The instructions on page 70 of the audit manual cover this point.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

EDTalbert/wb
June 19, 1956

Copy to: Docket
Admr. Reading File
Mr. Chambers

R.G.R.

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

RECEIVED
JUN 11 1956

224 New Customhouse
Denver 2, Colorado

June 8, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3826 (Lead-Zinc), Contract Idm-E883, Western Development Company of Delaware (Bottom Dollar mine), Santa Fe County, New Mexico.

Enclosed are the original and one copy of the Operator's final report relative to work performed under the subject contract.

W. M. Traver

W. M. Traver

Enclosure

WO

Western Development Company of Delaware

DMEA
Date Rec'd.
JUN 7 1956
BUREAU OF MINES
Denver, Colorado

Operations Final Report

SENA PLAZA, SANTA FE, NEW MEXICO
TELEPHONE 3-5568

June 5, 1956

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

Dear Mr. Townsend:

Re: Docket DMEA 3826 (Lead-Zinc)
Contract Idm-E883
Western Development Company of Delaware
(Bottom Dollar Mine)
Santa Fe County, New Mexico

We enclose herewith original and four copies of our Final Report on the above-captioned contract.

Very truly yours,

WESTERN DEVELOPMENT COMPANY
of Delaware

W. E. Scorah
President

WES:bn

Enc.

DMEA
Date Rec'd.
JUN 7 1956
BUREAU OF MINES
Denver, Colorado

FINAL REPORT

WESTERN DEVELOPMENT COMPANY
of Delaware

Docket DMEA 3826

Contract Idm E-883

Docket DMEA 3826 Pb-Zn
Contract IDM E-883

FINAL REPORT

WESTERN DEVELOPMENT COMPANY OF DELAWARE
Bottom Dollar Mine
Santa Fe County, New Mexico

An application for aid in an exploration project pursuant to DMEA Order 1 under the Defense Production Act of 1950, as amended, was submitted May 16, 1955 to the Executive Officer, DMEA Field Team, Region III, U. S. Department of the Interior, Denver, Colorado.

The application covered certain diamond drilling exploration work to be done on the Cash Entry No. 101 patented Mining Claim (consisting of the Southwest 1/4, Sec. 30, Twp. 15 N, Range 8 East, N. M. P. M.). The original application included the proposal for eight diamond drill holes on the Bottom Dollar Vein. The original application was amended July 29, 1956 to include two additional diamond drill holes on the Teresa Vein located to the west of the Bottom Dollar Vein.

Approval to the proposed exploration work was granted September 29, 1955. Diamond drilling started October 25, 1955. The approved exploration contract consisted of eight diamond drill holes on the Bottom Dollar Vein and two diamond drill holes on the Teresa Vein, aggregating 3,150 feet of diamond drilling. (See Exhibits A and B noting locations of the proposed diamond drill holes and of the property).

A total of 1,831 feet of diamond drilling was completed by December, 1955. After reviewing the results obtained, it was decided to stop drilling operations and a "Termination Agreement" was executed effective February 1, 1956.

The following results have been obtained by the DMEA 3826 program and by other exploratory work done on the Bottom Dollar, Black Hornet and Teresa areas:

1. The veins explored by diamond drilling have proved to be extremely narrow by visual examination and, for the most part, too low grade to be considered ore by assay analysis. The results are as follows: (Refer to Fig. 2 in the original contract Docket DMEA 3826 Lead-Zinc for locations)

<u>Hole No. 1 Bottom Dollar Area</u>
136' to 139' Altered and mineralized monzonite
1.52% Pb; 3.88% Zn; Vein width 1.8'
141' to 144' Altered and mineralized monzonite
0.20% Pb; 0.51% Zn; Width 1.8'
144' to 145' High grade sulfides 8" with some altered monzonite
13.75% Pb; 12.65% Zn; Vein width 0.6'
145' to 146.5' Altered and mineralized monzonite
0.17% Pb; 9.37% Zn; Width 0.9'

Hole No. 2 Bottom Dollar Area

206' to 208' Sileceous vein with Pb, Zn and Fe
0.22% Pb; 0.34% Zn; Width 1.0'

Hole No. 3 Bottom Dollar Area

120' to 124' Siliceous vein with Pb, Zn and Fe
7.40% Pb; 8.10% Zn; Vein width 2.0'

Hole No. 4 Bottom Dollar Area

160' to 162' Siliceous vein with Pb, Zn and Fe
0.40% Pb; 2.94% Zn
182' to 185' Siliceous vein with Pb, Zn and Fe
2.05% Pb; 6.10% Zn; Vein width 0.85'

Hole No. 5 Black Hornet Area

172' to 177' Altered monzonite (?) sulfides
0.50% Pb; 0.55% Zn
248' to 252' Altered monzonite (?) sulfides
0.14% Pb; 0.38% Zn
333' to 334' Altered monzonite and ZnS
0.28% Pb; 1.72% Zn
678' to 680' Altered monzonite, SiO_2 and PbS
0.10% Pb; 0.54% Zn

Hole No. 6 Bottom Dollar Area

150' to 158' Alternate bands altered monzonite and high grade Pb-Zn sulfides
1.40% Pb; 2.96% Zn; Vein width 6.4'
388' to 389' Siliceous vein matter and altered monzonite
0.40% Pb; 0.23% Zn

Hole No. 7 Bottom Dollar Area

Not drilled

Hole No. 8 Bottom Dollar Area

Not drilled

Hole No. 9 Teresa Vein

150' to 151' Siliceous vein matter with Pb, Zn and Fe
1.76% Pb; 2.61% Zn; Vein width 0.6'
157' to 158' Siliceous vein matter with Pb, Zn and Fe
0.21% Pb; 2.46% Zn; Vein width 0.6'

Hole No. 10 Teresa Vein

82' to 82.7' Monzonite and Pb stringers
3.16% Pb; 3.50% Zn; Vein width 0.5'

Note: Vein width calculated to approximate normal width considering dip and angle of holes. Holes No. 3 and No. 4 included for informational purposes only, as they are not included in the drilling program under Contract Idm-E883.

As noted in the foregoing, the Bottom Dollar vein is narrow and, with the exception of two samples, very low grade. The results obtained from Hole No. 5, Black Hornet Area, does not give any encouragement at all for the expense of re-opening the Black Hornet shaft, let alone sinking it an additional 100 feet. The Teresa Vein results were disappointing in that the vein widths were much narrower than the surface outcrops and the assays of the veins were low.

2. In addition to the diamond drilling program, Western Development Company of Delaware has sunk an incline shaft to a depth of 125 ft. on the Bottom Dollar vein and has drifted on the Bottom Dollar vein for 226 ft. north and south. There has been exposed an ore shoot to the south of the shaft from which 160.776 dry tons have been mined and shipped, assaying:

Au	.017 oz/ton
Ag	3.20 oz/ton
Pb	9.69%
Zn	10.37%
Cu	0.27%

The foregoing ore was stoped in an area having 14 inches to 2.5 feet of vein width. The remaining portion of the exposed vein ranging in width from 8 inches to 14 inches is not economically mineable with present prices and labor costs. No mineable ore was found in the drift to the north of the shaft extending past the location of drill holes No. 1 and No. 2 In the drift to the south, the vein has now narrowed to less than 3 inches of minor sulfides. Drill hole s No. 3 and No. 4 are 50 feet to the south of the south drift face.

3. In view of the foregoing, we have suspended company operations at the Bottom Dollar Mine.

Sketches of the diamond drill holes and the stoping operations of the Bottom Dollar Mine are attached.

A summary of the costs incurred in conjunction with Docket DMEA 3826 Pb-Zn is also attached.

STATEMENT OF COSTS

Docket DMEA 3826 Contract No. Idm E883

Minerals - Lead-Zinc

WESTERN DEVELOPMENT COMPANY
of Delaware
P. O. Box 1201, Santa Fe, New Mexico

Supervision and Technical Service	$1,033.33
Core drilling (1,831 ft.)	8,239.50
Core boxes	125.00
Payroll Taxes	51.67
Liability Insurance	3.10
Assaying	59.50
Total:	$9,512.10

Note: Documents supporting the above charges have already been submitted in previous reports.

EXHIBITS

A - North Mining Area, Cerrillos Mining District

B - Proposed Exploration, Western Development Company of Delaware, DMEA 3826

C - Logs - Diamond Drill Holes No. 1, 2, 3, 4, 9, 10

D - Log - Diamond Drill Hole No. 5

E - Log - Diamond Drill Hole No. 6

F - Bottom Dollar Mine

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

RECEIVED
MAY 31 1956

224 New Customhouse
Denver 2, Colorado

May 28, 1956

Mr. Zane E. Henderson, Secretary
Western Development Company of Delaware
P. O. Box 1201
Santa Fe, New Mexico

Re: Docket DMEA 3826 (Lead-Zinc)
Contract Idm-E883
Western Development Company of Delaware
(Bottom Dollar mine)
Santa Fe County, New Mexico

Dear Mr. Henderson:

Your attention is directed to the provisions of Item 3 of the Termination Agreement forwarded to you by certified mail of April 25, 1956 relative to the rendering of a final report pertaining to work completed under the contract.

We are desirous of closing this account at an early date. Therefore we will appreciate prompt attention to the matter of rendering the final engineering and geologic report as stipulated under Article 7 (c) of Exploration Project Contract form MF-200 (Revised June 1954), on which Contract Idm-E883 is prepared.

Very truly yours,

J. W. Townsend

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

JWT:prl
cc: Chairman, Oper. Comm. (2)
Harshman
Shaw (2)
Townsend
Corres. file
Chron.

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

RECEIVED
APR 23 1956

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

April 19, 1956

Mr. W. E. Scorah, President
Western Development Company of Delaware
P. O. Box 1201
Santa Fe, New Mexico

Re: Docket DMEA 3826 (Lead-Zinc),
Contract Idm-2883,
Western Development Company of Delaware,
(Bottom Dollar mine)
Santa Fe County, New Mexico

Dear Mr. Scorah:

Enclosed are the Government's, Division, Docket, Finance Office, and Field Team copies of "TERMINATION AGREEMENT", which has been prepared pursuant to your request of February 15, 1956, to terminate Contract Idm-2883 effective February 1, 1956.

If the Termination Agreement is satisfactory to you, all copies are to be signed by you, your title inserted, and the corporate seal affixed, and all copies promptly returned to this office.

Upon return of the properly executed copies of the Termination Agreement, the "Operator's Copy" will be forwarded to you.

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

Enclosures

JWT:prl
cc: Chairman, Oper. Comm. (2)
Harshman
Shaw (2)
Townsend
Corres. file
Chron.

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

RECEIVED
APR 27 1956

224 New Customhouse
Denver 2, Colorado

April 25, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3826 (Lead-Zinc), Contract Idm-E883
Western Development Company of Delaware
(Bottom Dollar Mine) Santa Fe County, New Mexico

Enclosed are the Government's, Division and Docket copies of the Termination Agreement which were forwarded by your letter of April 16, 1956, for signature by the Operator.

We have inserted the date of February 1, 1956, as the effective date of the termination, as the Operator has rendered a report for the month of January, 1956, wherein additional costs were incurred.

Copies of the Termination Agreement have been distributed to the Operator, Finance Office, Region III, and other offices concerned.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
APR 23 1956

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

April 19, 1956

Mr. W. E. Scorah, President
Western Development Company of Delaware
P. O. Box 1201
Santa Fe, New Mexico

Re: Docket DMEA 3826 (Lead-Zinc),
Contract Idm-2883,
Western Development Company of Delaware,
(Bottom Dollar mine)
Santa Fe County, New Mexico

Dear Mr. Scorah:

Enclosed are the Government's, Division, Docket, Finance Office, and Field Team copies of "TERMINATION AGREEMENT", which has been prepared pursuant to your request of February 15, 1956, to terminate Contract Idm-2883 effective February 1, 1956.

If the Termination Agreement is satisfactory to you, all copies are to be signed by you, your title inserted, and the corporate seal affixed, and all copies promptly returned to this office.

Upon return of the properly executed copies of the Termination Agreement, the "Operator's Copy" will be forwarded to you.

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

Enclosures

JWT:prl
cc: Chairman, Oper. Comm. (2)
Harshman
Shaw (2)
Townsend
Corres. file
Chron.

File Copy
Surname

J. Alo.
Miriam
Chambers
J. Johnson
Selfridge
Matthews

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

500

APR 16 1956

Mr. W. H. Traver, Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company
of Delaware
Bottom Dollar & Black Market
Prospects
Santa Fe County, New Mexico
Contract No. Idm-K883

Dear Mr. Traver:

We are enclosing the original and five copies of a Termination Agreement for the cited property, signed by the Administrator. This termination agreement has been prepared in conformance with your memorandum dated February 29, 1956.

A certificate of discovery will be issued when the agreement has been executed and the copy returned to this office.

Before the agreement can be executed it will be necessary for you to insert in item I, the effective date for this agreement. We do not have the date when the Operator suspended operations.

If the termination agreement meets with your approval, kindly present it to the Operator for approval and signature and, when completed, distribute the copies in the usual manner. In the event that the agreement is not satisfactory, and cannot be amended within your delegated authority, return all copies with your recommendation concerning any modification.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

JWAlt/er 3/27/56

Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

APPROVED:

/s/ Robert W. Geeham (GCS)

Member, Bureau of Mines

N. E. Nelson (GCS)

Member, Geological Survey

G.C.S.

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

RECEIVED
APR 1 5 1956

224 New Customhouse
Denver 2, Colorado

April 11, 1956

Mr. A. C. Melting, Mining Engineer
Western Development Company of Delaware
P. O. Box 1201
Santa Fe, New Mexico

Re: Docket DMEA 3826 (Lead-Zinc)
Contract Idm-8883
(Bottom Dollar mine)
Santa Fe County, New Mexico

Dear Mr. Melting:

Reference is made to your letter of April 9, 1956, wherein you request advice as to the status of the Government's approval to the termination of Contract Idm-8883, as requested by Mr. W. E. Scorah, President, Western Development Company of Delaware, in his letter of February 15, 1956.

Approval for termination of a DMEA contract is not within the authority delegated to this office; therefore the matter has been forwarded to the Washington Office, DMEA, for their consideration and appropriate action, on which you will be advised direct by them or by this office as soon as the decision has been reached.

It is suggested that you defer filing your final report until the matter of termination of the Contract has been resolved.

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

JWT:prl
cc: Chairman, Oper. Comm. (2)) w/copy of incoming letter
Harshman)
Shaw)
Townsend)
Corres. file
Chron.

Western Development Company *of Delaware*

SENA PLAZA, SANTA FE, NEW MEXICO
TELEPHONE 3-5568

DMEA
Date Rec'd
APR 10 1956
BUREAU OF MINES
Denver, Colorado

April 9, 1956

Mr. W. M. Traver
Executive Officer, DMEA
Field Team, Region III
U. S. Department of the Interior
224 New Customhouse
Denver 2, Colorado

Re: DMEA Docket 3826 (Lead-Zinc)
Contract Idm-E883
Bottom Dollar Mine
Santa Fe County, New Mexico

Dear Mr. Traver:

Please refer to your letter of February 7, 1956 to our President, Mr. W. E. Scorah, and his reply to you of February 15, 1956, in which he requested authorization for contract termination on the Docket referred to above.

We have been waiting for this matter to be concluded before filing our final report. However, Mr. N. E. Stokes of your Audit Section has now advised us that funds of ours are being withheld until final report is received.

In view of the above, will you please let us know the status of the contract termination and also whether it is necessary for us to wait for settlement of this matter before filing our final report.

Yours very truly,

WESTERN DEVELOPMENT COMPANY
of Delaware

A. C. Melting, Mining Engineer

ACM:ch

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

RECEIVED
APR 11 1956

224 New Customhouse
Denver 2, Colorado

April 9, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3826 (Lead-Zinc), Contract Idm-E883, Western Development Company of Delaware (Bottom Dollar and Black Hornet Prospects), Santa Fe County, New Mexico

In conjunction with the matter discussed in your letter of March 30, 1956, we are enclosing the original and three copies of a joint memorandum report, dated April 5, 1956, from D. R. Mac Laren, geologist, Geological Survey, and W. D. McMillan, mining engineer, Bureau of Mines, which supplements their joint memorandum of February 27, 1956, relative to termination of the subject contract and the issuance of a certification of discovery or development.

In reviewing the matter, it appears that the drilling of holes 7 and 8 is as much warranted now as when originally proposed and to omit the holes, especially hole No. 8, will leave a considerable area unexplored. If the area is explored by the proposed drilling it might strengthen the Government's position in certifying the project as a discovery or development.

The issuance of a certification of discovery or development is a matter of DMEA policy at the Washington Office level. However, we recommend that either the project be certified on the basis of present information or that the Operator be required to at least drill hole No. 8 before the Government agrees to termination of the contract.

W. M. Traver

Enclosures

IN REPLY REFER TO:

DMEA
Date Rec'd
APR 6 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

April 5, 1956

RECEIVED
APR 11 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: E. N. Harshman
J. F. Shaw

From: D. R. MacLaren
W. D. McMillan

Subject: Docket DMEA 3826 (Lead-Zinc), Contract Idm-E883, Western Development Company of Delaware (Bottom Dollar and Black Hornet Prospects), Santa Fe County, New Mexico

The Chairman of the Operating Committee, in a letter dated March 30, 1956, requested clarification of our memorandum on the subject docket dated February 29, 1956.

Basically, there is just as much justification for drilling the the two undrilled holes now as there was when the contract was signed. To omit hole 7 will leave unexplored a gap of some 850 feet between holes 5 and 6. Although, as stated in our report, on the basis of the poor showings in holes 5 and 6, and only on that basis, the chance that hole 7 will discover material of better than sub-marginal grade is poor, this is only an inference based on data gathered some 425 feet on either side of the designated location of hole 7, and may well be contrary to fact. To omit hole 8 will leave unexplored a 400-foot stretch of vein which may contain the northerly continuation of the ore-grade material already found in holes 1, 3, and 4, and in the stope above the level from the shaft. The combined weighted average lead-zinc content and vein thickness at these locations are:

	Percent	Width
Hole 1	30.10	1-foot
Stope	20.06	2 feet (approx)
Holes 3 and 4	12.15	3.5 feet

The horizontal distance from hole 1 to holes 3 and 4 is 320 feet.

It is the desire of the operator, entirely on his own initiative, to terminate the contract before completion. We have always understood that, whenever it is possible and practical to do so without detriment to either contracting party, the operator's requests should be given favorable consideration. In this case, if a certification can be justified on the basis of the above showings, thereby protecting the Government's interest, we see no reason to insist that the operator complete his contract, although completion of holes 7 and 8 will undoubtedly lead to a clearer decision regarding ore reserves and certification. If a certification cannot be justified now, then certainly hole 8 and probably hole 7 should be drilled.

D. R. MacLaren, Geologist

W. D. McMillan, Mining Engineer

File Copy
Surname

J. Alt
Selfridge
Fairman
Matthews

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 500
WASHINGTON 25, D. C.

AIR MAIL

MAR 30 1956

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

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company
of Delaware
Bottom Dollar & Black Hornet Prospects
Santa Fe County, New Mexico
Contract No. Idm-2883

Dear Mr. Traver:

This is with reference to your memorandum, dated February 29, 1956, and to the memorandum to you from R. D. MacLaren and W. B. McMillan, dated February 28. The last paragraph of their memorandum states: "It is therefore recommended that the operator's request to terminate contract Idm-2883 without drilling holes Nos. 7 and 8 be approved, provided that a discovery be certified."

Does this statement imply that the contract should not be terminated and that holes Nos. 7 and 8 should be drilled in case we did not wish to certify the project based upon our present information? Do you think that the drilling of holes Nos. 7 and 8 might lead to a clearer decision regarding certification?

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JWS)
JWAlt/er 3/30/56
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

APPROVED:

/s/ Robert W. Geehan (JWS)
Member, Bureau of Mines

N. E. Nelson (JWS)
Member, Geological Survey

C

File Copy
Surname
J. ab

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 500
WASHINGTON 25, D. C.

