DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE E - 893 DMEA NO. 3776

Application (Denied
(Withdrawn
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
Leases and assignments of leases
Application and attachments
Envelope for maps - No 3

Right Side

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order) Interim Summary Reports by W. O. Engineers

Right Side Folder #2

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

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Big Bend Mining, Inc.
Box 269
Abilene, Texas

pertaining to Exploration Project Contract No. Idm-E893, DMEA No. 3776, including Amendment Nos. 1, 2 and 3, for the months of April 1956, to January 1957, inclusive, covering a project for the exploration of mercury on property, known as the Centralendo Dome located in Presidio County, Texas.

My review included an examination of the Monthly Reports (Forms MF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, verification of work performed by reference to Field Team reports, drill logs, and correspondence, and a determination of the reasonableness and propriety of the costs.

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

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

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

Total cost as billed by Contractor		$35,780.75
Exceptions:		
Prior to this review	$ -0-	
Herewith	-0-	-0-
Total Accepted Cost		$35,780.75

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Twenty-six thousand eight hundred thirty-five and 56/100 Dollars

$26,835.56

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.

E. D. Talbert

E. D. Talbert, Auditor

May 24, 1957

"Government's Copy"

RECEIVED
MINERALS TECHNOLOGY
DIVISION

MAY 20 1957

BUREAU OF MINES
JOPLIN, MO.

EXPLORATION PROJECT CONTRACT IDM-E893
BIG BEND MINING, INC.
DOCKET NO. DMEA-3776(MERCURY-URANIUM)

AMENDMENT NO. 3

It is hereby agreed that Contract No. Idm-E893(Docket No. DMEA-3776), dated November 15, 1955, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, termed therein as the "Government", and Big Bend Mining, Inc., the "Operator", which with subsequent Amendments No. 1 and No. 2, altogether referred to here as the "Contract", is hereby further amended, effective November 15, 1956, as follows:

1. In the third line, paragraph 2 under item one, page one of Amendment No. 2, executed and made a part of said Contract as of July 30, 1956, the stipulation of "700 feet" hereby is changed to "702 feet", the maximum depth for drilling hole No. 8-5.

2. In the third line, paragraph 3 concerning "Area No. 6", on page two of Amendment No. 1, executed and made a part of said Contract as of January 20, 1956, the stipulation of "600 feet" hereby is changed to "662 feet", the maximum depth for drilling hole No. 5-6.

This Amendment No. 3 shall not be construed to increase the estimated cost of the project, the aggregate total amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

Executed in sextuplicate this 15th day of May 1957.

BIG BEND MINING, INC.

By [signature]

Title President

THE UNITED STATES OF AMERICA

By Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

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D M E A
RECEIVED MAY 28 1957
DATE | INITIALS | CODE

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 20 1957

DATE	INITIALS	CODE

JUSTIFICATION FOR AMENDMENT NO. 3
TO CONTRACT IDM-E893
BIG BEND MINING, INC.
DOCKET DMEA-3776(MERCURY-URANIUM)
CONTRABANDO DOME PROJECT, PRESIDIO COUNTY, TEXAS

by

Clinton C. Knox, Mining Engineer

May 15, 1957

The preliminary core drilling specified under "Stage I" of the Contract, amended as of January 20 and July 30, 1956, was nearing completion when the Field Team inspected the project September 14, 1956. The holes were located at the specified wide-spread sites selected on the basis of geologic projection at depth on structures with superficial prospect exposures of significant cinnabar occurrences. The drilling, however, had failed to penetrate through the inferred Contrabando laccolith to reach the designated prime exploration target, the Georgetown limestone strata ordinarily regarded as the most favorable host rock for the mercury mineralization of the region.

Upon the Operator's formal request, on July 30, 1956, I approved drilling a "Stage II" hole(No. 9-9) concurrently with "Stage I" work. That hole No. 9-9 was completed August 24 on the specified location near one of the most favorable-appearing shallow cinnabar prospects. The results confirmed that the cinnabar extended downward in a steeply dipping fracture zone in igneous rock.

Therefore, at the instigation of the Field Team and with its prior approvals(in accordance with the memorandums of November 16 and 26, 1956, from King, USGS, to me), the Operator with some renewed enthusiasm agreed to make every reasonable effort to core drill through the inferred igneous laccolith in two of the "Stage I" holes(no. 8-5 and No. 5-6). On the basis of the stratigraphic, structural and mineralogical implications of the results of all the previous drilling, those hole locations were selected geologically as the most likely and practical for success in the final "Stage I" deep test warranted to probe the prime exploration target, the intersection of the steeply dipping mercury-bearing fracture zones with the upper Georgetown strata. If the recommended deep tests by those two holes failed or proved impractical, then all concerned were resigned to termination of the project work.

Thus Amendment No. 3 was justifiable to permit the drilling that could be accomplished to depths in excess of the previously estimated Contract maximums even though drilling through the inferred igneous laccolith and reaching the project objective proved virtually to be impossible, or at least impractical.

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EXPLORATION PROJECT CONTRACT NO. IDM-E893
BIG BEND MINING, INC.
DOCKET NO. DMEA-3776 (MERCURY-URANIUM)

RECEIVED
AUG 6 1956

AMENDMENT NO. 2

It is agreed this 30th day of July, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government", and Big Bend Mining, Inc., hereinafter called the "Operator", parties to that certain Exploration Project Contract No. Idm-E893 (Docket No. DMEA-3776), dated November 3, 1955, as amended, hereinafter called the "Contract", that effective as of the date first above written, said Contract hereby is further amended as follows:

1. In Amendment No. 1, effective January 20, 1956 as a part of said Contract, the second paragraph on page two referring to drilling in "Area No. 11", hereby is deleted and the following stipulations substituted:

In the area of the so-called Shoemaker underground mine workings in the southwest part of section 108, included under the Contract, hole No. 8-5 shall be drilled to a maximum depth of 700 feet from a point designated in the ravine approximately 720 feet east and 865 feet north of the southwest corner of that section. This hole shall be drilled bearing due east on an inclination of -60 degrees.

2. In Amendment No. 1 of the Contract, the fifth paragraph on page two, referring to drilling in "Area No. 18", also hereby is deleted and the following stipulations substituted:

In Area No. 7 in section 105, indicated on the maps attached as a part of the Contract, hole No. 5-8 shall be drilled vertically to a maximum depth of 800 feet in the indicated "sink" structure at a designated point approximately 2,750 feet N 27° E from the southwest corner of that section.

The table of relationships between the drill hole numbers at the bottom of page two in Amendment No. 1 of the Contract, also hereby is changed in accordance with stipulations in the two foregoing items.

This Amendment No. 2 in no way alters the total drilling allowable, or the total and Fixed Unit Costs for "Stage I" work set by the Contract.

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MINERALS TECHNOLOGY
DIVISION

AUG 6 1956

BUREAU OF MINES
JOPLIN, MO.

The fourth paragraph on page 3 in Amendment No. 1 to the Contract is hereby deleted and the following stipulations substituted:

Total and Fixed Unit Costs of work and the methods for doing the work under Stages II and III, as set by the original Contract, shall apply to any such work under those stages as may be approved and specified in writing by the Government upon prior written request and adequate justification by the Operator.

This Amendment No. 2 shall not be construed to increase the estimated cost of the project, the aggregate total amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

Executed in sextuplicate as of the day and year first above written.

THE UNITED STATES OF AMERICA

By: Chilton C. Knox
Executive Officer
DMEA Field Team, Region IV

BIG BEND MINING, INC.

BY: B. Kundrick
President

DOCKET COPY

Putin - 3/12/56 (See memo same date) [illegible]

MINERALS DIVISION

EXPLORATION PROJECT CONTRACT
BIG BEND MINING, INC.
DOCKET NO. DMEA-3776

RECEIVED FEB 13 [illegible]

AMENDMENT NO. 1

FEB 1 5 1956

BUREAU OF MINES
JOPLIN, MO.

It is agreed this 20th day of January, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government", and Big Bend Mining, Inc., hereinafter called the "Operator", parties to the Exploration Project Contract No. Idm-B893, Docket No. DMEA-3776, dated November 9, 1955, hereinafter called the "Contract", that said Contract hereby is amended as follows:

A photostatic reduction of a map entitled Surface Structure Map, Southwest Flank of Contrabando Dome, by Escar W. Armstrong, Consulting Geologist, is attached to this amendment.

Delete all of the stipulations in "Stage I" under "Description of the Work" in "Exhibit A" of said contract and substitute the following:

Bulldoze approximately 3 to 4 miles of access roads and prepare the drill hole sites in project Areas No. 1, 2, 3, 6, 11, 14, and 18.

In Area 1, drill hole No. 9-1 at a point 150 feet N. 65° W. of the open cut, to an approximately depth of 510 feet or bottomed in Georgetown limestone.

In Area No. 1, drill hole No. 9-2 at a point 100 feet along the road southward from the open cut. In case undue difficulty is experienced during a realistic attempt to drill this hole, the drill may be moved 30 to 40 feet southwest to complete this hole in the hanging wall strand of the mapped fracture zone. Completed depth of this hole shall be approximately 510 feet or bottomed in Georgetown limestone.

In Area No. 2, drill hole No. 9-3 at a point 90 feet S. 21° W. from the smaller of two igneous outcrops mapped along a major fault trace. If it was necessary to move the location of Hole No. 9-2 from the fracture zone, then this hole location may be moved likewise approximately the same distance. This hole shall have an approximate completed depth of 485 feet or bottomed in Georgetown limestone.

In Area No. 3, drill hole No. 9-4 at a point 140 feet N. 12° E. of the small isolated igneous outcrop 70 feet southeast of the east end of the larger igneous outcrop mapped along the major fault trace. This hole shall be drilled to an approximate depth of 505 feet or bottomed in Georgetown limestone. Should the hanging wall area in Hole No. 9-2 prove favorable, then this hole location likewise may be moved as much as 100 feet to a corresponding location with respect to the mapped fault trace.

In Area No. 11, (shown only on the Reconnaissance Structure Map of Contrabando Dome which remains a part of the Contract) drill hole No. 5-5 on northwest side and within 5 feet of the fault to a maximum depth of 700 feet. (Proposed hole No. 5 in Area 4A is not to be drilled under this amendment).

In Area No. 6, (shown only on the contract map), drill hole No. 5-6 at the center of the indicated "sink" area, to a maximum depth of 600 feet.

In Area No. 14, (shown only on the contract map), drill hole No. 5-7 on the southeast side and within 5 feet of the fault to a maximum depth of 700 feet.

In Area No. 18, (shown only on the contract map), drill hole No. 5-8 on the northwest side and within 5 feet of the fault, to a maximum depth of 800 feet.

The relationship between the drill hole numbers as designated in this amendment, those in "Exhibit A" of the Contract, and those indicated on the attached Armstrong map, are as follows:

New drill hole numbers as designated by this amendment	Drill hole location numbers previously designated in Contract	Drill hole location numbers shown on attached Armstrong map	Estimated Completed hole depths	Project Area Numbers	Area Location shown on
9-1	1	1	510'	1	Armstrong map
9-2	2	2	510'	1	Armstrong map
9-3	3	3	485'	2	Armstrong map
9-4	-	4	505'	3	Armstrong map
5-5	5	-	700'	11	Contract map
5-6	4	7	600'	6	Contract map
5-7	6	9	700'	14	Contract map
5-8	7	10	800'	18	Contract map
			4,810'		

In at least one hole of the above-specified Stage I drilling, Georgetown limestone, when found, is to be penetrated to a depth of 100 feet beyond the upper contact thereof.

The total drilling for Stage I under this Amendment No. 1 shall not exceed 4,900 feet.

This Amendment in no way alters the Fixed Unit Costs, for Stage I work, as set by the Contract.

Total and fixed unit costs of work stipulated in the Contract under Stages II and III shall be determined by new Amendments redescribing work of these stages, if other than the above-specified Stage I work is approved by the Government, whenever justifiable.

This Amendment shall not be construed to increase the estimated cost of the project, the aggregate total amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

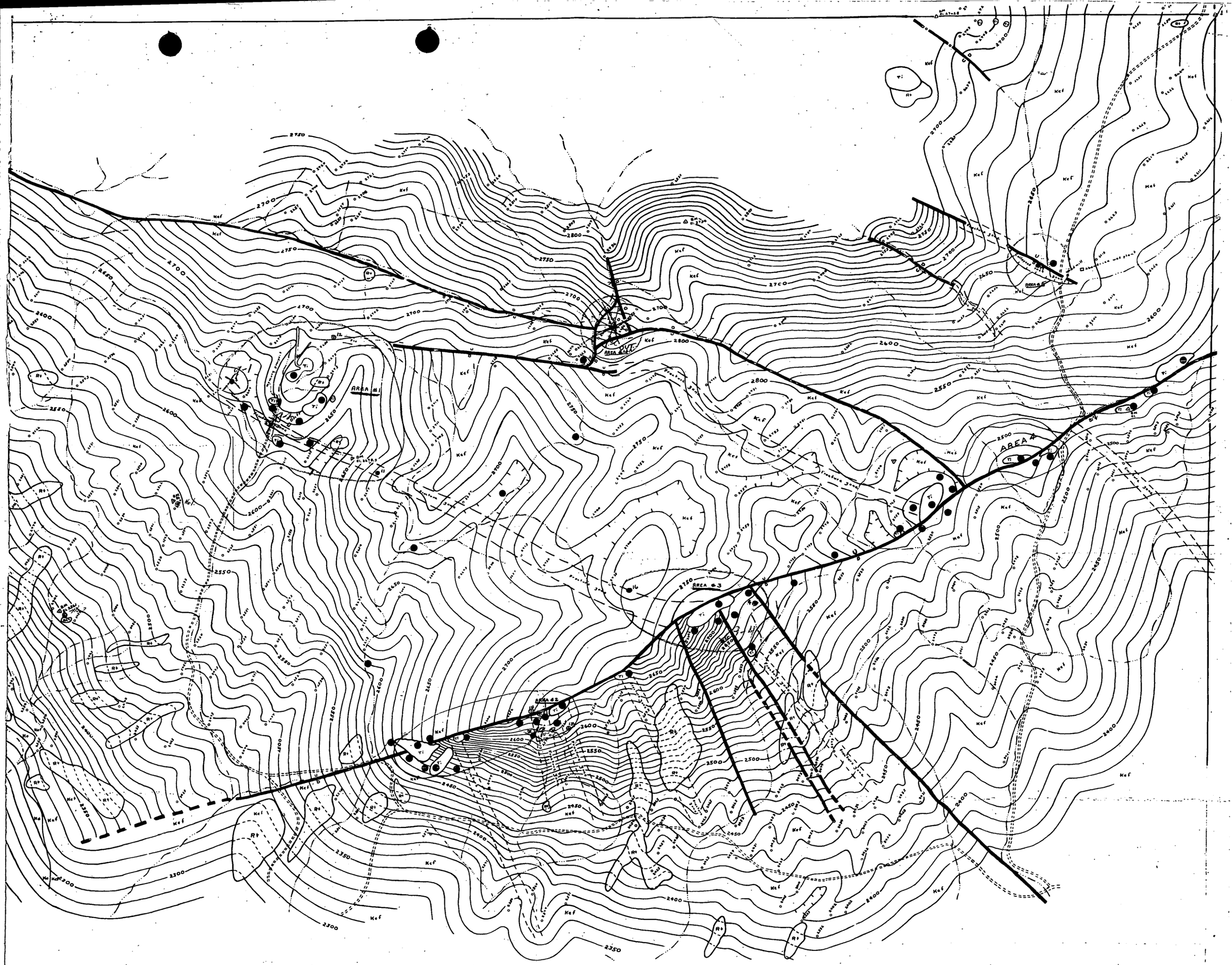
Executed in sextuplicate as of the day and year first above written.

THE UNITED STATES OF AMERICA

By: Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

BIG BEND MINING, INC.

BY: B. Kindrick Pres



Done for

Big Bend Mining, Inc.

by

Escar W. Armstrong - Consulting Geologist

Escar W. Armstrong 9 January 1956

Instrument - J. J. Herb & R. Carter

X 9-2 Amend. #1, Stage I drill hole Locations shown on this Map

SURFACE STRUCTURAL MAP

SOUTHWEST FLANK OF CONTRABANDO DOME

PRESIDIO COUNTY, TEXAS.

CONTOUR INTERVAL 10 FT. SCALE 0 50' 100' 200'

NORTHEAST ¼ SECTION 109, BLOCK 941, T.C.RY. CO. SURVEY.

Docket Copy

RECEIVED
NOV 16 1955

MF-200A
(Revised June 1954)

Docket No. DMEA 3775

Commodity Mercury, Uranium

Contract No. Idm-E 893

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

It is agreed this NOV 3 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] Big Bend Mining, Inc., a Texas corporation,

whose mailing address is 700 Sayles Boulevard, Box 269 Abilene, Texas,

hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and 3 maps.

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

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

(b) The Operator represents and undertakes that:

(1) The Operator is the See Annex I of [5] all 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] See Annex I, [7] ..... recorded in Book ....., page ....., official records of said County; and

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

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: Consent to Lien of lessors of nonmetallic minerals; and Guaranty of F. S. Kendrick, George F. Fry, and L. C. Whittiker in lieu of Consent to Lien of lessors of metallic minerals.

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

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of mercury and uranium. The work to be performed is described in Exhibit "A." The Operator on or before [illegible] shall commence the work, and on or before June 30, 1951 (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work except as otherwise provided in Exhibit "A" with respect to stages of work.

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

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

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $132,000.00. The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $99,000.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 11. *Changes and added provisions.*—

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

BIG BEND MINING, INC.
(Operator)

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

By P S Kendrick

Rubin
Dwyer
Appd. Sol. Off.
Talbot
Willing
Holt
Martin

I, PHIL S. KENDRICK, JR., certify that I am the secretary of the corporation named as Operator herein; that P.S. KENDRICK 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.

Phil S. Kendrick Jr.
Selfridge

[CORPORATE SEAL]

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

EXPLORATION PROJECT CONTRACT
BIG BEND MINING, INC.
DOCKET NO. DMEA-3776

ANNEX I

The land referred to in Article 2 of the contract form consists of three land sections as follows:

A. Sections 105 and 109 (referred to as survey numbers in leases), Block 341, T. C. Ry. Company Survey, Presidio County, Texas, contain 1,280 acres more or less, held by the Operator under two separate leases dated March 25, 1955, one of the metallic minerals and the other of the nonmetallic minerals.

B. Section 108, in the same Block as sections 105 and 109 above, held by the Operator under Prospecting Permit No. M-43695, from the State of Texas.

The three sections are outlined in green on the attached maps, Figures 1 and 2. The general location of the land is shown on the attached map entitled "Location of Mercury Mines . . . Big Bend Region of Texas."

Should the operator acquire an interest in Section 104 (otherwise called Survey 104, Block 341, T. C. Railway Company, Presidio County, Texas), or the claims in the northwest corner thereof, set forth on maps, Figures 1 and 2, said section, survey, or claims, shall be included as a part of the land referred to in Article 2 of the contract.

EXPLORATION PROJECT CONTRACT
BIG BEND MINING, INC.
DOCKET NO. DMEA-3776

EXHIBIT "A"

Description of the Work

The project is divided into three stages, as set forth below. The Operator shall perform Stage I, and shall perform as much of Stages II and III as the Government approves in writing. When approved by the Government, work under different stages may be performed concurrently.

The total diamond drilling shall not exceed 18,000 feet.

All drill holes shall be not less than AX in size.

All core shall be tested for uranium with a Geiger Counter or Scintillator.

All core from mineralized zones shall be split, and assayed for mercury and uranium if warranted. All core not used for assaying shall be marked and properly stored for inspection.

All drill holes shall be drilled vertically, unless otherwise approved by the Government.

Where necessary, drill holes shall be reamed and cased, or cemented and redrilled.

Stage I

Bulldoze approximately 3 to 4 miles of access roads to drill sites, and prepare drill areas 1, 2, 6, 11, 14, and 18 at locations shown on Figure I.

In Area 1, drill hole No. 1 at a point 450 feet S. 45° W. of the open cut to a maximum depth of 460 feet. It is expected that the measured dip of the dike at the open cut does not vary down the dip.

In Area 1, drill hole No. 2 at a point 950 feet S. 45° W. of the open cut to a maximum depth of 690 feet. However, should hole No. 1 indicate a change

in the dip of the dike, then hole No. 2 should be moved accordingly to cut the Georgetown limestone at about the depth indicated for this hole.

In Area No. 2, drill hole No. 3 on the north side of and within 5 feet of the fault, to a maximum depth of 750 feet.

In Area No. 6, drill hole No. 4 at the center of the sink hole, to a maximum depth of 600 feet.

In Area No. 11, drill hole No. 5 on the northwest side of and within 5 feet of the fault, to a maximum depth of 700 feet.

In Area No. 14, drill hole No. 6 on the southeast side of and within 5 feet of the fault, to a maximum depth of 700 feet.

In Area No. 18, drill hole No. 7 on the northwest side of and within 5 feet of the fault, to a maximum depth of 800 feet.

In at least one hole of Stage I, approved by the Government, the Georgetown limestone, when found, shall be penetrated to an approximate depth of 100 feet beyond the upper contact thereof.

The total drilling for this Stage I shall not exceed 4,900 feet.

Stage II

Bulldoze approximately 1,500 feet of access roads to drill areas, and prepare drill sites for 17 holes.

In Area No. 1, at points 100 feet N. 45° W. and 100 feet S. 45° E. from either holes Nos. 1 or 2, drill holes 8 and 9 to intersect the Buda limestone or the Georgetown limestone, or both, with a maximum depth of 680 feet for each hole.

In Areas 2, 11, and 18, drill three holes each at points 100 feet northeast, 100 feet southwest, and 50 feet northwest of holes 3, 5, and 7, respectively. Holes drilled

in Area 2 shall have a maximum depth of 750 feet each, holes drilled in Area 11 shall have maximum depths of 700 feet each, and holes drilled in Area 18 shall have maximum depths of 800 feet each.

In Area 6, three holes shall be drilled at points of an equilateral triangle, each point to be 100 feet distant from hole No. 4. The maximum depth of each hole shall be 600 feet.

In Area 14, three holes shall be drilled at points 100 feet northeast, 100 feet southwest, and 50 feet southeast of hole No. 6. The maximum depth of each hole shall be 700 feet.

In at least one hole of Stage II, approved by the Government, the Georgetown limestone, when found, shall be penetrated to an approximate depth of 100 feet beyond the upper contact thereof.

The total drilling for Stage II shall not exceed 12,000 feet.

Stage III

Bulldose approximately 3,000 feet of access road, and prepare drill sites for not to exceed 9 holes, if remaining footage from Stage II so warrants.

Drilling under this stage shall be performed in Area 3, or Areas 8 and 9, as approved by the Government.

In at least one hole of Stage III, approved by the Government, the Georgetown limestone, when found, shall be penetrated to an approximate depth of 100 feet beyond the upper contact thereof.

The total footage drilled in Stage III shall not exceed 1,100 feet plus any footages not used in Stages I and II.

Fixed Unit Costs

Stage I

Transportation of bulldozer to project site (no additional allowance is provided under this contract for transportation of bulldozer from the project site)	$ 170.00

Bulldozing 200 hours @ $12.50/hr.	$ 2,500.00	
Diamond drilling 4,900 feet @ $6.00/ft.	29,400.00	
2,450 feet of cementing and re-drilling or reaming and casing @ $2.00/ft. for either	4,900.00	
140 samples assayed for mercury 1/ @ $4.00 each sample	560.00	
Estimated Total Cost of Stage I		$ 37,530.00
Stage II		
Bulldozing 40 hours @ $12.50/hr.	500.00	
Diamond drilling, 12,000 feet @ $6.00/ft.	72,000.00	
6,000 feet of cementing and re-drilling or reaming and casing @ $2.00/ft. for either	12,000.00	
340 samples assayed for mercury 1/ @ $4.00 each sample	1,360.00	
Estimated Total Cost of Stage II		85,860.00
Stage III		
Bulldozing 60 hours @ $12.50/hr.	750.00	
Diamond drilling, 1,100 feet @ $6.00/ft.	6,600.00	
550 feet of cementing and re-drilling or reaming and casing @ $2.00/ft. for either	1,100.00	
40 samples assayed for mercury 1/ @ $4.00 each sample	160.00	
Estimated Total Cost of Stage III		8,610.00
Estimated Total Cost of Project		$132,000.00
Government Participation @ 75%		$ 99,000.00

1/ Including uranium assays when warranted.

Re: DMEA -3776 (Mercury)
Contrabando Dome
Presidio County, Texas

RECEIVED
OCT 17 1955

FBK
P.F.
LCW

G U A R A N T Y

In consideration of the waiver by the United States of America of the requirement of the Owner's Consent to Lien, as set forth in paragraph 2(G) of the attached Exploration Project Contract made and entered into between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration and Big Bend Mining, Inc., a corporation duly organized and existing under and by virtue of the laws of the State of Texas with an office located at 623 Mims Building, Abilene, Texas, the undersigned hereby guarantees the payment to the United States of America of royalties, under the terms of said contract and any amendment thereof. If for any reason the net smelter returns or other net amounts, from operations that would be subject, under said Contract and any amendment thereof, to such payments to the United States of America, are not available as a means of measuring the amount of such payment, then the undersigned agrees and undertakes to make such payment according to the best estimates of the amount that can reasonably be made, and in the event of dispute as to such estimate, the undersigned agrees that the determination thereof by either the Administrator of Defense Minerals Exploration Administration, or his designee, shall be final and binding upon the undersigned.

Dated: October 15, 1955

P. S. Kendrick

Geo. F. Fry

L. C. Whittiker

THE STATE OF TEXAS
COUNTY OF TAYLOR

BEFORE ME, the undersigned authority on this day personally appeared P. S. Kendrick, Geo. F. Fry and L. C. Whittiker known to me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

GIVEN under my hand and seal of office this 15th day of October, 1955.

Vivian Yardley

Vivian Yardley, Notary Public, Taylor County, Texas

RECEIVED

EXPLORATION PROJECT CONTRACT
Operator _____
Docket No. DMEA 3776
Contract No. Idm-E _____
Contract Date _____

CONSENT TO LIEN

To the United States of America:

Referring to that certain land in the County of PRESIDIO, State of Texas, described as follows:

Sections 105 and 109, Block 341, T.C. Railway Company, Presidio County, Texas

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; 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:

NONE

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

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, provided, however, that no such amendment or assignment shall serve to create any personal liability on the part of the undersigned.

5. Added Provision: NONE

Dated this 14th day of October, 1955.