March 27, 1956

Memorandum

To: The Administrator

From: Chief, Base Metals Division

Subject: Mutual Termination Agreement for Docket No. DMEA-3826, Contract No. Idm-2883, Western Development Company of Delaware, Bottom Dollar & Black Hornet prospects (lead-Zinc), Santa Fe County, New Mexico

The contract provided for the drilling of ten diamond drill holes, seven of these holes to explore the Bottom Dollar vein, one hole to explore the Black Hornet vein and two holes to explore the Teresa vein. The total estimated amount of diamond drilling is 3,150 feet. The total estimated cost of the project is $16,710.00 with Government participation at 50 per cent or $8,355.00.

Under the terms of the contract the Operator completed the drilling of six holes, three of these holes on the Bottom Dollar vein, one on the Black Hornet vein and two on the Teresa vein. The Operator had completed the drilling of two holes on the Bottom Dollar vein before the contract was executed.

Under the terms of the contract 1,831 feet of diamond drilling was completed at a cost of $9,417.50 (before final audit). The unexpended amount of this contract is $7,292.50.

The Operator at his own expense rehabilitated the 125-feet Bottom Dollar incline shaft, and from the bottom of the shaft drifted 105 feet northerly, and 120 southerly. A shipment of 160.776 tons of ore which contained 0.017 ounces gold and 3.20 ounces silver per ton, 9.69 per cent lead, 10.37 per cent zinc, and 0.27 per cent copper is reported by the Operator as coming from the south drift, where the vein is 14 inches to 2.5 feet wide. The remaining section of the vein exposed on the level is 8 to 14 inches wide.

Of the assays taken of the drill holes, only two, Diamond Drill Hole No. 1, 144-145 and Diamond Drill Hole No. 3 120-124, can be considered ore grade, and only one other Diamond Drill Hole No. 4, 182-185, is sub-marginal.

Because of the poor results obtained in the work done, the Operator applied for a termination of the contract, leaving holes 7 and 8 undrilled which were to be drilled on the Bottom Dollar vein.

The examining team recommends that the Operator's request to terminate the contract without drilling holes Nos. 7 and 8 be approved, provided that a discovery be certified.

We concur with the recommendation of the Field Team that this contract be mutually terminated. The property will be certified when the termination agreement is executed and returned to this office.

W. R. Griswold

W. R. Griswold

JWAlt/er

Copy to: Docket
Base Metals
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

MAR 22 1956

Memorandum

To: The Administrator, DMEA
Attention: Chief, Base Metals Division

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-3846 (Lead-Zinc)
Western Development Company of Delaware
Contract No. I4m-2863
Bottom Dollar and Black Hornet Prospects
Santa Fe County, New Mexico

In response to a memorandum, dated March 20, 1956, from Mr. Griswold, we have prepared a termination agreement for the subject contract.

As no effective date for the agreement was specified, we have left the space blank for insertion.

Robert P. Dwyer

H.C.Rubin/wog
March 22, 1956
Copy to: Solicitor's Docket (2)
DMEA Docket
W.R.Griswold (2)
R.P.Dwyer
H.C.Rubin
Chron.

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

RECEIVED
MAR 23 1956

224 New Customhouse
Denver 2, Colorado

March 21, 1956

Mr. Zane E. Henderson, Secretary
Western Development Company of Delaware
P. O. Box 1201
Santa Fe, New Mexico

Re: DMEA Docket 3826 (Lead-Zinc)
Contract Idm-E883
Bottom Dollar Mine
Santa Fe County, New Mexico

Dear Mr. Henderson:

We are returning all copies of the Operator's Narrative which accompanied your Monthly Report and Voucher for the period January, 1956, because they have not been signed. Reference is made to the second paragraph of our certified letter to your company dated October 14, 1955.

Please sign and return all copies of the narrative report as soon as possible in order that we may process the voucher for payment.

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

Enclosures
JDC:jy
cc: Corresp. E883
Sec. Op. Comm. (2)
Shaw (2)
Chron.

File Copy
Surname
J. Leo.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 500
WASHINGTON 25, D. C.

March 20, 1956

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: Chief, Base Metals Division

Subject: Preparation of Mutual Termination Agreement for Docket No. DMEA-3826, Western Development Company of Delaware, Bottom Dollar & Black Hornet prospects, Contract No. Idm-E883, Santa Fe County, New Mexico, Lead-Zinc.

Will you please prepare a Mutual Termination Agreement for the cited contract.

Certification of the project will be made when the Operator signs the Termination Agreement and it is returned to this Division.

Please refer to the memorandum from the Executive Officer, DMEA Field Team, Region III, dated February 29, 1956.

W. R. Griswold

W. R. Griswold

JWALT/cr
~~WRG/cr~~
Copy to: Docket
Base Metals
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

RECEIVED
MAR 20 1956

March 20, 1956

Re: DMEA 3826; Contract Idm-E883
Western Development Co. of Delaware
Bottom Dollar Mine
Santa Fe County, New Mexico

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, Branch of Base Metals

Subject: Review of field team recommendation for termination of contract, dated February 29, 1956 and received March 5, 1956

On the bases of drilling to date, the applicant concludes that vein widths and ore grades at the Bottom Dollar property are too low to warrant programmed expenditures in drilling holes 7 and 8, and he recommends termination of the contract.

The applicant further points out that exploration underground on the Bottom Dollar vein confirms the narrow widths, and his view that the ore grade is insufficient to support mining operations.

The field examining team (MacLaren, USGS; McMillan, USBM) confirms the applicant's viewpoint with sample data, and recommends that the contract be terminated, providing a certification of development or discovery be made to protect the Government's interest.

I concur with the field team in their recommendation and suggest that a discovery be certified.

O. M. Bishop

O. M. Bishop

Copy to - Division of Minerals
Branch of Base Metals (2)
Mr. Kiilsgaard, Rm. 5222
Mr. Geehan, Rm. 3608
Files

IN REPLY REFER TO:

RECEIVED
MAR 14 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

March 14, 1956

Re: DMEA 3826 Idm-E883
Western Development Co.
Bottom Dollar, Teresa, and
Black Hornet veins
Santa Fe County, N. Mex.
Lead-zinc

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report, relative to termination of contract

The contract provided for the drilling of 10 diamond drill holes, of which 7 were to explore the Bottom Dollar vein, north and south of the Bottom Dollar shaft, and 2 holes (9 & 10) were to explore the essentially parallel Teresa vein, 350 feet west of and in the hanging wall of the Bottom Dollar vein. One hole (5) was to test the Black Hornet veins, southwest of, and more or less in the strike of the Bottom Dollar vein.

Holes 3 and 4 were drilled by the applicant before the contract was signed. Holes 1, 5, 6, 9, and 10 were drilled as proposed. The contractor also rehabilitated the 125-foot Bottom Dollar incline shaft, and from the bottom of the shaft drifted 105 feet northerly and 120 feet southerly. The drifting and the diamond drilling indicate the Bottom Dollar vein is continous between drill hole sections, 1-2 and 6,-a distance of 500 feet. The values and widths of vein material vary greatly. A narrow relatively high-grade streak 200 feet long may be inferred from the intersections in holes 1 and 3, and the vein exposed in the drifting. From the ore shoot in the southerly drift 160.776 tons of ore was shipped which assayed 9.69% lead, 10.37% zinc and 3.20 oz. silver per ton.

The holes in the Teresa vein, 9 and 10 and that in the Black Hornet vein, 5, showed narrow veins of low grade, and hole 6 gave a low-grade 6-foot intersection in the Bottom Dollar vein.

Because of the poor results obtained in the work done, the applicant applied for a termination of the contract, leaving holes

7 and 8 undrilled.

The examiners and the Field Team recommend that the contract be terminated and that the property be certified.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

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

RECEIVED
MAR - 5 1956

224 New Customhouse
Denver 2, Colorado

February 29, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3826 (Lead-Zinc), Contract Idm-E883, Western Development Company of Delaware, Bottom Dollar mine, Santa Fe County, New Mexico

Enclosed is the following material relative to termination of the subject contract:

1. Original and three copies of the Operator's letter of February 15, 1956.

2. Original and three copies of Joint Memorandum Report, dated February 27, 1956, from D. R. MacLaren, Geologist, Geological Survey, and W. D. McMillan, Mining Engineer, Bureau of Mines.

The Operator requests that the contract be terminated without drilling holes Nos. 7 and 8. The examining team recommends that the Operator's request to terminate the contract without drilling holes Nos. 7 and 8 be approved, provided that a discovery be certified, in which this office concurs.

In addition to not drilling holes Nos. 7 and 8, holes Nos. 3 and 4 were drilled at the sole expense of the Operator before the contract was executed.

The matter is forwarded for your review and preparation of the termination agreement, in which is incorporated a certification of the project as a discovery or development.

W. M. Traver

W. M. Traver

Enclosures

Western Development Company of Delaware

SENA PLAZA, SANTA FE, NEW MEXICO
TELEPHONE 3-5568

RECEIVED
MAR - 5 1956

February 15, 1956

DMEA
Date Rec'd.
FEB 17 1956
BUREAU OF MINES

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

Dear Mr. Traver:

Re: DMEA Docket 3826 (Lead-Zinc) - Contract Idm-E883
Bottom Dollar Mine - Santa Fe County, New Mexico

In reference to your letter of February 7, 1956 concerning the above-captioned contract, we have arrived at a firm conclusion that the omission of holes No. 7 and No. 8 is justified.

The following results and facts have made it apparent to Western Development Company of Delaware that further drilling is not a justifiable expense to us nor to the Defense Minerals Exploration Administration:

1. The veins explored by diamond drilling have proven to be extremely narrow by visual examination and, for the most part, too low grade to be considered ore by assay analysis. The results are as follows. (Refer to Fig. 2, original contract Docket DMEA 3826 Lead-Zinc for locations):

Hole No. 1. Bottom Dollar Area
136' to 139' Altered and mineralized monzonite
1.52% Pb; 3.88% Zn; Vein width 1.8'
141' to 144' Altered and mineralized monzonite
0.20% Pb; 0.51% Zn; Width 1.8'
144' to 145' High grade sulfides 8 with some altered monzonite
13.75% Pb; 12.65% Zn; Vein width 0.6'
145' to 146.5' Altered and mineralized monzonite
0.17% Pb; 0.37% Zn; Width 0.9'

Hole No. 2. Bottom Dollar Area
206' to 208' Siliceous vein with Pb, Zn and Fe
0.22% Pb; 0.34% Zn; Width 1.0'

Hole No. 3. Bottom Dollar Area
120' to 124' Siliceous vein with Pb, Zn and Fe
7.40% Pb; 8.10% Zn; Vein width 2.0'

Hole No. 4. Bottom Dollar Area
160' to 162' Siliceous Vein with Pb, Zn and Fe
0.40% Pb; 2.94% Zn
182' to 185' Siliceous vein with Pb, Zn and Fe
2.05% Pb; 6.10% Zn; Vein width 0.85'

Hole No. 5. Black Hornet Area
172' to 177' Altered monzonite (?) sulfides
0.50% Pb; 0.55% Zn
248' to 252' Altered monzonite (?) sulfides
0.14% Pb; 0.38% Zn
333' to 334' Altered monzonite and ZnS
0.28% Pb; 1.72% Zn
678' to 680' Altered monzonite, SiO_2 and PbS
0.10% Pb; 0.54% Zn

Hole No. 6. Bottom Dollar Area
150' to 158' Alternate bands altered monzonite and high grade Pb-Zn sulfides
1.40% Pb; 2.96% Zn; Vein width 6.4'
388' to 389' Siliceous vein matter and altered monzonite
0.40% Pb; 0.23% Zn

Hole No. 9. Teresa Vein
150' to 151' Siliceous vein matter with Pb, Zn and Fe
1.76% Pb; 2.61% Zn; Vein width 0.6'
157' to 158' Siliceous vein matter with Pb, Zn and Fe
0.21% Pb; 2.46% Zn; Vein width 0.6'

Hole No. 10. Teresa Vein
82' to 82.7' Monzonite and Pb stringers
3.16% Pb; 3.50% Zn; Vein width 0.5'

Note: Vein width calculated to approximate normal width considering dip and angle of holes. Holes No. 3 and No. 4 included for informational purposes only, as they are not included in the drilling program under Contract Idm-£883.

As noted in the foregoing, the Bottom Dollar vein is narrow and, with the exception of two samples, very low grade. The results obtained from Hole No. 5, Black Hornet Area, does not give any encouragement at all for the expense of re-opening the Black Hornet shaft, let alone sinking it an additional 100 feet. The Teresa Vein results were disappointing in that the vein widths were much narrower than the surface outcrops and the assays of the veins were low.

2. In addition to the diamond drilling program, Western Development Company of Delaware has sunk an incline shaft to a depth of 125 ft. on the Bottom Dollar vein and has drifted on the Bottom Dollar vein for 226 ft. north and south. There has been exposed an ore shoot to the south of the shaft from which 160.776 dry tons have been mined and shipped, assaying:

Au	.017 oz/ton
Ag	3.20 oz/ton
Pb	9.69%
Zn	10.37%
Cu	0.27%

The foregoing ore was stoped in an area having 14 inches to 2.5 feet of vein width. The remaining portion of the exposed vein ranging in width from 8 inches to 14 inches is not economically mineable with present prices and labor costs. No mineable ore was found in the drift to the north of the shaft extending past the location of drill holes No. 1 and No. 2. In the drift to the south, the vein has now narrowed to less than 3 inches of minor sulfides. Drill hole No. 3 and No. 4 are 50 feet to the south of the south drift face.

3. In view of the foregoing, we have suspended company operations at the Bottom Dollar Mine.

We therefore recommend that the subject contract be terminated.

Very truly yours,

WESTERN DEVELOPMENT COMPANY
of Delaware

W. E. Scorah
President

WES:bn

DMEA
Date Rec'd
FEB 28 1956
BUREAU OF MINES
Denver, Colorado

RECEIVED
MAR - 5 1956

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
February 27, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. S. Marshman
J. F. Shay

From: D. H. Maclaren
W. D. McMillan

Subject: DMEA Docket 3016 (Lead-zinc) Contract IdA-2883, Western Development Company, Bottom Dollar Mine, Santa Fe County, New Mexico

In a letter dated February 15, 1956, the subject operator requested that contract IdA-2883 be terminated without drilling holes Nos. 7 and 8.

To date eight of the ten holes provided for in the contract have been drilled. Of these holes, Nos. 3 and 4 were completed at the operator's expense before the contract was signed, and Nos. 1, 2, 5, 6, 9 and 10 have been completed with Government assistance. In addition to the diamond drilling, the operator, at his own expense, rehabilitated a caved shaft to a depth of 125 feet, and from the bottom of the shaft, drifted approximately 185 feet northerly and 180 feet southerly. The accompanying sketch shows the locations of the drill holes and the underground workings, sections in the planes of the holes, and the assays of core samples. The vein sections of the core were split and separate assays were made by the operator and by the U. S. Bureau of Mines. The following table shows the combined lead and zinc contained in each of the 17 samples assayed:

D.D.H. No.	Depth of sample	Combined lead and zinc OPERATOR'S ASSAY	BUREAU ASSAY	AVERAGE	
1	136-139	3.40	0.37	2.09	3
	141-144	0.71	0.25	0.48	3
	144-145	26.40	33.80	30.10	1 15.10
	145-146.5	0.54	0.22	0.38	1.5
2	206-208	0.56	4.45	2.50	2
3	128-130	15.50	15.40	15.45	2 15.40
4	160-162	3.34	4.20	3.77	2
	182-185	8.13	8.60	8.37	3 8.37
5	172-177	1.05	0.30	0.67	5
	248-252	0.32	0.85	0.58	4
	333-334	2.10	1.42	1.76	1
	678-680	0.64	0.20	0.42	2
6	136-138	4.36	4.50	4.43	2
	388-389	0.63	0.30	0.46	1
9	150-151	4.37	1.90	3.13	1
	157-158	2.67	2.35	2.51	1
10	82-82.7	6.64	3.52	5.09	1

Of these assays only two, DDH No. 1, 144-145 and DDH No. 3, 128-130, can be considered ore grade, and only one other, DDH No. 4, 182-185, is sub-marginal. Although there are a few minor discrepancies between the operator's and the BUREAU's assays, probably due to erratic distribution of lead and zinc in the core or to improper splitting of the core, both sets of assays check fairly well in the case of these three samples. There are no assays available of channel samples from the drift on the Bottom Dollar Vein. A shipment of 168.776 tons of ore which contained 0.027 ounce gold and 3.80 ounces silver per ton, 9.69 percent lead, 10.37 percent zinc, and 0.27 percent copper is reported by the operator as coming from the south drift, where the vein is 14 inches to 2.5 feet wide. The remaining portion of the vein exposed on the level is 8 to 14 inches wide.

Therefore, from the information available from the 125-foot level workings, from DDH Nos. 1 and 2 to the north, and 3 and 4 to the south, there is indicated a continuous vein about 320 feet long and 150 feet deep that ranges in width from 8 inches to 3 feet and has a combined lead-zinc content ranging from 8 to 30 percent. About 100 feet south of DDH Nos. 3 and 4, DDH No. 6 has been completed. The combined lead-zinc content of the vein cut by this hole is 4.43 percent over a vein width of 6 feet. Hole No. 7, which the operator wishes to leave undrilled, is located half way between No. 6 and No. 5. From the poor showings in these two holes the chance of No. 7 discovering material of better than sub-marginal grade is poor. Hole No. 8, the other one which the operator wishes to leave undrilled, is located about 400 feet north of Nos. 1 and 2. This hole could possibly indicate the northerly continuation of the ore grade material already found. However, in view of the difficulty encountered in tracing the vein to the north, and its weakness where exposed in a surface trench nearly above the proposed course of Hole No. 8, it is difficult to justify insisting that the hole be drilled.

It is therefore recommended that the operator's request to terminate contract IDa-2883 without drilling holes Nos. 7 and 8 be approved, provided that a discovery be certified.

D R Macharen
D. R. Macharen, Geologist

W. D. McMillan
W. D. McMillan, Mining Engineer

cc: 9
IDa-2883
Chron
McMillan

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

RECEIVED
FEB 13 1956

224 New Customhouse
Denver 2, Colorado

February 7, 1956

Mr. W. E. Scorah, President
Western Development Company of Delaware
P. O. Box 1201
Santa Fe, New Mexico

Re: DMEA Docket 3826 (Lead-Zinc)
Contract Idm-E883
Bottom Dollar Mine
Santa Fe County, New Mexico

Dear Mr. Scorah:

It has been brought to our attention that you are in doubt as to whether holes 7 and 8 should be drilled under Contract Idm-E883. This will inform you that prior Government approval is required to terminate the drilling if the contract requirements have not been fulfilled. Therefore, if you arrive at a firm conclusion that omission of the two holes is justified, please forward your recommendations and justification to this office for consideration by the Government. We request that you give this matter your immediate attention.

An amount of $200.00 has been withheld from your December Monthly Report and Voucher pending satisfactory resolution of the above matter. If the drilling is terminated by mutual consent, this amount shall continue to be held pending resolution of matters relative to closing the account, which includes the rendering of a Final Operator's Report as stipulated in Article 7 (c) of the contract, and release of a Final Audit or Report of Review of contract expenditures by the Contract Administration and Audit Division, DMEA.

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

JDC:jy
cc: Corresp. E883
Sec. Op. Comm. (2)
Shaw (2)
Harshman
Townsend
Chron.

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

RECEIVED
FEB - 1 1956

224 New Customhouse
Denver 2, Colorado

January 30, 1956

Mr. W. E. Scorah, President
Western Development Company of Delaware
P. O. Box 1201
Santa Fe, New Mexico

Re: DMEA Docket No. 3826
Contract Idm-E883
Cash Entry No. 101
Santa Fe County, New Mexico

Dear Mr. Scorah:

We have received your Monthly Report and Voucher for work performed during the month of December, 1955. The voucher cannot be processed for payment until you have submitted documentation of the drilling costs. This documentation must be either the Drilling Contractor's invoice or a certified true copy. Reference is made to the fourth paragraph of our certified letter to your company dated October 14, 1955.

Please give this matter your immediate attention.

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

JDC:jy
cc: Corresp. E883
Sec. Op. Comm. (2)
Shaw (2)
Townsend
Chron.

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

224 New Customhouse
Denver 2, Colorado

December 29, 1955

Mr. W. E. Scorah, President
Western Development Company of Delaware
P. O. Box 1201
Santa Fe, New Mexico

Re: DMEA Docket No. 3826
Contract Idm-E883
Cash Entry No. 101 Claim
Santa Fe County, New Mexico

Dear Mr. Scorah:

We have received your Monthly Progress Report and Voucher (Form MF-104) for the month of November, 1955 and we are processing the voucher for payment with the following deductions:

a) the amount of $500.00 claimed for Supervision and Technical
b) the amount of $25.00 claimed for Payroll Taxes
c) the amount of $1.50 claimed for Liability Insurance

Documentation for the three above items does not meet DMEA requirements. The documentation must be either the original or a certified true copy of the payroll, or that portion of the payroll which includes the salary of the Supervising Engineer. Reference is made to the next to last paragraph on the reverse side of Form MF-104, Operator's Monthly Report and Voucher.

As to the claims for Payroll Taxes and Liability Insurance, we are unable to determine how the respective amounts of $25.00 and $1.50 were arrived at. Please furnish us with the applicable rates for these items.

Re-claim for the amount disallowed may be made on your next monthly voucher or any subsequent voucher. The re-claim must

be accompanied by the original of the Administrative Audit Difference Statement which will be forwarded to you by the Finance Office, Region III. Notation of the re-claim is to be made in the Narrative section of the Monthly Report, and on the Form MF-104A under "Remarks:".

Very truly yours,

W. M. Traver

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

JDC:jy
cc: Corresp. File E883
Sec. Op. Comm. (2)
Shaw (2)
Townsend
Chron.

RECEIVED
OCT 1 0 1955

CERTIFIED MAIL

224 New Customhouse
Denver 2, Colorado

October 14, 1955

Western Development Company
P. O. Box 1231
Santa Fe, New Mexico

Re: Docket DMEA 3886 (Lead-Zinc),
Contract IAm Z-883

Gentlemen:

Enclosed herewith is your copy of Exploration Project Contract IAm-Z883. Also enclosed are six copies of Form MF-104, Operator's Monthly Report and Voucher, and six copies of Form MF-104a, Operator's Unit Cost and Progress Report. At the completion of the first calendar month of operations and monthly thereafter, you are required to submit five copies of the forms to Mr. John F. Shaw, U. S. Bureau of Mines, Room 137, Building 20, Denver Federal Center, Denver 2, Colorado; the sixth form is for your records.

Please note that the monthly report requires a narrative report which should be accompanied by maps or sketches. The narrative report must be signed by the operator. The monthly report will not be processed for payment unless accompanied by a narrative report. Additional copies of Forms MF-104 and MF-104a will be forwarded to you as required.

For your information and in reply to many questions that we have been asked, after Forms MF-104 and MF-104a are received an engineer will check progress and approve your accounts, after which it will be sent to the Regional Office, Region III, U. S. Bureau of Mines, 224 New Customhouse, Denver 2, Colorado, for auditing and vouchering. If the report is in order a check will be issued by the Treasury Department for the Government's portion of the costs.

The contract is prepared on Form MF-200, which requires documentation of charges reported under Categories 1, 2, 3, and 7. In reference thereto and for your information, you are referred to the next to the last paragraph on the reverse side of Form MF-104.

In the matter of your claim for reimbursement of drilling costs, reimbursement to you will be made on the basis of a hole or holes completed to the objective, under the terms of the contract. Therefore, your monthly report should include only such holes that are completed. Category 1, Independent Contracts, provides that the diamond drilling will be performed by a subcontractor. In the event the company desires to perform the work on company account rather than to subcontract the drilling, it will be necessary that you obtain approval for such from this office prior to the start of the work.

In the first paragraph of Exhibit "A", Description of the Work, it states, "The approximate locations, inclinations, directions, and depths of these holes are shown on the attached map, Figure 2." The second paragraph of Exhibit "A" states, "The locations, directions, inclinations, and depths of all holes are subject to the approval of the Government." Therefore, if there is any material change in the locations, inclinations, and directions of the holes as is indicated on Figure 2, the Government's approval for the change must be obtained prior to commencing work.

No oral statement of any person shall be construed to modify or change the terms of this contract. Field representatives of the Government are not authorized to approve any changes in the work program or contract provisions. Such approval can only be given by the Washington Office, DMEA, or the DMEA Field Team, Region XII.

It is a regulation that reimbursement for the cost of work accomplished before the date of the contract will not be allowed. It is a requirement and imperative that you notify this office in writing the date work actually commences under the contract, with a copy of your letter to Mr. Shaw.

As the Government will not contribute to the cost of a partially completed hole, the tenth hole should not be started unless there is sufficient unexpended footage within the 2130-foot provided to guarantee completion of the hole to the objective.

Very truly yours,

W. M. Trover
Executive Officer, DMEA
Field Team, Region XII

By J. W. Townsend
J. W. Townsend

Enclosures
JWTwyn
cc: Chairman (2)
Harrison
Shaw
Townsend
General file
Chron.

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

RECEIVED
OCT 18 1955

CERTIFIED MAIL

224 New Customhouse
Denver 2, Colorado

October 14, 1955

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3826 (Lead-Zinc), Contract Idm-E883, Western Development Company, Santa Fe County, New Mexico

Enclosed are the Government's, Division, and Docket copies of Exploration Project Contract Idm-E883, which was forwarded by your letter of September 29, 1955, for signature by the Operator. The starting date has been inserted under Article 3 as you requested.

Copies of the contract have been given to the Operator, the Finance Office, Region III, and copy retained for our files.

W. M. Traver

By J. W. Townsend
J. W. Townsend

Enclosures

DMEA File Copy
Surname

DMEA
Act
Received
Mittendorf

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON 25, D. C.

N.S. in R.&R.

OCT - 6 1955

My dear Senator Chavez:

This is to inform you that a Defense Minerals Exploration Administration contract for the Western Development Company of Delaware, Santa Fe County, New Mexico, Docket No. DMEA-3826, was mailed to the Executive Officer, Region III, Denver, Colorado, on September 29, 1955. If it meets with his approval, he will submit it to the Applicant for his approval and signature.

Sincerely yours,

(sgd) Douglas McKay

Secretary of the Interior

Hon. Dennis Chavez
United States Senate
Washington 25, D. C.

JWAlt/bjl (written 10/4/55)

Copy to: Secy's Files
Secy's R. File
(DMEA Mails & Files
(Admr. R. File
DMEA (Base Metals Div.
(Operating Committee
O. M. Bishop (USBM)
Thor Kiilsgaard (USGS - Rm. 5224)
Region III (2)
Mr. Wormser (2)
Chron.

File Copy
Surname

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

OCT 4 - 1955

Hon. John J. Dempsey
House of Representatives
Washington 25, D. C.

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company of Delaware
Bottom Dollar & Black Hornet prospects
Santa Fe County, New Mexico

My dear Mr. Dempsey:

We wish to inform you that a Defense Minerals Exploration Administration contract for the cited application was mailed to the Executive Officer, Region III, Denver, Colorado, on September 29, 1955. If it meets with his approval, he will submit it to the Applicant for his approval and signature.

Sincerely yours,

C. O. Mittendorf

Administrator

JWAlt/er 10/3/55

Copy to: Docket
Admr R File
Op. Committee
Base Metals
Region III (2)
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

R.G.S.

File Copy
Surname

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

OCT 4 - 1955

Hon. Clinton P. Anderson
United States Senate
Washington 25, D. C.

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company of Delaware
Bottom Dollar & Black Hornet prospects
Santa Fe County, New Mexico

My dear Senator Anderson:

We wish to inform you that a Defense Minerals Exploration Administration contract for the cited application was mailed to the Executive Officer, Region III, Denver, Colorado, on September 29, 1955. If it meets with his approval, he will submit it to the Applicant for his approval and signature.

Sincerely yours,

C. O. Mittenderf (for)

Administrator

JWAlt/er 10/3/55

Copy to: Docket
Admr & File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Region III (2)
Chron.

File Copy
Surname

500

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

SEP 29 1955

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

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company of Delaware
Bottom Dollar & Black Hornet prospects
Santa Fe County, New Mexico

Dear Mr. Traver:

We are enclosing the original and five copies of a contract for the cited property, signed by the Administrator, together with Annex I, Exhibit "A" (2 pages), one map, and Consent to Lien.

It will be necessary to insert in the contract, in the space provided under Article 3, the date when the Operator shall commence work on the project.

If the contract meets with your approval, kindly present it to the Applicant for approval and signature and, when completed, distribute the copies in the usual manner. In the event that the contract is not satisfactory, and cannot be amended within your delegated authority, return all copies with your recommendation concerning any modification.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

Enclosures

APPROVED:

P. F. Yopes (JHB)
Member, Bureau of Mines

N. E. Nelson (JHB)
Member, Geological Survey

JWAlt/bjl (9/27/55)
Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Bishop
Mr. Kiilsgaard
Chron.

File Copy
Surname
J. ad.

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

September 20, 1955

Memorandum

To: Acting Assistant Solicitor, Defense Minerals

From: Chief, Base Metals Division

Subject: Preparation of Contract for Docket No. DMEA-3826, (Lead-Zinc) Western Development Company of Delaware, Santa Fe County, New Mexico.

Will you please prepare a contract for the cited application. A draft of the proposed contract, 6 copies of Consent to Lien and 9 copies of the map are attached to this memorandum.

W. R. Griswold

Attachment

W. R. Griswold

WWAlt/er

Copy to: Docket
Base Metals
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

September 20, 1955

Re: DMEA-3826
(Lead-Zinc, $19,603)
Western Development
Co. of Delaware
North Cerrillos Area
Santa Fe County,
New Mexico

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop,
Branch of Base Metals

Subject: Review of field team report recommending an exploration project

I have carefully reviewed the applicant's proposal and the field team review of the proposal, which includes modifications to which the applicant has agreed.

The revised program consists of 10 diamond drill holes totaling 3,150 feet and costing about $19,603. The field team has set it up in two stages, Stage I consisting of holes 1 through 4 to explore the Bottom Dollar vein at 100 and 180 feet of depth at points roughly 160 feet north and 160 feet south of the Bottom Dollar shaft, with a fifth inclined hole 250 feet north of the Black Hornet shaft to explore structures encountered in the Black Hornet shaft and the possible southern extension of the Bottom Dollar vein. Stage II consists of holes 6 through 10 and provides 3 more holes on the Bottom Dollar vein and 2 holes on the Teresa vein 300 feet westward of the Bottom Dollar ore structure.

I concur with the field team in recommending the revised exploration program, but would suggest that holes 9 and 10 for exploring the Teresa vein be made part of Stage I so that the exploration there is not contingent on exploration on the unrelated Bottom Dollar vein. I would also suggest that before a contract is written as recommended that the degree and cost of supervision and other overhead items be checked. Certainly with the drilling under an independent contract there would be small reason for a full-time supervising engineer and field assistant and a part-time draftsman and part-time stenographer. The unit rates suggest that the engineer and his assistant are but part-time employees, but the matter is not clear.

O. M. Bishop

O. M. Bishop

Copy to - Div. of Minerals
Mr. Kiilsgaard, Rm. 5222
O. M. Bishop
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

September 16, 1955

Memorandum for the File

From: Chief, Base Metals Division

Subject: Docket No. DMEA-3826, Western Development Company of Delaware, Bottom Dollar and Black Hornet Prospects, Santa Fe County, New Mexico, Lead-Zinc.

On this date, Mr. W. E. Scorah phoned this office from Santa Fe, New Mexico, to inquire regarding the cited application. We told him that we hoped that final disposition could be made in three weeks.

W. R. Griswold

W. R. Griswold

WRG/er

Copy to: Docket
Base Metals
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

September 16, 1955

Memorandum for the Files

From: J. W. Alt, Base Metals Division

Subject: Western Development Company of Delaware, Bottom Dollar and Black Hornet Prospects, Santa Fe County, New Mexico, Docket No. DMEA-3826 (Lead-Zinc).

On this date, I phoned W. M. Traver, Executive Officer, Region III, in regard to the Field Team report recommending a contract for the cited application.

I asked him why the Field Team recommended a two stage exploration program as the 1st Stage consisted of 5 holes on the Bottom Dollar vein. The 2nd Stage would be dependent on the results of the 1st stages and would consist of drilling 3 more holes on the Bottom Dollar vein and 2 holes on the Teresa vein. Under a 2 stage set-up if the results of Stage I showed that further drilling was not warranted, drilling on the Teresa vein would not be allowed. I suggested that these 10 recommended holes be done without 2 stages and that it be done as one project. Mr. Traver agreed to this.

In regard to the costs under item 2 of Cost Estimates Stages I and II, Supervision and Labor, that all costs with the exception of Supervising Engineer could be eliminated. This Mr. Traver agreed should be done when preparing the contract.

We agreed to eliminate Operating supplies of item 3 of both stages.

Under item 4, I told him that for sampling and assaying no mention had been made of what the samples were to be assayed for. We thought that they should be assayed for lead, zinc and silver at $3.50 per assay and that the recommended figure of $5.00 was too high.

I also told him that there should be an allowance for core boxes. Mr. Traver suggested that we allow for 125 core boxes at $1.00 per box.

I informed Mr. Traver that we would immediately prepare a contract according to the agreements that were made in this conversation.

J. W. Alt
J. W. Alt

Copy to: Docket
Base Metals
Chron

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
SEP 14 1955

September 13, 1955

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of Field Team Report, DMEA Docket No. 3826, Western Development Company of Delaware, Santa Fe County, New Mexico.

After carefully reviewing the report of field examination I agree with the examining team that the proposed project has a good chance of discovering minable lead and zinc ore.

The modest exploration program consisting wholly of ten diamond drill holes could well be provided for under a unit cost contract. If such is done, costs for drafting, sampling, and office supplies appear to be excessive.

I concur with the recommendation of the Field Team for DMEA contract approval.

W P Williams

W. P. Williams

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON 25, D. C.

PRS No. 5579

N. S. in R. R.

DMEA
File Copy
Surname
J. Alt
Issued
Wednesday

My dear Senator Chavez:

This is in reply to your recent letter relative to the application of the Western Development Company of Delaware, Docket No. DMEA-3826. At present the matter is in the hands of the Defense Minerals Exploration Administration's Field Team for property examination and recommendation.

You may be sure that as soon as we have their reports we shall try to take action without undue delay. As you request, we shall advise you when a decision has been reached.

Sincerely yours, SEP 13 1955

Felix E. Wormser

Assistant Secretary of the Interior

Hon. Dennis Chavez
United States Senate
Washington 25, D. C.

WRGriswold/bjl (9/8/55)

Copy to: Secy's Files
Secy's R. File
DMEA (DMEA Mails & Files
(Admr. R. File
(Base Metals Div.
(Operating Committee
O. M. Bishop (USBM)
Thor Kiilsgaard(USGS-Rm. 5224)
Region III (2)
Chron.

UNITED STATES SENATE
COMMITTEE ON PUBLIC WORKS

Hon. Felix E. Wormser
Assistant Secretary
Department of the Interior
Washington, D. C.

Dear Mr. Secretary:

The executive director of the New Mexico Mining Association, Mr. C. H. Murphey, has asked for early consideration of DMEA Docket 3826 (Lead-Zinc). He writes:

"It is not my purpose to intervene in the interest of obtaining favorable action on the application; that will be decided on merit. However, I would appreciate your help in getting prompt consideration for the application, once it reaches the Department of the Interior. Western Development has undertaken, on its own, an extensive drilling program on the properties, but feel they have gone as far as they can without aid."

I would appreciate a report on the application and your advising me when a decision is reached later on.

Sincerely,

/s/

Dennis Chavez, U.S.S.

C
O
P
Y

File Copy
Surname

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

SEP - 7 1955

Hon. Clinton P. Anderson
United States Senate
Washington 25, D. C.

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company of Delaware
Bottom Dollar & Black Hornet Prospects
Santa Fe County, New Mexico

My dear Senator Anderson:

I have your letter of September 2, relative to the application of the Western Development Company of Delaware. As you were advised, it is presently in the hands of our Field Team for property examination and recommendation.

As soon as we have their reports you may be sure that we shall try to take action without any undue delay. I shall keep you advised as you request.

Sincerely yours,

C. O. Mittendorf

Administrator

WRGriswold/bjl (9/6/55)

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Kiilsgaard
Mr. Bishop
Region III (2)
Chron.

CLINTON P. ANDERSON, N. MEX.
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September 2, 1955.

500

RECEIVED
SEP - 3 1955

Mr. C. O. Mittendorf
Administrator
Defense Minerals Exploration Administration
Interior Building
Washington 25, D. C.

Dear Mr. Mittendorf:

I am informed that your Denver office will soon transmit to your office here the application of the Western Development Company of Delaware, P. O. Box 1201, Santa Fe, New Mexico, DMEA Docket 3826 (Lead-Zinc).

I hope the application will be found in order and that it will be possible to give it early consideration. I will appreciate your informing me when action has been taken on it.

Sincerely yours,

Clinton P. Anderson

Clinton P. Anderson

CPA-VLFf

9/2/55

Betty Lackhoff:

Miss Ryan, Congressman Dempsey's office, phoned re DMEA-3826 (lead-zinc), Western Devpt. Co. of Del.

Says they have 8/31 letter from Denver saying Regional Office informed applicant that their recommendations would be sent to Washington this week.

--

Our mail room says the FT report not received in this morning's mail. I told Miss Ryan, explaining that even after it comes it will still have to be reviewed here, etc.

She may call your office Monday, or later next week - so as to have something for reply to constituent. Says Dempsey "takes no position in these matters,

it DMEA's job, but has to answer his correspondence."

Presumably Dempsey will be satisfied to report when it is received, that he has called about it, etc.

Frances W.

T. 190, X679

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

September 2, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, DMEA Docket 3826, (Lead-Zinc), Western Development Company of Delaware, Santa Fe County, New Mexico

Enclosed are the original and three copies of the report pertaining to the above application.

We recommend a short form contract to provide for ten diamond drill holes totaling 3,150 feet at an estimated total cost of $19,603.00.

The recommended unit cost for Stage I drilling is $6.04 per foot and should provide for 25 analyses at $5.00 each. The unit cost for Stage II would be $6.30 per foot and provide for 15 analyses at $5.00 each.

Nine copies of Figure 2 are attached for possible use in the contract.

Owner's Consent to Lien were forwarded your office August 26, 1955.

W. M. Traver

W. M. Traver

9-14-55

E. N. Harshman

E. N. Harshman

9/15/55. Received by J.W.A.

Enclosures

DMEA
Date Rec'd.

SEP 2 1955

BUREAU OF MINES
Denver, Colorado

Building 20
Denver Federal Center
Denver 2, Colorado
August 31, 1955

Region III

Memorandum

TRANSMITTED
SEP 2 1955

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman
John F. Shaw

Subject: Docket No. DMEA 3826, Western Development Company of Delaware (Lead), Santa Fe County, New Mexico

Enclosed are the original and 8 copies of a Joint Geologic and Engineering Report by W. D. McMillan and D. R. MacLaren covering Docket No. DMEA 3826.

The applicant requested exploration assistance in the amount of $21,553.00 to explore the Bottom Dollar, Black Hornet and Teresa veins on the Cash Entry 101 claim by 3,079 feet of diamond core drilling.

A field examination was made on July 26, 1955 by W. D. McMillan, Mining Engineer of the Bureau of Mines and D. R. MacLaren, Geologist of the U. S. Geological Survey.

The examining team suggested a revised project consisting of 10 holes totaling 3,150 feet of core drilling at an estimated cost of $19,603.00. The revised application was acceptable to the applicant.