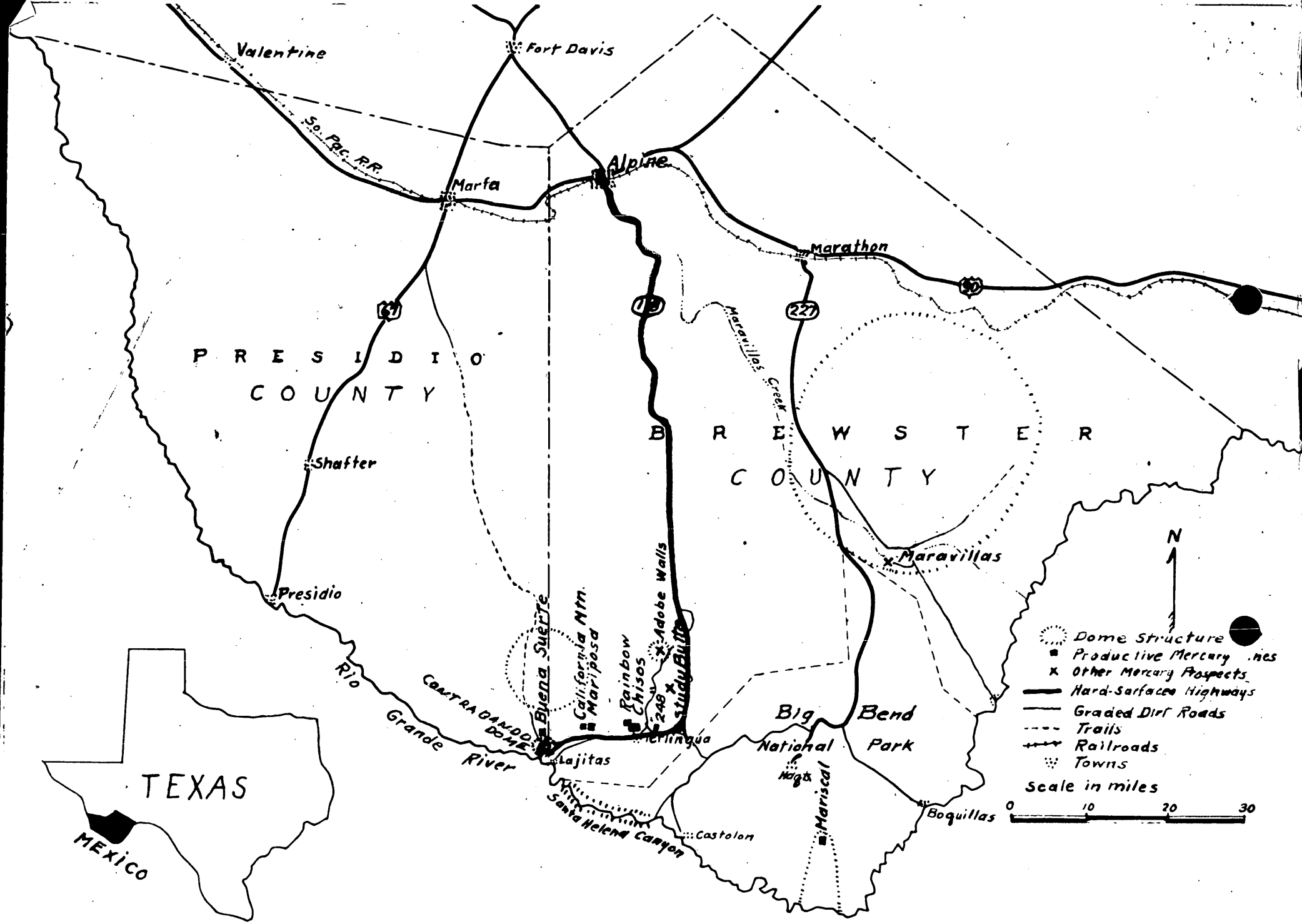
THE STATE OF TEXAS

COUNTY OF TOM GREEN.

BEFORE ME, the undersigned, a Notary Public, in and for said County, Texas, on this day personally appeared L. B. Horton, Walter E. Yaggy, Gordon Kenley and C. A. Duncan, known to me to be the persons whose names are subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, This 14th day of October, 1955.

Notary Public in and for Tom Green County, Texas.



Location of Mercury Mines and Prospects in the Big Bend Region of Texas

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

[redacted]

P. O. Box #431
Joplin, Missouri

April 13, 1955

Operation's Control and Statistical Div.
Defense Minerals Exploration Adm.
Department of the Interior
Washington 25, D.C.

Re: Big Bend Mining, Inc.
DMEA Application for
mercury exploration,
Presidio County, Texas

Dear Sirs:

Forwarded herewith for reviews and docket number assignment are the original and two copies of the subject application. One copy is being retained in the Field Team's file.

Sincerely yours,

Clinton C. Knox

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

Encl. (3)

cc: DMEA Op. Com. (2)
Big Bend Mining, Inc.
Box 269, Abilene, Tex.
Appl. pend. file

MF-103
(Revised April 1952)

RECEIVED
MINERALS TECHNOLOGY
DIVISION

APR 13 1955

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

Department of the Interior
Defense Minerals Administration
RECEIVED
APR 15 1955
BUREAU OF MINES

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. 3776
Metal or Mineral Mercury, Uranium
Date Received 4-15-55
Estimated Cost $263,992.78
Participation (Government %)

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: Big Bend Mining, Inc., Box 269, Abilene, Texas

(b) Texas Corporation
(c) P.S. Kendrick, Pres. 702 Sales Blvd.,Abilene, Texas, George F. Fry, V.P., 7306 Thurston, Dallas, Texas, Phil S. Kendrick, Jr. Sec. & Treas. 702 Sayles Blvd. Abilene, Texas.

(*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.

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

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

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 Section 105 and Sec. 109 , Block 341 T.C. Ry. Co. Survey , Presidio County, Texas

(*b*) State any mine name by which the property is known. None

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee (See attached lease)

(*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 attached lease and assignment

(*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. Land does not consist of unpatented claims

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. No mining operations

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. None

(*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. See attached description.

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

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

16—66551-1

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Cinnabar and uranium.

(*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. See attached description.

(*c*) The work will start within 30 days and be completed within 24 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. See attached statement

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: Att. State.

(*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.). See Attached statement - Para. #6

(*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. See Attach. Statement

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

(*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. See attached statement.

(*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. None.

(*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. None

(*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. See statement

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above. none

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 [x] 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 April 8, 1955, 195__

Big Bend Mining, Inc.
(Applicant)

By [signature] Pres.

[signature] Vice. Pres.

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

BIG BEND MINING, INC.
BOX 269
ABILENE, TEXAS

H. M. Wilson, who made the enclosed map, was a well known Geologist with many years experience in the Big Bend area. It was his work that discovered the Fresno mine in about 1938, in which he was a part owner. However, shortly after this map was made and prior to the actual discovery of the Fresno mine, he developed heart disease, and was never able to participate in working the mine. He died soon after it was in full operation, and no comprehensive program of exploration was ever attempted on this structure. To supplement the enclosed map, areal photographs of this area were made by the air force in 1943 and are now being used by the Soil Conservation programs. T. M. numbers 30 04, 30 03 and 30 126 as taken from the soil conservation files in Alpine, Texas will show three views of this structure from the air.

BIG BEND MINING, INC.
Box 269
Abilene, Texas

FORM MF-103

Re: Paragraph #4, Form MF-103, Section A

At quicksilver prospect marked "X", and numbered as location number one, in Section 109 on enclosed map, at some time in the past a shallow pit about 12 ft. deep and 8 ft. x 10 ft. in width and length was dug in an igneous out crop, carrying shows of cinnabar. This is a quartz porphry dyke. Surface indications show that an attempt was made to process this rock with a home made furnace. This project was not successful, because this rock does not carry sufficient cinnabar at this shallow depth to process.. At quick silver prospect marked "X" and numbered location number 2 several small pits 3 to 10 feet deep were dug in a similar dyke, carrying shows of cinnabar but as far as can be learned no attempt was made to process this rock as it clearly does not contain sufficient cinnabar. The few production facilities used at that time were very crude and none were left here. These prospects may be examined by walking about 1½ miles.

Re: Paragraph #4, Form MF-103 Section B

There has been no past production and there is no current production, and no known ore bodies.

Re: Paragraph #4, Form MF-103 Section C

As shown by the enclosed map sections 109 and 105, Block 341, TC Ry. Co. Survey, Presidio County, Texas are located on a closed domal type structure, which is on the South flank of the large Soltario uplift, immediately to the North and centering on the Presidio, Brewster Co. line. There are four Northeast trending faults on this structure, three of which are approximately on the apex of the dome and are on both sections 105 and 109. As is characteristic of the area, wherever there has been quick silver production in quantity, these Northeast trending faults are mineralized as evidenced by calcite veins with quick silver showings at various intervals in both Sections 105 and 109. These showings should be explored to sufficient depths to test the Del Rio clay, Georgetown Contact, since in most instances in this area, the Del Rio has stopped the ascending vapors at this point causing the ore to be deposited in the top section of the Georgetown lime which is usually thin bedded and porous in the top 100 feet. The richest ore of the district has been produced at the Rainbow and Mariposa mines on the Terlinqua anticline, a few miles Northeast of this location, and at the Fresno mine, one milw North of Section 105, at the Del Rio-Georgetown contact. Several quartz porphry dykes and stocks have been intruded in these Northeast trending fault planes. Other dykes having a Northwest trend have cut these faults, and as referred to in Section A contain very strong shows of cinnabar in the joint planes and shrinkage cracks. Some of this rock is permeated to a small degree with cinnabar and many of the quartz crystals have been replaced by cinnabar crystals. As indicated by drill locations shown on inclosed map these prospects should be cored to sufficient depth to explore the possibilities of ore bodies occuring both in the igneous rocks and in the limestones adjoining them since mineralization may

Re: Para #4, Form MF-103 Sec. C. (Continued)

have been much stronger with depth. In the indicated solutions cavities on the map drilling operations should be closely spaced and carried to sufficient depth to test possibilities. Surface indications, are such, that three of these cavities, probably cover large areas. While heretofore in this narration, reference has been made only to cinnabar, a recent survey of these faults with a scintillator has indicated, definite possibilities of uranium production at a number of the drill locations on enclosed map. Also in the past few days and exploration program in Section 49, 1½ miles Northeast of Sec. 105, assay reports of .28 uranium and just under 1% Vanadium and Berylium were read by the writer. Within the past two weeks the Bureau of Economic Geology of the Texas University in a press release, stated because of the numerous shows of carnotite the entire area should be thoroughly prospected for uranium. About 4 to 5 miles South of the Rio Grande and South of this structure cinnabar and carnotite are found deposited together.

The above conclusions were drawn from a personal, 4 day survey conducted March 30 and 31 and April 1 and 2, 1955 by George F. Fry, company vice-president, along with L. C. Whittiker, a man of 15 years experience in the mining district. The faulting on contrabando dome is exactly like that on the Terlingua anticline, and mineralization occurs exactly as on the Fresno claims in Sec. 106 adjoining 105 to the North where the Fresno Mine was developed. With these favorable structural conditions and the excellent shows in faults, dykes and solutions cavities, we believe that an adequate exploration program, will discover commercial ore on these properties. We do not believe assays of these surface showings would be of value, but many samples were tested by the Williamite screen process, to verify beyond question that these showings are cinnabar.

Re: Para. #4, Form MF-103, Section D

There is an unpaved road that passes across the East side of Section 105 and continues across the Southeast corner of Section 109. Casa Piedra 45 miles Northeast of this property is the nearest shipping point, however, the road to this point receives very little attention, because of this, Alpine, Texas 95 miles North will be the most practical railway point.

Re: Para. #4, Form MF-103 Section E

Fuel for operations will be acquired at Alpine and explosives may be purchased there. Drilling and maintenance supplies will be available in El Paso and Odessa, Texas. If mining operations are set up, it will be necessary to provide housing for some of the employees.

Man power, supplies, equipment, and materials are available in any quantities. Ample water is available in section 107 from Fresno Creek, and our lease includes water rights to this supply. In event of mining operations, power will be generated at the plant.

BIG BEND MINING, INC.
Box 269
Abilene, Texas

Re: Para. #5, Form MF-103, Section B

It is the intention of the applicant to carry out the proposed exploration program with rotary drilling equipment. We believe it will be feasible to use rock bits through the remnants of Austin and the Eagle Ford, Buda and Del Rio sections. Then core the top of the Georgetown where mineral shows indicate porribilities. However, it will probably be necessary to core the igneous dykes all the way, and of course in all sections where mineralization of samples indicate possibilities. It is contemplated that we will secure equipment that will drill angle holes so that if and when a hole runs off of a fault, we can get back on the fault by angle drilling. The operating units will consist of a truck mounted drilling rigs, probably HD 22 Joy with a 4 x 5 or larger mud pump. A four wheel drive water truck and a four wheel drive pickup for obtaining supplies, shipping samples to be assayed etc. Where visual mineral content, or Williamite Screen and/or other field test indicate, a part of each foot of core or samples will be combined with core or samples from several feet of drilling to be assayed.

There will be a man panning samples at all rigs under immediate attention of the supervisor at all times and where ever shows indicate possibilities, cores will be taken. Some of the drill locations appear to be closely spaced on the map, but on the ground they will not be so close. Many of them will be angle holes at different degrees of angle to test various horizons. However, if after drilling one, two, or three holes in closely spaced areas, and indications do not justify further drilling, we would ask the planned locations be amended to eliminate or change undrilled locations to other areas.

On the enclosed map, roads to locations appear to follow "round about" courses, and may in some instances appear to parrallel each other in close proximity, as for instance at drill areas #9 and #10. Area #10, however, is at the bottom of an escarpment 300 to 500 feet high, while #9 is on the fault in a ravine which drains in theopposite direction on the opposite side of a hill.

Re: Para. #5, Form MF-103, Section D

The President of this corporation has more than 30 years experience in oil field drilling with all types of equipment, and under most of the known conditions, and formations. It is contemplated that the writer, George F. Fry, supervise this project, and will be on the ground with the operations; his qualifications will include approximately 10 years of experience in the oil fields with various of drilling equipment and considerable mineral prospecting.

BIG BEND MINING, INC.
Box 269
Abilene, Texas

Paragraph 6

(a) By Contract: 46,400 feet of hole				
" 42,750 feet of hole	@ $4.00		171,000.00	
3,650 feet of core	6.50		23,725.00	194,725.00
14 holes 1000' deep		14,000		
19 " 900' "		17,100		
6 holes 850' "		5,100		
8 " 800' "		6,400		
1 " 600' "		600		
1 " 500' "		500		
9 " 300' "		2,700		
		46,400 feet		
(b) Labor - 2 Jack hammer men 400 hrs.	@ 1.625		650.00	
2 Men (1 for each rig) for panning samples and preparing same for analysis 7,680 hrs.	@ 1.50		11,520.00	
Supervision 24 months	@ 1,000.00		24,000.00	
Geologist 36 trips, 3 days each 108 days	75.00		8,100.00	
Geologist expenses			3,546.00	
Transportation 36 trips @ 68.50		2,466.00		
Meals and lodging 108 days @ 10.00		1,080.00		47,816.00
(c) 60 Cases of dynamite	@ 11.20		672.00	
6480 ft. of fuse	.03		194.40	
1120 caps	.03		33.60	
Fuel - 62½ gal. gas	.27		16.88	
12½ qts. oil	.30		3.75	920.63
(d) Rental on bulldozer 436 hrs. building roads to - and leveling drill sites	@ 12.50		5,450.00	
Rental on compressor 200 hrs.	1.20		240.00	
Rental on 4 wheel drive pick-up 1 month	100.00		100.00	
1110 miles with pick-up	.06		66.60	
This represents 4 trips to Alpine - the nearest supply point, 95 miles from lease 760 miles, transporting crew 10 miles per day -- 250 miles and 100 miles on lease				
Rental on 4 wheel drive pick-up 23 months @ 100.00			2,300.00	
41,760 miles with pick-up	@ .06		2,505.60	
Transporting crews from camp to lease (2 trips per day) 400 miles per month for 24 months		9,600 miles		
48 trips to telephone at Big Bend National Park 50 miles away		4,800 "		
To Alpine 95 miles, nearest supply point, 6 trips per month 144 trips @ 190 miles		27,360 miles		
		41,760 miles		
Rental bulldozer and maintainer for maintaining roads for 24 months 80 hrs.	@ 12.50		1,000.00	11,662.20
(g) Accounting:				
1 Bookkeeper 24 months	@ 300.00		7,200.00	
Analytical work:				
300 samples and cores	@ 3.00		900.00	
Mailing 300	1.00		300.00	
Workmans Compensation, employers liability insurance and payroll taxes			468.95	8,868.95
		Total		$263,992.78

BIG BEND MINING, INC.
Box 260
Abilene, Texas

The road from Alpine to the property, after it leaves the pavement at Study Butte, is not good, but useable. This, of course, will result in additional wear on equipment using it. The topography of this structure is very rough and much blasting and bulldozer work will be necessary as indicated in Paragraph #6. While this property is located in a very remote section of the area, about 50 miles from the nearest telephone and 12 miles from the Terlingua post office, and considerable distance from rail points, the fact that the Fresno Mine was developed just north of this property and is now being re-activated plus the experience of the supervisory personnel leaves no question as to the possibilities of this project being efficiently carried out.

In view of these conditions and the nature of the work to be done, which may involve contingencies unknown at this time, we feel that it would be more satisfactory for both us and the government, and we believe that the job can be more efficiently done on a unit cost basis. Therefore, we will complete the job as outlined, 46,4000 ft. of hole with coring included for $5.50 per foot for all footage.

BIG BEND MINING, Inc.
Box 269
Abilene, Texas

STATE OF TEXAS)
)
COUNTY OF PRESIDIO)

THIS INDENTURE, Made this _____, 1955, by and between E.G. Bledsoe and Elizabeth Bledsoe, whose address is Big Bend National Park, Brewster County, Texas, and L.B. Horton and W.E. Yaggy and Gordon Kenley and C.A. Duncan, Whose address is San Angelo, Tom Green County, Texas, herein (whether one or more) called Lessor, and P.S. Kendrick and L. C. Whittiker, whose address is Abilene, Taylor County, Texas, and George F. Fry, whose address is 7307 Thurston Drive, Dallas, Dallas County, Texas, herein (whether one or more) called Lessee, have this day entered into the following agreement, WITNESSETH:

PROSPECT DRILLING CONTRACT

1. Immediately upon the acceptance of this contract and the payment of lessee to lessor One Thousand Two Hundred Eighty Dollars as one year's rental, lessee shall have the right to go upon Surveys 105 and 109, Block 341, T C Ry Co., Presidio County, Texas, each survey containing 640 acres, more or less, and begin exploration work for metalic ores and continue such work for a period of one year.

2. Lessee agrees to begin work on or before 90 days from the date hereof and having begun work is obligated to pursue same diligently and continuously until 7200 feet of core or churn drilling have been completed. However, it is especially understood and agreed should lessee so request and pays to lessor One hundred fifty Dollars ($150.00) per month for an extension of the time for commencing the work, then in that event the time for commencing the drilling operation shall be extended as much as four months, and such procedure shall automatically extend the time and life of this contract a like period.

3. Lessee shall be obligated to prepare a correct map

and supply two copies of same to Lessor showing the location of each hole drilled and to keep a correct log of each hole drilled, and two correct copies of said log shall be furnished to Lessor upon completion of each hole. All cores and cuttings are to be preserved by Lessee for the inspection of Lessor and none of same are to be destroyed without written consent of Lessor.

4. The Lessor shall have the right to enter in person or by representative upon the premises which Lessee is doing exploration work, to make inspections and examinations, so as to keep themselves informed of the progress and results of the work.

5. At any time after completing the aforesaid 7200 feet of drill holes, Lessee shall have the right to withdraw from the premises and to terminate this contract upon the following conditions: (a) All drill holes shall be properly capped for preservation; (b) All pits shall be properly covered to protect the lives of men and animals; (c) Lessee shall give written notice to Lessor that the exploration work is finished and Lessee desires to relinquish all claims whatsoever to said premises.

At the expiration of said 12 month period and after having completed 7200 feet of prospective drilling, by virtue of having done such work, lessee shall at his option be intitled to all the right and privileges as herein below set out in a mining lease.

6. If, at any time on or before the end of the said twelve months period, the Lessee has discovered sufficient metalic ore bodies on said property to justify working and developing same, Lessee shall notify Lessor in writing, and upon such notice all the terms and conditions of the following Lease Contract between the Lessor and Lessee shall immediately become of full force and effect, and it is especially understood and agreed that in such an event the time for completing the drilling contract shall be extended

for a period of two years.

MINING LEASE

7. In consideration of the royalties and rentals hereinafter set out, and of the covenants, agreements and obligations to be kept and performed by Lessee, Lessor does by these presents, lease, demise and rent, with all rights of egress and ingress, and with all rights necessary for construction and installation of buildings and equipment for mining purposes, the said surveys hereinabove described for a period of ten years, commencing with the date hereof, for the purpose of mining and taking from said property metallic ores only, and as long thereafter as metallic bearing ores in commercial quantity are found on said property, as hereinafter provided for.

8. TO HAVE AND TO HOLD said leased premises for the period of ten (10) years from the date hereof, and as long thereafter as the covenants and agreements hereinafter set forth are kept and performed, unless sooner forfeited or terminated through the violation of any covenant, agreement or condition hereinafter contained to be kept and performed by Lessee.

IN CONSIDERATION WHEREOF Lessee does hereby covenant and agree with Lessor the following, to-wit:

9. To immediately begin the working of said premises for the extraction of metallic ores therefrom and to continue said work diligently and continuously during the term of this lease. However, it is specifically agreed that if and when grade and quantity of ore and domestic market price should cause said mining operation to fail to return reasonable profits, lessee may cease operations while such conditions exist and the cessation of operation shall not be cause for cancellation of forfeiture of this lease.

10. Lessee agrees that all development and mining operations on the property will be in accordance with accepted engineering and mining practices, and will comply with all State and Federal

laws pertaining to mining. Lessee further agrees to keep a true and correct map of all underground workings, and a true and correct map of all surface operations showing the location of all shafts, vents, core drilled holes, churn drilled holes and to make said map or maps available to Lessor or his authorized representative at any and all reasonable times for the purpose of information and for making copies of same if so desired. Lessee further agrees to keep a true and correct log of all prospective core drilled holes and of all prospective churn drilled holes and to supply two true and correct copies of said logs to Lessor upon completion of each hole.

11. Lessee agrees to allow Lessor or his duly authorized agent at any and all times, so as not to interfere with the order and workings of the operation, to enter all places of the leased premises and the workings thereon for the purpose of inspection, taking samples, making surveys, and obtaining information of the entire operation conducted under this lease, and to have access to all engineering and geological reports, log records, assay reports, and all production records, and all sales records.

12. Lessee agrees to keep a correct account of the tons of ore mined, by weight or measure, to whom sold and the price received therefor, which accounts shall be open for inspection of Lessor or his authorized agent at all reasonable times.

13. Lessee shall refine all mercury ores produced on said premises and keep a true and correct account, by weight or measure, of the tons of ore treated by furnacing or otherwise refined, and the number of pounds of mercury recovered therefrom. Said ores shall not be refined in retorts but shall be refined in a modern rotary furnace of not less than thirty tons capacity for each twenty-four hour period. And said furnace shall be equipped with a modern condensing equipment to secure the greatest efficiency in recovery of mercury. In event Lessee shall have cause

to treat mercury ores from property not herein described, such ores and the product thereof shall not be commingled with the ores extracted from the property herein leased.

14. Lessee agrees to pay all taxes assessed against the leased premises whether so assessed by National, State, County or other political subdivisions, and the taxes shall be paid within the first thirty day period after they have become due and receivable by the Tax Collector of the Taxing Unit. In event Lessee shall fail to pay such taxes or other local obligations when due, Lessor may pay the same, and the amount thereof so paid shall immediately become a lien upon the interest of the Lessee and the property, but in case Lessor does not desire to make such payment he may declare a forfeiture of the entire lease as is herein provided.

15. It is understood and agreed that any time lost by reason of strikes, riots, acts of God, or the public enemy, or inevitable delays shall not run against the time or times herein specified, although it is understood and agreed that in all other respects time is the essence of this agreement.

16. Lessee agrees to pay Lessor a royalty of ten (10) percent of the gross production of all mercury produced from the ore mined on said premises, which royalty shall be put in flasks and delivered to Lessor at the most convenient railway station. Lessee shall notify Lessor in writing of each shipment of mercury made and state the date, the number of flasks shipped, and to whom the mercury is consigned and make a statement showing how Lessor's royalty was determined. Except it is especially agreed, however, that it shall be the privilege of Lessor to direct Lessee in writing to make settlement by paying unto Lessor ten (10) per cent of the gross value of the production. Then in that event Lessee shall supply Lessor with two copies of all sales transactions showing the date, to whom sold, the quantity, the quality, and the price received.

17. As to all other metallic minerals which may be taken from said property, Lessee shall pay Lessor a royalty of eight (8) per cent of the gross value received from same. Lessee shall cause the ore to be delivered to the nearest smelter or market and sell same for the current market price, and settle with the Lessor on the assayer's report and the smelter return, two copies of which shall be furnished the Lessor and settlement shall be made to Lessor upon the completion of each sales transaction.

18. Lessee agrees to pay Lessor a monthly rental of One Hundred Six and 66/100 Dollars ($106.66), or that certain royalty hereinabove stipulated, which ever is greater, during the life of this lease. Settlements for royalties and rentals shall be made on or before the tenth day of each month, paid by check and distributed as follows: one-half paid to E.G. Bledsoe and Elizabeth Bledsoe or their authorized agent, and mailed to the address herein first given or to such other address that may be supplied by them in writing. The remaining one-half shall be paid as follows: One fourth to L.B. Horton; one fourth to Gordon Kenley; one fourth to W.E. Yaggy and one fourth to C.A. Duncan, or their authorized agent and mailed to their address herein given, or such other address that may be supplied by them in writing.

19. Lessee shall have the right to transfer or assign his interest under this lease and all the terms of this agreement shall be binding and enforceable against the heirs, the executors, administrators and assigns of the parties hereto. However no assignments made by lessee shall be for a parcel of land containing less than 160 acres and in event such an assignment shall be made and a commercial ore body is discovered on such assignment, then in that event the minimum rental or royalty paid to the lessor hereof shall be One Hundred Dollars ($100.00) per month.

20. So long as this lease is in force, Lessee shall have an

equal right, an equal right only, with all parties who now have or with all parties that may have at some future date, a permit from Lessor to secure water for mining purposes only from Survey 107, Blk, 341, T.C. Ry. Co., in Presidio County, State of Texas.

21. In event of the termination, expiration, forfeiture or abandonment of this lease for any cause whatsoever, then in that event, Lessee shall and will peacefully surrender and yield up the said premises and every part and portion thereof, to Lessor, free and clear of all encumbrances; and Lessee shall and will declare his intention of the said termination by written notice delivered to the Lessor thirty (30) days prior to the date of termination; and such notice shall be accompanied with a payment of all royalties and rentals due Lessor together with payment of Lessee's proportionate part of the taxes for the current year whether due or not yet due, thereupon Lessee shall be relieved of all obligations hereunder with like effect as if this lease had not been made.

22. Upon the termination of this lease, Lessee shall have and is hereby given the right to move within one year, any machinery, tools, pumps, engines, motors, water tanks, pipe line, and all other equipment placed by Lessee on said property during the life of this lease, but such right of removal shall not include or apply to ladders, and mining timbers placed beneath the surface or at shaft collars. It is especially understood and agreed that Lessee shall not and will not remove from the premises herein leased any part or portion of the said machinery, tools, pumps, engines, motors, water tanks, pipe lines, and other equipment so long as the Lessee is in any wise indebted to Lessor or owes any debt that might become a lien upon the property herein leased.

23. In case of willful failure and continued negligence of Lessee to keep and perform the terms of this lease, lessor may give thirty (30) days written notice of the violation complained of and if such violation or default is not removed within said period, said lease shall thereupon terminate at the option of the Lessor.

STATE OF TEXAS ⦚
COUNTY OF TAYLOR ⦚

KNOW ALL MEN BY THESE PRESENTS:

That we, Geo. F. Fry, L. C. Whittiker, P. S. Kendrick, Wilma Kendrick Lucas, and Phil S. Kendrick, Jr., for and in consideration of the sum of Ten and No/100 Dollars and other valuable consideration to us in hand paid by Big Bend Mining, Inc., a corporation duly incoporated under the laws of the State of Texas, the receipt and sufficiency of which is hereby acknowledged, do hereby assign, transfer, set over and convey unto the said Big Bend Mining, inc. the following described mineral leases and mineral awards issued from and out of the General Land Office of the State of Texas and described as follows, to-wit:

A.

1. One prespect drilling contract and mineral lease executed by and between E. G. Bledsoe and Elizabeth Bledsoe, L. B. Horton, W. E. Yaggy, Gordon Kenley and C. A. Duncan as Lessors, and P. S. Kendrick, L. C. Whittiker and Geo. F. Fry, as Lessees, leasing the following described land situated in the County of Presidio, State of Texas, to-wit:

> Surveys Nos. 105 and 109, Block 341, T C Ry. Co. lands in said Presidio County, Texas, each survey containing 640 acres, more or less.

which lease is dated the 25 day of March, 1955, and covering metallic ores in and under the above described lands.

2. A lease agreement made by and between L. B. Horton, W. E. Yaggy, Gordon Kenley and C. A. Duncan as Lessors, and P. S. Kendrick, L. C. Whittiker and Geo. F. Fry as Lessees, granting a lease on the same lands described above under Subdivision 1 and covering all the non-metallic minerals and ores except oil and gas in and under the above described lands, dated as of even date with the foregoing lease covering the metallic minerals.

B. The following Mineral Awrds which have been issued from and out of the General Land Office of the State of Texas;

The following mineral Awards out of the Northwest part of Section 6, Block G-11, James H. Miller Survey in Brewster County, Texas:

1. Mineral Award No. 36840 dated June 10, 1951, containing 20.66 acres of land, the field notes recorded in Surveyor's Records of said County

in Book RMC3, page 275, which award is also recorded in Volume 119, page 374, Deed Records of Brewster County, Texas.