It is recommended that a contract be prepared in two stages. Stage I to consist of 5 core drill holes totaling 1,700 feet and Stage II consisting of 5 core drill holes totaling 1,450 feet. The minimum size holes should be BX.

for D R MacLaren
E. N. Harshman
Member Field Team

9-14-55

John F. Shaw
John F. Shaw
Supervising Mining Engineer

JFS:jw

cc: w/orig. ✓
DMEA 3826
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

ON-SITE Report

DMEA 3826

Western Development Company of Delaware

Bottom Dollar, Black Hornet and Teresa Veins,

Cash Entry 101 Claim

North Cerrillos Area, Santa Fe County, New Mexico

Lead-Zinc

Screened by
DMEA CLEARANCE COMMITTEE
9-14-55

By

W. D. McMillan
Mining Engineer
Bureau of Mines

D. R. Mac Laren
Geologist
Geological Survey

August 11, 1955

DMEA 3826

WESTERN DEVELOPMENT COMPANY OF DELAWARE
BOTTOM DOLLAR, BLACK HORNET AND TERESA VEINS,
CASH ENTRY 101 CLAIM
NORTH CERRILLOS AREA, SANTA FE COUNTY, NEW MEXICO

Joint Engineering and Geologic Report

By

W. D. McMillan
Mining Engineer
Bureau of Mines

D. R. Mac Laren
Geologist
Geological Survey

DMEA 3826

WESTERN DEVELOPMENT COMPANY OF DELAWARE
BOTTOM DOLLAR, BLACK HORNET AND TERESA VEINS,
CASH ENTRY 101 CLAIM
NORTH CERRILLOS AREA, SANTA FE COUNTY, NEW MEXICO

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2. Proposed Exploration, Western Development Company, Cash Entry 101, Patented Mining Claim, Bottom Dollar, Black Hornet, and Teresa Zinc-Lead Veins, North Cerrillos Area, Santa Fe County, New Mexico	3

DMEA 3826

WESTERN DEVELOPMENT COMPANY OF DELAWARE
BOTTOM DOLLAR, BLACK HORNET AND TERESA VEINS,
CASH ENTRY 101 CLAIM
NORTH CERRILLOS AREA, SANTA FE COUNTY, NEW MEXICO

JOINT GEOLOGIC AND ENGINEERING REPORT

By W. D. McMillan and D. R. Mac Laren

INTRODUCTION

The Western Development Company, P. O. Box 1201, Santa Fe, New Mexico has applied to Defense Minerals Exploration Administration for assistance to explore for lead and zinc ores in Santa Fe County, New Mexico. The applicant proposed to explore the lateral extent of ore showings in the Bottom Dollar and Black Hornet shafts by diamond core drilling of 8 holes with a total of 3,079 feet at an estimated cost of $21,553.00, of which the Government participation at 50 percent would be $10,776.50.

The application was amended by the applicant to include two additional holes on the Teresa vein totalling 435 feet. The request to amend the contract did not show any change in total cost, but at the rate of $7.00 per foot, as given in the original application, the cost as amended would be $24,598.00, at which the Government's participation would be $12,299.00.

An examination was made on July 26, 1955, by a DMEA Region III examining team consisting of W. D. McMillan of the Bureau of Mines and D. R. Mac Laren and W. R. Griffitts of the Geological Survey, accompanied

by A. C. Melting, Mining Engineer and Richard McGhee, foreman, of Western Development Company.

It is concluded that the chances of making a significant discovery of lead and zinc ore is fair under the amended application which provides for drilling 10 holes totaling 3150 feet at an estimated total cost of $19,603.00. The amount of Government participation at 50 percent is $9,801.50. It is recommended that the application as amended be approved.

ACKNOWLEDGEMENTS

A.C. Melting, superintendent, and Richard McGhee, foreman, were very helpful in showing the examiners around the property. A geologic map and an unpublished report by W. C. Stoll of the U. S. Geological Survey, a report on the Tom Payne Mine by R. M. Hernon of the U. S. Geological Survey, and John H. Soule' of the U. S. Bureau of Mines (DMEA Docket 247), and a report on the Pennsylvania Mine by Soule' (DMEA Docket 2383) were all helpful and freely used in preparing this report. W. R. Griffitts of the U. S. Geological Survey and Alberto Manrique, a Point IV student from Peru, accompanied the examiners and offered helpful suggestions and comments.

LOCATION, TOPOGRAPHY AND PHYSICAL FEATURES

The Bottom Dollar and the Black Hornet prospects are located in the SW1/4 sec. 30, T. 15 N., R. 8 E., NMPM, in the north half of the Cerrillos Mining District, Santa Fe County, New Mexico (fig. 1). The

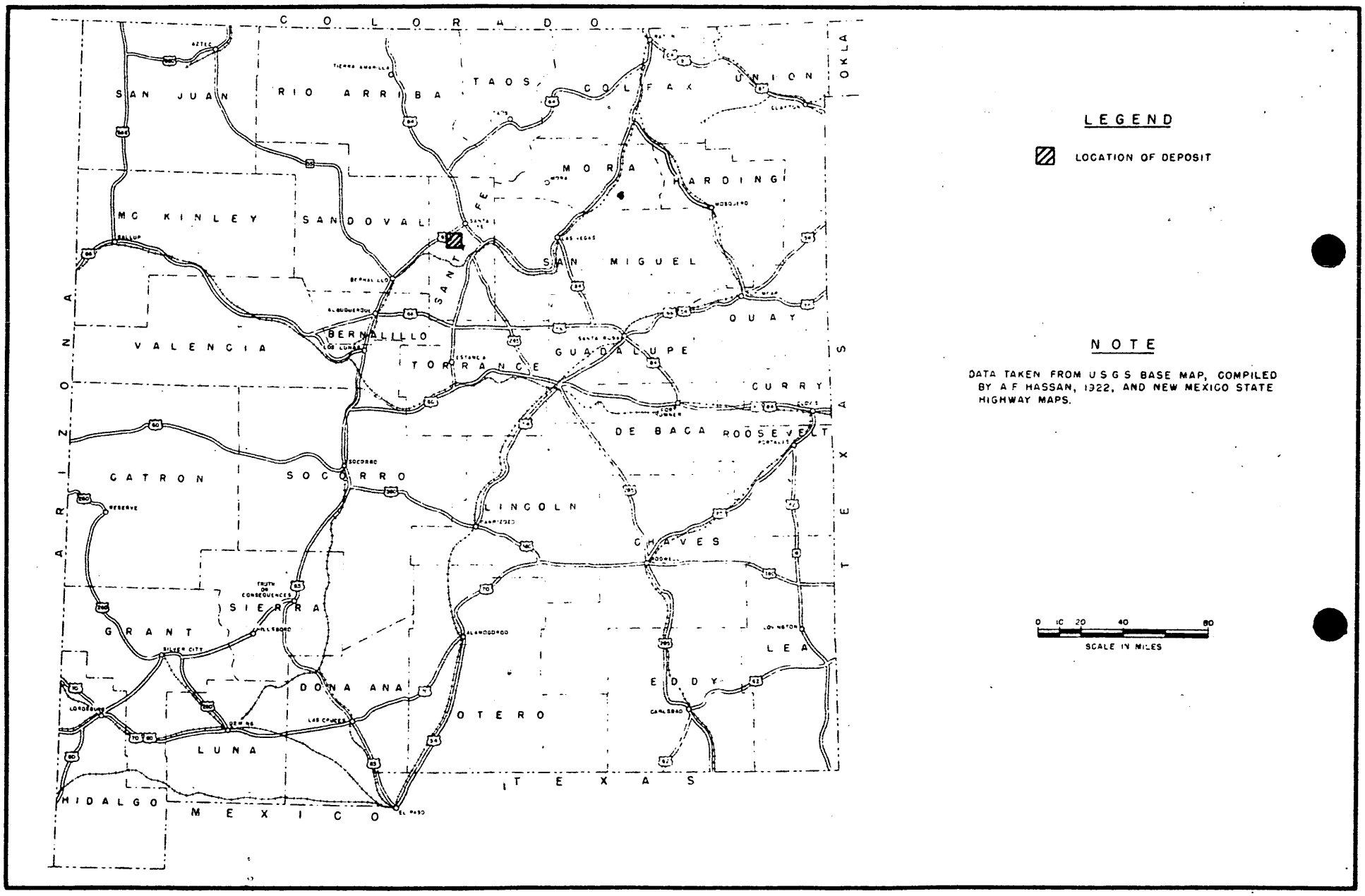


FIGURE 1 - LOCATION MAP, WESTERN DEVELOPMENT COMPANY OF DELAWARE, SANTA FE COUNTY, NEW MEXICO. DMEA 3826

prospects are accessible throughout most of the year and may be reached by following U. S. Highway 85 southwesterly from Santa Fe, New Mexico, for 15 miles, thence turning left onto a graded dirt road that leads southeasterly for about 5 miles to the Bottom Dollar shaft (fig. 2).

The prospects are in the northwestern part of Los Cerrillos, a group of small hills that comprise a moderately rugged area. The collar of the Bottom Dollar shaft is at an altitude of 6,320 feet, and the collar of the Black Hornet shaft is at an altitude of 6,302 feet, while the tops of the highest hills reach altitudes of 7,000 feet.

Vegetation consists of mountain cedar, pinon pine, cactus, range grass and small shrubs. There is very little, if any, timber suitable for mining purposes. There are no permanent streams in the area, and the water table may be at an elevation of about 6,100 feet, as indicated in a well near the prospects. This well might furnish sufficient water for the operation of a small mill.

Annual precipitation, largely as summer thunder showers, averages about 20 inches. Winter snows are usually not severe. Temperatures range from 95 degrees in the summer to below zero in the winter, but the extreme cold usually is not prolonged.

There are no living accommodations at the property, but a labor force can be housed at Santa Fe, about 20 miles away.

GEOLOGY AND DESCRIPTION OF THE DEPOSIT

The rocks of the Cerrillos mining district are Cretaceous sandstone and shale that have been intruded by monzonite and trachyte. Tertiary

and Quaternary continental sediments and basaltic flows overlie the Cretaceous rocks. The intrusives and the ore deposits are older than the Tertiary and Quaternary rocks.

The Cretaceous sediments dip at angles of 15° to 20° in an easterly direction except locally where they have been disturbed by faults and intrusives. The monzonite mass is exposed over an area of about 10 square miles, and may well extend another 10 square miles under the remaining Cretaceous, Tertiary, and Quaternary rocks. Various geologists describe the monzonite as a laccolithic mass, but the available evidence does not establish that there is a floor underneath the mass, and therefore it may well be a stock with a laccolithic expansion at or near the present surface.

In the northern half of the Cerrillos district, lead-zinc ore bodies are localized in shear zones that range in strike from due north to about N. 30° E. and in dip from vertically to steeply west. Although the outcrops of the shear zones are generally covered by surface debris and topsoil, and are therefore difficult to trace for long distances, they have been exposed by numerous surface trenches and pits. They range in width from 1 to 7 feet where exposed on the surface, and are spaced from a few tens to several hundred feet apart. Some individual shear zones appear to range in length from a few hundred to over 2,000 feet.

Within the shear zones the veins are composed of vuggy, crystalline or dense grayish quartz, carbonate, remnants of altered wall rock, yellow to brown sphalerite, galena, and a small amount of pyrite. Where they

are not too silicious and contain considerable galena and sphalerite the veins show clear cut to crude banding. Where the quartz is denser, banding is inconspicuous or absent and the sulfides are locallized as fillings of small irregular vugs. The veins range in thickness from about 1 inch to 4 feet. They are well oxidized and leached from the surface to depths ranging from 50 to 100 feet.

The Bottom Dollar shear zone has been traced by trenches along the surface for about 2,000 feet, many of which were caved or filled by debris at the time of the examination. There is a caved shaft reported to be 175 feet deep with a drift about 25 feet long on the 150-foot level. At the time of the inspection the shaft was being reopened and was accessible to a depth of about 100 feet. The shaft is timbered with tight wall plates on all four sides from the collar to the bottom of the rehabilitated section but at a depth of about 90 feet, two wall plates were removed and the vein could be seen. At that depth the vein is a series of bands of moderately silicified monzonite, quartz, galena, and sphalerite. It is about 5 feet wide and dips 84° W. The hanging wall is well defined while the foot wall is more or less gradational and difficult to determine. Sphalerite appears to favor the hanging wall side while galena favors the central part of the vein.

The Black Hornet shaft is inaccessible, but according to Stoll, workings on the 100-level have followed two weakly mineralized shear zones for about 150 feet. About 250 feet east of the shaft is a shear zone that has been traced by surface trenches for about 600 feet. The trenches were shallow and are now caved so the width of the shear zone

could not be determined. It is possible that this is the southern part of the Bottom Dollar shear zone.

About 350 feet west of the Bottom Dollar shaft, the Teresa shear zone had been traced on the surface for about 850 feet. Of four pits along the Teresa shear zone, two are shallow and filled with debris and two are more than 10 feet deep. The shear zone ranges from 1 to 6 feet thick. No sulfide minerals were seen in the vein outcrop, but the dump about one of the 10-foot pits contained considerable sphalerite.

LABOR AND LIVING CONDITIONS

There is an ample supply of labor in Santa Fe, 22 miles northeast and at Madrid, 10 miles south. The proposed project would be executed by a drilling contractor, who would provide the necessary labor. House trailers are usually provided for exploration personnel.

HISTORY, PRODUCTION, AND OWNERSHIP

The first mining in the Cerrillos district was in the latter part of the 17th Century by Spanish priests and Indian labor at the Mina del Tiro in the southern area. The Cash Entry, Franklin, and Grand Central mines in this area were the largest producers in the Cerrillos district. Mining in the north area on the Bottom Dollar, Black Hornet, Tom Payne, and Pennsylvania mines was probably started towards the end of the 19th century. Early production records are not available, but intermittent operations of the Tom Payne and Pennsylvania mines between 1911 and 1949 produced 6,146 tons of ore with recovery in concentrates

of 22 oz. of gold, 6218 oz. of silver, 14,153 lbs. of copper, 318,620 lbs. of lead, 869,886 lbs. of zinc. Unit recoveries were gold, 0.0036 oz. per ton, Silver 1.01 oz. per ton, Copper .001%, Lead 2.78% and Zinc 13.50%. Ore in the Bottom Dollar and Black Hornet is probably of similar grade.

The Bottom Dollar, Black Hornet and Teresa veins are in patented mining claim Cash Entry 101, which was located by Enos Cudray on July 6, 1872 and was recorded in Santa Fe, New Mexico on September 9, 1881. A Frank Staplin; Mary L. Staplin, his wife; Reese P. Fullerton; and Loretta T. Fullerton, his wife, purchased the Cash Entry 101, consisting of 160 acres, more or less, located in the SW 1/4, sec. 30, T. 15 N., R. 8 E., New Mexico principal meridian.

On March 31, 1954, an agreement was made between the owners and Western Development Company for a ten year lease with a 10 percent royalty and an option to purchase the property for $75,000.

The records show that Western Development Company has a valid lease.

MINABLE RESERVES

There are no known reserves at present. Rehabilitation of the Bottom Dollar 200-foot shaft has advanced 107 feet, with good zinc-lead ore beginning at 100-feet. Equipment is at hand for the rehabilitation of the Black Hornet 100-foot shaft.

PRESENT STATUS

Mining and Milling Equipment

These consist of 1 Le Roi Model 105G Air Master compressor, 1

Western Machinery Model 1 H-3 hoist, 1 Fairbanks Morse 25 hp. hoist, a blacksmith and machine shop containing miscellaneous tools, including a power saw for timber framing, and pneumatic drills, rail, pipe and cable. Western Development Company employs a Mining Engineer, a Mine Superintendent and about 25 men on the Bottom Dollar and Tom Payne mines.

PROJECT PROPOSALS WITH COSTS

The applicant proposed a diamond core drilling program in one stage to explore the Bottom Dollar vein on the Cash Entry 101 claim. This program consisted of 8 holes with an estimated total amount of drilling of 3,079 feet at an estimated total cost of $21,553.00. Government participation at 50 percent would be $10,776.50. This program was modified by the examining team with the consent of the applicant to a two-stage program with 5 holes in Stage I and 5 holes in Stage II. The locations and inclinations of 6 of the holes were changed to give better samples through the veins and are shown on figure 2. The total estimated amount of drilling in the modified program is 3,150 feet at an estimated cost of $19,603.00.

Table No. 1 gives the estimated location, collar elevations, directions, and depths of holes in both stages. It is recommended that NX core bits be used for the first 30 or 40 feet through the oxidized monzonite and the holes continued with BX core bits.

TABLE NO. 1
Specifications of Diamond Core Drill Holes

	Hole No.	Vein	LOCATION North	LOCATION East	Approx. Elevation Collar Feet	Direction	Inclination Degrees	Depth feet
STAGE I	1	Bottom Dollar	1630	1790	6340	S. 75° E.	-45	250
		150 feet North of Bottom Dollar Shaft - To cut Bottom Dollar at 125 feet.						
	2	Bottom Dollar	1630	1790	6340	S. 75° E.	-60	300
		Same location as No. 1 - To cut Bottom Dollar at 200 ft.						
	3	Bottom Dollar	1320	1705	6335	S. 75° E.	-45	250
		150 feet south of Bottom Dollar Shaft - To cut Bottom Dollar at 125 feet.						
	4	Bottom Dollar	1320	1705	6355	S. 75° E.	-60	300
		Same location as No. 3 - To Cut Bottom Dollar vein at 200 feet.						
	5	Black Hornet	350	960	6280	S. 75° E.	-42	600
		150 feet North of Black Hornet Shaft - To cut Black Hornet at 200 and 240 feet and the Bottom Dollar at 400 ft.						
		TOTAL FOOTAGE STAGE I						1700
	6	Bottom Dollar	1060	1620	6320	S. 75° E.	-60	410
		450 feet south of Bottom Dollar shaft - To cut Bottom Dollar vein at 200 feet and extended to cut other veins at 320 feet.						
	7	Bottom Dollar	670	1410	6300	S. 75° E.	-60	300
		900 feet south of Bottom Dollar shaft - To cut Bottom Dollar vein at 200 feet and extended to cut other veins at 240 ft.						
	8	Bottom Dollar	2040	1950	6380	S. 75° E.	-60	250
		700 feet north of Bottom Dollar shaft - To cut Bottom Dollar vein at 200 feet.						

Hole No.	Vein	LOCATION North	LOCATION East	Approx. Elevation Collar Feet	Direction	Inclination Degrees	Depth Feet
9	Teresa	1830	1580	6379	S. 75° E.	-60	190
	350 feet west of Bottom Dollar vein - To cut Teresa vein at 125 feet.						
10	Teresa	1630	1400	6380	S. 75° E.	-60	300
	200 feet south of No. 9 - To cut Teresa vein at 225 feet.						
				Total Footage Stage II			1450
				Total footage Stages I and II			3150

Holes to be drilled with NX Core Bit through the oxidized monzonite and bottomed if possible with BX Core bit. Minimum size of core bit is AX.

The applicant estimated a cost of $7.00 per foot for drilling and other items. In the following cost estimates, costs per foot are based on the depths to be drilled and detailed estimates are made for the other items.

COST ESTIMATES
STAGE I

Estimated time for completion - 2 months.

1) Independent Contract
   Core drilling 5 holes with a maximum of 1,700 feet at $4.50 per foot. $7650.00

2) Supervision and Labor
   Supervising Engineer - 2 months at $500.00/Mo. $1000.00
   Sampler and Field Assistant - 2 mo. at $350.00/Mo. 700.00
   Draftsman - 96 hrs. at $3.00 per hr. 288.00
   Stenographer - 48 hrs. at $2.00 " 96.00
   Total Supervision and Labor 2084.00

3) Operating Supplies
   Office - $100.00 per month 200.00
   Field -- $ 15.00 per month 30.00
   Total Operating Supplies 230.00

4) Miscellaneous

Accounting Expense - $100.00 per month	$200.00	
Insurance and Payroll taxes - $50 per month	100.00	
Sampling and Analyses 25 at $5.00 each	125.00	
Total Miscellaneous		425.00
Total Cost Stage I		$10,389.00

Estimated overall cost per foot $\frac{10,389.00}{1,700}$ = 6.11

Estimated cost per foot, less sample analyses $\frac{10,264.00}{1,700}$ = 6.04

STAGE II

Estimated time for completion - 2 months

1) Independent Contract

Core Drilling 5 holes with a maximum of 1,450 feet at $4.50 a foot		6,525.00

2) Supervision and Labor

Supervising Engineer - 2 months at $500/mo.	1000.00	
Sampler and Field Assistant - 2 mo. at $350/mo.	700.00	
Draftsman - 96 hrs. at $3.00 per hr.	288.00	
Stenographer - 48 hrs. at $2.00 "	96.00	
Total Supervision and Labor		2,084.00

3) Operating Supplies

Office - $100.00 per month	200.00	
Field - $ 15.00 per month	30.00	
Total Operating Supplies		230.00

4) Miscellaneous

Accounting Expense $100.00 per month	200.00	
Insurance and Payroll Taxes $50/mo.	100.00	
Sampling and Analyses 15 at $5 each	75.00	
Total Miscellaneous		375.00
Total Cost Stage II		$9,214.00

Estimated overall cost per foot $\frac{9,214.00}{1,450}$ = 6.354

Estimated overall cost per foot, less analyses	$\frac{9,139.00}{1,950}$	=	6.30

Cost Figures for Contract Use

STAGE I	
1,700 feet of core drilling at $6.04 per foot	$10,268.00
25 analyses at $5.00 each	125.00
Total Stage I	$10,393.00
STAGE II	
1,450 feet of core drilling at $6.30 per foot	$ 9,135.00
15 analyses at $5.00 each	75.00
Total Stage II	$ 9,210.00
Total estimated cost of project	$19,603.00
Government participation at 50 percent	$ 9,801.50

CONCLUSIONS

In the North Cerrillos Area, lead-zinc ore bodies are localized in shear zones in monzonite that range in strike from due north to about N. 30° E. and in dip from vertically to steeply west. Although the outcrops of the shear zones are covered by surface debris and soil, and are therefore difficult to trace for long distances, on the Cash Entry 101 claim, the oxidized parts of the shear zones that have been exposed by numerous surface trenches and pits, range in width from 1 to 7 feet, and in length from a few hundred feet to over 2,000 feet. Within the shear zones the veins are composed of vuggy, crystalline or dense grayish quartz, base metal carbonates, yellow to brown sphalerite, galena and small amounts of pyrite and chalcopyrite, and range in thickness from about 1 inch to 4 feet.