2. Mineral Award No. 36841 dated June 10, 1951, containing 20.66 acres of land, the field notes recorded in Surveyor's records of said County in Book RMC3, page 274, which award is also recorded in Volume 119, page 374, Deed Records of Brewster County, Texas.

3. Mineral Award No. 36839 dated June 10, 1951, containing 20.66 acres of land, the field notes recorded in Surveyor's Records of said County in Book RMC3, page 276, which award is also recorded in Volume 119, page 375, Deed Records of Brewster County, Texas.

4. Mineral Award No. 37267 dated July 19, 1951, containing 12.43 acres of land, the field notes recorded in Surveyor's Records of said County in Book RMC3, page 278, which award is also recorded in Volume 119, page 376, Deed Reocrds of Brewster County, Texas.

5. Mineral Award No. 37268 dated July 19, 1951, containing 20.66 acres of land, the field notes recorded in Surveyor's Records of said County in Book RMC3, page 277, which award is also recorded in Volume 119, page 377, Deed Records of Brewster County, Texas, and corrected by a Corrected Award recorded in Volume 120, page 500 of the Deed Records of Brewster County, Texas.

6. Mineral Award No. 37269 dated July 19, 1951, containing 16.53 acres of land, the field notes recorded in Surveyor's Records of said County in Book RMC3, page 278, which award is also recorded in Volume 119, page 377, Deed Records of Brewster County, Texas.

7. Mineral Award No. M-39506 dated October 8, 1952, containing 20.66 acres of land, the field notes recorded in Surveyor's records of said County in Book RMC3, page 281, which award is also recorded in Volume 123, page 489, Deed Records of Brewster County, Texas.

The following mineral award located in Section 4, Block TJSF 11493:

8. Mineral Award No. M-39505 dated October 8, 1952, containing 7.36 acres of land, the field notes recorded in Surveyor's Records of said County in Book RMC3, page 280, which award is also recorded in Volume 123, page 488, Deed Records of Brewster County, Texas.

C. The following claims for which applications have been made but on which Mineral Awards have not yet been issued. The field notes of the following nineteen claims are recorded in the Surveyor's Records of Brewster County, Texas, in Book RMC5, pages 33 to 51, inclusive, and such claims are all located in Section 6, Block G-11, James H. Miller Survey in Brewster County, Texas, with the exception of the two claims listed below as Numbers 2 and 4, which two claims are located in part of Section 4, Block TJ, S. F. 11493 in said Brewster County, Texas, and the applications to said claims being recorded in the Surveyor's Records of said County as follows:

Danny Boy	Book RMC5, page	533
Anna Laura	"	468
Ruby	"	472
David W.	"	473
Oscar M.	"	474
Albert P.	"	475
Sally	"	476
Rosa Lee	"	481
Elija N.	"	482
Buster's #1	"	470
#2	"	535
#4	"	537
#7	"	538
#8	"	539
#10	"	480
#11	"	479
#12	"	478
#20	"	469
#22	"	471

All of the recordings are here referred to for better description of the above described property and it is the intention of the parties hereto to convey all of their interest right and title of every

nature in and to the above described leases, mineral awards and applications for mineral awards, subject only to the terms and conditions as set out in assignment from L. C. Whittiker to Geo. F. Fry, P. S. Kendrick, Wilma Kendrick Lucas and Phil S. Kendrick, Jr. and recorded in Book _____page _____of Deed Records of Brewster County, Texas reference to which is hereby made for all purposes.

TO HAVE AND TO HOLD unto the said Big Bend Mining, Inc., its successors and assigns the above described tracts, leases, mineral awards and interest according to the terms hereof and we further covenant and warrant that we have good right to convey the rights and titles conveyed herein free and clear of all liens and encumbrances except future obligations hereafter accruing to the State of Texas.

WITNESS our hands this 25 day of March, 1955.

/s/ Geo. F. Fry

/s/ L. C. Whittiker

/s/ P. S. Kendrick

/s/ Wilma Kendrick Lucas

/s/ Phil S. Kendrick, Jr.

STATE OF TEXAS

COUNTY OF TAYLOR

Before me, the undersigned authority, on this day personally appeared GEO. F. FRY, known to me to be the person whose namex is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 25 day of March, 1955.

/s/ Vivian Yardley
Notary Public, Taylor County, Texas

seal

STATE OF TEXAS

COUNTY OF TAYLOR

Before me, the undersigned authority, on this day personally appeared P. S. KENDRICK, WILMA KENDRICK LUCAS, AND PHIL S. KENDRICK, JR. known to me to be the persons whose names are subscribed to the foregoing instrument, and acknowledged to me that they each executed the same for the pupposes and consideration therein expressed.

Given under my hand and seal of office this 25 day of March, 1955.

/s/ Vivian Yardley
Notary Public, Taylor County, Texas

seal

STATE OF TEXAS

COUNTY OF TAYLOR

Before me, the undersigned authority, on this day personally appeared L. C. WHITTIKER, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office, this 25 day of March, 1955.

/s/ Vivian Yardley
Notary Public, Taylor County,
Texas

seal

BIG BEND MINING, Inc.
Box 269
Abilene, Texas

DRILL AREA	No. of Holes		
#1	6	3 @ 300'	3 @ 900'
#2	3	1 @ 300'	2 @ 900'
#3	3	1 @ 300'	2 @ 900'
#4	3	1 @ 300'	2 @ 800'
#5	4	1 @ 300' 1 @ 500'	2 @ 800'
#6	3		3 @ 900'
#7	6		6 @ 850'
#8	2		2 @ 800'
#9	2		2 @ 900'
#10	4	2 @ 800'	2 @ 900'
#11	5		5 @ 900'
#12	1		1 @ 1000'
#13	1		1 @ 1000'
#14	4		4 @ 1000'
#15	1		1 @ 1000'
#16	1		1 @ 1000'
#17	3		3 @ 1000'
#18	2		2 @ 1000'
#19	1		1 @ 1000'
#20	3	2 @ 300'	1 @ 600'
Total	58		

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5-12	Chapman	400
5-12	Newton	400
5/14	Talbot	800
15		120
	NS M	400
		110
15	[illegible]	100
5/16	C	220

MAY 15 1958

Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: Docket No. DMEA 3776- Mercury
Contrabando Dome Project
Presidio County, Texas
Contract No. Idm-E893

Gentlemen:

This is with reference to the subject exploration Contract between you and the Government.

It is not our intention to issue a certification of discovery or development which would create a lien against the property. We are therefore closing our books and records with respect to this project. At this same time your attention is called to the provisions of the contract requiring the operator to keep and preserve certain records for the period indicated.

We regret that the exploration work performed did not result in a discovery or development. Your participation in the exploration program, however, is sincerely appreciated.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

TLCHAPMAN/dlm 5-9-58

cc to : Code 400
Admr. R. File
Oper. Comm.
REGION IV
Code 800
Code 110

Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

CC to : Messrs. L. B. Horton
W. E. Yaggy
Gordon Kenley
C. A. Duncan

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5-12	Chapman	400
5-12	Martin	400
5/14	Talbert	800
5/15	Selfridge	130
5/15	Johnson	110
"	Mittendorf	100
		220

Letters to:

Mr. W. E. Yaggy
San Angelo, Texas

Mr. Gordon Kenley
San Angelo, Texas

Mr. C. A. Duncan
San Angelo, Texas

MAY 15 1958

Mr. L. B. Horton
San Angelo
Tom Green County, Texas

Re: Docket No. DMEA 3776 - Mercury
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas
Contract No. Idm-E893

Dear Mr. Horton:

Reference is made to the Consent to Lien which you executed on October 14, 1955, in connection with the DMEA contract for an exploration project on your property located in Presidio County, Texas.

For your information, there is enclosed a copy of our letter of this date to Big Bend Mining, Inc., advising that the Government retains no lien or claim against the property described in the contract or any future production therefrom.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

TECHLEMAN/dlm 5-9-58
Enclosure
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. IV
Code 800
Code 110
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaards, USGS

8623

No comment made regarding receipt and adequacy of Operation-final report.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5-12	Chapman	400
5-12	Martin	400
		110
		100
		220

May 9, 1958

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys

Subject: Closing of project without certification of discovery or development
Docket No. DMEA 3776 - Mercury
Big Bend Mining, Inc.
Contrabando Dome Project
Presidio County, Texas
Contract No. Idm-E893

The Government after substantial completion of Stages I and part of II of the project did not approve continuance of any work in Stages II or III. This met the approval of the Operator and the project was closed.

Big Bend Mining, Inc., on April 8, 1955, made application for exploration assistance for road building and drill sites and diamond drilling at an estimated cost of $263,992.78.

The property was examined by Clinton C. Knox, Bureau of Mines, and a Report, dated September 8, 1955, was submitted, recommending road building, site preparation and diamond drilling at an estimated cost of $134,500.00.

Applicant: Big Bend Mining, Inc. (Subsidiary of Kendrick Oil Co.)
Box 269
Abilene, Texas

Property Ownership: Sections 105 and 109, Block 341, T. C. Ry., containing approximately 1,280 acres owned by E. G. Bledsoe, and Elizabeth Bledsoe, Brewster County, Texas, and L. B. Horton, W. E. Yaggy, Gordon Kenley and C. A. Duncan, San Angelo, Tom Green County, Texas, were leased to P. S. Kendrick and L. C. Whittiker, Abilene, Texas and George F. Fry, Dallas, Dallas County, Texas, by a Lease dated March 25, 1955. The aforesaid lease was assigned to the Big Bend Mining, Inc., on March 25, 1955.

The Applicant also holds Section 108 in the same block as Section 105 and 109 by a Prospecting Permit from the State of Texas.

Geology: The Contrabando Dome area is underlain by a thick series of Cretaceous formations that are intruded by Tertiary igneous rocks, and are covered in places by Tertiary volcanics. The Cretaceous stratigraphic section is approximately as follows:

Formation	Thickness	Description
Austin	500 feet	Impure limestone and marly shales
Eagle Ford	500 feet	Also called Boquillas Flags, thin bedded limy shales and limestone
Buda	80 feet	Dense, nodular, pure limestones. Locally containing mercury
Del Rio	120 feet	Dark gray or bl[illegible] May form cap over m[illegible]ts.
Georgetown	100 feet?	Bedded, locally [illegible] coarse grained limestones. [illegible] favorable host for mercury deposits.
Edwards	900 feet	Massive, compact gray limestone.

Igneous instrusives are abundant in the area, forming dikes, sills, laccoliths and small pipe like masses. The above mentioned formations are deformed by broad open folds, domes and steeply dipping faults.

Past History and Production: The Contrabando Dome area is within the Terlingua District from which about 150,000 flasks of mercury have been produced. Only three flasks have been produced from the subject area. This mercury was produced from shallow workings. While the sparse superficial mercury showings on Contrabando Dome are only of passing interest, they are considered reliable leads to mercury deposits in the Georgetown limestone.

Development: Development at time of application consisted of pits, cuts, short adits and a shallow shaft.

Contract: Contract No. Idm-E893 was issued to the Applicant on November 3, 1955. The work authorized was in three stages as follows:

Stage I

Bulldoze approximately 1,500 feet of access road and drill sites for 17 holes. Drill 7 diamond drill holes to depths of 600 to 800 feet each, with a maximum total of 4,900 feet at an estimated total cost of $37,530.00.

Stage II

Diamond drill 17 holes from 600 to 800 feet deep, with a total not to exceed 12,000 feet at an estimated cost of $85,860.00.

Stage III

Bulldoze approximately 3,000 feet of access road and prepare sites for, not to exceed, 9 drill holes. Diamond drill one hole not to exceed 1,100 feet and any holes that may be left from Stage II. Total cost not to exceed $8,610.00.

Estimated total cost of the project	$132,000.00
Government participation, 75 percent	99,000.00

Amendment No. 1. Delete all the stipulation in Stage I, under Description of the Work. Diamond drill not to exceed 9 holes from 485 to 800 feet in depth. The total not to exceed 4,900 feet. No change in cost.

Amendment No. 2. Change position of two holes, with no change in the maximum drilling and no change in cost.

Amendment No. 3. Change depth of two holes. No change in the total footage or cost.

Work Completed: Work completed consisted of the following:

Stage I

Bulldozing 71½ hours at $12.50/hr.	$ 893.75	
Bulldozer transportation	25.00	
Diamond drilling 8 holes, 4,721 feet at $6.00/ft.	28,326.00	
Cementing and redrilling at $2.00 per foot, 628 feet	1,256.00	
Reaming and casing at $2.00/ft. 734 feet	1,468.00	
Total		$31,968.75

Stage II

Diamond drilling, 1 hole 612 feet at $6.00/ft.	$ 3,672.00	
Reaming and casing, 62 ft. at $2.00 per foot	124.00	
Sample analysis 4 samples at $4.00 each	16.00	
Total		3,812.00
Total cost of the project		$35,780.75
Government participation 75 percent		$26,835.56

By mutual agreement the project was terminated at this point.

The Operation as a whole was generally inefficient and costly.

Ore Values
and Reserves: No ore was found by the operation and there are no ore reserves.

Comments and
Conclusions: The Field Team feels that as nine holes have been drilled through tough intrusive rock without reaching the Georgetown limestone at a depth of 662 feet further drilling is not warranted, and recommends no certification of the project. This Division concurs in the conclusions and recommendations of the Field Team.

W S Martin
W. S. Martin, Director
Division of Iron and
Ferro-Alloys

Reports: The Operator's report received April 1, 1957, was adequate.

The Field Team's report was received on November 6, 1957.

TLCHAPMAN:
cc to: Docket
Code 400
Admr. R. File
Mr. Johnson

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 14 1958

DATE	INITIALS	CODE
1/14	C	220
	WSM	400

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

January 13, 1958

Re: DMEA 3776, Idm-E893
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas
Mercury

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team Final Report

The contract, entered into late in 1955 or early 1956, approved the expenditure of $132,000 on a bold search by drilling for blind mercury-bearing structures in the Cretaceous Georgetown limestone. The most favorable structures are pronounced anticlinal folds or domes, faults, and breccia pipes and rubble filled solution caverns. The Georgetown limestone does not crop out in the immediate vicinity, being covered by several hundred feet of Cretaceous sedimentary strata and, as proved by drilling, an unknown thickness of rhyolite.

The intrusive mass is believed to be a sill or laccolith. It is represented at surface by at least two dikes, which carry traces of mercury. Mercury in small amounts, reportedly 3 flasks, has been recovered from surface pits in strata well above the Georgetown limestone, the most favorable host rock in the highly productive Terlingua district mines.

Not one of the 9 holes (5,333 feet) drilled reached the postulated target horizon due, as interpreted, to the unexpected thickness and difficulty in drilling the rhyolite sill or laccolith. One hole, 9-9, penetrated the mass for 487 feet and bottomed in the rock. One hole near the prospect pit contained significant traces of cinnabar, otherwise the results were negative so far as finding mercury are concerned.

The contract was terminated January 17, 1957, $35,780.75 having been spent, of which the Government contributed $26,835.56.

The Field Team recommends that no certification be made. I concur with the recommendation.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
Box 431
Joplin, Missouri
October 30, 1957

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DMEA
RECEIVED NOV 4 1957

DATE	INITIALS	CODE
11/4	gb	220
11/4	JB	130
"		110
11/6	JB	130
11-6	C	220
11/8	RLC	400

DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: DMEA-3776(mercury)
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas
Project Contract Idm-E893

Dear Sirs:

Without further delay, furnished herewith are the original and two copies of a Field Team Final Report as prepared by me some months ago on the cited project where work was terminated last January.

I believe this report adequately covers all the essential information so far made available, and I trust it will be deemed to suffice as the Field Team's Final Report required in closing this docket.

Sincerely yours,

Clinton C. Knox

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl. 3

cc: DMEA Op.Com.(2)
King,USGS,Denver
3776 file

FT FINAL REPORT

Reviewed by
DMEA OPERATING COMMITTEE
11-6-57
(Date)

OFFICIAL FILE COPY
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RECEIVED NOV 4 1957

DATE	INITIALS	CODE
11/4	2/B	120
		220

FIELD TEAM FINAL REPORT
on
TERMINATED EXPLORATION PROJECT

CONTRABANDO DOME
LAJITAS, PRESIDIO COUNTY, TEXAS

by

Clinton C. Knox, Mining Engineer, U. S. Bureau of Mines

Docket DMEA-3776, (mercury-uranium)
Big Bend Mining, Inc.
c/o Kendrick Oil Company
702 Sales Boulevard
Abilene, Texas

August 20, 1957

Summary and Conclusions

Diamond drilling of nine holes, aggregating 5,333 feet of bore at the very widely spaced preliminary sites in the 3-square-mile Contrabando Dome project area, failed to reach the prime exploration target. That postulated mercury ore target was to have been the top Georgetown limestone strata at previously estimated depths normally about 400 feet below the surface; possibly 800 feet in some of the indicated sink structures.

Samples from one hole near a prospect pit on a mercury-bearing fracture zone in an igneous rock outcrop, probably a dike, contained significant traces of cinnabar to 85 feet in depth; otherwise, all the drilling results were negative.

Reviewed by
DMEA OPERATING COMMITTEE
11-6-57
(date)

The strata uplift of the Contrabando Dome structure, appearing not in excess of a maximum of 350 feet, had been attributed to a previously inferred laccolith or sill with dike-like offshoots which crop out along the steep-dipping fracture systems of the area. After the laccolith had been core drilled as far as deemed possible, or practical for the preliminary phase of the project in each of nine holes, the most logical-appearing one was selected and deepened in the final effort to penetrate through the exceptionally hard and tough igneous rock to reach the postulated underlying Georgetown limestone. After the very difficult and costly drilling of 487 feet in the igneous rock failed to reach through it, drilling was terminated at 662 feet below the surface in that final test.

The Field Team concluded that even if significant mercury mineral depositions on downward extensions of the cinnabar-bearing outcrops along fractures could be pinpointed in structural traps beneath the inferred igneous laccolith, the exploration, development and mining of them certainly would prove impractical and uneconomic in the foreseeable future. Therefore, no further project work was approved.

Recommendations

1. Additional exploration does not appear to be justifiable.

2. DMEA should not certify a discovery.

3. No production is economically feasible on the known shallow cinnabar occurrences.

Completed Work

Work under the subject Contract and subsequent three amendments thereto, including road and drill site bulldozing, was started March 14, 1956, and the diamond drilling was terminated January 17, 1957, with the Field Team's endorsement, and for want of justification for any further work.

As stated in the Operator's Final Engineering and Geological Report, accepted by the Field Team on April 1, 1957, the completed units of work under "Stage I" of the Contract are as follows:

Bulldozing $71\frac{1}{2}$ hrs. @$12.50		$ 893.75
Bulldozer transportation		25.00
Diamond drilling(8 holes)	4,721 ft.@$6.00	28,326.00
Cementing and redrilling	628 ft.@$2.00	1,256.00
Reaming and casing	734 ft.@$2.00	1,468.00
	Stage I costs	$31,968.75

In addition, the completed units of work on the only "Stage II" hole(No. 9-9) approved(7-30-56) by the Field Executive upon the formal request of the Operator, are as follows:

Diamond drilling(1 hole)	612 ft. @$6.00	$ 3,672.00
Reaming and casing	62 ft. @$2.00	124.00
Sample analyses for Hg	4 @$4.00	16.00
	Stage II costs	$ 3,812.00

Total accepted costs of the project	$35,780.75
Total Government(75%) participation paid	$26,835.56
Government's share unexpended	$72,164.44

Because this was a unit-cost Contract, the Government did not contribute directly to the costs of any of the equipment purchased for this project work, and claimed no interest therein.

All cores were tested for uranium with a Geiger counter with negative results. Only three selected samples from the "Stage II" (No. 9-9) hole showed significant traces of cinnabar. Of course, no production ensued, or appears likely to ever be economically feasible in this project area.

Efficiency of Project Operations

This being the first mining exploration experience by the Operator and the drilling subcontractor, the work progressed very slowly, was recessed at intervals, and generally appeared inefficient and unduly costly.

Necessitating much unusual effort and expense, the drilling subcontractor, Kendrick Oil Company of Abilene, Texas, recruited generally through the Joy Manufacturing Company, a succession of new diamond drillers as the frequent needs arose. Until Mr. W. G. Freeman was employed to complete drilling of the final hole(No. 5-6), obviously none of the previous drillers proved competent, willing, or able to cope with some of the hard tough igneous rock encountered and/or the remoteness of the project camp from any ordinary community life.

When I made the final inspection of this Contrabando project for the Field Team last February 20, a month after termination of the project work, Mr. Freeman was operating the diamond drill of the Kendrick Oil Company 40 miles to the northeast, on a hole then 500 feet in depth, at the Adobe Wall Dome project proposed in application DMEA-3787(mercury). Mr. P. S. Kendrick stated that drilling costs

there where no igneous rock had been encountered, were averaging about $1.20 per foot using a 4½-inch Hughes tricone rotary bit and compressed air to remove the cuttings from the hole.

The drill rig, equipment and tools which had been purchased new for the Contrabando Dome project(DMEA Contract Idm-E893), mostly from the Joy Manufacturing Company, were believed to be the best available for that job.

The unaltered dense fine-grained zones in the igneous rock, however, came to be regarded as virtually impenetrable, or in some extreme cases at least, required a new diamond bit every 3 to 8 feet.

Mr. Kendrick also stated that the drillers employed through the Joy Manufacturing Company charged $3.50 per hour and the actual over all average unit cost of the Contrabando project was over $11 per foot drilled.

For the project camp, he rehabilitated rooms in an old adobe blockhouse at Lajitas, said to have been built for General Pershing's Army Headquarter's there about 50 years ago. Thus, he furnished his drill crew and project supervisor the best possible modern drilling equipment and living facilities and comforts ever found in the Texas mercury district, including a good cook and food, a gas range and refrigerator, electric lights and air-conditioning.

The first project inspection for the Field Team made by me on May 2, 1956, revealed that Mr. L. C. Whittiker was the appointed project supervisor instead of Mr. George Fry, as the application

tentatively had designated. However, Mr. Whittiker proved to be a good observer with a broad layman's knowledge of the Mineralogy and sedimentary geology of this Big Bend region, and to be honest with the Field Team and the Operator alike. The geological and engineering professionals and students which the Operator was able to employ on a consulting basis from time to time appeared generally as incompetents, at least in the field of mining explorations.

During the 10 months of more or less intermittent project operations, the project and stored drill hole cores were inspected four times for the Field Team by various examiners as reported in their Interim Reports furnished DMEA. As reported above and in a letter to DMEA, dated May 17, 1957, the final Field Team inspection was made by me last February 20. In accordance with the postscript on the January 28 letter to me from the DMEA Operating Committee, my final inspection of all the cores from holes which had been drilled since the previous joint Field Team inspection by King and me on September 14, 1956, until project termination on January 17, 1957, substantially verified that the logs submitted with the Operator's Monthly Reports had been correct and adequately detailed.

Geology

(A previous draft of the foregoing report was furnished Robert U. King, USGS, Denver on June 25, 1957, for addition of any recitation on the "Geology" that might be deemed essential for the final closing of this docket.)

Clinton C. Knox

Clinton C. Knox
Mining Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

May 31, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 3 1957

DATE	INITIALS	CODE
6/3	C	220
6/3	[illegible]	800
6/3	WSM	400

Mrs. Cora A. Bailey
Fiscal Officer
Bureau of Mines, Region IV
206 Federal Building
Bartlesville, Oklahoma

Re: DMEA-3776(Mercury)
Big Bend Mining, Inc.
Presidio County, Texas
Project Contract Idm-E893

Dear Mrs. Bailey:

Signifying my concurrence with the "Report of Review" on the subject account, received May 27 from the DMEA Contract Administration and Audit Division, forwarded herewith for your file are the original and one copy.

You will note that in accordance with this the total accepted cost of the project will be $35,780.75, as soon as I have had time to approve and forward you copies of the Operator's final claims.

Sincerely yours,

CCK/jd

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl. 2

cc: DMEA Op.Com.(2)
King,USGS,Denver
3776 file

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/24	Talbert	800
5/27	C	220
5/28	WSM	400

MAY 24 1957

Mr. Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV
Box 431
Joplin, Missouri

Re: Docket No. DMEA-3776, mercury
Big Bend Mining, Inc.
Presidio County, Texas
Contract No. Idm-E893

Dear Mr. Knox:

In a letter dated May 17, 1957, addressed to the Chairman, DMEA Operating Committee, you confirmed the acceptable performance of the units of work claimed by the referenced Operator and requested the issuance of a Report of Review in lieu of a final audit.

The original and two copies of the Report of Review are enclosed. If you concur with the facts stated therein, one copy should be retained in your files and the original and one copy should be forwarded to the regional finance officer. If, for any reason, you do not concur please return the original and both copies to this Division.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Director
Contract Administration
and Audit Division

Enclosure

EDTalbert/wb
May 24, 1957

Copy to: Docket
Admr. Reading File
Cora Piper
Mr. Chambers

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

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RECEIVED MAY 23 1957

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5/23	C	220
	esy	130
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6/20	wsoy	

May 20, 1957

DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: DMEA-3776(mercury-uranium)
Big Bend Mining, Inc.
Contrabando Dome project
Presidio County, Texas
Contract Idm-E893

Dear Sirs:

Forwarded herewith is the original and two copies of executed Amendment No. 3 to the cited contract. Also enclosed is the original and two copies of the Field Team's justification for that Amendment.

The Finance Office copy of the Amendment and a copy of the justification is furnished with a copy of this letter to Mrs. Cora Piper, Fiscal Officer, Region IV, U. S. Bureau of Mines, Bartlesville, Oklahoma.

Sincerely yours,

Clinton C. Knox

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl. 6

cc: DMEA Op.Com.
Finance Office,USBM,Bartlesville
w/cy of encls.
King,USGS,Denver, w/cy of justification
3776 File

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 20 1957

DATE	INITIALS	CODE
5/20	C	220
5/20	EW	800
5/21	WSM	400

May 17, 1957

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

Re: DMEA-3776(Mercury-Uranium)
Big Bend Mining, Inc.
Contrabando Dome project
Presidio County, Texas
Contract Idm-E893

Dear Mr. Selfridge:

This is in reply to your April 26 letter about details of the terminated project cited above.

The suggested Contract Amendment No. 3 is prepared and sent in sextuplicate for the Operator's signature.

While I was on the Field inspection of the project, covered in the August 3 Interim Report, virtual approval was given for drilling holes No. 8-5 and No. 5-8, then the most practical-appearing locations for reaching the project objectives by penetrating the inferred igneous laccolith, originally believed not to exceed 350 feet in thickness. We were aware that this approval would entail considerable bulldozing. I saw the need for repairs of washouts on the roads which had been built at the beginning of the project to only the first seven designated drilling sites mentioned in that Interim Report, and for extensions of about 2 miles of new roads to reach the No. 8-5 and 5-8 drilling sites as designated by Amendment No. 2. The Operator explained that because the bulldozer subcontractor expected the original job to be large and was nearby on other employment, no transportation charge was made or cost claimed on the April MF-104. Knowing that the bulldozer would have to be transported back to the project only from Lajitas, about 7 miles by the existing roads, I suggested immediately rehiring that nearest available subcontractor in July for the minimum necessary road extensions and repairs so that the other "Stage I" drilling sites would be accessible as needed. Later, I approved drilling "Stage II" hole No. 9-9, concurrently with completing the "Stage I" drilling and road building. While completing that road building, the work was interrupted by another heavy rain necessitating rebuilding much of the new road to hole site No. 5-8 in a box canyon which was washed out.

On the next Field inspection September 14, I verified that the subcontractor had transported the bulldozer back to the project toward the close of July and completed the necessary work in a total of 27½ hours, charging $12.50 per hour, including two hours required for the one-way transporting of the bulldozer from Lajitas, later approved by me as claimed in the Operator's August MF-104 for $318.75 and $25.00, respectively. I also had urged deepening "Stage I" hole No. 9-2 which I eventually found to have required about 2 hours of that bulldozing time to rebuild the road to that site. While there, leveling of that site was extended a few feet eastward, requiring an estimated 1/2-hour of bulldozing, to permit also drilling "Stage II" hole No. 9-9. Although aware of that, in approving the August MF-104 I considered the prorated amount of transportation that properly should have been chargeable to "Stage II" as negligible pennies. Inadvertently, however, I failed to explain all such minor details in the Interim Report dated last October 25.

Field approval of the Operator's final MF-104 cost claim covering the work of last December and extending into January, will be withheld pending issuance of the Report of Review by the Contract Administration and Audit Division. For that use, one of your copies of the final MF-104 reports, which I inadvertently failed to forward previously, also is enclosed herewith.

I made the final Field inspection of the project February 20, about a month after termination of the project work but accompanied by the Operator's representatives, Mr. P. S. Kendrick and Mr. L. C. Whittiker. The cores from all holes drilled intermittently since the previous Field inspection of September 14, 1956, were found properly stored and labeled, and my detailed examination of them verified that the logs of all holes as furnished with the Operator's MF-104 Report were substantially correct; likewise, the mapped locations, collar elevations, and other essential information required in those reports.

By referring back to all the MF-104 Reports, special reports or justifications and correspondence from this Operator for the drill hole logs, assays, detailed plane-table sketch maps of the various project drilling sites, "geologic" narrations and other essential information ordinarily required in accordance with your Memorandum No. 36, I found the Operator's Final Engineering and Geologic Report otherwise acceptable, as received here April 1, 1957, and forwarded to you. Therefore, I recommend its acceptance by DMEA and issuance of a Report of Review by the Contract Administration and Audit Division on the total $35,780.75 cost claim, subject to execution of the tendered Amendment No. 3. I also hereby confirm that the number of units of work as listed on the first page of the Operator's Final Engineering and Geological Report were acceptably performed.

I have started preparation of a Field Team Final Report which will be completed during available time. No worthwhile mineralization was indicated by the project work so no Certification will be recommended.

Sincerely yours,

Clinton C. Knox

Clinton C. Knox
Executive Officer - DMEA Field Team RegIV

encl. 1.

cc: DMEA Op. Com.
King, USGS, Denver
Finance Officer, USBM, Bartlesville
w/c Operator's Final Eng.&Geol.Rpt
3776 File

Note: Copy of MF-104 for Dec. 1956, referenced in 2nd par., 2nd page, retained in Contr. Adm. & Audit Div.

Talbert 5/29/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
XXXXXXXXXXXXXXXX
WASHINGTON 25, D. C.
Box 431
Joplin, Missouri

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 17 1957

DATE	INITIALS	CODE
5/17	JWD	220
5/20	[illegible]	800
5/20	WSM	400

AIRMAIL

May 15, 1957

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776(Mercury)
Contrabando Dome Project
Presidio County, Texas
Contract Idm-E293

Dear Mr. Kendrick:

Enclosed are the original and five copies of a proposed Amendment No. 3 which I have prepared and signed for the Government. If put into effect, this amendment is expected to permit processing for settlement of your final cost claims on the cited project where work was terminated last January 17 and your Final Engineering and Geologic Report thereon was received here April 1.

If the terms and conditions of this proposed amendment are found satisfactory to your company, please sign all six copies, retaining the "Operator's Copy" for your files; otherwise, return all to this office with the proposed changes to be considered.

With best personal regards, I am,

Sincerely yours,

CCK/jd

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl. 6

cc: DMEA Op.Com.(2) w/extra
cy of amendment
King,USGS,Denver w/extra
cy of amendment
3776 file

Extra advanced copy
for Washington office

EXPLORATION PROJECT CONTRACT IDM-8893
BIG BEND MINING, INC.
DOCKET NO. DMEA-3776(MERCURY-URANIUM)

AMENDMENT NO. 3

It is hereby agreed that Contract No. IDM-8893(Docket No. DMEA-3776), dated November 15, 1955, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, termed therein as the "Government", and Big Bend Mining, Inc., the "Operator", which with subsequent Amendments No. 1 and No. 2, altogether referred to here as the "Contract", is hereby further amended, effective November 15, 1956, as follows:

1. In the third line, paragraph 2 under item one, page one of Amendment No. 2, executed and made a part of said Contract as of July 30, 1956, the stipulation of "700 feet" hereby is changed to "702 feet", the maximum depth for drilling hole No. 8-5.

2. In the third line, paragraph 3 concerning "Area No. 6", on page two of Amendment No. 1, executed and made a part of said Contract as of January 20, 1956, the stipulation of "600 feet" hereby is changed to "602 feet", the maximum depth for drilling hole No. 5-6.

This Amendment No. 3 shall not be construed to increase the estimated cost of the project, the aggregate total amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

Executed in sextuplicate this 15th day of May 1957.

BIG BEND MINING, INC.

By_____

Title_____

THE UNITED STATES OF AMERICA

By_____
Executive Officer
DMEA Field Team, Region IV

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4-23	Chapman	400
4-23	Martin	400
4-24	Chambers	800
4/26	Selfridge	130
"	Johnson	110
		~~100~~
4/29	C	220
		400

APR 26 1957

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
P. O. Box 431
Joplin, Missouri

Re: Docket No. DMEA 3776 - Mercury-Uranium
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas
Contract No. Idm-8893

Dear Mr. Knox:

Paragraph 3 of the letter of April 4, 1957, from Mr. Robert U. King, Acting Executive Officer, DMEA Field Team, Region IV, concerning the above noted project, refers to diamond drill hole 5-6, which by Amendment No. 1 was allowed a maximum depth of 600 feet, but was drilled to a depth of 662 feet. We note that the Operator was cooperating with the Field Team in drilling to the extra depth of 62 feet, hence you are authorized to write an amendment allowing the extra footage, supported by the usual justification.

Amendment No. 2 specified that hole 8-5 should have a maximum depth of 700 feet, but it was drilled to 702 feet. In the same proposed new amendment you may increase the allowable drilling in hole 8-5 to 702 feet, as this constitutes substantial compliance with the contract.

Please note that for bulldozer transportation $170.00 was allowed in Stage I of the contract. The only charge made for this purpose was $25.00, shown on the August MF-104 and 104A while the drilling was in Stage II. The Operator in his final report lists it under Stage I. Can you determine where the bulldozer was moved from and to?

Please withhold payment of the final MF-104 (December 1956 - January 1957) until a Report of Review is issued by the Contract Administration and Audit Division.

Please forward to that same Division for review a copy of the final MF-104, together with communication required by memorandum of January 9, 1957, regarding released audits and reports of review, as promulgated by the Operating Committee's letter of January 17, 1957.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (2/B)

APPROVED:

Frank D. Lamb (2/B)
Member, Bureau of Mines

W. P. Williams (2/B)
Member, Geological Survey

TLChapman:am 4-22-57 - 4-23-57
cc to: Docket
Code 800
Admr. Read. File
Oper. Comm.
FT REG IV
Messrs. J. Pennington, USBM
T. Kiilsgaard, USGS

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4-22	Chapman	400
4-22	Martin	400
		800
		130
		110
		100
		220

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
P. O. Box 431
Joplin, Missouri

Re: Docket No. DMEA 3776 - Mercury-Uranium
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas
Contract No. Idm-3393

Messrs. J. Pennington, USBM
T. Kilsgaard, USGS

Oper. Comm.
FT REG IV

Dear Mr. Knox:

Paragraph 3 of the letter of April 4, 1957, from Mr. Robert U. King, Acting Executive Officer, DMEA Field Team, Region IV, concerning the above noted project, refers to diamond drill hole 5-6, which by Amendment No. 1 was allowed a maximum depth of 600 feet, but was drilled to a depth of 662 feet. ~~We assume~~ that the Operator was cooperating with the Field Team in drilling to the extra depth of 62 feet, hence you are authorized to write an amendment allowing the extra footage, supported by the usual justification. We note

Amendment No. 2 specified that hole 8-5 should have a maximum depth of 700 feet, but it was drilled to 702 feet. In the same proposed new amendment you may increase the allowable drilling in hole 8-5 to 702 feet, as this constitutes substantial compliance with the contract.

Please note that for bulldozer transportation $170.00 was allowed in Stage I of the contract. The only charge made for this purpose was $25.00, shown on the August MF-104 and 104A while the drilling was in Stage II. ~~This should be allowable and we note that~~ The Operator in his final report lists it under Stage I. Can you determine where the bulldozer was moved from and to?

Please withhold payment of the final MF-104 (December 1956 - January 1957) until a Report of Review is issued by the Contract Administration and Audit Division.

Please forward to that same Division for review a copy of the final MF-104, together with communication required by memorandum of January 9, 1957, as promulgated by the Operating Committee's letter of January 17, 1957.

Sincerely yours,

regarding release of audits and reports of review,

APPROVED:

Chairman, Operating Committee

Member, Bureau of Mines

Member, Geological Survey

TLChapman:am 4-22-57
cc to: Docket
Code 400
Admr. Read. File

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/9	Talbert	800
		220

April 9, 1957

Memorandum

To: Chief, Division of Iron and Ferro-Alloys

From: Chief, Contract Administration and Audit Division

Subject: Docket No. DMEA-3776 (Mercury-Uranium), Big Bend Mining, Inc., Contrabando Dome, Presidio County, Texas, Contract No. Idm-E893

In a letter dated April 4, 1957, transmitting copies of the subject Operator's final report, the Acting Executive Officer, DMEA Field Team, Region IV, has recommended to the Operating Committee the allowance of 62 feet of drilling footage in excess of the 600 feet maximum specified by Amendment No. 1 to the contract for hole 5-6. A preliminary review of this project indicates that this excess 62 feet, together with an excess of 2 feet over the maximum of 700 feet specified by Amendment No. 2 for hole 8-5, necessarily must be disallowed in final audit unless the contract is appropriately amended.

The records also indicate that the Operator has claimed $25.00 (2 hrs. @ $12.50) for bulldozer transport during August 1956, the month during which the only Stage II hole authorized (hole 9-9) was drilled. As the contract does not provide for bulldozer transport in Stage II, this amount does not appear to be allowable. On the other hand the Operator has not claimed the fixed unit cost of $170.00 provided in Stage I for transportation of bulldozer to the project site. Unless the move-in was prior to the date of the contract, it appears that this $170.00 is a properly allowable cost.

It is suggested that, in the reply giving your decision on the excess footage, the Acting Executive Officer, DMEA Field Team, Region IV, be requested to:

(1) furnish an explanation of the Operator's claim of $25.00 for bulldozer transport and his failure to claim the unit cost of $170.00;

(2) withhold payment of the final MF-104 (for December 1956-January 1957) until a Report of Review is issued by this Division; and

(3) forward to this Division for review a copy of the final MF-104, together with the communication required by memorandum of January 9, 1957, as promulgated to the Executive Officer for compliance by the Operating Committee's letter of January 17.

EDTalbert/wb 4-9-57

Copy to: Docket
Admr. Reading File
Mr. Chambers Mr. Talbert

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

OFFICIAL FILE COPY
DMEA
RECEIVED APR 8 1957

DATE	INITIALS	CODE
4/8	C	220
4/8	[illegible]	800
4/10	WSM	400

April 4, 1957

DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: DMEA-3776 (mercury-uranium)
Contract No. Idm-E893
Contrabando Dome
Big Bend Mining, Inc.
Abilene, Texas

Dear Sirs:

Enclosed are the original and one copy of the Operator's Final Report on the subject contract.

Even though obviously inadequate as a final report, we recommend its acceptance and approval because it is probable that requests for an improved report would be fruitless. The monthly reports contain sufficient detail on engineering and geology from which the Field Team can prepare a useful final report on the subject exploration project.

OPER FINAL REPORT

We wish to draw your attention to hole 5-6 which was drilled to a depth of 662 feet. Contract provisions authorized a maximum depth for this hole of 600 feet. We recommend that this footage be allowed as the Operator was cooperating with the Field Team in making every effort to reach the objectives of the contract.

Pending termination of this contract and advice from you payment of the Operator's Final Monthly Report for December 1956 and January 1957 will not be certified by the Field Team.

Operator's Final Report

The objectives of the contract were not reached in any of the holes drilled. No uranium or mercury was found in any of the holes drilled and therefore no certification of the property is recommended by the Field Team.

Very truly yours,

Robert U. King
Acting Executive Officer
DMEA Field Team, Region IV

cc: DMEA Op.Com.
King,USGS,Denver
3776 file

RECEIVED
MINERALS TECHNOLOGY
DIVISION
APR 1 1957
BUREAU OF MINES

FINAL ENGINEERING AND GEOLOGICAL REPORT OF

BIG BEND MINING, INC.
ABILENE, TEXAS

Date: March 26, 1957

Docket No. DMEA 3776
Commodity - Mercury & Uranium
Contract No. Idm-E893

Work on the captioned contract was begun in March, 1956. Roads were built and locations were leveled for core holes numbers 9-1, 9-2, 9-3, 9-4, 5-6 and 5-7. Numbers and locations according to Amendment No. 1, dated 20th day of January 1956. On July 30, 1956 authorization was granted to drill hole 9-9, stage 2 in area 1 and by amendment no. 2 dated hole 5-5 was abandoned and hole 8-5 in section 108 was substituted and hole 5-8 was moved from area 18 to area 7 as indicated on H. M. Wilson map marked Exhibit A.

The drilling progressed as follows:

HOLE NO.	DATE STARTED	DATE COMPL.	FEET DRLD.		REAMED & CASED		CEMENT & REDRILL	COST		RESULTS
9-1	3/23/56	4/14/56	700		21		82	$ 4406.00		nil
9-2	4/16/56	5/1/56	596)	639	40		-0-	3656.00)	3914.00	
deepened	9/21/56	9/28/56	43)		-0-		-0-	258.00)		nil
9-3	5/2/56	5/23/56	578		45		50	3658.00		nil
5-6	5/23/56	6/8/56	216)	662	25)	241	-0-			
deepened	11/23/56	1/17/57	446)		216)		-0-	4454.00		nil
5-7	6/8/56	6/26/56	395		80		27	2584.00		nil
9-4	6/26/56	7/30/56	537		11		335	3914.00		nil
9-9	7/31/56	8/24/56	612		62		-0-	3796.00		trace cinnabar
5-8	8/24/56	9/20/56	508		12		134	3340.00m		nil
8-5	10/22/56	11/22/56	702		284		-0-	4780.00		nil
TOTALS			5333		796		628	$34792.00		

Total feet cored	5333 @ $6.00 per ft.	$ 31998.00
Total reamed & cased	796	
Total cemented & redrill	628 1424 ft. @ 2.00 per ft.	2848.00
Total bulldozing	71½ hrs. @ 12.50 per hr.	893.75
Total bulldozer transport	2 hrs. @ 12.50 per hr.	25.00
Total sample analysis	4 @ 4.00	16.00
	Total cost 100%	$ 35780.75
	DMEA cost 75%	26835.56

		CONTRACT	PERFORMED	COST
Diamond Drilling Stage	1	4900' @ 6.00	4721	$ 28326.00
Bulldozing "	1	20 hrs. @ 12.50	71½	893.75
Cement & Redrill "	1	2450' @ 2.00	1362	2724.00
Reaming & Casing "	1			
Sample Analysis "	1	140 @ 4.00	-0-	-0-
Dozer Transportation "	1	170.00	2 hrs.@ 12.50	25.00
		Total cost Stage 1		$ 31968.75
Diamond Drilling Stage	11	12000' @ 6.00	612	$ 3672.00
Bulldozing "	11	40 hrs. @ 12.50	-0-	-0-
Cement & Redrill "	11)	6000' @ 2.00	62	124.00
Reaming & Casing "	11)			
Sample Analysis "	11	340 @ 4.00	4	16.00
		Total cost Stage 11		$ 3812.00
Diamond Drilling Stage	111	1100' @ 6.00	-0-	-0-
Bulldozing "	111	60 hrs. @ 12.50	-0-	-0-
Cement & Redrill "	111)	500' @ 2.00	-0-	-0-
Reaming & Casing "	111)			
Sample Analysis "	111	40 @ 4.00	-0-	-0-

Amount authorized by contract $132,000.00 - Spent $35,780.75

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DMEA
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DATE | INITIALS | CODE

Monthly reports were made as the work progressed which included logs of holes cored, description of formations, sketches of locations, and other pertinent information to which reference is made for further details.

Careful inspection of all cores revealed no indication of the presence of cinnabar or uranium in commercial quantities.

Geologically, the drilling indicated that the sedimentary rocks on Contrabando Dome are underlain and intruded by a very wide-spread igneous body as illustrated by the following exhibits attached as a part of this report. The exhibits are as follows:

Exhibit A - Wilson map - 5 copies
Exhibit B - Cross Section B-B - 5 copies
Exhibit C - Cross Section C-C - 5 copies
Exhibit D - Sample Analysis - 5 copies

Respectfully submitted,

BIG BEND MINING, INC.

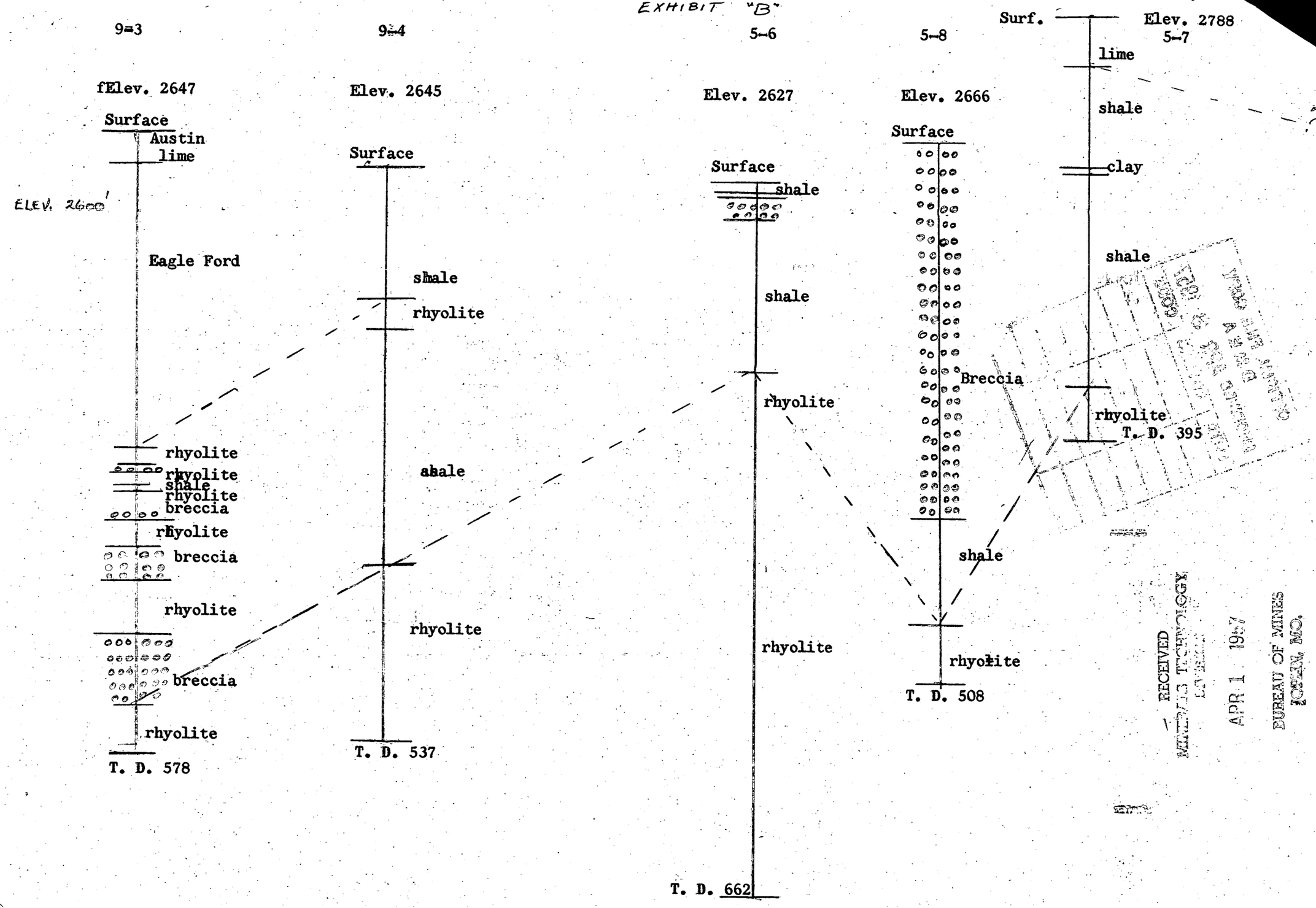
By P. S. Kendrick, President

PSK;vy
encl.

EXHIBIT "B"

SW

B



RECEIVED
APR 1 1947
MINERALOGY
BUREAU OF MINES
ROLLA, MO.

EXHIBIT C

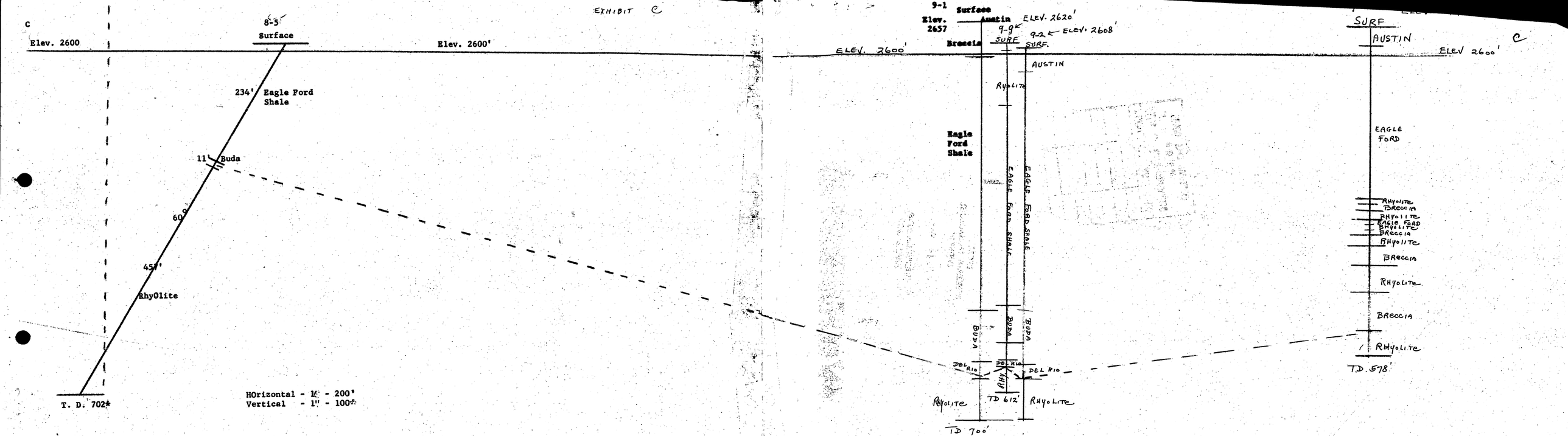

C
Elev. 2600
8-5
Surface
Elev. 2600'
234'
Eagle Ford Shale
11'
Buda
60'
451'
Rhyolite
T. D. 702'
HOrizontal - 1" - 200'
Vertical - 1" - 100'
9-1
Surface
Elev. 2657
Austin
Breccia
ELEV. 2620'
9-9
9-2
ELEV. 2608'
SURF
SURF.
ELEV. 2600'
AUSTIN
Rhyolite
Eagle Ford Shale
EAGLE FORD SHALE
EAGLE FORD SHALE
BUDA
BUDA
BUDA
DEL RIO
DEL RIO
DEL RIO
RHY
Rhyolite
TD 612'
RHYOLITE
TD 700'
SURF
AUSTIN
ELEV 2600'
C
EAGLE FORD
RHYOLITE
BRECCIA
RHYOLITE
EAGLE FORD
RHYOLITE
BRECCIA
RHYOLITE
BRECCIA
RHYOLITE
BRECCIA
RHYOLITE
T.D. 578'

EXHIBIT D

C. L. DICKINSON—PRESIDENT
GEO. G. DICKINSON—VICE-PRESIDENT
ROBERT L. DICKINSON—VICE-PRESIDENT
DR. J. A. HANCOCK, PH. D.—CONSULTING CHEMIST

DICKINSON LABORATORIES, INC.

ASSAYERS — CHEMISTS — METALLURGISTS
UMPIRES
WATER ANALYSIS
PHONE 2-9284 — P. O. BOX 7006
1300 WEST MAIN ST. EL PASO, TEXAS

Aug. 29, 1956.

CERTIFICATE OF ASSAY

ASSAYED FOR: Mr. L. C. Whittiker, Lab No. 10035

ADDRESS: Alpine, Texas.

MARKED: Samples for Kendrick Oil Co.

Gold Ozs. per ton	Silver Ozs. per ton	% Lead	% Copper	% ~~Zinc~~ Mercury	% Silica	% Calcium Fluoride	Effective Units	% Manganese	% Iron
		#1		0.04					
		#2		0.00					
		#3		0.03					
		#5		0.03					

CHARGES $16.00

Geo. G. Dickinson ASSAYER

SUBSIDIARIES:
Texas Testing Laboratories • Cottonseed Oils • Physical Testing • Farm Service Laboratories • Soil and Water Analyses

OFFICIAL FILE COPY.
D M E A
RECEIVED APR 8 1957

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~XXXWASHINGTON 25, D.C.XXXXX~~
Box 431
Joplin, Missouri

OFFICIAL FILE COPY
DMEA
RECEIVED APR 5 1957

DATE		CODE
4/5	C	220
4/5		800
4/8	WSM	400

April 2, 1957

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury-uranium)
Contrabando Dome Project
Lajitas, Presidio County, Tex.
Project Contract Idm-E893

Dear Mr. Kendrick:

This will acknowledge receipt of an original and four copies of the Final Engineering and Geological Report of Big Bend Mining, Inc.

Your December and January monthly reports are being processed for settlement.

Sincerely yours,

R U King
Robert U. King
Acting Executive Officer
DMEA Field Team, Region IV

RUK/jd

cc: DMEA Op.Com.(2)
King,USGS,Denver
3776 File

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 15 1957

DATE	INITIALS	CODE
3/18	C	220
3/19	[illegible]	800
		225

March 8, 1957

Mrs. Cora A. Piper, Fiscal Officer
U. S. Bureau of Mines, Region IV
206 Federal Building
Bartlesville, Oklahoma

Re: DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando Dome project
Lajitas, Presidio County, Tex.
Contract Idm-E893

Dear Mrs. Piper:

Transmitted herewith to be certified for the Government's 75 percent participation payments is the original of this Operator's MF-104 Report covering the project work of October-November, approved by me in the amount of $4,780.00.

A copy of this report was furnished Robert King (USGS-Denver) on January 4 and all but the MF-104 voucher of another copy of the report was forwarded to Washington on that date.

The other Washington copy of the report and its two copies of the MF-104 voucher are being held here pending receipt of your voucher data to be posted thereon.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/jd

encl.

cc: DMEA Op.Com.(2)
King,USGS,Denver
3776 file

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 11 1957

DATE	INITIALS	CODE
3/12	C	220
3/12	[illegible]	800
		225

Box 431
Joplin, Missouri

AIRMAIL

March 6, 1957

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776(mercury-uranium)
Contrabando Dome Project
Lajitas, Presidio County, Tex.
Project Contract Idm-E893

Dear Mr. Kendrick:

In processing your MF-104 reports covering October-November drilling since making the final Field Team inspection of your project there on February 20, I have just noticed that your signature does not appear on any of the copies of those reports. Therefore, if you will sign and return each of the three copies of the MF-104 and MF-104A forms attached herewith I believe they can be approved promptly for the Government participation payment.

Approval of your MF-104 reports covering the December-January drilling completing the project must be withheld pending receipt and approval of the Final Engineering-Geologic Report which you are preparing.

Sincerely yours,

CCK/jd

Clinton C. Knox
Executive Officer
DMEA Field Team, Reg. IV

Encl. 6

cc: DMEA Op. Com.(2)
3776 File

OFFICIAL FILE COPY DMEA RECEIVED FEB 21 1957		
DATE	INITIALS	CODE
2/21	C	220
1/25		800
		225

Box 431
Joplin, Missouri

February 18, 1957

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury-uranium)
Contrabando Dome Project
Lajitas, Presidio County, Tex.
Contract Idm-E893

Dear Mr. Kendrick:

This will confirm our agreement during your telephone discussion with me January 22, 1957, when you had completed the drilling under Stage I of the subject contract, that neither your company nor the Government would be justified in doing any further drilling there.

This will also acknowledge receiving on February 6 your Monthly Reports and your MF-104 Voucher covering the final hole completed on the Project during December and January. I am looking forward to receiving your Final Engineering-Geologic Report and estimate of any mineralization your drilling indicated.

This also will confirm that I am scheduled to make the Final Project Inspection for the Field Team on February 20 in accordance with my telephone call to you last Saturday afternoon.

Please rest assured that final settlement of this account will be processed as quickly as possible after your Final Report and the Field Team's are available.