Holes 1 to 8 inclusive spaced as shown in figure 2 are sufficient to determine the zinc-lead mineralization in the Bottom Dollar vein for a

length of 1,900 feet and to a depth of 125 to 400 feet and the Black Hornet veins 150 feet north of the Black Hornet shaft to depths of 200 and 240 feet. Holes 9 and 10 will explore the Teresa vein for a length of 250 feet and to depths of 125 and 225 feet. The examining team considers that the Bottom Dollar and Black Hornet veins merit Government Assistance for this limited amount of diamond core drilling.

RECOMMENDATIONS

It is recommended that a short-form contract at unit cost for diamond core drilling exploration at a cost of $19,603.00 -- Government participation at 50 percent or $9,801.50 -- be approved.

Holes are to be drilled at the locations shown in Figure 2, and in accordance with the specifications given in Table No. 1. NX core bits should be used in the altered monzonite of the upper parts of the holes, with BX core bits through the vein. Should the Stage I holes fail to penetrate minable ore, Stage II holes should not be drilled and the contract should be terminated.

/jw

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

RECEIVED
AUG 29 1955

August 26, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3826 (Lead-Zinc), Western Development Company of Delaware, Santa Fe County, New Mexico

Enclosed are the original and five copies of executed Form MF-203, Owners Consent to Lien, on the subject property.

The joint report of examination will be forwarded your office at an early date and a contract will be recommended.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
AUG 29 1955

August 25, 1955

224 New Customhouse
Denver 2, Colorado

W. E. Scorch, President
Western Development Company of Delaware
Sone Plaza, Santa Fe, New Mexico

Re: DMEA Docket 3825
(Lead-Zinc)

Dear Mr. Scorch:

The executed copies of Owners Consent to Lien Form MF-203 have been forwarded to the DMEA Washington office.

The joint report of examination of your property will be forwarded the Washington office about September 2, 1955 and they will advise you of their final action.

Very truly yours,

W. M. Traver

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

HMC:ab
cc: Sec. Op. Comm. (2)
Subject
Harshman
Chron.

Alb
Betty

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

August 19, 1955

Docket

224 New Customhouse
Denver, Colorado

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3826 (Lead-Zinc), Western Development Company of Delaware, Bottom Dollar and Black Hornet Prospects, Santa Fe County, New Mexico

We do not understand the request in your letter of August 15, 1955 on the subject docket.

The applicant submitted four copies of an application, two of which are in your office. Later the applicant wished to amend his application and forwarded this office four copies of his proposed Amendment to be attached to the copies of the original DMEA application.

We forwarded two copies of the Amendment to the application to your office to be attached to your two copies of the original DMEA application. One copy was sent to the engineer and one copy to the Survey to be attached to their copy of the original DMEA application.

The applicant has submitted the required complete amended DMEA application in quadruplicate. Are we to request two more copies from him?

W. M. Traver
W. M. Traver

RECEIVED
AUG 2 2 1955

Note: Mr. Alb discussed this matter with Mr. Kilgaard who stated I sometimes referred this material directly to geologist in the field.

File Copy
Surname

J. Ell
Griswold
Martin
Kjarsmo
Mottendorf

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

AUG 15 1955

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

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company of Delaware
Bottom Dollar & Black Hornet Prospects
Santa Fe County, New Mexico

Dear Mr. Traver:

With reference to the cited application, we have received the original and one copy of the Applicant's proposed amendment. In order to make the file for this application complete, we will need two more copies of this proposed amendment and maps. We will appreciate it if you will send us these necessary copies at your earliest convenience.

Sincerely yours,

W. S. Martin

ACTING Chairman, Operating Committee (JB)

APPROVED:

/s/ Robert W. Geehan (JB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JB)
Member, Geological Survey

JWAlt/er 8/10/55
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

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

RECEIVED
AUG - 5 1955

224 New Customhouse
Denver 2, Colorado

August 2, 1955

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3826 (Lead-Zinc), Western Development Company of Delaware, Santa Fe County, New Mexico

Enclosed are two copies of the applicant's proposed amendment to the subject application.

W. M. Traver

Enclosures

W. M. Traver

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

REC
AUG -

AMENDMENT NO. 1
to
APPLICATION FOR AID IN AN
EXPLORATION PROJECT, PURSUANT TO
DMEA ORDER 1, UNDER THE DEFENSE
PRODUCTION ACT OF 1950, AS AMENDED

Docket No. DM
(Le

The Applicant, Western Development Company of Delaware, hereb its original application in the above docket to expand the scope of the explo project by the following additions to Item 5 (b):

Item 5 (b)

In addition to Holes 1 - 8 described in the original application, it is proposed to drill Holes 9 and 10 located as set forth in Exhibit E filed herewith.

Hole 9 - This hole is located on the Teresa Vein which is situated approximately 350 feet west of the Bottom Dollar structure. The hole is to cut the Teresa vein 300 feet North of the Bottom Dollar Shaft at a depth of 125 feet. It is estimated that the depth of the hole will not exceed 160 feet.

Hole 10 - This hole is located on the Teresa Vein approximately 200 feet South of Hole No. 9. The hole is to cut the Teresa Vein at a depth of 225 feet. It is estimated that the depth of the hole will not exceed 275 feet.

CERTIFICATION

The undersigned, whether as an individual, corporate office otherwise, both in his own behalf and acting for the applicant, certi information set forth in this form and accompanying papers is corr to the best of his knowledge and belief.

Dated July 29, 1955

Western Development
Applic
By
Presid

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

RECEIVED
JUN 13 1955

224 New Customhouse
Denver 2, Colorado

June 8, 1955

Memorandum

To: J. F. Shaw (w/brochure)
E. N. Harshman

From: Field Team, Region III

Subject: Docket DMEA-3826 (Lead-Zinc), Western Development Company of Delaware (Bottom Dollar and Black Hornet prospects), Santa Fe County, New Mexico

Enclosed are copies of the subject application for a $21,553.00 loan, its referral by the Chairman of the Operating Committee, and memoranda to W. R. Griswold, Chief, O. M. Bishop, Branch of Base Metals, and N. E. Nelson, USGS, Commodity specialists.

A field examination and covering reports are requested.

In addition to the USGS Strategic Minerals Investigations, Preliminary Report 5-205, furnished by the applicant, there may be available an unpublished War Minerals Memorandum in the files of the Denver Experiment Station, Bureau of Mines, that should be consulted. Should you recommend a project, this office will arrange for the Owner's Consent to Lien.

W. M. TRAVER

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosures

WMT:pw

cc: Subject
Chron
Sec.Op.Comm. (2)

File Copy
Surname
J. Alt
Hedges
Selfridge
Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR 500
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

JUN - 3 1955

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

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company of Delaware
Bottom Dollar & Black Hornet Prospects
Santa Fe County, New Mexico

Dear Mr. Traver:

A review of the cited application, of which you have retained a copy, indicates that an examination of the property is necessary. Will you please have such an examination made and submit your report and recommendations to us.

In the event that you consider the project favorably, the Applicant should be requested to obtain the Consent to Lien from the owners of the property.

Enclosed are copies of memorandums from the Commodity members, O. M. Bishop, USBM, dated May 26, 1955, and N. E. Nelson, USGS, dated May 27, 1955, giving their recommendations and comments regarding the application.

Sincerely yours,

George C. Selfridge (GHB)
Chairman, Operating Committee

Enclosures

APPROVED:

J. H. Hedges (GHB)
Member, Bureau of Mines

Thor H. Kiilsgaard (GHB)
Member, Geological Survey

JWAlt/er 6/1/55

Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

R.C.B.

File Copy
Surname
J. All
Griswold
Kiilsgaard
Hodgson
Selfridge
Johnson

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

JUN - 3 1955

Mr. W. E. Scorah, President
Western Development Company
of Delaware
Post Office Box 1201
Santa Fe, New Mexico

Re: Docket No. DMEA-3826 (Lead-Zinc)
Western Development Company
of Delaware
Bottom Dollar and Black Hornet
Prospects
Santa Fe County, New Mexico

Dear Mr. Scorah:

Your application for Government assistance to explore your property has been reviewed by the Base Metals Division of the Defense Minerals Exploration Administration, and has been referred for a field examination to:

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

The Regional Office will contact you at an early date as to when an examination is to be made. Any assistance that you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

WRGriswold/er 6/2/55

Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Region III, (2)
Chron.

R.C.S.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

Defense Minerals Administration
RECEIVED
MAY 31 1955

May 27, 1955

Re: DMEA-3826
Western Development Co.
Bottom Dollar & Black
Hornet Prospects
Santa Fe Co., N. Mex.
$21,553.00 - Uranium

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

The Pennsylvania mine, being rehabilitated by the applicants was explored by Verne Byrnes, under Idm-E337, in 1952 and '53. A certificate of discovery was issued in September 1953, 4,000 tons of ore having been indicated, 79.5 tons of ore was shipped. The contract was cancelled in 1954 because of failure to prosecute the work.

An application, DMA-247, for $100,000 for rehabilitation of the Tom Payne mine was denied.

Concerning the Bottom Dollar mine, a subject of this application, ~~are~~ as yet unpublished report by W. C. Stoll says. . ."The workings include an old shaft 175 feet deep with a 25-foot drift at the 150-foot level, said to show ore 5 feet thick. In 1944 Robert Hume retimbered the shaft to a depth of 130 feet. A small tonnage of ore was recovered at this time and stockpiled at the mine." Samples of the vein taken by F. J. Sur, U.S.B.M. in 1944 at 105 below collar show:

	Width	Zinc %	Lead %	Silver Oz.	Gold Oz.
South side	10"	11.1	4.6	1.22	tr.
North side	12"	9.4	5.7	1.44	nil.
Average 25 ton Stockpile		10.6	10.7	2.42	0.04

Stoll's report says: "The Bottom Dollar vein may be continuous with one of the veins exposed in the vicinity of the Andrews Tunnel. (See Plate 3.) About 350 feet west of the shaft is a second, parallel, vein opened over a strike length of 720 feet by four pits. Ore is present in the dumps of two of the pits. Some of it consists of

alternate bands of ankerite and sphalerite containing minor galena and chalcopyrite. This vein also appears to be a good prospect."

Of the Black Hornet prospect, also a subject of this application, Stoll's report says: . . ."The shaft was sunk vertically to a depth of 100 feet, and short crosscuts were run east and west. Two thin veins, neither of which appears at the surface, were intersected and were opened by drifting to the north and south. Development was in progress during the fall and winter of 1945. . . .No ore had been developed on either vein at the time of examination."

Of the ore occurrences in general the Stoll report says: "All the ore shoots which have been found have been small, altho much of the run of mine ore is high grade. Because the ore shoots are thin and bunchy, the ratio of development footage to ore developed is necessarily high."

With this information in mind perhaps two drill holes (if the application is accepted) should be used to prospect the vein, west of the Bottom Dollar shaft, called by Stoll "a good prospect."

The applicants are confining the proposed work to the southwest 1/4 of Section 30, thus carefully excluding the Pennsylvania and Tom Payne mines from liabilities should a contract be awarded. The Pennsylvania mine probably owes DMEA royalties under contract Idm-E337. Perhaps trading is in order if Verne Byrnes is connected in any way with Western Development Co.

To bring the information on the current work up to date, a report by the Field Team is indicated and so recommended.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAY 27 1955

May 26, 1955

Alt
Belly

Re: DMEA-3826
Western Development
Co. of Delaware
S.W. 1/4 Sec. 30,
T. 15 N., R. 8 E.
North Mining Area,
Cerrillos District,
Santa Fe County,
New Mexico

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, Branch of Base Metals

Subject: Recommendation for field referral

The applicant proposes 8 diamond drill holes, totaling about 3,000 feet to explore along the strike of the northeasterly trending mineral structure exposed in the Bottom Dollar shaft. Currently the applicant is making the Bottom Dollar shaft accessible, but as of May 16, 1955 the 200-foot shaft was accessible only to a depth of 50 feet.

The applicant controls the adjacent quarter section (S.E. 1/4 Sec. 30) where rehabilitation is going forward at the Tom Payne mine. The Tom Payne shaft and the 300-foot shaft station have been rehabilitated and work is going forward to repair the 300-foot level and the South Air shaft.

In speaking of the Bottom Dollar shaft the applicant says there is 21 inches of good lead-zinc mineralization in the bottom of the 200-foot shaft. Section B-B of Exhibit C, although showing the Bottom Dollar shaft, gives no data on the vein.

Further to the south in the vicinity of projected Holes 5 and 7, Exhibit C shows the Black Hornet shaft with two veins projected to the surface and a third vein which may correlate with that exposed at the Bottom Dollar shaft. The plan view of the 100-foot level of the Black Hornet shaft (Exhibit D) indicates lead and zinc mineralization on the western most structure, but gives no indication of width or grade.

Because of the lack of definite information on the vein structure, its width, grade, development, and past production, I can form no opinion on the merit of the proposed exploration.

I recommend field referral for a review of the situation, noting that the Bureau of Mines examined both the Bottom Dollar and the Tom Payne properties during World War II and prepared reports. It is likely that material at hand in the Bureau's Regional office is adequate to permit a decision on the proposal.

O. M. Bishop

O. M. Bishop

Copy to: Div. of Minerals
Mr. Kiilsgaard, Rm. 5224
O. M. Bishop
Files

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

May 23, 1955

Subject: DMEA-3826
Re: Exploration Assistance
Bottom Dollar, Black Hornet
Tom Payne, Armington Pennsylvania Mines

Western Development Company
of Delaware
P.O. Box 1201
Santa Fe, New Mexico

Gentlemen:

The receipt of your application dated May 16, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3826 and referred to the Base Metals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

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

May 23, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region III

DMEA-3826 Western Development Company of Delaware

Robert E. Adams
Chief, Operation's Control
and Statistics Division

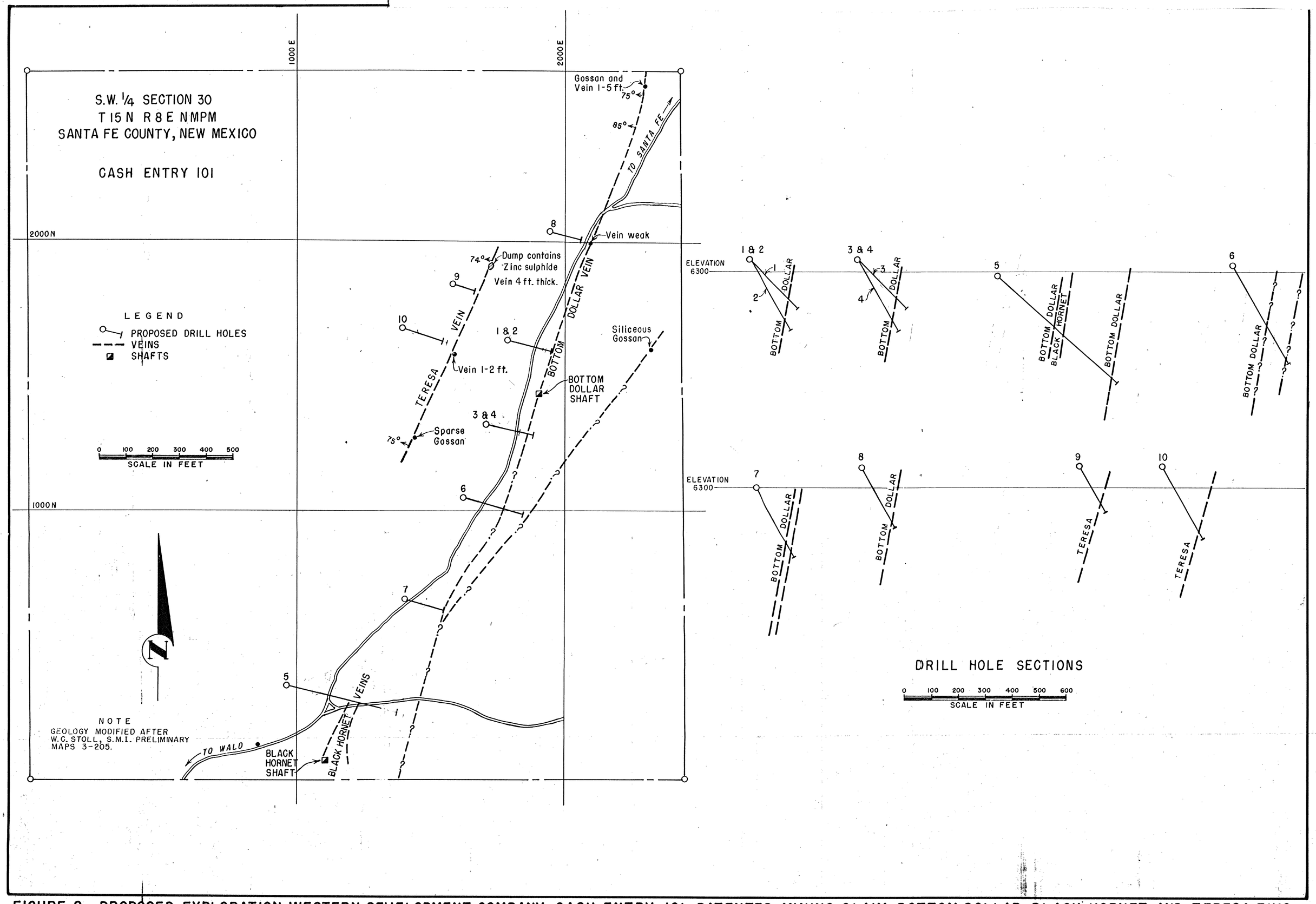
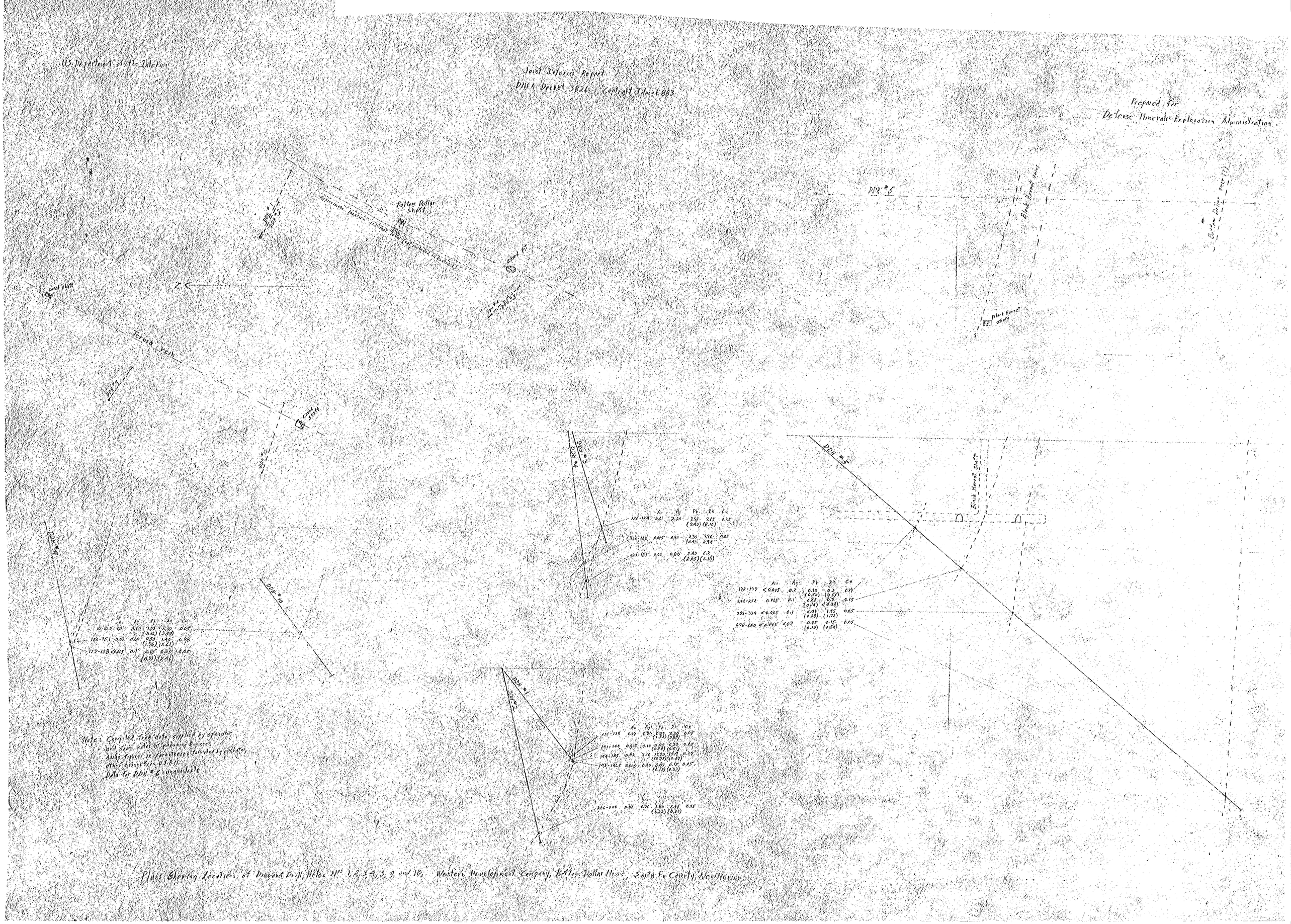


FIGURE 2 - PROPOSED EXPLORATION, WESTERN DEVELOPMENT COMPANY, CASH ENTRY 101, PATENTED MINING CLAIM, BOTTOM DOLLAR, BLACK HORNET, AND TERESA ZINC-LEAD VEINS, NORTH CERRILLOS AREA, SANTA FE COUNTY, NEW MEXICO. DMEA 3826

U.S. Department of the Interior

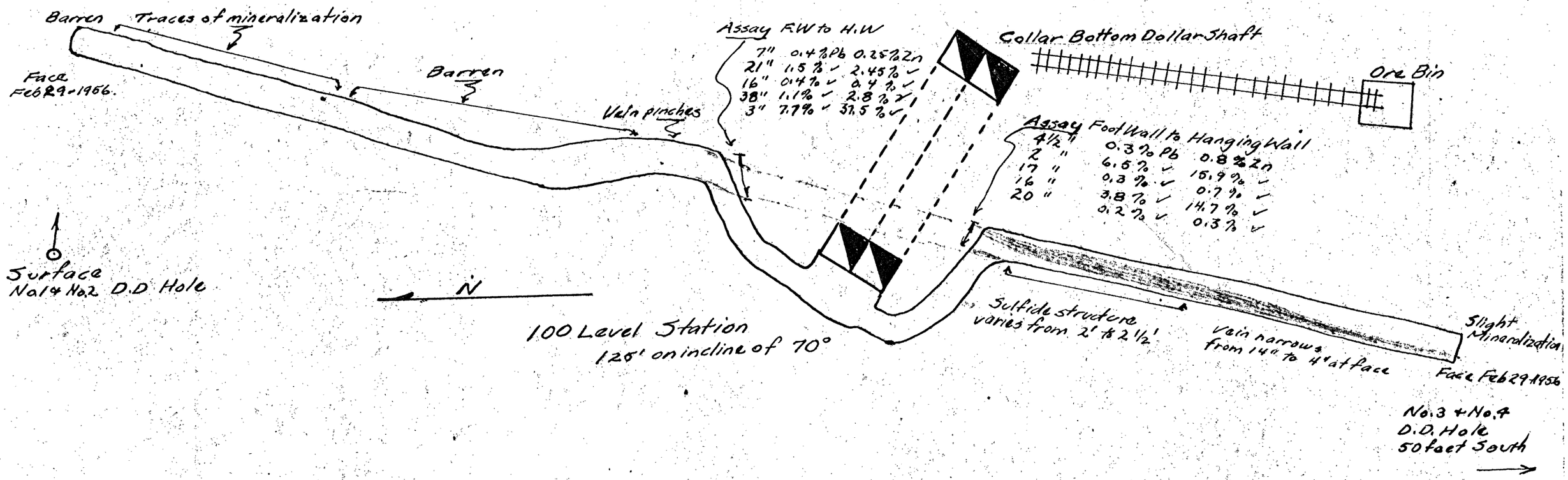
Joint Interim Report
DMEA Project 3824 Contract Tibu-1083

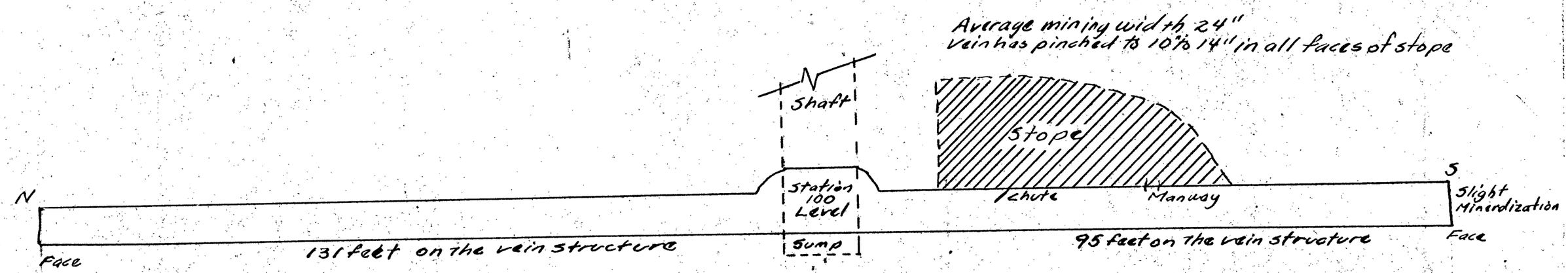
Prepared for
Defense Minerals Exploration Administration



Note: Compiled from data supplied by operator
and from notes of Professional Engineers
Assay figures in parentheses furnished by operator
Other assays from U.S.B.M.
Data for DDH #6 unavailable

Plan Showing Location of Diamond Drill Holes No. 1, 2, 3, 4, 5, 8 and 10, Western Development Company, Patten Dollar Mine, Santa Fe County, New Mexico





Note: All working accessable
Feb. 29, 1956

Western Mines Inc.

Cerillos Mining District

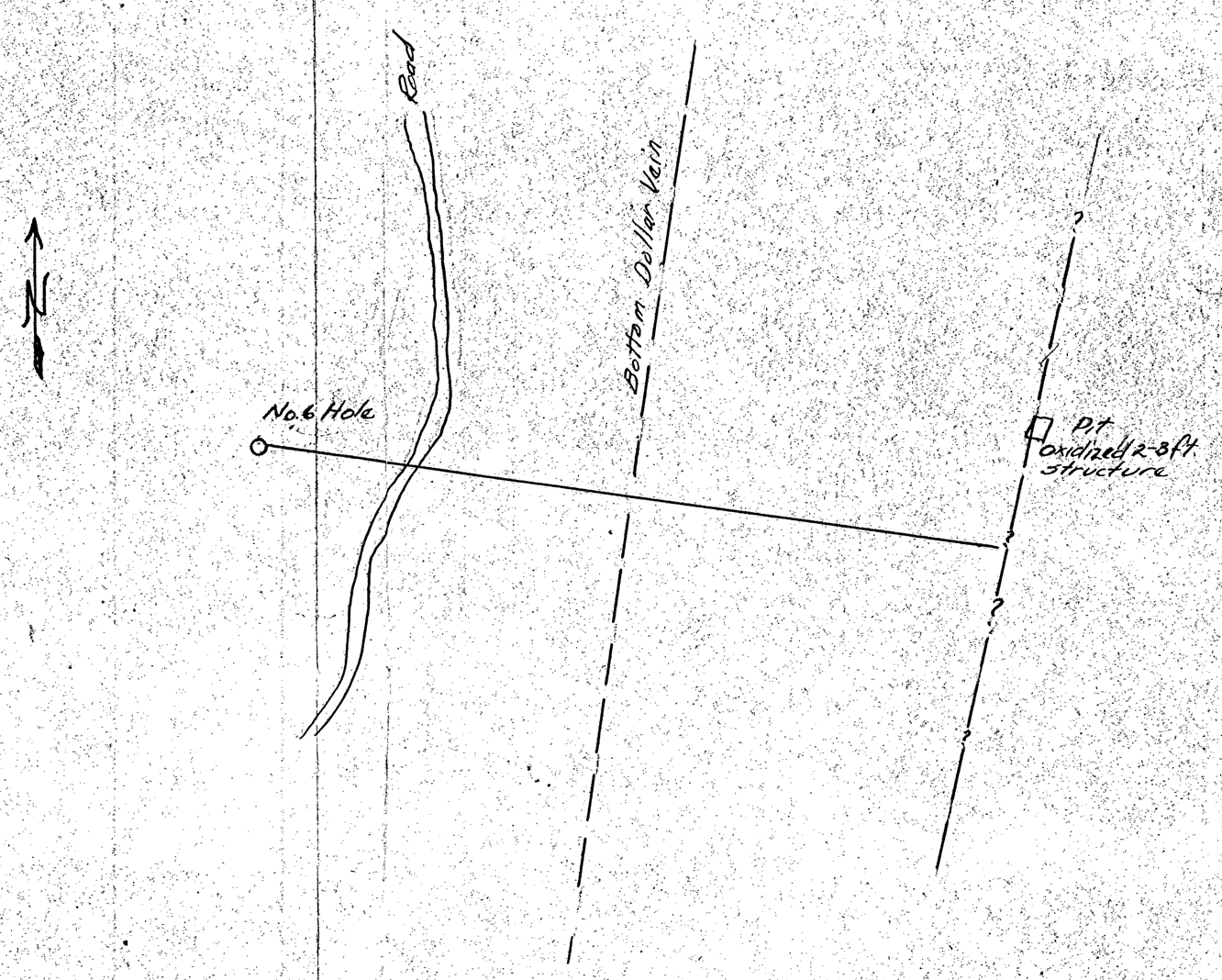
Bottom Dollar Mine

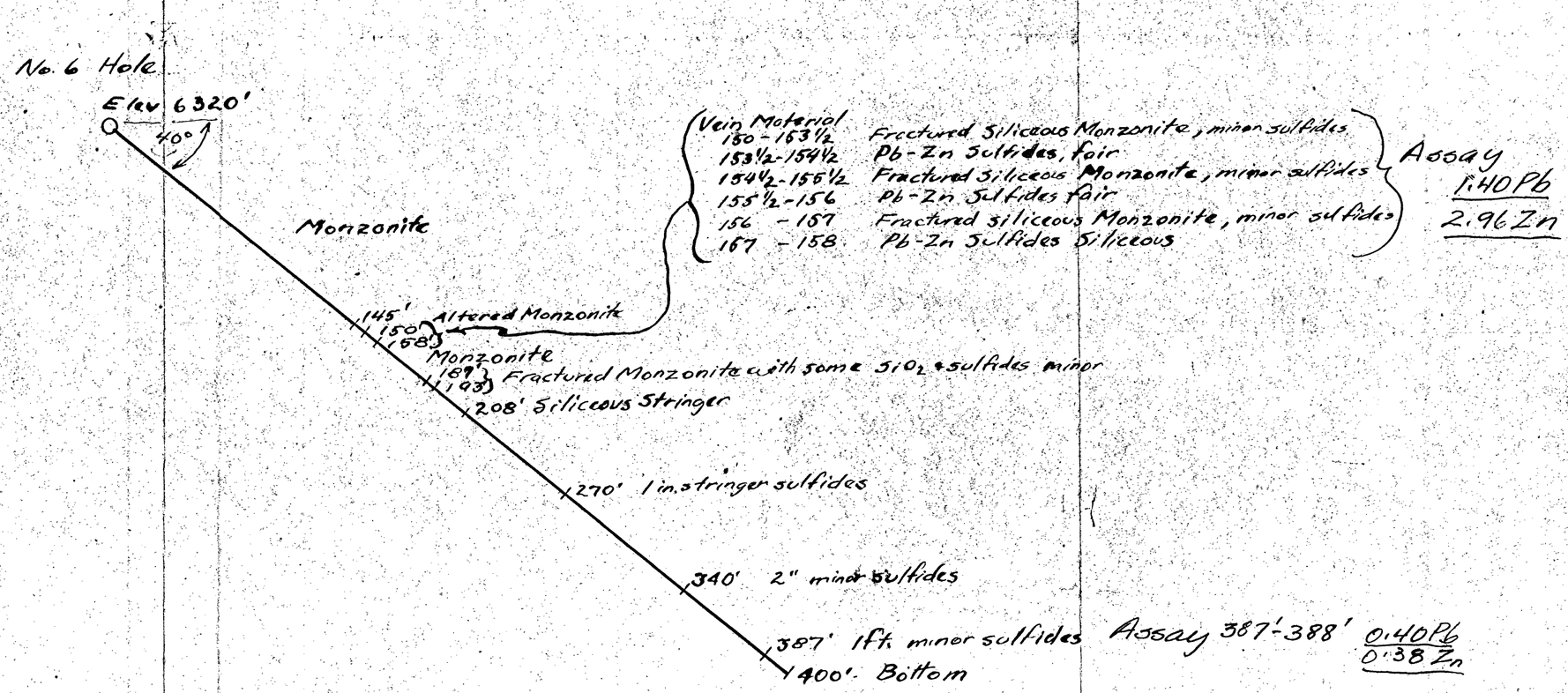
Scale 1" = 20' Feb. 29-1956 ACM.

Diamond Drill Hole No. 6

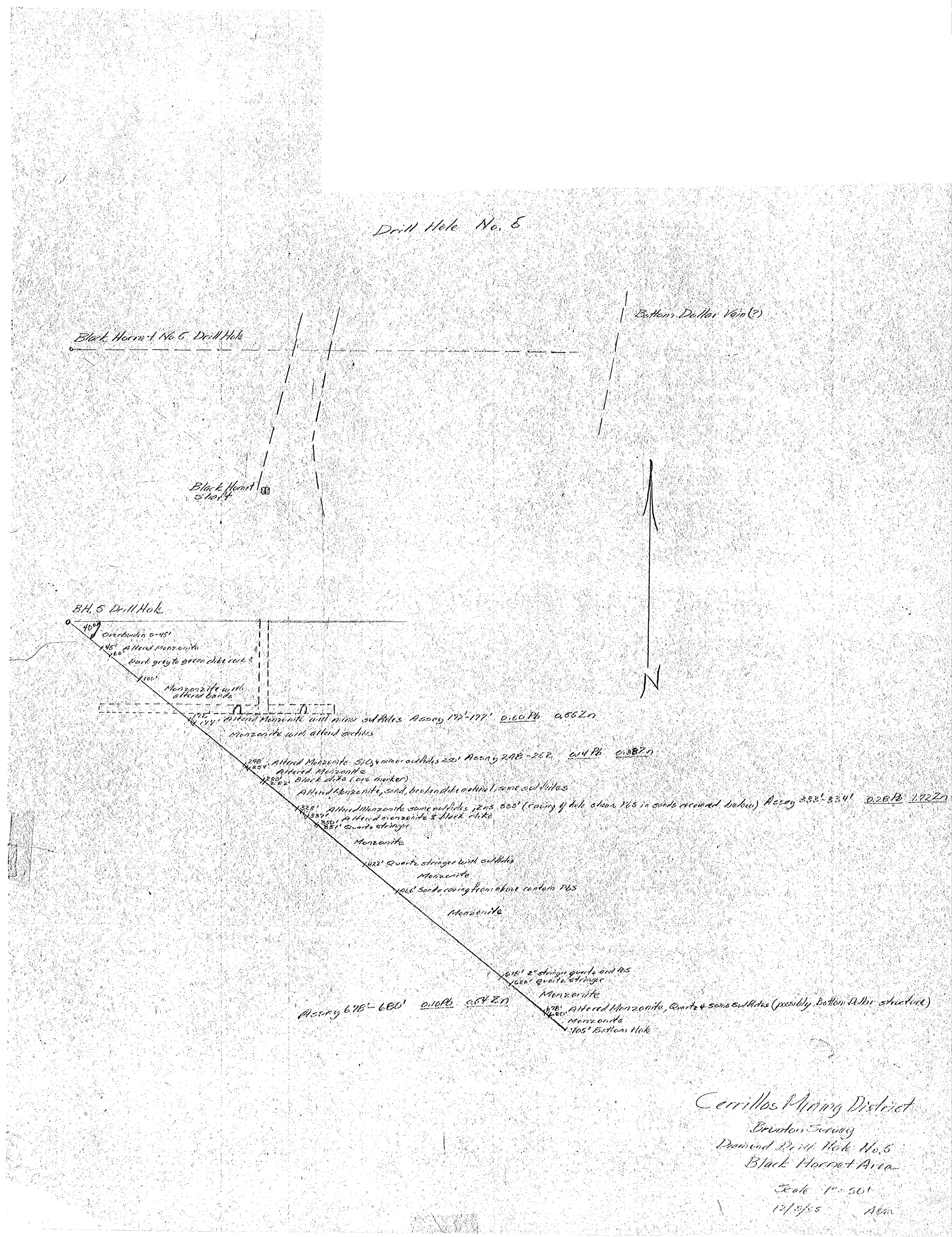
D.M.E.A. 3826

Refer: Fig. 2 Proposed Exploration DMEA 3826

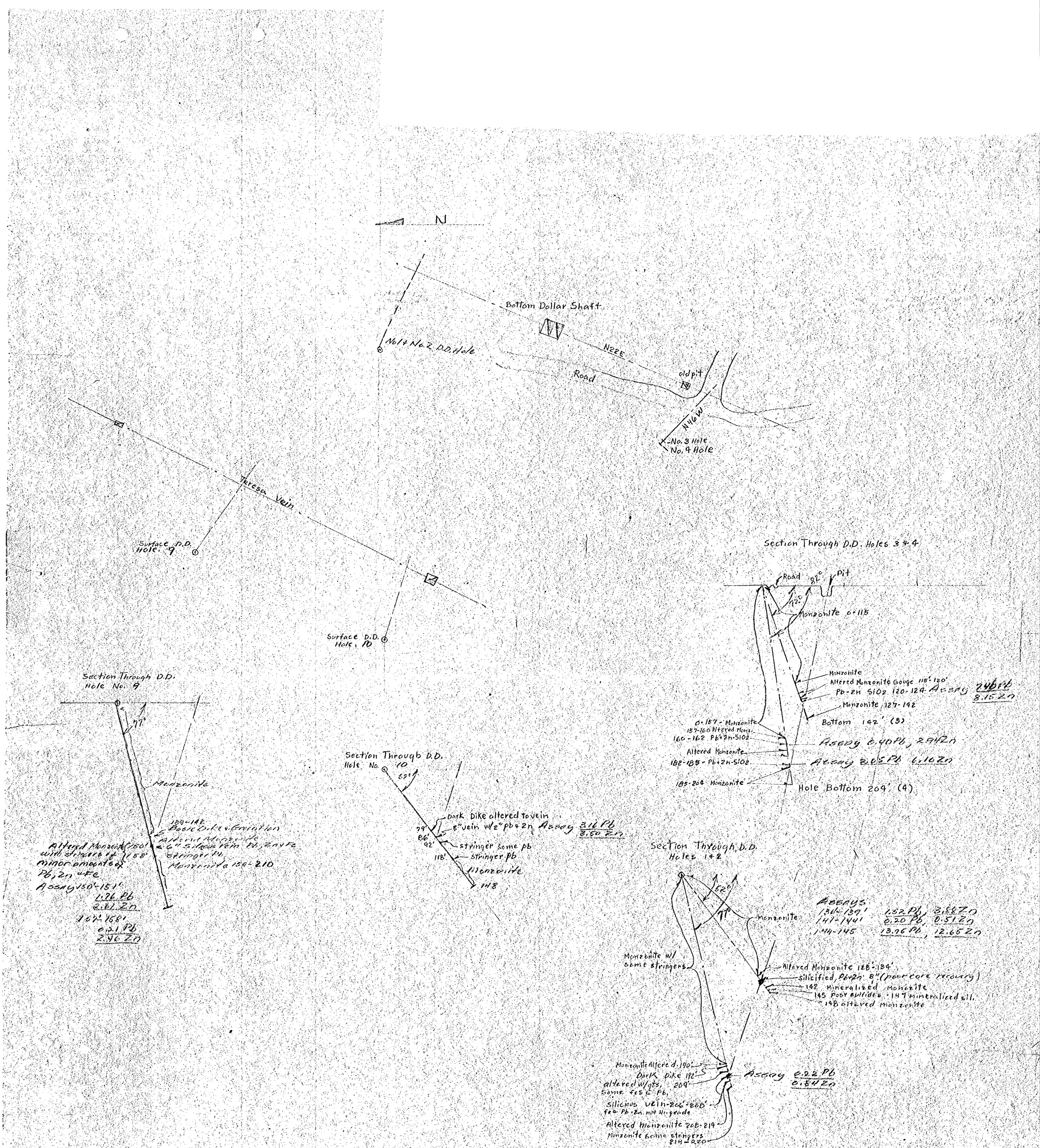




Western Development Company
of
Delaware
Cerrillos Mining District
Bounton Survey
Scale 1" = 50'
De