Sincerely yours,

CCK/jd

Clinton C. Knox
Exenutive Officer
DMEA Field Team,RegIV

cc: DMEA Op.Com.(2)
King, USGS, Denver
Finance Officer
3776 file

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/25	Martin	400
1/28	Selfridge	130
"	Johnson	110
"	Butterworth	100
1-29	Cmw	220
		225

28 JAN 1957

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
P. O. Box 431
Joplin, Missouri

Re: Docket No. DMEA 3776 - Mercury
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas
Contract No. Idm-E893
and
Docket No. DMEA 3787 - Mercury
Adobe Walls Dome
Brewster County, Texas

Dear Mr. Knox:

Your memorandum of January 22, 1957, to Mr. Robert King, Geological Survey, Denver, Colorado, applies chiefly to the first of the subject projects, but mentions also the Adobe Walls Dome project which was denied by our letter of November 18, 1955, to Mr. P. S. Kendrick, president, Big Bend Mining, Inc.

Enclosed is an extra copy of our same letter for you to send to Mr. King if a complete file is not already available to him.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

APPROVED:

Frank D. Lamb (GCS)
Member, Bureau of Mines

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

WSMartin:foc 1/25/57
cc to: Dockets (3776 & 3787)
Code 400
Admr. Read. File
Oper. Comm.
FT. REG. IV
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

Enclosure

P.S. We believe it may not be necessary for Mr. King to make another field examination in collaboration on the final report, as your logging of the remaining core should be sufficient.

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

OFFICIAL FILE COPY DMEA RECEIVED JAN 24 1957		
DATE	INITIALS	CODE
1-24	CW	220
1/27	[illegible]	800
	[illegible]	225
~~January 22, 1957~~		

Memorandum

To: Robert King, USGS, Denver

From: C. C. Knox, DMEA, Joplin

Subject: Telephone call 8:45 AM, 1-22-57 from Mr. P. G. Kendrick, President, Big Bend Mining Inc., Abilene, Texas, DMEA-3776, Contrabando Dome Project Idm-F893

Mr. Kendricks said the project had been terminated in accordance with our previous telephone conversation 1-14-57. Upon drilling indications that the igneous sill possibly could be penetrated at a reasonable depth, and as I had telephonically authorized, Hole No. 5-6 was drilled to 662 feet in depth. Unfortunately, upon completion at that depth the hole was still in the indicated Contrabando igneous sill so I agreed in the telephone call this morning, that it now seemed proper to terminate the project. I believe it is proper, however, for me to execute a contract amendment retroactively authorizing in writing the drilling of the hole beyond the 600 feet allowable maximum set in the existing contract. No uranium and no significant mercury mineralization were indicated in any of the eight Stage I holes which have been completed.

He said a MF-104 report would be prepared immediately covering the December-January deepening of Hole No. 5-6 from 216 to 662 feet, which will be accompanied with the usual narrative, drill log and sketch map of the area around that hole.

The Operator's Final Report also will be prepared and submitted as soon as possible. I told him that the Field Team's final project inspection and report will be made as soon as possible and that we will advise him well in advance when a firm date can be set. Mr. Kendrick said they expect to be drilling then on the Adobe Walls project (Docket DMEA-3787) 73 miles south of Alpine, along State Highway 118, where Mr. Whitaker, the project supervisor, likely can be contacted at the time of the Field Team inspection.

CCK/jd

C. C. Knox

cc: DMEA Op.Com.(2)
Mr. King
DMEA File 3776

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

AIRMAail

RECEIVED DMEA JAN 17 1957		
DATE	INITIALS	CODE
1/17	CW	870
1/19		800
		225
January 14, 1957		

Memorandum

To: Robert U. King, Geologist, Denver, Colorado

From: C. C. Knox

Subject: Telephone Call from Mr. Kendrick, President, Big Bend Mining Inc., Abilene, Texas, 10:05 AM, 1-14-57

Re: DMEA-3776 (Mercury), Contrabando Dome Project, Lajitas, Presidio County, Texas, Contract Idm-E893, Mr. Kendrick said a good driller had been employed, the tools fished out of Hole No. 5-6 and drilling was in progress last Saturday at 524 feet in depth, still in the same sort of igneous rock.

The project supervisor had told him on the telephone that the rock seemed to be getting slightly easier to drill, so he is hopeful of reaching the required 600 feet by tomorrow night when he will call again.

Mr. Kendrick asked if that would be all the work required under his contract. I told him that under the contract we could not require him to drill that hole deeper than 600 feet, but that in case the Survey feels any other Stage I holes should be deepened, no doubt you would call him; otherwise, the projedt would be considered automatically terminated for want of required Stage II approvals.

He said that in case the sill is penetrated in drilling to 600 feet, or cooling cracks and alterations are encountered to indicate proximity to the underside of the sill, he might wish to continue drilling a few feet further for conclusive geological information. I told him I was certain you would agree in such a

case, and that we easily could amend the contract to participate in the attendant costs for obtaining such vital geologic information. Of course, I would like to see one strategraphic section to the Georgetown limestone underneath the inferred Contrabando sill.

CCK/jd

Knox

cc: DMEA Op. Com(2)
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
Box 431
Joplin, Missouri

OFFICIAL FILE COPY DMEA RECEIVED JAN 7 1957		
DATE	INITIALS	CODE
1/8/57	[illegible]	800
		225

January 4, 1957

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury-uranium)
Contrabando Dome project
Lajitas, Presidio County, Tex.
Contract Idm-E893

Dear Mr. Kendrick:

This relates to your requests by long-distance telephone to me on December 12 when the project work was recessed until a competent driller is employed to fish out the drill rods and diamond bit lodged in No. 5-6 hole, 387 feet in depth. We appreciated your call notifying of the recess, and I reiterate here that there is no stipulation in this Contract to prevent such a recess in the work. We likewise will appreciate word when you resume work and on the progress made.

As I mentioned on the phone, Robert King of the Denver Office of the Geological Survey in the meantime arranged to spend the week before Christmas here on work of this Field Team. Your project was one of the matters for detailed review and discussion and we are agreed on the following:

1. Except for the cores that could have been discarded in accordance with my August 1 letter to you, all cores from holes No. 5-6, No. 8-5, and No. 9-2 should be retained in the regular core boxes until inspected by the Field Team representative.

2. The next Field Team inspection of the project will be made as soon as possible after completion of "Stage I" work under the Contract.

3. The sketch maps, drill hole locations, collar elevations, logs, and other data submitted with your letters of July 24 and September 21 (responding to my June 5 letter to you) appear adequately to supplement your earlier Monthly Reports so that we believe those and your subsequent reports on all holes completed through November are acceptable to the Government. Therefore, I have approved your August and September MF-104 Reports in the amounts of $4,155.75 and $3,598.00, respectively.

4. Approval of your Monthly Report for the hole (No. 8-5) drilled in October-November will be held in abeyance, however, to assure proper deepening of the incompleted "Stage I" drill hole (No. 5-6) and rendition of acceptable final reports as required under Article 5 and 6 (c) of the Contract upon its completion or termination.

5. The Contract at least should not be terminated until the indicated igneous sill is penetrated or every reasonable effort is made to complete "Stage I" drilling preferably by deepening hole No. 5-6 "to a maximum depth of 600 feet" as specified in Amendment No. 1.

King's November 26 letter to you and likewise mine on November 27 reiterated the previous conversations with you regarding the anticipated mutual advantage to you and the Government alike from penetrating the indicated igneous sill in a site on Contrabando dome, preferably in hole No. 5-6. While we are certainly in sympathy with you over the large amount this drilling is costing, we also are aware that the Government evidently stands to reap very little even in the way of geologic information from the amount it is participating. Perhaps the Government should disallow all the costs of hole No. 5-6 unless it can be drilled deep enough to obtain conclusive and comprehensive geologic and mineralogic data on the dome and indicated igneous sill.

With every hope for successful drilling in this New Year, I am,

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

cc: DMEA Op.Com.(2)
King,USGS,Denver
Finance Officer,USBM,Bartlesville
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

OFFICIAL FILE COPY DMEA RECEIVED JAN 7 1957		
DATE	INITIALS	CODE
		~~800~~
		225

January 4, 1957

Mrs. Cora A. Piper, Fiscal Officer
U. S. Bureau of Mines, Region IV
206 Federal Building
Bartlesville, Oklahoma

Re: DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando Dome project
Lajitas, Presidio County, Tex.
Contract Idm-E893

Dear Mrs. Piper:

Transmitted herewith to be certified for the Government's 75 percent participation payments are the originals of this Operator's Monthly MF-104 Reports and cost claims covering the project work of last August and September, both approved by me in the amounts of $4,155.75 and $3,598.00, respectively.

Copies of these reports were furnished Robert King (USGS-Denver) on September 14 and 18 respectively; one copy of the August Report (excepting the MF-104 voucher) was sent to Washington September 25; likewise one copy of the September Report (excepting the MF-104 voucher) is being sent to Washington with copies of this letter. The other Washington copy of each report and both copies of each MF-104 voucher are being held here pending receipt of your voucher data to be posted thereon.

Also a copy of this Operator's October-November Report, yet unapproved, is being sent with a copy of this letter to Robert King, Survey Member of the Field Team; likewise one copy of that November Report (excepting the MF-104 voucher) is being mailed to Washington.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl.(3)
cc: King, USGS, Denver w/1 encl.
DMEA Op.Com.(2) w/2 encl.
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

December 14, 1956

Memo

To: Robert King, Alternate Executive Officer
DMEA Field Team, Region IV

From: Knox, Joplin

Subject: Telephone call, 10:30 a.m., 12-12-56, from P. S. Kendrick, President, Big Bend Mining (DMEA-3776), Contrabando dome project, Lajitas, Texas, Contract Idm-E893

For your information Mr. Kendrick explained that since reoccupying hole number 5-6 which had been drilled 216 feet in depth in June, it has recently been deepened to 387 feet still in the igneous rock. A string of tools was lost in the hole and he had fired the driller, recessing the project indefinitely.

Mr. Kendrick said even though the hole had been reduced to size AW this was the toughest and most costly drilling in any hole yet. He said drilling with each new bit had averaged only four feet before it was worn out and the direct drill operating costs were running between $20 and $30 per foot so he believed mutual agreement on termination of the project is urgent. Regardless of the Field Teams' opinion, he explained that there would be little hope for reactivating the project until after January. In that case, since you expect to be in Joplin next week, I told him that we would discuss the matter and give him our decision as soon as possible.

He also urged that the Field Team inspect the project as soon as possible because they have run out of storage facilities for cores and would like our permission to dump some of the pieces of cores now stored.

He was anxious for the Field Team to approve his MF-104 Reports for August, September, and that received December 10 covering the October and November drilling of angle hole number 8-5. I told him that I believed that I could now approve his August claim because holding in abeyance the latter two should be sufficient to insure rendition of the Operator's final engineering-geologist report.

CCK/enn
cc: DMEA Op.Com.(2)
3776 file

Clinton C. Knox

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

Airmail

November 27, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury-uranium)
Contrabando dome project
Presidio County, Texas
Contract Idm-E893

Dear Mr. Kendrick:

With reference to the November 26 letter from Robert U. King to you this is the Field Team's formal reaffirmation of the requirement under Amendment No. 1 of the cited contract to drill hole No. 5-6 "to a maximum depth of 600 feet", which hole you are to reoccupy and deepen accordingly for the purpose of penetrating the indicated igneous sill.

A supply of MF-104 and MF-104A forms are enclosed for preparing your current monthly report which presumably will cover the project work during both October and September when only the drilling of hole No. 8-5 was completed.

We are particularly anxious to be kept informed on your progress in deepening hole No. 5-6.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl.(10)
cc: DMEA Op.Com.(2)
King,USGS,Denver
3776 file

IN REPLY REFER TO:

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

November 26, 1956

Air Mail

RECEIVED
MINERALS EXPLORATION
DIVISION
NOV 27 1956
BUREAU OF MINES
JOPLIN, MO.

Memorandum

To: C. C. Knox, Executive Officer
DMEA Field Team, Region IV

From: Robert U. King

Subject: Contraband project, DMEA 3776, Idm-E893, Completion of hole 8-5

For your information and follow-up reply, Mr. Kendrick reported to me by telephone on November 23 that he had completed hole 8-5 in igneous rock at a depth of 702 feet.

I advised him, as per my previous memo, that he should re-occupy hole 5-6 and deepen that hole in one last attempt to penetrate the igneous sill.

Such verbal instructions, I understand, must be followed up by written authorization from the Field Team. Will you therefore follow up this matter with a written statement to Kendrick, perhaps along the line of the attached copy of my memorandum to Kendrick confirming the telephone conference.

Robert U. King

Enclosure

xtra Copy to DMEA

RUKing:arh
CCK

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

IN REPLY REFER TO:

RECEIVED NOV 29 1956 D.M.E.A.

November 26, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA 3776, Idm-E 893
Presidio Co., Texas
Contrabando
(Mercury-Uranium)

Dear Mr. Kendrick:

This will confirm our telephone conversation relating to the above contract wherein I acknowledged the completion of hole 8-5 at 702 feet and advised you to reoccupy hole 5-6 and to deepen that hole for the purpose of penetrating the igneous sill.

You should receive written notice from the Executive Officer, DMEA Field Team, regarding the estimated depth to which hole 5-6 should be drilled.

Sincerely yours,

Robert U. King
Acting Executive Officer
DMEA Field Team, Region IV

Copy to: Knox

x-tra Copy to DMEA

RUKing:arh

400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

November 23, 1956

Memorandum

To: Robert U. King, Alternate Executive Officer, DMEA Field Team, Region IV

From: C. C. Knox

Subject: DMEA-3776 (mercury), Big Bend Mining, Inc., Contrabando Project Contract Idm-E893, Presidio County, Texas

Thanks for your memorandums after talking to Mr. Kendrick, president of the applicant corporation, by telephone on November 16 and 19. I had told him essentially the same thing when he called me at my home the night of November 14, but he seemed to need some expert geological con~~ferencing~~ vincing. I am forwarding two copies of your memorandum to Washington with copies of this, retaining the original and returning the fourth copy initialed by me for your file record.

I agree with you that hole 8-5 should ~~by~~ all means ~~by~~ be continued to the ~~a~~ specified 700 feet in depth, particularly in view of the fact that Mr. Kendrick reported penetrating some of the Buda limestone strata from 234 to 245 feet in depth. The authorized depth of hole 5-6 as stipulated in Amendment No. 1 is 600 feet. Drilling of that hole was recessed June 3 at 216 feet in depth as explained in the Interim Report by John Faick dated June 26.

I returned today after a week of annual leave and will try to assemble all pertinent data on application DMEA-4511, Dow Chemical Co. for your study with regard to the cited if and when a Field examination should be made. As soon as possible I will forward all that material with a memorandum containing my recollections of the property and the Joplin copy of the application (in case a copy has not been furnished you).

Clinton C. Knox

CCK/enn

Clinton C. Knox

cc: DMEA Op.Com.(2) w/2 copies incom.memo
3776 file

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
MINERALS TECHNOLOGY
DIVISION
NOV 19 1956
BUREAU OF MINES
JOPLIN, MO.

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

November 16, 1956

Memorandum

To: C. C. Knox, Executive Officer, DMEA Field Team, Region IV

From: R. U. King

Subject: DMEA Docket 3776 (Mercury-uranium), Contract Idm-E 893, Big Bend Mining, Inc. (Contrabando Dome), Presidio County, Texas

Mr. Kendrick, president, Big Bend Mining, Inc., telephoned me November 15, 1956, from Abilene, Texas, reporting progress on the subject contract.

Core hole 8-5 had reached a depth of 543 feet on November 14th. The hole has penetrated 245 feet of bedded rocks, at which depth igneous rock was encountered; the hole is in igneous rock at 543 feet. Mr. Kendrick requested that he be permitted to abandon hole 8-5 in favor of deepening one of several previously drilled vertical holes.

Inasmuch as hole 8-5 was authorized under Amendment No.2 to be drilled to a maximum depth of 700 feet, and the hole is reported to have cut the overlying bedded rocks at an angle of not more than 5° from the normal, I recommend that the operator be required to continue this hole to the authorized depth of 700 feet.

Since the operator has until December 8 to complete this drilling amounting to about 150 feet, before the expiration of his 60-day relaxation of lease, I do not believe that following my recommendation would place undue hardship on the operator.

If upon completion of hole 8-5 to 700 feet the sill is not penetrated, I recommend that hole 5-6 be reoccupied and deepened as previously noted in my interim report of October 11 and in your report of October 25.

I therefore advised Mr. Kendrick to stay on the hole (8-5) unless and until he receives word from you to the contrary, pending a report from me.

The following table summarizes data relevant to the thickness of the igneous "sill" penetrated to date:

Hole	From	To	Feet penetrated	
9-1	630 ft.	700 ft. (bottom)	70	
9-2	579 ft.	655 ft. "	76	
9-4	360 ft.	537 ft. "	177	
9-9	568 ft.	612 ft. "	44	
5-6	175 ft.	216 ft. "	41	
5-7	340 ft.	395 ft. "	55	
5-8	451 ft.	508 ft. "	57	auth. depth 800 ft. max.
8-5	245 ft.	543 ft. (11/14/56)	298	auth. depth 700 ft. max.

I do not have at hand the authorized depth of hole 5-6, but other things being equal, 5-6 is the hole to deepen in order to get at least one hole through the "sill" and into the underlying "target area" rocks.

R. U. King
Geologist

Memo of phone call 9:15 a.m. 10-30-56

From: Mr. P. S. Kendrick, President, Big Bend Mining, Dallas, Texas

To: Knox, DMEA, Joplin, Mo.

Subject: Progress Report, Contrabando dome project Idm-E893 (DMEA-3776, mercury-uranium), Lajitas, Texas

Mr. Kendrick stated that diamond drilling of angle hole No. 8-5 had progressed Saturday to 264 feet in depth, coring formations as follows:

0	-	234	Boquillas flags
234	-	245	Buda limestone
245	-	264	igneous rock in which the hole was reduced to AX-size.

No mercury or uranium minerals had been evidenced.

He said that the expert diamond drilling instructor which Joy Manufacturing Co. recently sent from Colorado has been very helpful to his green drilling crew, but can remain there only the balance of this week. He believes, however, that his regular crew will be better organized and able to continue drilling that angle hole thereafter.

I thanked him for the telephone call giving us this information, and told him that evidently there would be no point in the Field Team inspecting the project this month but we would greatly appreciate being kept informed on the progress and results of drilling this angle hole.

CCK/enn Knox

cc: DMEA Op.Com.(2)
King,USGS,Denver (2)

RECEIVED NOV 2 1956 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
OCT 29 1956

October 25, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury-uranium)
Contrabando dome
Presidio County, Texas
Project Contract Idm-E893

Dear Mr. Kendrick:

Please be advised that I have approved your Monthly MF-104 Report and cost claim in the amount of $3,914 covering the project work in July, and forwarded the original to the Regional Finance Officer, Bureau of Mines, Bartlesville, Oklahoma, for certification of the Government's participation payment.

Approvals of your August Report received September 10, and your September Report received October 15, are being held in abeyance to assure reaching the required depth in any of the holes on which deeper core drilling may be deemed geologically essential, and to assure rendition of your final engineering and geologic report if the project contract should have to terminate upon completion of "Stage I" drilling.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

cc: DMEA Op.Com.(2)
Fin.Off.,USBM,Bartlesville
Harshman,USGS,Denver
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
OCT 29 1956

October 25, 1956

Mrs. Cora A. Piper, Fiscal Officer
U. S. Bureau of Mines, Region IV
206 Federal Building
Bartlesville, Oklahoma

Re: DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando Dome Project
Lajitas, Presidio County, Tex.
DMEA Contract Idm-E893

Dear Mrs. Piper:

Transmitted herewith to be certified for the Government's 75 percent participation payment is the original of this Operator's Monthly MF-104 Reports and cost claim covering the project work in July, approved by me in the amount of $3,914.00.

Upon receiving this report from the Operator August 16, one copy except for the MF-104 voucher was forwarded immediately to Washington and its other copy with both the MF-104s are being held here pending receipt of your voucher to be posted thereon.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl.
cc: DMEA Op.Con.(2)
3776 file

400

Memo of phone call 10:00 a.m. 10-12-56

From: P. S. Kendrick, Pres., Big Bend Mining, Inc., Abilene, Tex.

To: Knox, DMEA, Joplin

Subject: Drilling progress on Contrabando Dome project (Contract Idm-E893), DMEA-3776 (mercury), Brewster County, Tex.

Mr. Kendrick said that a relaxation under the lease was obtained from the landowners of sections 105 and 109 to permit a 60-day recess in drilling thereon. The geophysical survey, mentioned 9-26-56, was tried and proven inapplicable. Then, under the supervision of an expert diamond driller from Colorado as a temporary instructor, the regular drill crew deepened hole No. 9-2 about 45 feet in the tough igneous rock, or to about 640 feet total depth, where that expert reiterated previous Field Team advice that AX-size drill rods and bits should be procured which more easily might permit completion of that hole to the Georgetown limestone beneath the inferred thick laccolith. Thus, while awaiting delivery of those smaller tools, the drill rig was being moved today to drill the specified angle hole No. 8-5, authorized in Amendment No. 2, as recommended by Faick, USGS, and Knox, USBM, in Interim Reports dated July 27 and August 3, respectively.

Mr. Kendrick's immediate concern was whether it would be proper to include that drilling of some 45 feet in hole No. 9-2 during September in the MF-104 Claim and Report he is preparing on the work that month. I told him there is nothing in the Contract to prevent eventual Field Team approval of any specified unit of the work completed properly thereunder.

Mr. Kendrick said he would be out of the country for the next 2 weeks but had urged Mr. Whittiker, Project Supervisor, to keep me informed weekly on hole 8-5 progress.

I told him that I would inform him when it was determined whether holes 9-2, 9-4, and/or 5-8 should be deepened.

Knox

CCK/enn

cc: DMEA Op.Com,(2)
King,USGS,Denver
3776 file

400

Memo of phone call 11:40 a.m. 9-26-56

RECEIVED
OCT - 1 1956

From: P. S. Kendrick, Big Bend Mining Co., Abilene, Texas

To: C. C. Knox, DMEA, Joplin, Mo.

Subject: Recess Contrabando dome project drilling, DMEA 3776 (mercury), Contract Idm-E893

Mr. Kendrick said hole number 9-2 had been deepened 40 feet where drilling is in progress in slightly fractured igneous rock at a depth of 540 feet.

Drilling costs and progress have continued to be very discouraging and he advised that it seemed mandatory to him that a recess in the project work be taken while studies are made in an effort to affect better performance in his future project operations.

Also a geophysics concern in Lubbock, Texas has interested him in a geophysical method which is claimed would indicate the thickness and attitude of the "granite laccolith". He said that he was considering having such a geophysical survey method tried if the landowners of sections 109 and 105 would formally relax on the stipulations of the lease agreement requiring continuous drilling aggregating 7,200 feet.

He also said that Mr. Harris Smith of Joplin, representative of those landowners, had agreed to consider the advisability of a temporary recess on that project drilling, and would discuss it with me shortly.

I agreed that it might be to the advantage of all concerned if a recess were taken upon completion of hole number 9-2 (possible depth 900 feet). I urged that drilling on that hole be continued as long as reasonable progress could be obtained or at least until Robert King (USGS, Denver), who inspected the project with me on September 14, confers with John Faick (USGS, Tucson), the previous Field Team inspector, and prepares his Interim geologic report and recommendations for my guidance.

He said that he was hoping to be able to employ a diamond driller from the east Missouri lead belt to come to Lajitas ~~and~~ temporarily for instructing the project driller for a week or ten days. I agreed that there was nothing in the contract to prevent recessing of the project so long as all the specified work is completed by June, 1957. I explained, however, that the government might wish to terminate the contract on the basis of recommendations that may be made by the Geological Survey Member of this Field Team. To date, I have resisted Mr. Kendrick's suggestions that it might be advisable for him to terminate the contract by mutual consent, because the prime objective of "Stage 1" of the Project Contract still has not been attained. Probably there is no geological justification for deepening each of the 8 holes which

have been drilled to the Georgetown limestone, but I believe there is a possibility that reaching of the Georgetown in holes 9-2, 9-4, and 5-8 might be recommended.

Knox

CCK/enn

Clinton C. Knox

cc: DMEA Op.Com.(2)
King,USGS,Denver(2)
3776 file (2)

3776

September 25, 1956

MEMORANDUM

To: Frank S. Johnson, Deputy Administrator, DMEA

From: W. S. Martin, Chief, Iron and Ferro-Alloys Division

Subject: Items to be discussed informally with Field Teams Regions II and III

Region II

1. Obtain Ricker's views on work done on California nickel occurrences by engineers from Region I.

   Reconnaissance report on nickel deposits of southwest Oregon and Northwest California by Richard M. Appling, Jr. recommends exploration churn drilling on the Pine Flat and Diamond Flat nickel-bearing laterite deposits in Del Norte County, California. Field work was carried on successively by John R. Reynolds and Lewis G. Chichester, mining engineers, formerly with Bureau of Mines, Spokane Field Office, Region I, and the writer, Richard M. Appling, mining engineer, Bureau of Mines, of the same regional office. Application of Rare Metals Corp. of America to drill these deposits denied on basis of report prepared by Region II.

2. Discuss with Ricker mercury applications and requests for amendments wherein work proposed would probably be considered development if the principle mineral had a more regular habit than mercury deposits usually have.

3. Discuss unwatering of Union Hill shaft at Idaho Maryland Mining Company, DMEA Docket No. 3347.

Region III

1. Don Lieberman & Mikes, Docket No. 2356.

2. Geologist from Denver office (King from Tucson) handles Big Bend Mining, Inc., Docket No. 3776.

ADMahan/fcc
9/25/56
cc: Dockets
Code 400
Admr. Read. File

W. S. Martin, Chief
Iron & Ferro-Alloys Division

Big Bend 3776

RECEIVED SEP 24 1956 400

Memo of phone call 2:10 P.M. 9-20-56

From: P. S. Kendrick, President, Big Bend Mining, Abilene, Texas

To: Knox, DMEA, Joplin, Missouri

Subject: Progress on hole number 5-8 since September 14th Field Team inspection of Contrabando Project Contract Idm-E893

WSM

He said that Mr. Whittiker, Project Supervisor, called last night to report that drilling of the hole had continued in the relatively flat-bedded baked black eagleford (Boquillas flags) much like King and I saw in the cores of September 14. At 475 feet in depth the igneous laccolith(?) was encountered and had been drilled 20 feet by last night when the hole had reached 495 feet in depth. No cinnabar has been reported. He requested authorization to discontinue, or at least to recess, drilling of this hole by tomorrow.

With reference to my demand last June for an adequate map, following my discussions of this Operator's May MF-104 with Harshman and MacLaren when I was in Denver on June 1st, Mr. Kendrick said he had just received the map of the plane table work two men were doing while King and I were there last week. As I suspected he now believes that it justifies deepening hole number 9-2 and requested authorization to move back onto it immediately. He said that copies of that map and a geologic section through holes 9-2, 9-9, and the open pit at site 1 are being prepared for early submittal to me.

Therefore, I agreed that it seemed logical to deepen hole 9-2 as much as 300 feet, if necessary to penetrate the igneous laccolith? there and reach the Georgetown limestone, while it is being determined which of the other holes, if any, also should be deepened thusly.

Agreement still has not been obtained from the owners of sections 109 and 105 to permit moving off to drill the authorized angle hole 8-5 in section 108. Mr. Kendrick is tentatively planning to recess the project work under the contract while drilling the balance of the 7,200 feet entirely at the Operator's expense, as required under the lease agreement on the sections 109 and 105. In that case drilling of the angle hole likely would not be drilled until mid-winter.

I explained that King and I just had completed our Texas examinations and would require a few days office work yet before determining what other drilling might be justifiable in sections 105 and 109 under the existing contract.

CCK/enn

Knox

cc: King, USGS, Denver-Airmail
DMEA Op. Com. (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

400

RECEIVED
SEP 10 1956

Airmail

September 6, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

WSN

Re: DMEA-3776 (mercury)
Lajitas, Presidio County, Texas
Contrabando Project Contract Idm-E893

Dear Mr. Kendrick:

Please be advised that Robert U. King of the Geological Survey, Denver, and I plan to arrive for the Field Team inspection of your project about September 14 when we will contact Mr. Whittiker there.