Cerrillos Mining District
Brunton Survey
Diamond Drill Hole No. 5
Black Hornet Area
Scale 1" = 50'
12/5/65 AEM



Cerrillos Mining District

Brunton Surveys of Bottom Dollar Shaft w/ D. D. Holes

Scale 50' = 1 Inch

11/20/55

acm-jcs

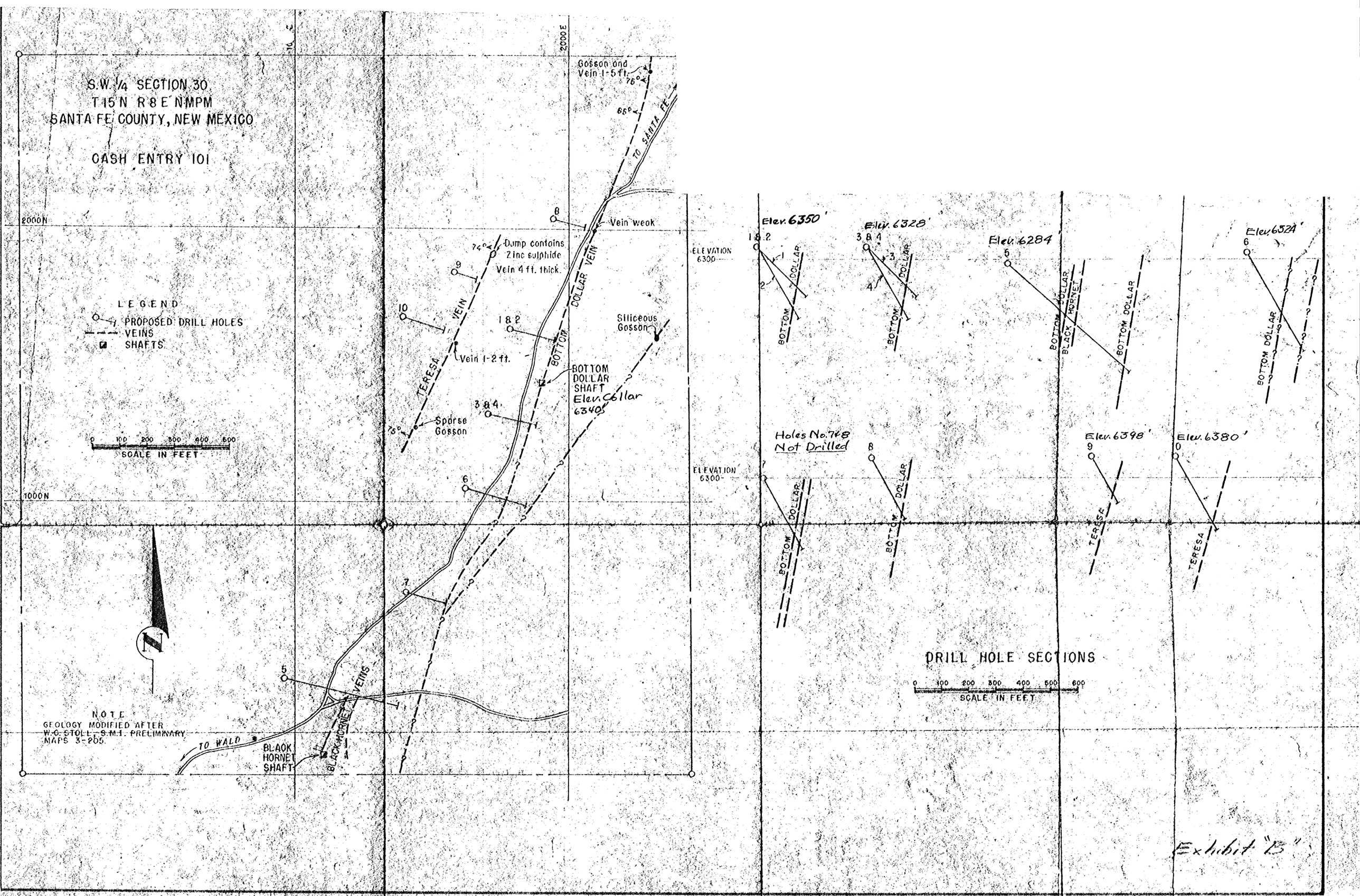


FIGURE 2 - PROPOSED EXPLORATION, WESTERN DEVELOPMENT COMPANY, CASH ENTRY 101, PATENTED MINING CLAIM, BOTTOM DOLLAR, BLACK HORNET, AND TERESA ZINC-LEAD VEINS, NORTH CERRILLOS AREA, SANTA FE COUNTY, NEW MEXICO. DMEA 3826

NORTH MINING AREA, CERRILLOS DISTRICT, SANTA FE COUNTY, NEW MEXICO

FIG. 1

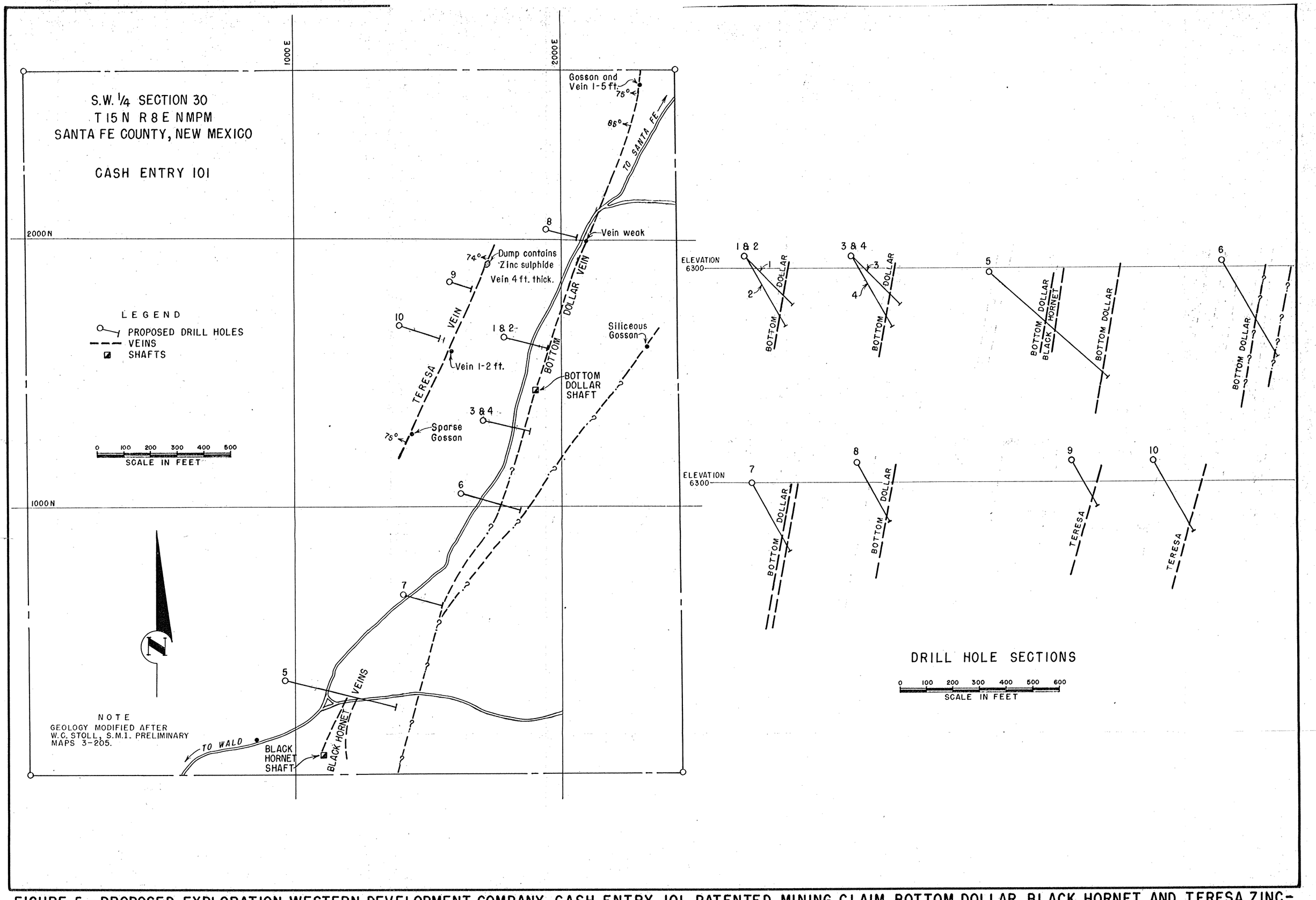
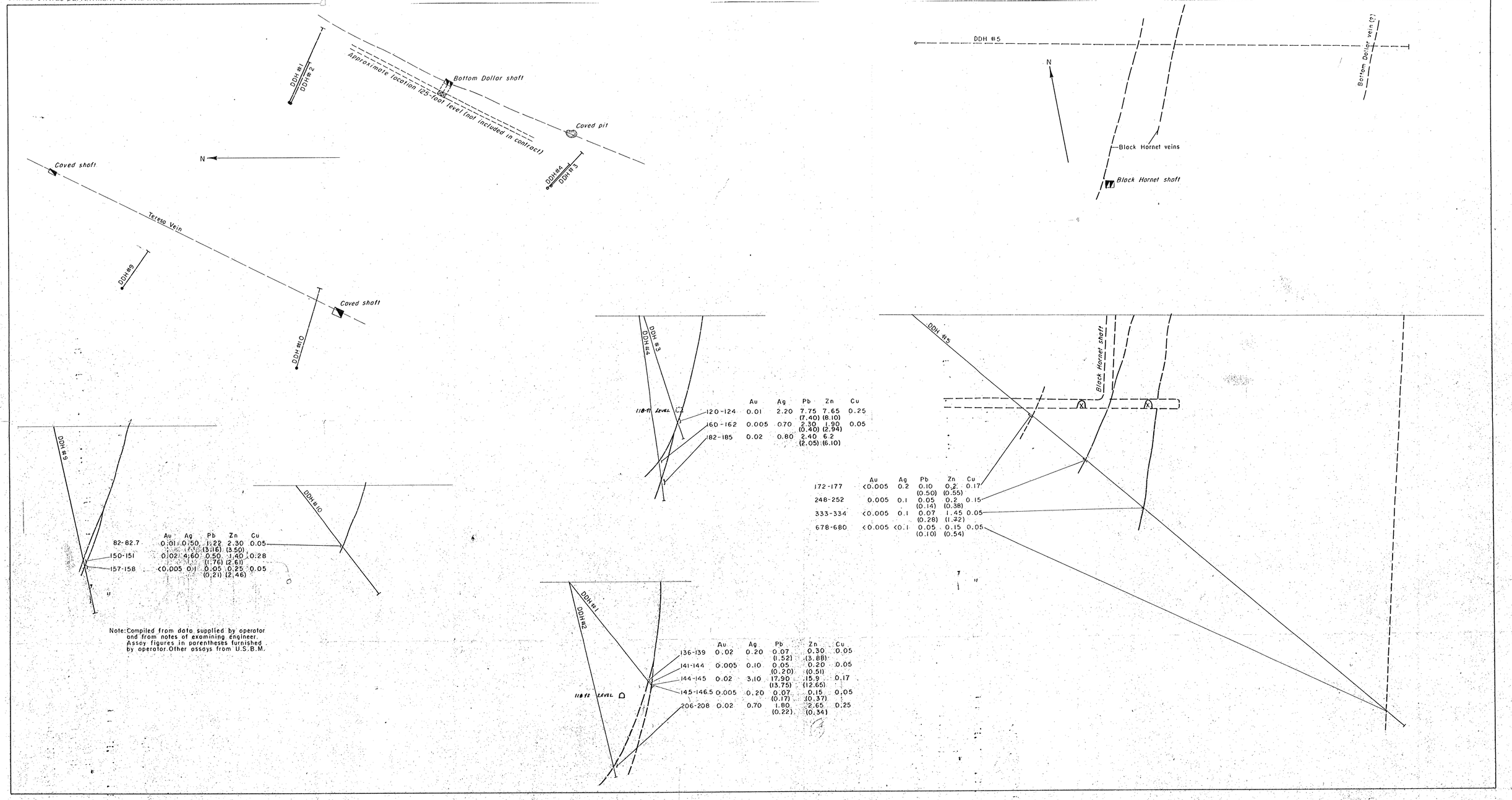


FIGURE 5 - PROPOSED EXPLORATION, WESTERN DEVELOPMENT COMPANY, CASH ENTRY 101, PATENTED MINING CLAIM, BOTTOM DOLLAR, BLACK HORNET, AND TERESA ZINC-LEAD VEINS, NORTH CERRILLOS AREA, SANTA FE COUNTY, NEW MEXICO. DMEA 3826, CONTRACT Idm-E883



	Au	Ag	Pb	Zn	Cu
120-124	0.01	2.20	7.75 (7.40)	7.65 (8.10)	0.25
160-162	0.005	0.70	2.30 (0.40)	1.90 (2.94)	0.05
182-185	0.02	0.80	2.40 (2.05)	6.2 (6.10)	

	Au	Ag	Pb	Zn	Cu
172-177	<0.005	0.2	0.10 (0.50)	0.2 (0.55)	0.17
248-252	0.005	0.1	0.05 (0.14)	0.2 (0.38)	0.15
333-334	<0.005	0.1	0.07 (0.28)	1.45 (1.42)	0.05
678-680	<0.005	<0.1	0.05 (0.10)	0.15 (0.54)	0.05

	Au	Ag	Pb	Zn	Cu
82-82.7	0.01	0.50	1.22 (3.16)	2.30 (3.50)	0.05
150-151	0.02	4.60	0.50 (1.76)	1.40 (2.61)	0.28
157-158	<0.005	0.1	0.05 (0.21)	0.25 (2.46)	0.05

Note: Compiled from data supplied by operator and from notes of examining engineer. Assay figures in parentheses furnished by operator. Other assays from U.S.B.M.

	Au	Ag	Pb	Zn	Cu
136-139	0.02	0.20	0.07 (1.52)	0.30 (3.88)	0.05
141-144	0.005	0.10	0.05 (0.20)	0.20 (0.51)	0.05
144-145	0.02	3.10	17.90 (13.75)	15.9 (12.65)	0.17
145-146.5	0.005	0.20	0.07 (0.17)	0.15 (0.37)	0.05
206-208	0.02	0.70	1.80 (0.22)	2.65 (0.34)	0.25

FIGURE 2.-SHOWING LOCATIONS OF AND SECTIONS THROUGH DIAMOND DRILL HOLES NOS. 1,2,3,4,5,9, AND 10, WESTERN DEVELOPMENT COMPANY, BOTTOM DOLLAR MINE, SANTA FE COUNTY, NEW MEXICO.

50 25 0 50 Feet

PREPARED FOR DEFENSE
MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR

DMEA DOCKET 3826

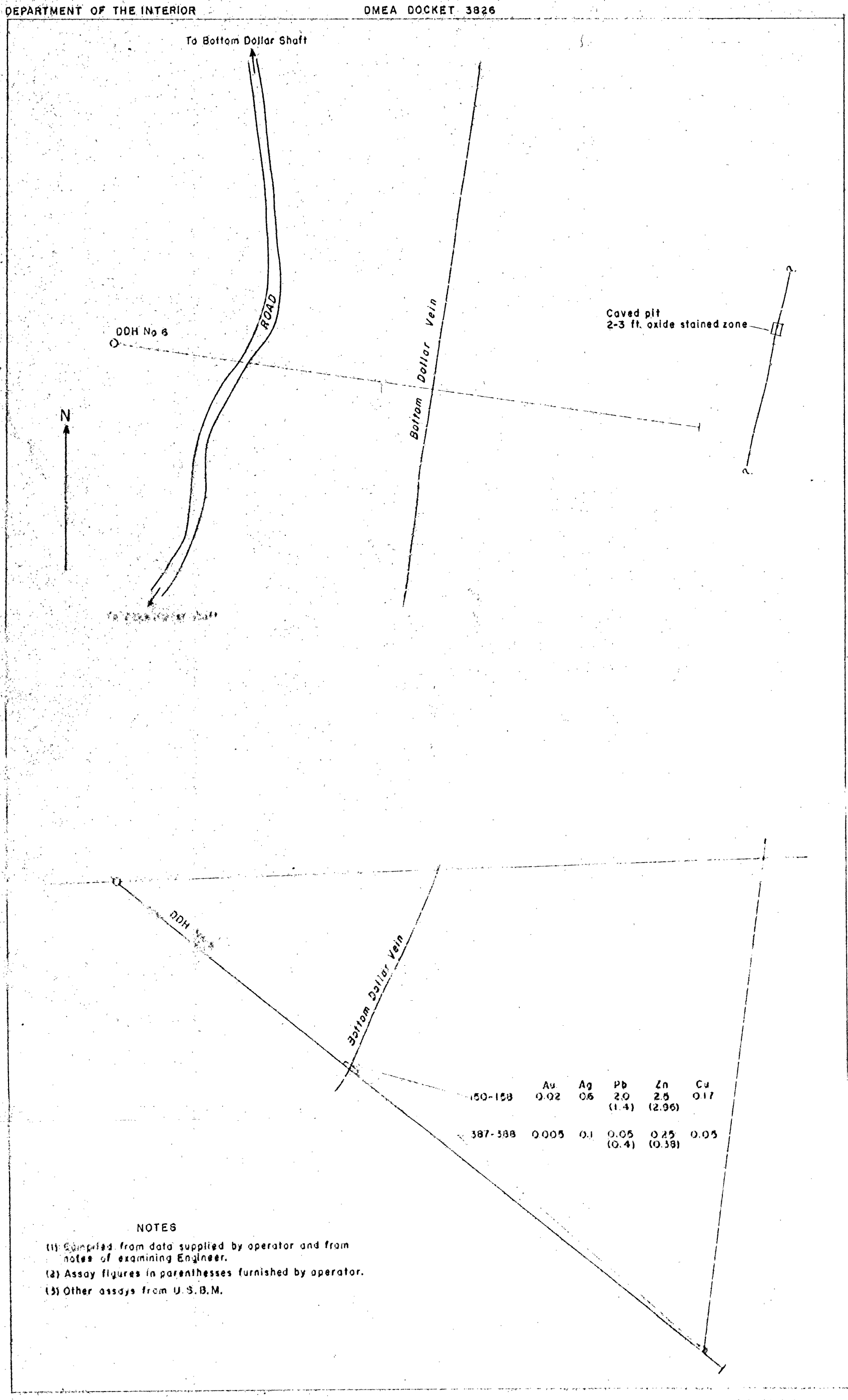


FIG. 3 – PLAN SHOWING LOCATION OF DIAMOND DRILL HOLE NO. 6 AND VERTICAL SECTION ALONG HOLE, WESTERN DEVELOPMENT COMPANY, BOTTOM DOLLAR MINE, SANTE FE COUNTY, NEW MEXICO

UNITED STATES
DEPARTMENT OF THE INTERIOR

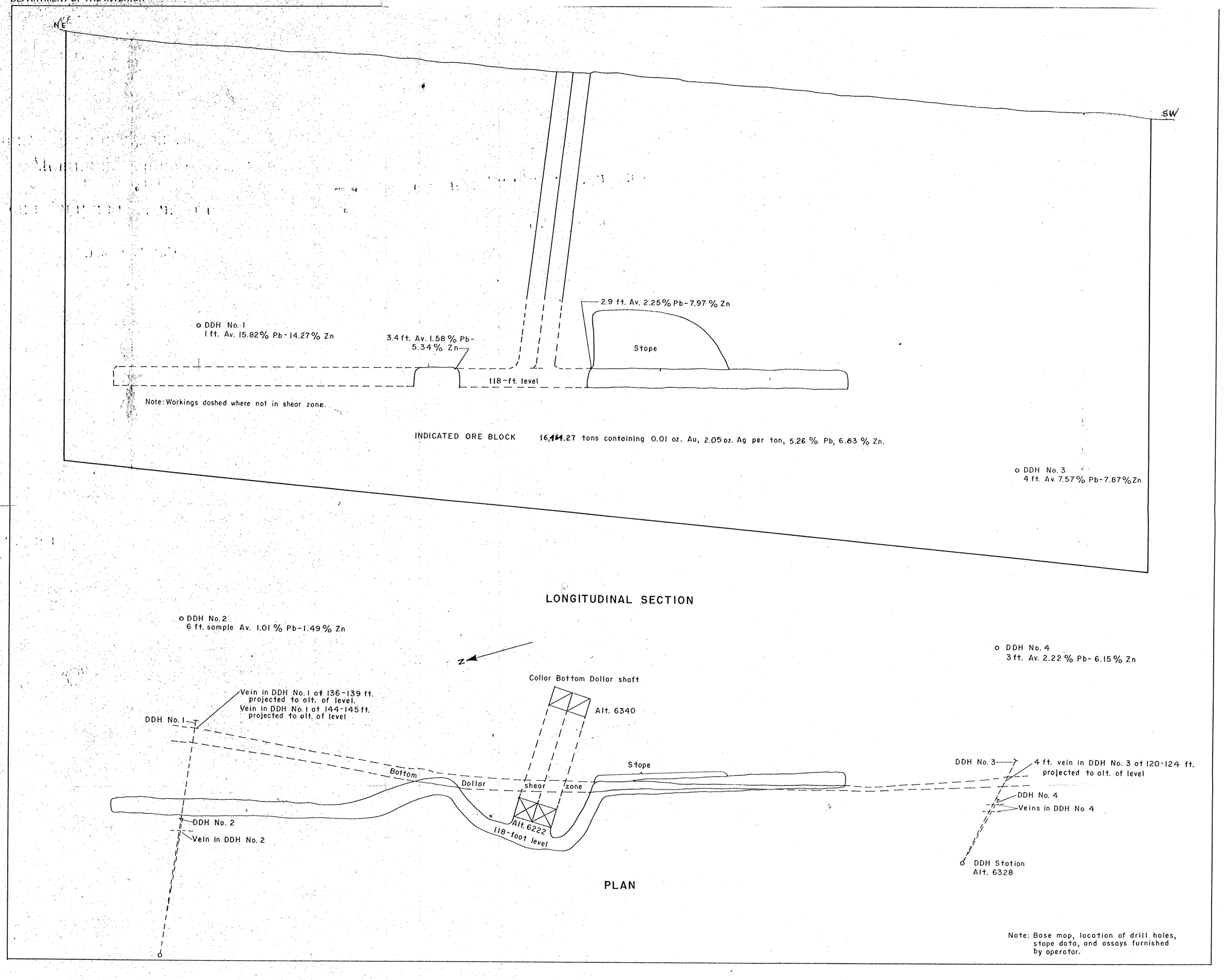


FIGURE 4 -PLAN SHOWING WORKINGS AND POSITIONS OF BOTTOM DOLLAR SHEAR ZONE, 118 FOOT LEVEL AND LONGITUDINAL SECTION ALONG THE SHEAR ZONE SHOWING LIMITS OF INDICATED ORE, BOTTOM DOLLAR MINE, SANTA FE COUNTY, NEW MEXICO

20 10 0 20 Feet

State of New Mexico
Santa Fe County
Twp. 15 North
Range 8 East N.M.P.M.
Section 30
Southwest quarter

Map amended to show location of proposed exploration
May 1955 AGM

EXPLANATION

QUATERNARY
- Alluvium

CRETACEOUS
- Trachyte porphyry
- Monzonite
- Quartzite

- Vein showing dip
- Vein, position approximate
- Vein, position inferred
- Contact showing dip (dashed where approximate)
- Strike and dip of beds
- Horizontal beds
- Strike and dip of joint
- Vertical joint
- Drainage
- Open-cut and pit
- Shaft
- Underground workings
- Main road
- Secondary road
- Dump

Scale
0 100 200 400 600 feet

Contour interval 20 feet
Datum is mean sea level

Geology and topography by W.C. Stoll
assisted by W. J. Powell, August 1945

SURFACE MAP

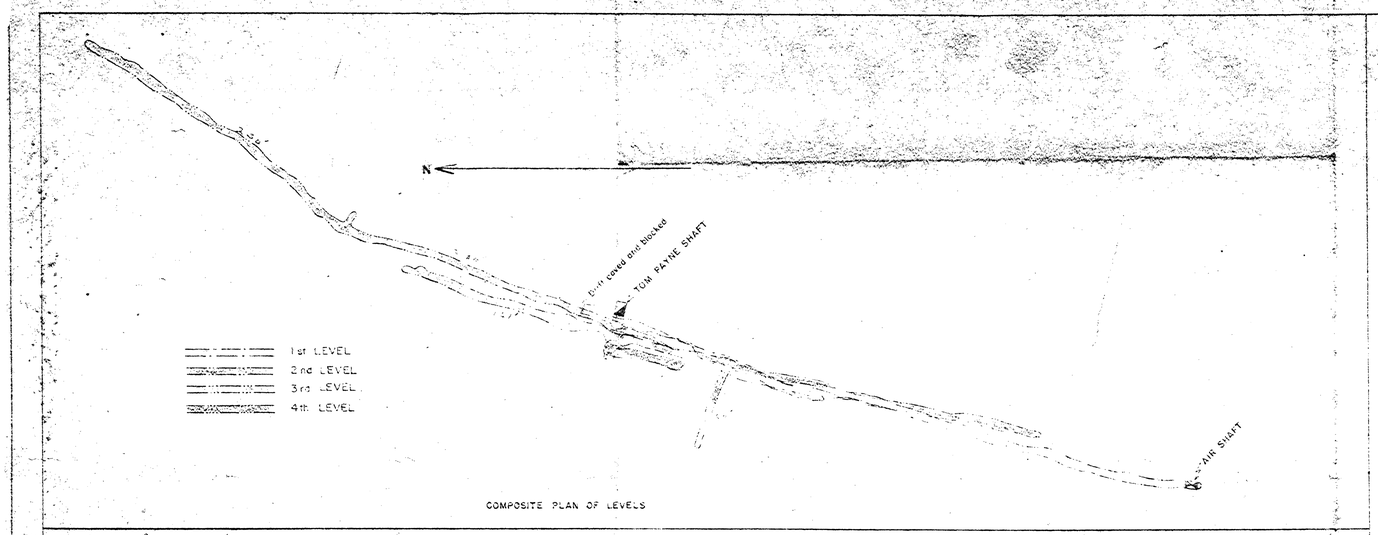
SECTIONS

NORTH MINING AREA, CERRILLOS DISTRICT, SANTA FE COUNTY, NEW MEXICO

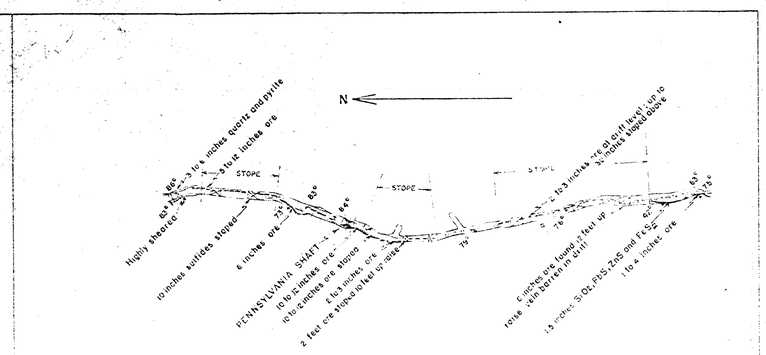
Exhibit C

WESTERN DEVELOPMENT COMPANY
of Delaware
P.O. Box 1201, SANTA FE, NEW MEXICO

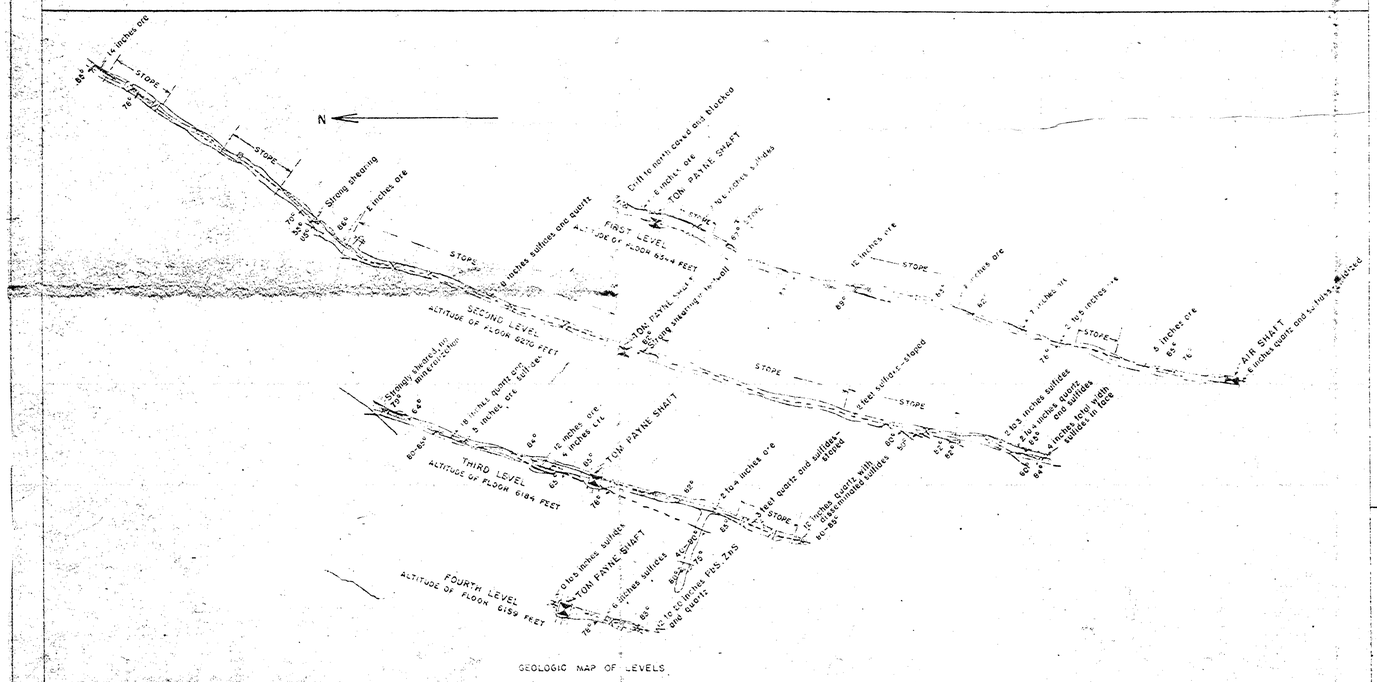
FIG. 1



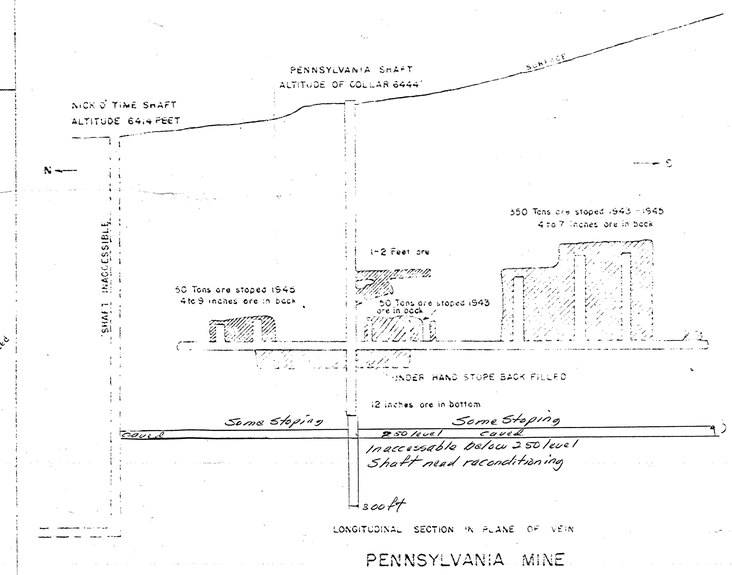
COMPOSITE PLAN OF LEVELS



GEOLOGIC MAP OF 165 FOOT LEVEL



GEOLOGIC MAP OF LEVELS



LONGITUDINAL SECTION IN PLANE OF VEIN

PENNSYLVANIA MINE

EXPLANATION

Ore (zinc - lead, with minor copper and silver)

Vein zone (sheared, altered monzonite) showing dip

Fault, showing dip

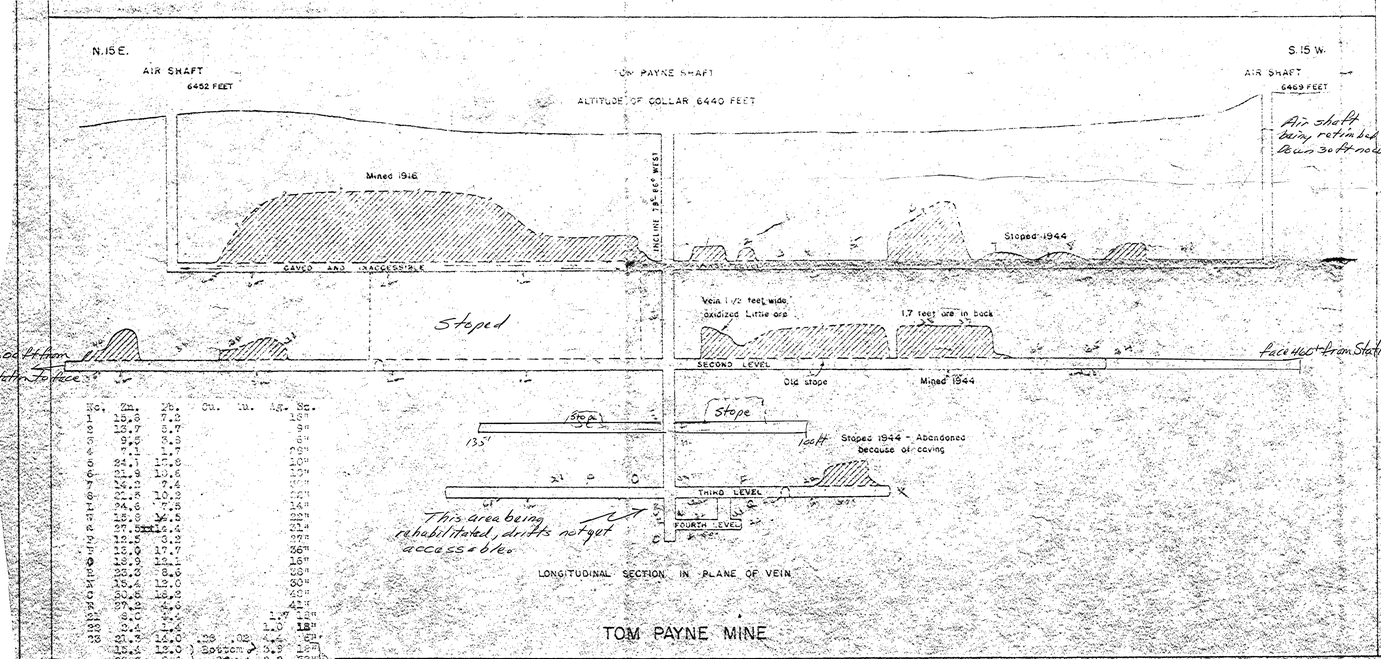
Head of inclined shaft

Inclined shaft passing through level

Foot of shaft

Foot of raise or chute

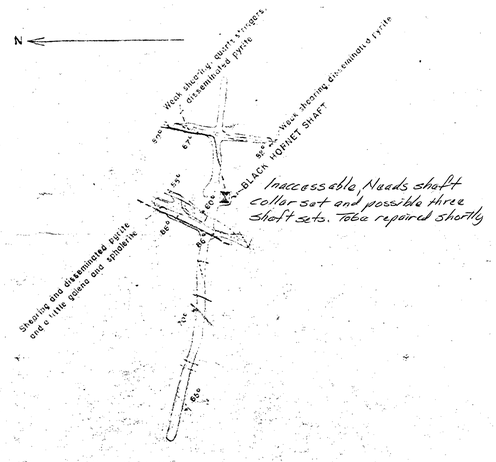
Stope



No.	Zn.	Pb.	Cu.	Au.	Ag.	Sp.
1	15.5	7.1				65"
2	13.7	5.7				9"
3	9.5	5.3				9"
4	7.1	1.7				10"
5	24.1	17.8				10"
6	12.3	10.6				12"
7	14.2	7.4				12"
8	21.8	10.3				12"
9	24.6	7.5				24"
10	15.8	4.5				24"
11	27.5	1.4				24"
12	18.5	3.3				37"
13	12.0	17.7				36"
14	18.9	12.1				16"
15	23.2	8.8				33"
16	18.4	12.0				30"
17	30.5	18.3				12"
18	27.8	4.6				12"
19	30.0	1.4				12"
20	9.4	1.1			1.0	18"
21	12.3	12.0	.08	.03	4.1	18"
22	15.4	12.0	Bottom		3.8	18"
23	22.3	8.6	of		3.8	33"
24	13.0	17.7	Shaft		5.2	12"
25	18.5	19.2			2.2	12"
Above five, corr. with Int.						
30	11.5	1.1			1.6	15"
31	11.9	4.9			1.0	60"
32	24.5	19.6				33"
33	17.8	1.5				33"
34	15.8	19.5				10"
35	16.0	7.3				10"
36	24.6	12.2			3.6	15"
37	14.6	9.5			3.1	10"
38	15.0	8.2				10"
39	12.5	9.2			4.6	36"
40	14.6	5.3				12"
41	9.2	3.9			1.6	12"

LONGITUDINAL SECTION IN PLANE OF VEIN

TOM PAYNE MINE



GEOLOGIC MAP OF 100 FOOT LEVEL

BLACK HORNET PROSPECT

NORTH MINING AREA, CERRILLOS DISTRICT, SANTA FE COUNTY, NEW MEXICO

UNDERGROUND WORKINGS OF THE TOM PAYNE, PENNSYLVANIA, AND BLACK HORNET MINES

50 0 50 100 150 Feet

Datum is mean sea level

Exhibit D
WESTERN DEVELOPMENT COMPANY
OF DELAWARE

FIG. 2

Surveyed with compass and tape by W.C. Stoll, assisted by W.J. Powell, Aug. 23-28, 1945

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

NORTH MINING AREA, CERRILLOS DISTRICT, SANTA FE COUNTY, NEW MEXICO

Exhibit E
Docket No. DMEA 3826 (Lead-Zinc)

WESTERN DEVELOPMENT COMPANY
of Delaware
P.O. Box 1201, SANTA FE, NEW MEXICO

FIG. 1