In addition to our field inspection of all the Contrabando project area, I believe he at least will want to examine all the cores at your camp which have been obtained since Faick and I were there July 22.

It is unlikely that we can drive through Abilene to visit your office because we have several other DMEA Field Team examinations to make in the Panhandle, Big Bend, and Llano regions of Texas before I catch a plane in Fort Worth for return to Joplin. If the necessity should arise, I can be contacted at this office (Joplin phone MA 3-8470) until 10:30 A.M. Monday September 10, or at the Holland Hotel in Alpine about the evening of September 12.

With hopes that you are having better success at the project since I last heard from you on August 28, I am,

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

cc: King, USGS, Denver (Airmail)
DMEA Op. Com. (2)
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
AUG 31 1956

400

Airmail

August 29, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury-uranium)
Contrabando dome, Presidio County, Tex.
Project Contract Idm-E893

Dear Mr. Kendrick:

Please be advised that I have approved your Monthly MF-104 Report and cost claim in full covering the project work in June, and forwarded the original to the Regional Finance Officer, Bureau of Mines, Bartlesville, Oklahoma, for certification of the Government's participation payment.

Receipt of your July MF-104 Report is hereby belatedly acknowledged, but with reference again to my June 5 letter to you, a back-log of at least a month will continue to be maintained in my approvals of your MF-104 Reports and cost claims pending receipt at least of an acceptable map of Area 1 where holes 9-1, 9-2 and 9-9 have been drilled, and to insure rendition of the Final Report upon termination of the project as required under Article 6 (c) of the Contract.

Unless chances for finding ore look much better upon completion of the now authorized holes No. 8-5 and 5-8, the Contract undoubtedly will terminate then automatically for want of Government approval for any more "Stage II" project work.

A supply of MF-104 and -104A Forms are enclosed for preparing your August Report.

Also, many thanks for your telephone call on August 23 and that yesterday. I sincerely hope some of the suggestions I made will prove of some assistance, and that you have found a driller that can learn to cope with the difficulties of Contrabando. I hope to be able to visit the project and possibly your Abilene Office by mid-September but will let you know definitely as soon as a firm date can be set.

Until then, with best personal regards, I am,

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/enn

encl.(12)

cc: DMEA Op. Com. (2)
Harshman, USGS-Denver (2)
3776 file

Memo of phone call 11:25 a.m. 8-28-56

From: P. S. Kendrick, Pres., Big Bend Mining, Abilene, Texas

RECEIVED
AUG 31 1956

To: Knox, DMEA, Joplin, Mo.

Subject: Progress on Contrabando Dome Proj. Cont. Idm-E893
Big Bend Mining, Inc., Docket DMEA-3776 (Hg-U)

Mr. Kendrick reported that drilling of hole No. 5-8 in the "sink" structure in section 105 had reached 150 feet (solid calcite the last few feet but no cinnabar indications) when the diamond driller quit. He mentioned that he had airmailed me a note thereon which I yet have not received.

Although a promising new driller has been found, he has not followed the diamond drilling trade in recent years. Therefore, Mr. Kendrick believed it would be profitable for the new driller to observe such operations as better practiced elsewhere, before starting to resume this project drilling. He is making plans for such an observation trip, among other places, to the Eastern Missouri Lead Belt, and asked who might be contacted there for such information and visits to diamond drilling operations. I suggested contacting the following by telephone beforehand:

St. Joseph Lead Co., Bonne Terre, Mo.
Lattie Goggins Drilling Co., Elvins, Mo.
Chas. Johnson & Sons Drilling Co., Fredericktown, Mo.

Knox

cc: DMEA Op.Com. (2)
Harshman, USGS-Denver (2)
3776 file
Knox

RECEIVED
AUG 3 1 1956

Memo of phone call 2:15 p.m. 8-23-56

From: P. S. Hendrick, President, Big Bend Mining, Abilene, Texas

To: Knox, DMEA Field Team, Joplin, Mo.

Subject: Progress on Contrabando Dome Project Contract Idm-3093
Big Bend Mining, Inc., Docket DMEA-3776 (Hg-U)

Mr. Hendrick reported that drilling of hole No. 9-9 was in progress at 576' in depth on 8-22-56 in the igneous sill which at that depth seemed virtually impossible to drill.

Since his previous telephonic report on August 6 the following had been cored with no cinnabar indications:

152 to 462' fractured Boquillas flags
462 to 553' Buda limestone
553 to 563' Del Rio clay
563 to 576' igneous sill

The cores of the igneous dike with significant-appearing mercury mineralization from 16 to 109' had been split; half sent in samples to be assayed, and half retained in the core boxes for Field Team inspection.

Since the sedimentary beds in hole 9-9 appeared to be only a little higher than in hole 9-2 which bottomed on the opposite side of the mercury-bearing igneous dike that crops out updip, and the igneous sill (?) evidently is only about 20 feet higher, he felt it would be hopeless to try to reach the Georgetown limestone in hole 9-9. Anyhow, if it could be bottomed in that strata, it would be too far from the projection of the most favorable-appearing fracture zone in the igneous dike where the best 8 inches of cinnabar "ore" was cored at 84 feet in depth (evidently the footwall of that dike is somewhat flatter than the 83-degree dip measured in the open pit). I agreed upon the abandonment of drilling in hole 9-9.

He said hole No. 5-3 in the inferred "sink" structure in Area 7 would be drilled next. I had urged drilling of the authorized angle hole 8-5 as soon as possible.

I explained that in addition to the geologic log and assays of the above-mentioned hole 9-9 core samples, a reasonably accurate sketch map of Area 1, showing locations and elevations of holes 9-1, 9-2 and 9-9 and the open pit, surface geologic features and topographic contours (as good as that presented for justifying drilling of hole 8-5 on Amendment No. 3) and a vertical geologic section to scale through holes 9-2, 9-9 and the open pit, should be included in his August MF-104 Report.

I mentioned that I recently had opportunity to discuss his diamond drilling difficulties with leading drilling contractors of the

A drilling contractor at Fredericktown, Missouri, said his best 2-man crew that way could pull 1,000 feet of rods in 15 minutes, and in a demonstration actually pulled 1,110 feet of rods in that time. Of course, they keep the rods and threads well greased, as you do.

Difficulties with steep-angle fracturing there, as at Contrabando, also result in cores wedging in the core barrel. That is generally alleviated when the core barrel is carefully cleaned, by pouring a little gasoline through it and lighting to heat the barrel some, after which a large wax mine candle is twirled through it. The wax coating thus provided permits easier removal of the next coring.

CCK/ern

Knox

cc: DMEA Op. Com. (2)
Harshman, USGS-Denver (2)
3776 file
Knox

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~XXXXXXXXXXXXXXXXXX~~D. C.
Box 431
Joplin, Missouri

August 28, 1956

Mrs. Cora A. Piper, Fiscal Officer
U. S. Bureau of Mines, Region IV
206 Federal Building
Bartlesville, Oklahoma

Re: DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando Dome project
Lajitas, Presidio County, Tex.
DMEA Contract Idm-E893

Dear Mrs. Piper:

Transmitted herewith to be certified for the Government's 75 percent participation payment is the original of this Operator's Monthly MF-104 Reports and cost claim covering the project work in June, approved by me in the amount of $3,930.00.

Upon receiving this report from the Operator July 30, one copy was forwarded to the Geological Survey Member of the Field Team; the two Washington copies are being held here pending receipt of your voucher data to be posted thereon.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl.
cc: DMEA Op. Com. (2)
Harshman, USGS-Denver
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
AUG - 8 1956

August 6, 1956

DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: DMEA-3776 (mercury)
Big Bend Mining, Inc.
Contrabando dome Project Contract Idm-E893
Presidio County, Texas

Dear Sirs:

Forwarded herewith for your office are the executed original and two copies of Amendment No. 2 to the cited Contract.

One executed copy was retained by the Operator, one by the Field Team, and one has been sent to the Finance Officer.

Sincerely yours,

Clinton C. Knox

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl. (3)
cc: DMEA Op. Com.
Finance Officer(USBM, Reg. IV)W/C Amend. #2
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
AUG - 8 1956

~~WASHINGTON, D.C.~~
Box 431
Joplin, Missouri

August 6, 1956

Mr. E. N. Harshman, Field Team Member
Geological Survey - DMEA
Denver Federal Center
Denver, Colorado

Re: DMEA-3776 (mercury)
Big Bend Mining, Inc.
Contrabando dome Project Contract
Idm-E893
Presidio County, Texas

Dear Mr. Harshman:

As I understood Mr. Faick at the cited project two weeks ago, consistent with the procedure in your region, the extra copies of his Interim Reports, dated June 26 and July 27, enclosed herewith, should have been returned through your office upon furnishing the necessary four copies to Washington.

Copies of my memo accompanying the latter are also enclosed herewith for you and Mr. Faick. Any comments or suggestions you might wish to make thereon will be welcomed.

Sincerely yours,

CCK/emm

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl. (8)
cc: DMEA Op. Com. (2)
Faick
3776file

East Missouri Lead Belt where I believe as much diamond drilling has been, and is being done as in any other mining region, and at as low a cost. The hints which they offered for passing along to him were described to him as follows:

They have found that a diamond coring bit made especially at their request by "Truco" (Wheel Trueing Tool Co., 3200 W. Davison, Detroit 38, Mich.) is best for drilling the hard basement granite and porphry intrusives there (probably comparable to the Contrabando rhyolite laccolith).

The lead belt virtually has standardized on a special AJ-size bit, - about like AX-size but I believe a little heavier stock, cutting only 1 3/16" core (1 15/16" over all hole). No reaming shell is used.

For drilling the hardest igneous rock, they specify "oriented" diamond coring bits with rather fine stones averaging 60 to 110 stones/ct. (cost about $11/ct.). Each bit contains about 6½ cts., costing about $100 new (less than the bits of the same size formerly used) with the specified special tungsten carbide insert leads on the two waterways (but exchange runs only $30 to $40 apiece - possibly less for your NX-size bit than you now are paying).

For limestone, coarser stone "oriented" diamond coring bits are ordered with an average of 30 to 50 stones/ct. which have been found to cut fastest. They contain about 12½ cts. and are also furnished with tungsten carbide insert leads on the two waterways to prevent peeling the settings when the hard flint nodules are encountered. Exchange on them costs $50 to $60 apiece.

In sandstone, ordinary impregnated bortz coring bits are used, but especially for drilling the hard dolomitic limestones or granite with them, they are sandblasted whenever the rods are pulled to maintain maximum cutting speed. Impregnated bits from "Drillco" (Diamond Products, Inc., 336 Prospect, Elyria, Ohio) were said to have given the best performance.

Most of the diamond drill rigs I have seen in East Missouri had been manufactured in the contractor's own shops, incorporating various ideas which those diamond drillers of the past generations have found useful. One such "home-made" rig I saw along the highway near Bixby, Missouri, on my return trip to Joplin, had just completed drilling a hole to 2,004 feet in depth, drilling granite below 1,050 feet which was intruded in several zones with fine-grained very hard-to-drill porphry. Bits were said to drill only 20 feet apiece in those hardest zones but they do not push them by increasing the pressure, and change bits as soon as the cutting rate diminishes.

Standard practice in East Missouri also is to pull rods in 20-foot length, laying them all down in a wood trough at the edge of the platform which they explained had been found faster and to require less labor than standing longer rods in the mast. Thus, a man at the mast-head is not required and much of the time of lowering the swivel connection after disengaging from the string of rods each time, is eliminated.

RECEIVED
AUG 8 1956

Memo of phone call 10:55 a.m. 8-6-56

To: Knox, DMEA Field Team, Joplin, Mo.

From: P. S. Kendrick, President, Big Bend Mining, Inc., Abilene, Texas

Subject: Project progress for week ending August 4,
Contrabando dome, Lajitas, Presidio County, Texas
Contract Idm-E893, Docket DMEA-3776 (Hg, U).

Mr. Kendrick said that the Project Supervisor had called him from Alpine yesterday to relate that drilling of "Stage II" hole is in progress at 152 feet in depth with the following results noted to date:

0-16' Boquillas flags dipping sharply to the west
16-109' highly fractured and altered igneous rock with calciferous fracture fillings and a trace of cinnabar throughout as indicated by "screen" tests; a showing of well-developed cinnabar crystals in a 8-inch core of the igneous rock at 84 feet in depth.
109-152' vuggy Boquillas flags dipping 45 to 60 degrees, with much calcite and iron mineralization; highly brecciated limestone and shale in the contact zone on the "footwall" of the igneous dike at 109'.

Mr. Kendrick also said he hopes this week to be able to contact Mr. Harris Smith of Joplin, the representative of the landowners of sections 105 and 109, to obtain a temporary relaxation of the lease requirement for continuously drilling of 7,200 feet thereon, so that the angle hole No. 8-5 on State-owned section 108, authorized under Amendment No. 2, can be drilled next before the Operator must drill at least another 4,000 feet (mostly planned to be rotary rock-bit drilling on its own account) to fulfil its Bledsoe lease committment within the specified time.

CCK/enn

Knox

cc: DMEA Op. Com. (2)
Harshman (USGS-Denver)
Faick (USGS-Tucson)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
AUG - 6 1956

~~WASHINGTON, D.C.~~
Box 431
Joplin, Missouri

Airmail

August 1, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury)
Contrabando dome, Presidio County, Tex.
Project Contract Idm-E893

Dear Mr. Kendrick:

Enclosed are the original and five copies of the proposed Amendment No. 2 which I have signed for the Government. If its terms and conditions are found satisfactory to your company, please sign all six, retaining the "Operator's Copy" for your files; otherwise, return all to this office with your proposed changes to be considered.

Also, please be advised that I have approved your Monthly MF-104 Report and cost claims covering the project work through May in its entirety, and forwarded the original to the Regional Finance Officer of the Bureau of Mines at Bartlesville, Oklahoma, for certification of the Government's participation payment.

Referring to my July 11 letter to you, it has been agreed since the Field Team left your project July 22, that you now safely can discard all the cores from holes No. 9-1, No. 9-2, No. 5-6, and No. 5-7, but only the upper 225 feet of hole No. 9-3. Please continue to store properly all other cores until I advise otherwise in writing.

A supply of MF-104 and MF-104A Forms also are enclosed herewith for preparation of your July Report.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl. 18
cc: DMEA Op. Com. (2)
Harshman (USGS-Denver)
Paick (USGS-Tucson)
3776 file

EXTRA COPIES

EXPLORATION PROJECT CONTRACT NO. IDM-2893
BIG BEND MINING, INC.
DOCKET NO. DMEA-3776 (MERCURY-URANIUM)

RECEIVED
AUG - 6 1956

AMENDMENT NO. 2

It is agreed this 30th day of July, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government", and Big Bend Mining, Inc., hereinafter called the "Operator", parties to that certain Exploration Project Contract No. IDM-2893 (Docket No. DMEA-3776), dated November 3, 1955, as amended, hereinafter called the "Contract", that effective as of the date first above written, said Contract hereby is further amended as follows:

1. In Amendment No. 1, effective January 20, 1956 as a part of said Contract, the second paragraph on page two referring to drilling in "Area No. 11", hereby is deleted and the following stipulations substituted:

In the area of the so-called Shoemaker underground mine workings in the southwest part of section 105, included under the Contract, hole No. 8-5 shall be drilled to a maximum depth of 700 feet from a point designated in the ravine approximately 720 feet east and 865 feet north of the southwest corner of that section. This hole shall be drilled bearing due east on an inclination of -60 degrees.

2. In Amendment No. 1 of the Contract, the fifth paragraph on page two, referring to drilling in "Area No. 16", also hereby is deleted and the following stipulations substituted:

In Area No. 7 in section 105, indicated on the maps attached as a part of the Contract, hole No. 5-8 shall be drilled vertically to a maximum depth of 800 feet in the indicated "sink" structure at a designated point approximately 2,730 feet N 27° E from the southwest corner of that section.

The table of relationships between the drill hole numbers at the bottom of page two in Amendment No. 1 of the Contract, also hereby is changed in accordance with stipulations in the two foregoing items.

This Amendment No. 2 in no way alters the total drilling allowable, or the total and Fixed Unit Costs for "Stage I" work set by the Contract.

The fourth paragraph on page 3 in Amendment No. 1 to the Contract is hereby deleted and the following stipulations substituted:

Total and Fixed Unit Costs of work and the methods for doing the work under Stages II and III, as set by the original Contract, shall apply to any such work under these stages as may be approved and specified in writing by the Government upon prior written request and adequate justification by the Operator.

This Amendment No. 2 shall not be construed to increase the estimated cost of the project, the aggregate total amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

Executed in sextuplicate as of the day and year first above written.

THE UNITED STATES OF AMERICA

By: _____
Executive Officer
DMEA Field Team, Region IV

RIO BEND MINING, INC.

By: _____
President

Memo of phone call 10:05 a.m. July 30, 1956

RECEIVED AUG - 1 1956

To: Knox, DMEA, Joplin, Mo.

From: P. S. Kendrick, President, Big Bend Mining, Inc., Alpine, Texas

Subject: Necessity to discontinue diamond drilling of hole No. 9-4, site 4, "Stage I", Contrabando dome project, Contract Idm-E893, DMEA-3776 (mercury-uranium), Presidio County, Texas

He said that a supply of reset diamond bits were received to permit continuation of drilling on this hole following his summary conference with Faick (USGS-Tucson) and I last Monday morning, July 23, so he too left Alpine, returning to his Abilene office.

Concerned upon receiving word that the tough fine-grained "granite" had been reached in this hole as encountered in all the previous five holes, he returned to the project Saturday. Only 60 feet was drilled all last week, averaging 1.3 feet per hour of actual drilling time, at a terrific bit consumption following penetration of the porous altered upper section of the igneous rock encountered at 360 feet in depth.

Since we left the project last Sunday the rock had become progressively tougher and virtually impenetrable where drilling of the hole is in progress this morning in the "granite" at 522 feet in depth. Various types of bits have been used but the inside borts of all wore down until the core wedged tight therein. No pyrite or other significant mineralization was noted in this fine-grained igneous rock.

Therefore, I agreed with him that it seems hopeless to continue trying to penetrate this laccolith (?) or dike (?) at site 4, as the Field Team had urged. Therefore, drilling can be stopped on hole 9-4 at his discretion but the hole and casing should be left in condition for resumption if justifiable and an effective drill bit can be found.

I explained that the decision whether to grant the Amendment No. 2 on his request finally received last Thursday for changed sites of the final two "Stage I" holes, last Thursday would not be made before the morning of August 1.

I acknowledged receiving this morning his MF-104 Reports covering the June project work which had been revised following my July 17 conference in his Abilene office; likewise his request since attached thereto for drilling of a "Stage II" hole at site 1.

Under the circumstances whereby decision on his requested Amendment No. 2 would be delayed, I approved drilling to start on the "Stage II" hole at site 1. The hole is to be drilled vertically at a point along a line N 18° W of hole No. 9-2 about midway to the open pit at site 1. In confirmation, formal written approval of the Government will be furnished in a letter to him this afternoon with the total and fixed unit costs and

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

xxxxxxxxxxxxxxxxxxxx
Box 431
Joplin, Missouri

Airmail

RECEIVED
AUG - 6 1956

July 30, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury)
Contrabando dome, Presidio County, Tex.
Project Contract Idm-E893

Dear Mr. Kendrick:

With reference to your written request to drill a hole at Site 1 under "Stage II" of the cited Contract, and our discussions and verbal agreement thereon during your telephone call to me this morning, this is to formally confirm the approval of the Government which I gave for drilling that hole.

Contrary to your written request, the approval was given with the understanding that this "Stage II" hole No. 9-9 shall be drilled at a point approximately 50 feet N 18° W of the previously drilled hole No. 9-2. This third hole at Site 1 near the so-called Shoemaker open-pit also shall be diamond core drilled vertically. Its ultimate objective, at a maximum of 800 feet in depth, is the Georgetown limestone strata near its contact with the footwall of the porous, highly fractured, mercury-bearing, ryholite dike, as indicated in the so-called Shoemaker open-pit where its footwall apparently has an average dip of about 83 degrees to the west.

Despite the difficult drilling conditions indicated in the pit, I am hopeful that by drilling this hole you will at least be able to core a representative sample entirely through the indicated dike, the top of which is obviously near the surface at this designated site for hole No. 9-9.

Thus, we might be able to determine if the only significant mercury mineralization is confined to a fracture zone along one side or the other of the footwall contact of the indicated dike with the baked sedimentary strata, as implied from the visible cinnabar exposures here and in the so-called Shoemaker underground mine workings to the north in section 108.

I will be particularly anxious to be kept informed on the progress and results of drilling hole 9-9.

As I further explained on the phone, in the meantime I expect to make the decision about August 1 as to whether the Amendment No. 2 you formally requested last week can be granted for changed locations of the final two holes allowable under "Stage I" of the Contract. Rest assured that you will be informed as soon as that decision can be made; likewise, regarding my approval of your May MF-104 Claim, of which you inquired.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

cc: DMEA Op.Com.(2)
Harshman, USGS-Denver
Falck, USGS-Tucson
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~XXXXXXXXXXXXXXXX~~
Box 431
Joplin, Missouri

RECEIVED
AUG - 6 1956

July 31, 1956

Mrs. Cora A. Piper, Fiscal Officer
U. S. Bureau of Mines, Region IV
206 Federal Building
Bartlesville, Oklahoma

Re: DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando Dome Project
Lajitas, Presidio County, Tex.
Contract Idm-E893

Dear Mrs. Piper:

Transmitted herewith to be certified for the Government's 75 percent participation payment is the original of this Operator's Monthly MF-104 Report and cost claim covering the project work in May, approved by me in the amount of $3,658.00.

On June 18, one copy of this report was forwarded to the Geological Survey Member of this Field Team and one copy to the Washington Office of D.M.E.A. Its second copy is being held here pending receipt of your voucher data to be posted thereon; the fifth copy will be retained in the docket file here.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl.
cc: DMEA Op.Com.(2)
Harshman (USGS-Denver)
3776 file (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
JUL 30 1956

Air Mail

July 26, 1956

Memorandum

To: D.M.E.A. Operating Committee, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region IV

Subject: Revised specifications for drilling the final two holes allowable under "Stage I", Contract Idm-E893, Contrabando dome project, Presidio County, Texas; Big Bend Mining, Inc., Docket DMEA-3776 (Hg-U)

Forwarded herewith for your information are two copies of telegraphic recommendations from John Faick, USGS, Tucson, and the original and three copies of this Operator's request and justifications for a proposed Amendment No. 2 on the cited contract, as received here today upon my return from DMEA examinations in Oklahoma and Texas during the past ten days.

Although the reports by Faick and I, covering our joint project examination there last week are in preparation, their completion probably will require another week. I believe, however, you will find the enclosed sufficiently self-explanatory.

Drilling of the sixth hole (No. 9-4) under "Stage one" was in progress in igneous rock at 450 feet in depth when we left the project Sunday evening. Upon its completion, therefore, I want to be in position to grant the requested Amendment No. 2 under my delegated authority, without causing any undue delay to the project operations, so if you have any suggestions or objections to me doing that, I would appreciate having you contact me here not later than Tuesday, July 31. Needless to say, I unhesitantly concurred with these recommendations by Faick.

Sincerely yours,

Clinton C. Knox

Clinton C. Knox

CCK/enn

encl. (5)
cc: DMEA Op.Com.(1)
Harshman, USGS, Denver
Faick, USGS, Tucson, w/c inc.let. of Kendrick
3776 file (2)

COPY

COPY

RECEIVED
JUL 30 1956

WESTERN UNION TELEGRAM

SA234 DB325
D LLE578 LONG GOVT NL PD=WUX DALLAS TEX 25= 1956 July 25 PM 8:37

CLINTON C KNOX=
EXECUTIVE OFCR DMEA FIELD TEAM REGN 4 BX 431 JOPLIN=

I REVIEWED PROPOSALS TO DRILL REMAINING HOLES OF STAGE ONE OF CONTRACT IDM-E893, DMEA 3776. IF OPERATOR'S FORTHCOMING REQUEST TO DRILL THESE HOLES IN SINK AT AREA SEVEN SECTION 105 AND AT SHOEMAKER PROSPECT IN SECTION 108 CONFORMS TO PLAN WE DISCUSSED LAST WEEK, THEN I UNHESITANTLY RECOMMEND DRILLING BOTH HOLES. SEE PAGES TWELVE AND THIRTEEN OF MY JUNE REPORT FOR REASONS FOR THIS RECOMMENDATION=

JOHN N FAICK TUCSON ARIZ=.

COPY

BIG BEND MINING, INC.
Box 269
Abilene, Texas

RECEIVED
JUL 30 1956

July 25, 1956

Mr. Clinton C. Knox
Defense Minerals Exploration Admin.
Box 431
Joplin, Missouri

Re: DMEA-3776 (Mercury)
Contrabando Dome Presidio
County, Texas
Project Contract Idm-E893

Dear Mr. Knox:

Enclosed are the following: original and four copies of application to amend Big Bend Mining, Inc. contract for your approval.

Yours very truly,

BIG BEND MINING, INC.

By /s/ P. S. Kendrick, President
/t/ P. S. Kendrick, President

PSK:vy
encl.

RECEIVED
MINERALS TECHNOLOGY
DIVISION

BIG BEND MINING, INC.

Box 269
ABILENE, TEXAS

RECEIVED JUL 26 1956
JUL 3 0 ... BUREAU OF MINES
JOPLIN, MO.

July 24, 1956

Mr. Clinton C. Knox
Defense Minerals Exploration Admin.
Box 431
Joplin, Missouri

Re: APPLICATION to Amend Big Bend Mining, Inc. Contract. Docket No. DMEA-3776 Contract No. IDM-E893

Dear Mr. Knox:

This is to request the above captioned contract be amended to change location of the two remaining designated holes, 5-5 and 5-8, in stage one to the following locations:

1. To location designated as area 7 on Wilson map attached to application. Located 2750 feet N 27°E from the Southwest corner of Section 105 and drilled to a depth of 800 feet or as justified.

   Justification:
   This is a very large and well developed sink or collapsed area with an unusual amount of calcite and limonite which are usually associated with cinnabar deposition.

2. To near so-called "Shoemaker workings" in Southwest part of Section 108 as indicated on enclosed sketch. Hole to be located 865 feet from South and 720 feet from West lines of Section 108, Block 341, T C Ry. Survey and drilled at an angle of 60°(degrees) to 650 feet or as justified.

   Justification:
   The so-called Shoemaker area has been prospected by an adit 55 feet long and by winze 100 feet deep, also by several surface pits and trenches. Cinnabar was found in most of the prospects and small amounts of cinnabar can be seen in dumps near the prospects. Reference is made to assays in Armstrong report of January 12, 1956 made to you. The strata as indicated by attached sketch reveals favorable geological conditions for cinnabar deposition. It appears probable that the Georgetown can be reached here at a reasonable depth.

Respectfully submitted,

BIG BEND MINING, INC.

By P. S. Kendrick, President

PSK;vy
Encl.

DRAFT
TLChapman:fec

EXPLORATION PROJECT CONTRACT
BIG BEND MINING, INC.
DOCKET NO. DMEA 3776

AMENDMENT NO. 1

It is agreed this _____ day of _____, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration and Big Bend Mining, Inc., that Exploration Project Contract No. Idm-E893, Docket No. DMEA 3776, dated November 9, 1955, hereinafter called the "Contract", is amended as follows:

A map by Escar W. Armstrong, Consulting Geologist, is attached to this amendment and is entitled Surface Structure Map, Southwest Flank of Contrabando Dome.

Delete Stage I and substitute the following:

Bulldoze approximately 3 to 4 miles of access roads and prepare drill sites, 1, 2, 3, 6, 11, 14 and 18.

In Area 1, drill hole No. 41 at a point 150 feet, N. 65° W. of the open cut to an approximate depth of 510 feet.

In Area No. 1, drill hole No. 42 at a point 100 feet along the road S. SW. of the open cut. In case this hole gives undue trouble it may be advisable to move it 30 to 40 feet southwest of the hanging wall strand of the fracture zone. This hole will have an approximate depth of 510 feet or to penetrate the Georgetown limestone.

In Area No. 2, drill hole No. 43 at a point 90 feet, S. 21° W. from the smaller of two igneous intrusions, which occur in the major

fault trace. If Hole No. 42 was moved, then this hole should be moved approximately the same distance. This hole will have an approximate depth of 485 feet.

In Area 3, drill hole No. 44 at a point 140 feet, N. 12° E. of a small isolated igneous intrusion, 70 feet SE. of the east end of a larger igneous intrusion in the major fault trace, to a depth of 505 feet or to penetrate the Georgetown limestone. Should the hanging wall area in Hole No. 42 prove more favorable then this hole should be moved an corresponding distance in the same direction.

In Area No. 11, (Reconnaissance Map of Contrabando Dome with contract), drill Hole No. 45, on northwest side and within 5 feet of fault to a maximum depth of 700 feet. (Hole No. 5 of Armstrong report is disapproved).

In Area No. 6 (contract map), drill hole No. 46 at the center of the sink hole, to a maximum depth of 600 feet.

In Area No. 14 (contract map) drill Hole No. 47 on the southeast side and within 5 feet of the fault to a maximum depth of 700 feet.

In Area No. 18, (contract map), drill hole No. 48 on the northwest side and within 5 feet of the fault, to a maximum depth of 800 feet.

The relative numbers of hole numbers in this amendment, in the Contract and the Armstrong map are as follows:

New Numbers In Amendment	Numbers in Contract	Numbers on Armstrong Map	Depth	Area	For Location See
41	1	1	510'	1	Armstrong Map
42	2	2	510'	1	Armstrong Map
43	3	3	485'	2	Armstrong Map
44	-	4	505'	3	Armstrong Map
45	5	-	700'	11	Contract Map
46	4	7	600'	6	Contract Map
47	6	9	700'	14	Contract Map
48	7	10	800'	18	Contract Map
			4,810'		

All holes shall be drilled vertically unless approval of inclined holes is obtained from the Government.

All holes shall be not less than AX size, cores shall be marked and properly stored for inspection and cores from mineralized zones shall be split and assayed for mercury. The total drilling for this Stage I shall not exceed 4,900 feet.

In at least one of the holes numbered above the Georgetown limestone when found is to be penetrated to a depth of 100 feet.

Estimated Cost of the Project
Fixed Unit Costs

STAGE I

Costs shall be the same as shown in Stage I of the Contract.

STAGES II AND III

Total costs of Stages II and III shall be determined by new amendments describing work of these stages if more work is approved by the Government.

This amendment shall not be construed to increase the estimated cost of the project, the aggregate total amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By_____
Executive Officer
DMEA Field Team, Region IV

BIG BEND MINING, INC.

By_____

(400)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 13 1956

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

Airmail

July 11, 1956

Mr. John N. Faick, Geologist
U. S. Geological Survey
Box 4126, University Station
Tuscon, Arizona

Re: DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando dome, Presidio County, Tex.
Project Contract Idm-E393

Dear Mr. Faick:

Thanks for your July 9 letter, received after my letter to you was Airmailed yesterday, but with virtually the same suggestions for our joint Field Team inspection of the subject project next week.

Because of the need for a Field examination of an Applicant's property near Pawnee, Oklahoma next Monday, and conferences in Abilene, Texas, the next evening, I will drive this trip. Therefore, you might as well come by plane Wednesday July 18 (Trans-Texas Airline, leaving El Paso about 1:30 P.M. and arriving at Alpine-Marfa Airport at 4 P.M.). If I am delayed and fail to be there to meet you then, you can come into Alpine with the mail carrier.

I am requesting hotel reservations for us and advising Mr. Kendrick of the Operator's Abilene Office that we will be there. Please call me (Joplin - MAyfair 3-8470) Friday if any significant changes in plans become necessary.

I still have received no word on the project progress since Mr. Whittiker's phone call on June 27. Previously, however, Mr. Kendrick said he would be on vacation until July 10, recuperating from surgery of last month, so I expect to hear something from him before the close of this week. Possibly Mr. Whittiker is under the impression that the Abilene Office has relayed information to me. I just returned Sunday from a 6-day vacation trip in New Mexico so contacts with this and other Operators of this region have not been maintained.

Hoping to make your acquaintance soon, I am,

Sincerely,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/enn
cc: DMEA Op.Com.(2)
Harshman, USGS, Denver
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
JUL 13 1956

Airmail

July 11, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury-uranium)
Contrabando dome, Presidio County, Tex.
Project Contract Idm-E893

Dear Mr. Kendrick:

Although we have received no word regarding progress on your project since Mr. Whittiker's June 27 phone call, presumably hole No. 9-4 is nearing completion.

While I will be on DMEA examinations in Oklahoma and Texas next week, the July Field Team inspection of your project will be opportune beginning the morning July 19. I plan to contact your Abilene Office upon arrival there the evening of July 17, and drive to Alpine the next day in time to meet John Faick of the U. S. Geological Survey, Tuscon, upon his arrival at that Airport. After being brought up to date on results of the project work during the past month, we will want to discuss your plans for any future work.

As Mr. Faick suggested after inspecting your project last month, in order that you might save by reusing some of the core boxes, this also is to formally confirm the Field Team's authorization to discard only the following cores:

Hole 9-1,	the	upper	550	feet
Hole 9-2,	"	"	500	"
Hole 9-3,	"	"	225	"
Hole 5-6,	"	"	150	"

Except for those, you should continue to store properly all cores, at least until "Stage I" of the project work is completed, terminated, or you are advised otherwise in writing.

Another supply of Monthly Report Forms MF-104 and MF-104A are enclosed herewith.

With best personal regards, and hopes of sseing you again soon, I am,

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl.
cc: DMEA Op.Com.(2)
Faick, USGS, Tuscon
Harshman, USGS, Denver
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 12 1956

400

Airmail
Spec. Del.

Box 431
Joplin, Missouri

July 10, 1956

Mr. John N. Faick, Geologist
U. S. Geological Survey
Box 4126, University Station
Tuscon, Arizona

Re: DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando dome, Presidio County, Tex.
Project Contract Idm-E893

Dear Mr. Faick:

Thanks for your Interim Report on the June 10-15 inspection of the cited project, received a week ago through Mr. Harshman's office in Denver. I believe it gives very good coverage, and that he and I are in concurrence with your recommendations, so I am forwarding the original and three copies with copies of this letter to the Washington Office of DMEA, as required there.

As suggested in my telephone memo of June 27, and in view of the proposals for modifications in this exploration program, a joint Field Team inspection of the project by you and me is desirable soon. Therefore, if possible for you to make the arrangements at this late date, I would like to meet you at the Holland Hotel in Alpine on Wednesday evening July 18. Otherwise, please let me know soon, and I will try to set a later date that will meet with your requirements. I hope we can spend at least three days in that region because I recently assisted in preparing applications which should be "in the mill" soon on mercury properties there of the Dow Chemical Company and Brown & Root, Inc., which I believe we should also see on this tentatively planned trip.

Admittedly, I suggest the date of July 18 to meet you in Alpine for my convenience because I have arranged to meet Mr. Stafford (A.E.C.) for a Field Team examination at Pawnee, Oklahoma, on July 16. Thence, I could confer with Mr. Kendrick of Big Bend's Office in Abilene, Texas, the evening of July 17, and plan to drive to Alpine by the next evening. If you cannot come to Alpine then, however, I will return to Joplin after the Pawnee examination, and try to arrange the Texas trip later at your convenience.

I have received no word regarding this project work since that June 27 phone call from Mr. Whittiker but believe our inspection there next week would be timely. I will notify Big Bend of our plans this

coming Friday, if I hear nothing from you to the contrary.

Sincerely,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

cc: DMEA Op.Com.(2) w/4c. Interim Report
Harshman, USGS, Denver
3776 file

Memo of phone call 8:20 A.M. 6-27-56

RECEIVED
JUL 2 - 1956

From: L. C. Whittiker, Big Bend Mining, Inc., Alpine, Texas

To: Knox, DMEA, Joplin

Subject: Progress on Contrabando dome, Project Contract Idm-E893, Docket DMEA-3776 (mercury), Lajitas, Texas

Mr. Whittiker stated:
Hole No. 5-6 completed at 213 feet in depth
(igneous rock at 175 feet to bottom)
Hole No. 5-7 - completed at 395 feet in depth, 6-25-56
(igneous rock at 340 feet to bottom almost impossible to drill with present equipment)
Hole No. 9-4 - started 6-26-56
(on revised location approved by my June 18 letter).

He said he was about ready to "throw in the sponge", but Hole 9-4 location looks better, and he would try to drill through the igneous rock in whatever hole we suggest.

I told him that Faick and I would try to meet at the project about mid-July and make recommendations for the impending "wind up".

CCK/enn

Knox

cc: DMEA Op. Com. (2)
Harshman, USGS, Denver
Faick, USGS, Tuscon
Martin

7/2/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
JUL 2 - 1956

dmea 3776
E-893

June 27, 1956

Mr. E. N. Harshman
U. S. Geological Survey - DMEA
Denver Federal Center
Denver 2, Colorado

Re: DMEA-4304 (uranium)
Louis A. Sanford
Pawnee, Oklahoma

Dear Harsh:

Thanks for your letter of June 22, on my desk when I returned from Eastern Missouri this morning.

With reference to it and the above-cited application, I believe you will find the attached copy of my letter to Mr. Sanford self-explanatory.

I expect to hear from John Faick (USGS, Tuscon) shortly regarding his June 11 inspection of the Contrabando Project Idm-E893 in Texas, and regarding my suggestion that he and I jointly make the next Field Team inspection there after mid-July (see attached memo of phone call from Mr. Whittiker this morning).

If I do arrange to drive through Oklahoma on the way to or from Texas about July 16 or 23, and Pete Beroni is to be at the Sanford property about then, I will change my arrangements some way accordingly and make the Sanford examination with him. I doubt, however, that it will justify either him or me going there; certainly not one of your men too.

I will appreciate any such arrangements you can make with Pete, if he believes my trip would be justifiable. Otherwise, I believe I should recommend a denial when the A.E.C. information thereon is made available through you.

If Pete and I do examine the Sanford property I will make a sketch map, write a report, and send them for your addition of the geologic report you might sponge off Pete. Of course, if it does prove to have real potentialities, then a joint Field Team examination may be preferable.

1 copy to Martin

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/enn
cc: DMEA Op. Com. (2)
Faick, USGS, Tuscon
4304 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
JUN 20 1956

Airmail

June 18, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury-uranium)
Contrabando dome, Presidio County, Tex.
Project Contract Idm-E48

Dear Mr. Kendrick:

Receipt of the fifth copy of your May MF-104 Report this morning hereby is acknowledged. A set of MF-104 and MF-104A Forms are enclosed herewith on which to prepare your June report.

Referring to your inquiry in the telephone call last Monday, I also received notice this morning that your Voucher for $6,477.75 for the 75 percent participation payment on your April project work was made June 13 by the Dallas Disbursing Office so you probably will have it by the time you receive this.

A telegram just received from John Faick, U.S.G.S., Tuscon, stated that Mr. Whittiker soon would request approval to drill hole No. 9-4 at a point about 50 feet south of the location specified by Amendment 1 of the contract, upon completing hole No. 5-7 on which drilling is in progress. This also is formal confirmation of Field Team's approval to drill hole No. 9-4 in that slightly changed location.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl (12)
cc: DMEA Op.Con.(2)
Faick, USGS, Tuscon
Harshman, USGS, Denver
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
Box 431
Joplin, Missouri

RECEIVED
JUN 20 1956

Airmail

June 18, 1956

Mr. John N. Faick, Geologist
U. S. Geological Survey
Box 4126
University Station
Tuscon, Arizona

Re: DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando dome, Presidio County, Tex.
Project Contract Idm-E893

Dear John:

This is to acknowledge and thank you for the telegram just received recommending approval to drill hole No. 9-4 about 50 feet south of the location as designated by Amendment 1 of the Contract, upon completion of hole No. 5-7, now in progress. I concur with that recommendation and since I am writing to the Operator to acknowledge receiving today the fifth copy of its May MF-104 Report, I also will state in that letter the Field Team's approval for drilling hole No. 9-4 in that slightly changed location.

I hope your trip to Terlingua last week to inspect this project was not too unpleasant and that something encouraging had developed to present in your Interim Report; also that I can have the pleasure of meeting you there during the latter half of July.

Sincerely,

CCK/enn

Clinton C. Knox
Executive Officer
Region IV

encl.
cc: DMEA Op.Com.(2),w/c inc.tel.
Harshman, USGS, Denver
3776 file

RECEIVED
JUN 20 1956

COPY

WESTERN UNION TELEGRAM

SA123 KE171
K TUA392 PD=WUX TULSA OKLA 18 1250 PMC= June 18, 1956 1:03 PM

C C KNOX=
US BUREAU OF MINES JOPLIN MO=

DOCKET DMEA 3776, IDM E893, BIG BEND MINING COMPANY CONTRABANDO DOME, LAJITAS, PRESIDO COUNTY TEXAS

WHITTIKER NOW DRILLING HOLE 7, AREA 14, SECTION 105 AND SOON WILL REQUEST PERMISSION TO DRILL HOLE 4, SECTION 109 AT A POINT ABOUT 50 FEET SOUTH OF ORIGINAL LOCATION. I BELIEVE THIS IS BEST HOLE IN PROJECT STAGE 1 AND RECOMMEND THAT IT BE ALLOWED. INTERIM REPORT AVAILABLE IN A FEW DAYS= JOHN N FAICK TUCSON ARIZ=

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUN 18 1956

Box 431
Joplin, Missouri

Airmail

June 13, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury)
Contrabando Dome, Presidio County, Tex.
Project Contract Idm-E893

Dear Mr. Kendrick:

After your phone call Monday when I had just received your Monthly Reports and Voucher for the May project work, I noticed that only the original and three copies were enclosed with your June 9 letter of transmittal. It stated, however, that five copies were enclosed as required. Perhaps one was overlooked there in mailing from your office.

I am forwarding one copy of your April Reports with a copy of this letter, through the Denver Office of the Geological Survey, to John Faick of its Tuscon Office for his information, review and comments in connection with preparing his report of inspection of your project to be made this week. Subject to receiving more adequate geologic data requested for your previous project work, the original of this May Report, when approved by me, will be furnished the Finance Officer of the Bureau of Mines at Bartlesville to affect the Government's participation payment thereon. In addition to a copy of it (and the single copy of the Driller's Daily Reports) kept here, two copies of the Monthly Reports are required for reviews by the Washington Offices of D.M.E.A., the Geological Survey, and the Bureau of Mines.

Also, as I understood you over the phone, drilling of hole No. 5-7 is in progress, but your June 9 letter mentioned that after completing hole No. 9-3, the drill had been moved to designated drill hole site No. 5-6. Nevertheless, we appreciate being kept informed on changes in plans and progress on the project work, and this will confirm our verbal agreement of May 2 that drilling on the hole sites designated under "Stage I" of the contract may follow any reasonable sequence your men deem as most logical.

Sincerely yours,

Clinton C. Knox
Executive Officer
Region IV

CCK/enn
cc: DMEA Op.Com.(2)
Faick,USGS,Dvr.w/c May MF-104
3776 file (3)

COPY

BIG BEND MINING, INC.
Box 269
Abilene, Texas

COPY

RECEIVED
JUN 18 1956

June 9, 1956

United States Department of the Interior
Defense Minerals Exploration Administration
Box 431
Joplin, Missouri

Attention: Mr. Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

Re: DMEA-3776 (Mercury)
Contrabando Dome Presidio
County, Texas
Project Contract Idm-E893

Dear Mr. Knox:

We have completed the drilling of hole #9-3, Stage 1, Area 2 on Contrabando Dome and enclosed are the following:

1. Five copies - Form MF-104
2. Five copies - Form MF-104A.
3. Five copies - Progress report by P. S. Kendrick.
4. Five copies - Drill record signed by P. S. Kendrick.
5. Five copies - Cross section plat by L. C. Whittiker.
6. One copy - Drillers log for your file

I trust you will find these in better shape than the April report.

Referring to your letter of June 5, 1956, we will, as soon as possible, get a geologist on the ground and try to correct the discrepancies pointed out in same.

After completing #9-3, we moved on 5-6 and Mr. Reynolds, the driller, got sick, and we were shut down all last week. We started up again last Monday, June 4, and we haven't received Mr. Whittiker's report, but we will be talking with him tonight or tomorrow, and we will call you Monday and bring you up to date on our operations.

Yours very truly,

BIG BEND MINING, INC.

By
(signed) P. S. Kendrick, President

PSK:ijb
Encls.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~XXXXXXXXXXXXXXXXXXXX~~
Box 431
Joplin, Missouri

June 5, 1956

Mrs. Cora A. Piper, Fiscal Officer
U. S. Bureau of Mines, Region IV
206 Federal Building
Bartlesville, Oklahoma

Re: DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando Dome Project
Lajitas, Presidio County, Tex.
Contract Idm-E893

Dear Mrs. Piper:

Transmitted herewith to be certified for the Government's 75 percent participation payment is the original of the cited Operator's MF-104 Report and cost claim for the April project work, the first under this contract, approved by me in the amount of $8,637.00.

On May 16, one copy of this report was forwarded to the Denver Office of the Geological Survey and one to DMEA, Washington; the second copy required by that Washington Office is being held here awaiting receipt of your voucher data to be posted thereon, and the fifth copy will remain here in this Field Team file.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/enn
encl.
cc: DMEA Op.Com.(2)
Harshman, USGS, Denver
3776 file (2)

RECEIVED
JUN - 7 1956

400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
JUN - 7 1956

June 5, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

WSM

Re: DMEA-3776 (mercury)
Contrabando Dome, Presidio County, Tex.
Project Contract Idm-E893

Dear Mr. Kendrick:

The supplies of Form MF-104 and MF-104A you requested June 1 are enclosed herewith.

This also is to acknowledge receiving your May 22 letter with Mr. Whittiker's revised logs and graphic sections of holes 9-1 and 9-2, copies of which were forwarded to Washington and to the Geological Survey in Denver. They are not acceptable, however, as finished geologic logs and reports on that drilling, and fail to reflect the very liberal allowances for salaries, fees, and expense accounts that were included for such technical project supervision in the contract drilling price. Therefore, continuation of properly storing the drill hole cores is necessary until adequate geologic logs are received and found acceptable to the Government.

Likewise, the locations and elevations Mr. Whittiker gave for drill holes and the open cut to which they are referenced, appear to be only rough approximations. In connection with his technical supervision of the project, detailed mapping of a suitable area at each drilling sites with accurate horizontal and vertical controls (including a tie to the section corner), is essential. Then, whenever a trip by your consulting geologist is warranted (at least by completion of the "Stage I" drilling) he should be able to plat the remaining geologic details quickly on the project supervisor's large-scale working map. With copies of such maps, I and the Geological Survey Member of this Field Team more easily could be kept abreast of the project progress or proposed changes in the work. Incidently, I have not received any notes on the current project progress which Mr. Whittiker offered to mail on his weekly trips to Alpine but presume that drilling of the fourth hole likely is in progress.

Therefore, when I visited the Denver Office of the Geological Survey last Friday, plans tentatively were made for John Faick of its Tuscon Office to make the next Field Team inspection of your project

during the week of June 10. I hope to get down there again in July if progress on your project will justify the trip.

I have today approved your first Monthly Report and cost claim covering the project work through April in its entirety, however on a provisional basis, pending your submittal of acceptable geologic logs and maps. Thus my approvals of your forthcoming Monthly Reports will be delayed or withheld likewise to the extent that would be required to cover the cost of having such professional reports, maps, and drill hole logs prepared for the Government, should untimely termination of the project contract become necessary.

I would appreciate being kept informed on the results of each drill hole and hope that favorable mineralization has been encountered by the drilling since Mr. Whittiker's telephone call on May 22; also that you have been able to arrange for consulting work of a competent mining geologist.

With best personal regards, I am,

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl.
cc: DMEA Op.Com.(2)
Harshman, USGS, Denver
Finance Officer, USBM, Bartlesville
3776 file

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
P. O. Box 136
Rolla, Missouri

3776

COPY

RECEIVED
MAY 28 1956

May 23, 1956

Memorandum

To: C. C. Knox, Executive Officer, DMEA Field Team, Region IV

From: Chief, Branch of Mining, Division of Mineral Technology, Region IV

Subject: Drill core from Big Bend Mining, Inc., DMEA project, Presidio County, Texas

Reference is to your memorandum of May 16 concerning storage of diamond drill core from drilling by Big Bend Mining Co., Inc., on DMEA project (Contract Idm-E893) near Lajitas, Presidio County, Texas.

From present indications, the Rolla Core Library will be vacated in June, and the core in storage here will be transferred to the Central Core-Storage Depot at Minneapolis, Minn.; hence it would be impractical to ship the Big Bend Mining Co. core to Rolla.

As you perhaps know, two Central Core Depots have been established--one at Minneapolis; the other at Denver. Core from Texas would be more conveniently stored at Denver, and the attendant cost of boxing the core and shipping it to that depot probably would have to be borne by Big Bend Mining, Inc. The Branch of Mining has insufficient fiscal year 1956 funds to undertake the job of splitting the cores, boxing them, and paying shipping charges to Denver.

Within a few days I will be better able to advise you as to what action we may take in the coming fiscal year. Perhaps it would be good policy to store the core from a few selected representative holes.

(signed) L. T. McElvenny

(Made & sent the following copies 5-24-56):
DMEA Op.Com.(2)
Harshman,USGS, Denver
Big Bend Mining, Abilene
C.C.K.

COPY

RECEIVED
MAY 28 1956 COPY

May 22, 1956

Petrographic Examination of Core from 675' in hole No. 9-1, DMEA Contract Idm-E893, NE¼, Sec. 108, Block 341, TC Ry Co. Surv., Contrabando Dome, Presidio County, Texas.

A petrographic examination showed that the core sample was a light-colored, porphyritic rock composed essentially of quartz and alkali feldspar with disseminated grains of pyrite. No ferromagnesian minerals were observed.

Thin section study showed that the rock contained small phenocrysts of quartz and potash feldspar with a fine-grained groundmass of alkali feldspar and quartz. The rock is an extrusive or dike equivalent of a quartz-alkali-feldspar rock (alaskite) and could be classed as a kalitordrillite or more generally as potassic rhyolite.

(Made & sent the following copies 5-24-56):
DMEA Op.Com.(2) ✓
Harshman, USGS, Denver
Big Bend Mining, Abilene

C.C.K.

COPY

RECEIVED
MAY 28 1956

COPY

BIG BEND MINING, INC.
Box 269
Abilene, Texas

May 22, 1956

United States Department of the Interior
Defense Minerals Exploration Administration
Box 431
Joplin, Missouri

WBM

Attention: Mr. Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

Re: DMEA-3776 (Mercury)
Contrabando Dome Presidio
County, Texas
Project Contract Idm-E893

Dear Mr. Knox:

Enclosed is revised report in quadruplicate on Holes #9-1 and 9-2 and also cross-section sketches of both holes as requested in your letter of May 17, 1956.

Yours very truly,

BIG BEND MINING, INC.

By
P. S. Kendrick (signed by Secretary)

PSK:vy

DMEA Op. Com.
Hershman, USGS, Denver

COPY

REVISED

COPY

RECEIVED
MAY 28 1956

Alpine, Texas
May 9, 1956

Progress report on Exploration Project Contract No. Idm. -- E893. Docket No. DMEA-3776. Contrabando Dome, Presidio County, Texas, Big Bend Mining, Inc.

Bulldozer work started on March 14, 1956, and was in progress until the completion of four (4) miles of road and drill hole sites in project areas Nos. 1, 2, 3, 6, 11, 14 and 18. The total bulldozer time was forty-six (46) hours.

REPORT ON DRILL HOLE NO. 9-1, Area no. 1

Drilling began on drill hole No. 9-1, area no. 1, on March 23, 1956, and terminated on April 14, 1956. Vertical hole with collar elevation of 2640 feet was drilled at 150' N 65°W of open cut as plotted on Armstrong map. Drilling started with a rock bit which was replaced after 5' of drilling with a diamond core bit. NX core was taken from 5' to 700'. Formations penetrated were as follows:

5 to 30' - light buff to brown calcareous argillaceous brecciated limestone

30 to 93' - brecciated limestone and dark shale with showings of calcite and pyrite.

93 to 509'- predominately dark to black shale with thin bedded gray lime. Petroliferous odor was present throughout this section and occasional fractures with bleeding oil were noted in cores. Calcite seams occured along the bedding planes and numerous bentonitic clay seams are in evidence. Traces of pyrite were found.

509 to 603'-dense gray mottled limestone with stylite partings, some interbedded shale and slightly pyritic.

603 to 630'-dark altered pyritic and calcareous shale.

630 to 700'-porous light gray igneous rock vertical fracture, white to yellow pyrite.

Drill hole was agandoned at 700' with an estimated core recovery of 98%. All cores were checked with a gieger and no radiation was detected. Willemite screen

test was run on cores for mercury with negative results except for traces in igneous rock.

RECEIVED
MAY 28 1956

DRILL HOLE NO. 9-2, AREA NO. 1

Drilling began on Drill hole No. 9-2, area no. 1, on April 16, 1956, and terminated on May 1, 1956. Vertical hole with collar elevation of 2600 feet was drilled 100' S 16°W along road from open cut as per specifications in P. 1 of Amendment #1 to contract. Drilling started with rock bit which was replaced after 10'6" of drilling with a diamond core bit, NX core was taken from 10' 6" to 596'. Formations penetrated were as follows:

0 to 10' 6" - light buff to brown weathered lime

10'6" to 38' - light brown brecciated lime

38 to 459' - predominately dark to black shale with thin bedded gray lime, occasional bentonitic clay seams, some pyrite present.

459 to 555' - dense gray mottled limestone with stylite partings some interbedded shale, slightly pyritic.

555 to 580' - dark altered pyritic and calcareous shale.

580 to 596' - porous light gray igneous rock with vertical fracturing white to yellow pyrite.

Drill hole was bottomed at 596' estimated core recovery 98%.

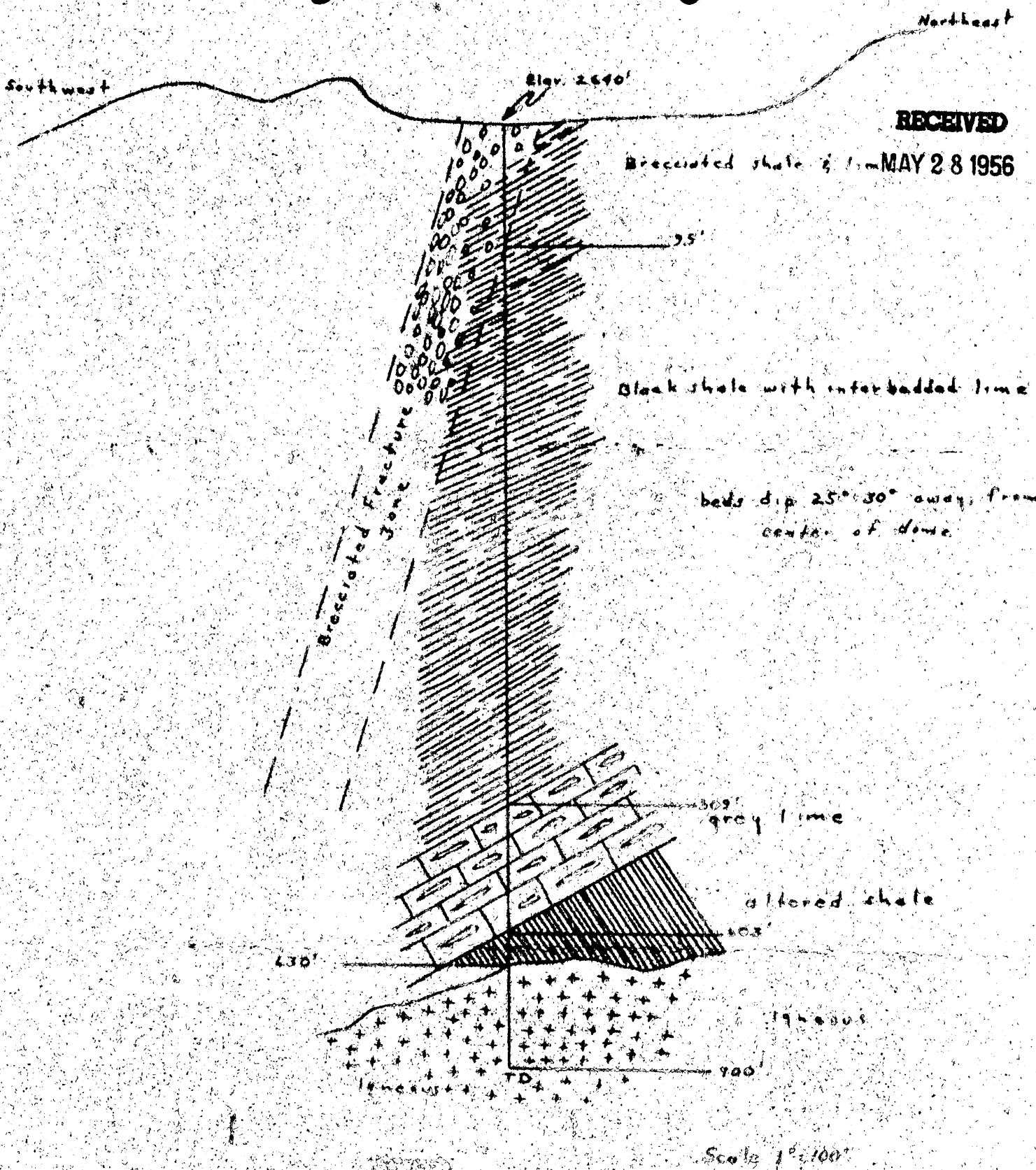
All cores were checked with a gieger counter and no radiation was detected. Willemite screen tests were run on cores for mercury minerals with negative results except for traces in igneous rock.

Bedding plane dip on both drill holes is 25 to 30° southwest off of Dome structure.

Please find attached hypothetical sketch showing rock column penetrated, also relation of holes to fracture zone.

(signed) L. C. Whittiker

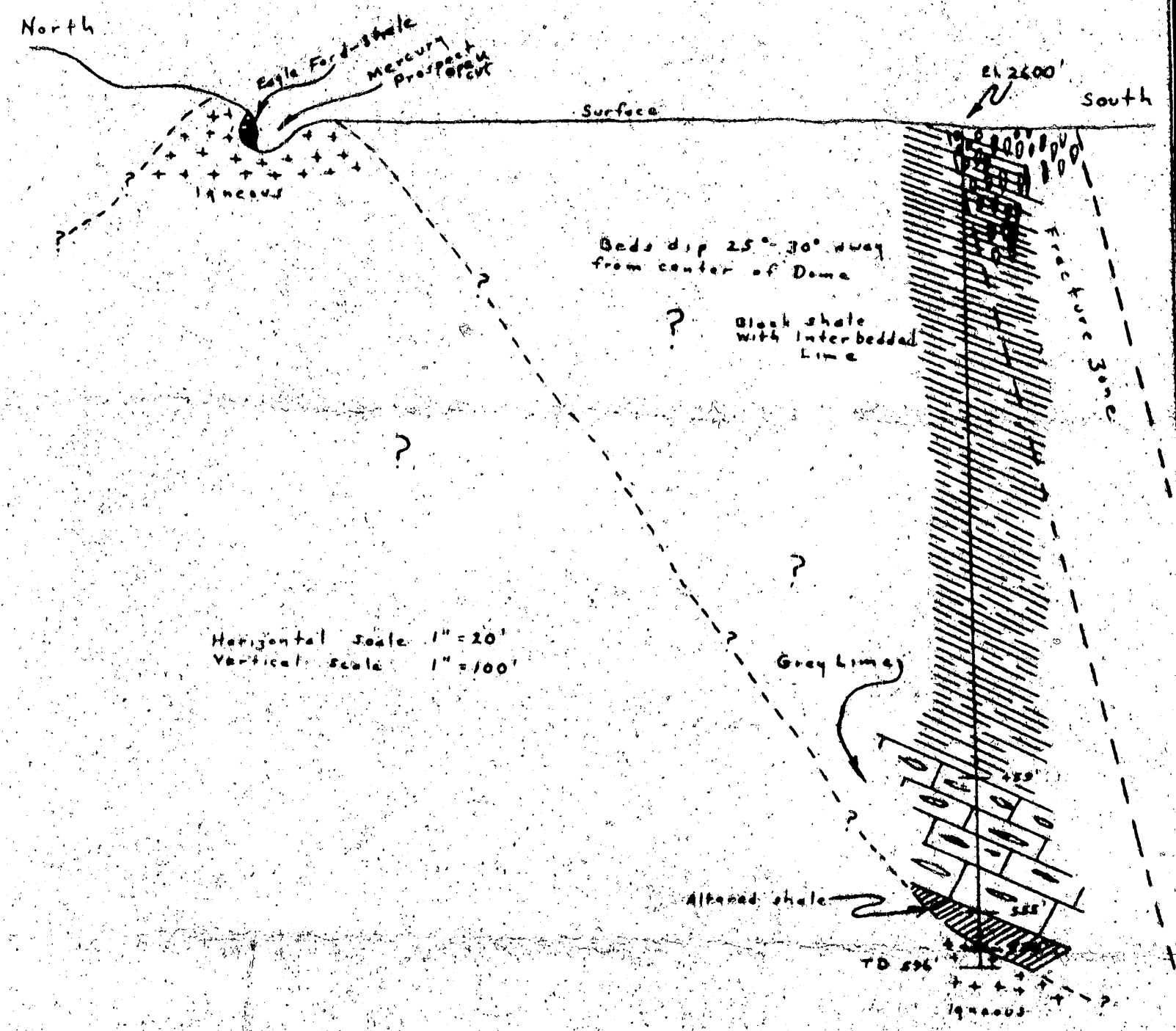
Drill-hole No. 9-1



RECEIVED
MAY 28 1956

L.C. Whitten

Drill-hole No. 9-2



RECEIVED
MINERALS DEPARTMENT
MAY 20 1954
BUREAU OF MINES
BOISE, IDA.

400

Memo of phone call 1:30 P.M. 5-22-56

From: L. C. Whittiker, Project Supervisor, Abilene, Texas

To: C. C. Knox, DMEA, Joplin

Subject: Diamond drilling progress, Project Contract Idm-E893, Big Bend Mining, Inc. (Docket DMEA-3776-Hg), Contrabando Dome, Lajitas, Presidio County, Texas

WSM

Said that when he left Lajitas yesterday, diamond core drilling of hole No. 9-3 was in progress at 555 feet in depth; slight mercury traces had been detected with willemite-screen tests but panning had failed to evidence cinnabar in any of the samples.

Due to Mr. Kendrick having a critical hospital operation, Mr. Whittiker had returned to their Abilene Office to prepare and submit the additional data I am to receive airmail tomorrow (requested in my May 17 letter).

Following the 31 feet of Austin limestone and the Eagleford shale I saw in the 156 feet which had been cored in hole 9-3 when I left the project May 6, he said the Eagleford-igneous contact was reached at 297 feet. Differing from the previously known igneous rocks there, this core is siliceous, fine-grained, blue-mottled, dense rock with some quartz crystals. The steep-dipping bedding planes and slips with numerous marked horizontal slickensides, which I had noted persisted in depth but after drilling the hard igneous rock to 337 feet, a fault breccia reportedly containing only Buda and Georgetown limestone fragments in altered Grayson shale, was penetrated from 337 to 413 feet; solid igneous rock from 413 to 470 feet; fault breccia as described above from 470 to 538 feet; and igneous rock since.

I approved discontinuance of drilling that hole if Georgetown limestone in place has not been encountered by the time it reaches 600 feet in depth; also drilling of hole No. 5-6 next, until a geologist can be employed to make recommendations regarding drilling of a Stage II hole at a proper location north of No. 9-3 or a change of location for drilling of hole 9-4.

He said they were trying to find a competent mining geologist to review the project work upon completion of Stage I drilling.

Knox

Knox

cc: Harshman, USGS, Denver
DMEA Op. Com. (2)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
MAY 21 1956

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

Airmail

May 17, 1956

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury)
Contrabando Dome, Presidio County, Tex.
Project Contract Idm-E893

Dear Mr. Kendrick:

This is to acknowledge receiving your letter of May 10 with the original and four copies of your project Monthly Reports for April and copies of two other documents.

As I told you I would last Wednesday afternoon, I have asked the Bureau of Mines about storage of your drill hole cores in its core library at Rolla, Missouri, under the conditions you suggested, and I have forwarded the fifth copy of your Monthly Report to Denver for review and comment thereon by the U. S. Geological Survey Member of this Field Team. I noted, however, that many of the details Mr. Whittiker felt was important to point out to me in the cores, were not recorded in his logs for the information of the Geological Survey. Therefore, please continue storage of all the cores there in good order until you receive word from the Geological Survey that the logs you have submitted are adequate for acceptance by the Government.

Prints of the map and/or geologic section Mr. Whittiker was preparing to show the location of the holes and strata cut therein with respect to the open cut, mercury-bearing outcrop, and other details noted there, were not enclosed with your Monthly Report.

Also Mr. Whittiker's narrative on hole No. 9-2 states that it "was drilled 100' southward along the road from open cut as plotted on Armstrong map", whereas I find that the Armstrong map shows it about 75 feet S 16° W of the open cut. Please advise.

I expect to be in position to approve your Monthly Report for the Government's participation payment as soon as you clarify the above-mentioned points and as soon as your drill hole logs are deemed acceptable by the Geological Survey Member of this Field Team when I immediately will advise you.

With best personal regards, I am,

Sincerely yours,

CCK/enn

Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV

cc: DMEA Op.Com.(2)
Harshman, USGS, Denver
3776 file

400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
MAY 21 1956

DMEA 3776
W3M

May 16, 1956

Memorandum

To: B. W. Reynolds, Acting Chief, Branch of Mining, Region IV

From: Executive Officer, DMEA Field Team

Subject: Permanent storage of diamond drill hole cores in Bureau's core library at Rolla

In response to Mr. McIlvenny's request when I was in Rolla April 18, I asked the officials of Big Bend Mining, Inc., about obtaining the cores from its Contrabando Dome project (DMEA Contract Idc-1893) near Lajitas, Presidio County, Texas. They explained that they were anxious to dispose of the cores as rapidly as this Field Team will permit which probably will be after periodic examinations by the Geological Survey Member.

Core storage is unnecessarily costly because all the deep holes are being cored with NX-size bit and because of their bulk and weight and their trays which are constructed of 2x4" lumber with sheets of corrugated galvanized roofing bottoms for the core channels. They would like to reuse those trays rather than construct hundreds of them during the project work.

Therefore, in order for the Bureau to have those cores, they believed it should send a sampler to split the cores twice to reduce bulk and weight, place the quarter in the Bureau's cardboard core boxes, and transport them from Contrabando to Rolla. If you believe the Bureau would be interested in such an undertaking, please let me know as soon as possible.

CCK/emn

Clinton Knox

Central file copy (1828 143-a 6970.4(4)

cc: Reynolds
DMEA Op.Com.(2)
Marshman, USGS, Denver
3776-file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

May 15, 1956

Memorandum

To: B. W. Reynolds, Acting Chief, Branch of Mining, Region IV

From: Executive Officer, DMEA Field Team

Subject: Diamond drill hole core sample from 675 feet in depth in hole No. 9-1 on DMEA exploration project (Contract Idm-E893) by Big Bend Mining, Inc., near Lajitas, Texas, Docket DMEA-3776 (mercury-uranium)

It may prove helpful to know the proper petrographic classification and mineral constituency of the subject sample being mailed to you under separate cover. The executed forms requesting this analytical report are attached herewith.

There seems to be a faint possibility that intrusives of a later age might be found in holes yet to be diamond drilled. By having an authoritative record of the constituency of a representative sample from each of the two or three types of igneous rock that might be encountered on Contrabando dome drilling, better interpetation of the subsurface geology might be afforded.

CCK/enn

Clinton Knox

Central file copy 1828 143-a 6970.4(4)

cc: Reynolds
Fisher
DMEA Op. Com. (2)
3776 file

RECEIVED
MAY 17 1956

Memo of phone call 4:05 p.m. 4-25-56

To: C. C. Knox, DMEA Field Team, Joplin

From: P. S. Kendrick, President, Big Bend Mining, Abilene, Texas

Subject: Progress on Project Contract Idm-E893, Docket DMEA-3776(Hg)
Contrabando Dome, Presidio County, Texas

Mr. Kendrick said drilling of hole 1 (site 1) was discontinued at 700 feet in depth without emerging from the igneous rock which had been encountered at 630 feet. Drilling of hole 2 at that same site, is in progress at 160 feet in depth in the Boquillas flags.

I told him I planned to reach Abilene Monday night, and the project Wednesday morning May 2.

He said he was going to the project tomorrow to spend about a week while Mr. Whittiker returns to the Abilene Office which they would like me to contact for the latest information Tuesday morning before continuing my drive to the project camp where Mr. Kendrick will await me.

I explained that MacLaren, USGS, is transferred from Denver to the Spokane Office but arrangement would be made for a joint Field Team inspection of the project later whenever justified by drilling results.

CCK/enn

Clinton C. Knox

cc: DMEA Op.Com.(2)
Harshman, USGS, Denver

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APR 30 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
APR 20 1956

Airmail

April 16, 1956

Mr. Donald R. MacLaren, Geologist
U. S. Geological Survey - D.M.E.A.
Denver Federal Center
Denver 2, Colorado

Re: DMEA - 3776 (mercury)
Big Bend Mining, Inc.
Contrabando Dome, Presidio County, Tex.
Project Contract Idm-E893

Dear Don:

Thanks for your memo of April 12 which arrived here just after my attached memo of another phone call from the subject Operator had been typed for your information. As you might have anticipated, Mr. Fry and his diamond drillers appear to be approaching difficulties almost at the onset of this project work, judging from what information Mr. Kendrick could relay (I guess Mr. Fry is allergic to letter writing).

Mr. Kendrick sort of implied that they also are becoming dissatisfied with geologic guidance and recommendations furnished by Mr. Escar W. Armstrong, and may request further amendment of the drill hole locations in an effort to escape doing any drilling in igneous rocks. I feel that might be impossible as well as inadvisable but any ideas your office may wish to express thereon should be the principal determining factor.

I believe at least I (the only USBM representative of this Field Team) should inspect the project about May 1 to assure myself as to the costs that may be claimed in the Operator's first monthly report for the five different work items set up under "Fixed Unit Costs" in Exhibit "A" of the contract which can be approved. In assisting the Operator then on preparation of its first report, I will reiterate that it will not be approved without furnishing a proper geologic log of the cores, surveyed collar elevation and coordinate location of each hole (as you suggested), assays of all significant samples, a log or statement by the driller regarding the exact footages drilled, cemented and redrilled or reamed and cased, and any other significant-appearing conditions encountered, a statement by the bulldozer operator of the hours of bulldozing, and an adequate narrative report by the project supervisor.

The advice Mr. Kendrick apparently wants, and for which he is contemplating hiring Mr. Burcham to prepare a little report for him and us, is whether to continue drilling this first hole, if possible, to the Georgetown limestone which now seems might be 800 or 900 feet below the surface. I suppose if they do not drill through the igneous rock at 700 feet, this hole might as well be abandoned at least temporarily, and hole

No. 9-2 be started to bracket this site 1 structure. I do not believe the presence of igneous intrusives generally found in the shaly formations, should deter them particularly if encountered shallower in the Boquillas flags. Of course, if the doming at Contrabando, possibly over 300 feet, is due to an igneous intrusive of that thickness, then any cinnabar found beneath it likely could never be mined commercially, but this first hole is a good place to find out if we have any logical target.

I was indeed sorry to hear that you are transferring to Spokane so you cannot accompany me on any more of our infrequent trips. If I ever get up there I certainly will want to visit you and, in the meantime, I sincerely wish you every success. Please give my regards to Al Weissenborn there. I also enjoyed a few field jobs with him when he was headquartered in Rolla, Missouri, about 12 years ago.

I will send your office copies of all pertinent information received and my inspection report, and will call if and when this Contrabando thing gets too "long-haired" for me alone.

Sincerely yours,

CCK/enn

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

encl.
cc: DMEA Op.Com.(2)
Mr. Harshman, USGS, Denver
3776 file

Memo of phone call 3:15 P. M. 4-13-56

To: C. C. Knox, DMEA Field Team, Joplin

From: P. S. Kendrick, President, Big Bend Mining, Abilene, Texas

Subject: Project Contract Idm-E893, Docket DMEA-3776 (Hg)
Contrabando Dome, Presidio County, Texas

Mr. Kendrick said the Project Supervisor had called him from Big Bend National Park to relate that diamond drilling was continuing on the first hole 678 feet in depth (also see Memo of his phone call 4-9-56). From 509 to 603 feet was in Buda limestone; instead of the expected 120-foot thickness of Del Rio clay, it was penetrated only from 603 to 630 feet where an igneous intrusive rock was encountered. The latter is fractured and difficult to drill so the project crew wanted to discontinue the hole but Mr. Kendrick advised continuing at least until next Monday. Said he asked for Mr. Burcham, an Alpine Mining Engineer, to go down to the project, examine the cores, and advise whether they should continue drilling through the igneous rock. No cinnabor has been detected but the igneous rock is heavy with pyrite.

I told Mr. Kendrick that I had read a report by Mr. Burcham several years ago which described the cinnabor deposit underneath an igneous sill at the Mariscal (Vivianna) mine in Big Bend National Park. I know he also is very familiar with other such occurrences at the Study Butte and "248" mines, so I felt certain he was well qualified to furnish the most authoritative advice in this case.

Mr. Kendrick said if it did seem advisable to move to another hole location next week, this first hole would be left in such condition that they could move back on and deepen it if the Geological Survey so recommends. He said the cores were being stored properly in boxes but as soon as released by the Field Team they would like to dispose of them. He said they fear now that the hole to be drilled on the second location at site 1 will encounter the igneous rock at a shallow depth and may request an amended location. I told him there is also the likelihood that the igneous rock mass is tree-shaped so that they would have to drill through some limbs of it at any of the locations to complete a comprehensive preliminary exploration program.

I also told him that I had found some time to study the contract in response to his questions over the phone last Monday about proper preparation of the MF-104A Form. The items set forth in that report each month should relate to the five different fixed unit costs in Exhibit "A"; thus: (1) the actual cost incurred for bulldozer transportation, (2) hours of bulldozing, (3) feet diamond drilled, (4) feet cemented or reamed, and (5) samples assayed.

He said he would contact me next week. I told him I would be away on field work much of the next 2 weeks but on any phone calls to me here, the telephone operator would be advised where I might be reached.

I said I intended to arrange to inspect the project in about 2 weeks, on the assumption that at least I should see the actual evidence that the units of project work to be claimed in the Operator's first monthly report, submitted as of the close of April, were properly completed and could be approved by me for the Government's participation payment. Unless it were established by that time that the entire geologic concept of Contrabando Dome were erroneous as a basis for the existing contract specifications, I doubt that it would be essential for the Geological Survey Member of the Field Team to arrange to meet me there for this proposed first project inspection.

CCK/enn

Clinton C. Knox

cc: DMEA Op.Com(2)
MacLaren, USGS, Denver
Harshman, USGS, Denver

408

xxxxxxxxxxxxxxxxx
Box 431
Joplin, Missouri

May 15, 1956

Memorandum

WSM

To: B. W. Reynolds, Acting Chief, Branch of Mining, Region IV

From: Executive Officer, DMEA Field Team

Subject: Diamond drill hole core sample from 675 feet in depth in hole No. 9-1 on DMEA exploration project (Contract Ida-8843) by Big Bend Mining, Inc., near Lajitas, Texas, Docket DMEA-3776 (mercury-uranium)

It may prove helpful to know the proper petrographic classification and mineral constituency of the subject sample being mailed to you under separate cover. The executed forms requesting this analytical report are attached herewith.

There seems to be a faint possibility that intrusives of a later age might be found in holes yet to be diamond drilled. By having an authoritative record of the constituency of a representative sample from each of the two or three types of igneous rock that might be encountered on Contrabando dome drilling, better interpetation of the subsurface geology might be afforded.

CCK/ann

Clinton Knox

Central file copy 1828 143-a 6970.4(4)

cc: Reynolds
Fisher
DMEA Op. Com. (2)
3776 file

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MAY 17 1956

RECEIVED
APR 1 1 1956

Memo of phone call 12:15 A. M. 4-9-56

To: C. C. Knox, DMEA Field Team, Joplin

From: P. S. Kendrick, President, Big Bend Mining, Abilene, Texas

Subject: Project Contract Idm-E893,
Contrabando Dome, Presidio County, Texas,
DMEA-3776 (mercury)

Mr. Kendrick stated that he had just returned from a trip to the project where he found that roads had been constructed and core drilling of the first hole (No. 9-1) was in progress at 522 feet in depth. It had penetrated a 77-foot fractured zone and obviously steep-dipping shaly beds (presumably Boquillas flags) to 509 feet where the top of the Buda limestone was encountered. Some asphalt was noted in the fractured zone but with the exception of the usual oil traces in the thin-bedded "flags" no significant minerals were indicated and no igneous rocks were found. No unusual difficulties had been encountered in the drilling.

Due to the pronounced strata dips indicated by the cores and the need for basic stratigraphic data, I agreed that drilling of this first hole should be continued possibly to 725 feet in depth which should penetrate slightly into the upper strata of the Georgetown limestone. I also endorsed his proposal to employ Mr. W. D. Burcham, a veteran Terlingua district mining engineer, to prepare the geologic logs of the cores for the MF-104 reports. I suggested that such a report is not necessary now but should cover holes completed during April, to be submitted before May 15.

Mr. Kendrick asked if the Field Team could inspect the project and give advice upon completion of this first hole. I said that while I had not heard from him since his telegram of March 19 stating that coring was to start that week, I had made committments for other field work for the next two weeks. I agreed to furnish the foregoing information to the Geological Survey at Denver, however, and whenever its representative can visit the project, I will arrange to be there at the same time. He said that he would keep me informed.

As to his questions about proper presentation of the various units of the project work in preparing Form MF-104A, I said that I would have to refresh my memory on the units and allowable costs set by the contract and would advise him later thereon.

CCK/emm

Clinton C. Knox

cc: DMEA Op.Com.(2)
MacLaren, USGS, Denver

400

DOCKET
Surname:
Chapman
Martin
Chamber

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
P. O. Box 431
Joplin, Missouri

Re: Docket No. DMEA-3776, Mercury
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas
Contract No. Idm-E893

Dear Mr. Knox:

With regard to Amendment No. 1 of the referenced contract, we have been advised as follows:

"The fourth paragraph on page 3 is susceptible to the interpretation that the Fixed Unit Costs for work under Stages II and III may be changed (may be increased), and thus may conflict with the last paragraph of the amendment.

" . . . it is our understanding that the parties were thinking of a different kind of drilling than is provided for in the Contract."

The amendment is now in force, but if and when another amendment is prepared, either by you or by us, a restatement of the above-mentioned paragraph should be written into the new amendment.

Sincerely yours,

Chairman, Operating Committee

Approved:

Member, Bureau of Mines

Member, Geological Survey

cc: Docket
Code 400
Oper. Committee
Adm. Read. File
FT, Reg. IV
T. Kiilsgaard, USGS
Helena Meyer, USBM

TLChapman/WSMartin/ls 3/15/56

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

Memorandum

To: The Administrator, DMEA
Attention: Chief, Iron and Ferro-Alloys Division

From: Associate Solicitor, Division of Mineral Resources

Subject: DMEA-3776 (Mercury)
Big Bend Mining, Inc.
Castrahando Dome
Presidio County, Texas

We have reviewed the subject amendment.

The fourth paragraph on page 3 is susceptible to the interpretation that the Fixed Unit Costs for work under Stages II and III may be changed (may be increased), and thus may conflict with the last paragraph of the amendment.

In this regard, it is our understanding that the parties were thinking of a different kind of drilling than is provided for in the Contract. We have approved the amendment based upon this understanding.

Robert P. Dwyer

HCRubin/wog
March 12, 1956
Copy to: Solicitor's Docket (2)
DMEA Docket
W.S.Martin (2)
G.C.Selfridge
J.L.Chambers
R.P.Dwyer
H.C.Rubin
Chron.

C
O
P
Y

RECEIVED
FEB 15 1956

BIG BEND MINING, INC.
Box 269
Abilene, Texas

February 9, 1956

Mr. Clinton C. Knox
Defense Minerals Exploration Admin.
Box 431
Joplin, Missouri

Re: DMEA-3776 (mercury)
Contrabando Dome
Presidio County, Texas

Dear Mr. Knox:

Referring to your letter of January 31st with amended contract enclosed, we return herewith the original and four copies signed by Mr. Kendrick as President.

Some parties have been negociating with us for an interest in the Big Bend properties and we have delayed starting the work on Contrabando until that is out of the way. We secured another 60 day extension so we would not be caught in a bind for ~~a~~ time.

We hope to get things cleared away so we can start work within the next week or ten days. Will give you notice in time for you to be on hand when we start the first well, if you so desire.

Yours very truly,
BIG BEND MINING, INC.

By (signed)
P. S. Kendrick, President

PSK:vy
Encls.

Copies made and sent by knox, Feb. 13, 1956, to:

DMEA Operating Committee (2) with Orig., Docket, and Division copies of Amendment 1, executed

Cora A. Piper, Regional Finance Officer, USBM, Bartlesville, with Finance Officer's copy of Amend. 1, executed

Donald R. MacLaren, USGS, Denver, F.T. Member

C.C.K

DMEA OPERATING COMMITTEE
WASHINGTON, D.C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
[redacted]

P. O. Box #431
Joplin, Missouri

RECEIVED
FEB - 3 1956

January 31, 1956

Airmail

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.,
Box 269
Abilene, Texas

Re: Project Contract Idm-E893
Contrabando Dome
Lajitas, Presidio County, Tex.
Docket DMEA-3776 (mercury-uranium)

Dear Mr. Kendrick:

Enclosed are the original and five copies of the proposed Amendment No. 1 (3 pages, together with a reduction of Mr. Armstrong's map attached as a part thereto) to the subject contract, as redrafted since my return from Washington, D.C.

In order that your lease could be kept in good standing by starting the project work January 23, as Mr. Martin and I intended to convey in our telephone call to you from Washington the evening of January 20, this amendment, based on the best geologic data available from all concerned, is expected to permit launching your exploration program satisfactorly, but all recognize that further amendments may be desirable and justifiable when the results of drilling the first few holes begin unfolding. I believe it would be mutually beneficial if you can keep me informed in detail about the progress and results of drilling at least the first two holes. Then, by the time cores from them are available for study, I believe the Field Team should plan a joint inspection of the project. Possibly I can be of some assistance to your men at that time (maybe March 1) in preparing your first Monthly MF-104 Reports, also by getting first-hand information on any changes they might find desirable in the requests for further contract changes.

If the terms and conditions of this proposed amendment, which I have signed for the Government, are found satisfactory to you, please sign all six copies, retaining the "Operator's Copy" for your files, and return the others for me to make the usual distribution; otherwise, return all to this office with your proposed changes to be considered.

Also, with reference to the first paragraph of my letter to you November 21, please furnish the information on the starting date of the project work under the subject contract.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

cc: DMEA Op. Com. (2) w/c
MacLaren, USGS, Denver, w/c
3776 file w/c

J.

400

DOCKET
SURNAME
Chapman
Martin
Selfridge
Johnson
Westenberg

JAN 26 1956

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
Box 431
Joplin, Missouri

Re: Docket No. DMEA 3776 - Mercury
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas
Contract No. Idm-E893

Dear Mr. Knox:

Enclosed are eight prints of map by Escar W. Armstrong, Consulting Geologist, entitled "Surface Structural Map, Southwest Flank of Contrabando Dome", covering a portion of the area of the above noted contract. These prints which have a graphic scale, have been reduced to 1/3 size.

Please attach one such print to each copy of the proposed amendment which you are preparing and sending to the Operator for his signature, and make the usual distribution after the executed amendment has been returned to you.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GHB)

Enclosure

TLChapman:foc
1-25-56
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. IV
H. M. Meyer, USBM
T.H. Kiilsgaard, USGS

APPROVED:

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

Thor H. Kiilsgaard (GHB)
Member, Geological Survey

R.C.G.

Delivered to Kent [illegible] 1-20-56

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

400

DOCKET SURNAME
Chapman
Martin
Selfridge
Kleman
Bain
Meyer
Methudoff

JAN 20 1956

INTERIOR DEPT.
JAN 20 1956
SOLICITOR

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
Box 431
Joplin, Missouri

Re: Docket No. DMEA 3776 - Mercury
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas
Contract No. Idm-E893

Dear Mr. Knox:

Reference is made to the request of the Operator by a letter to you dated January 12, 1956, for an amendment to the above noted contract changing the position of certain holes. This requested amendment is based on a report by Fagan W. Armstrong, Consulting Geologist dated January 10, 1956.

Enclosed is one copy of a memorandum by Thor H. Kiilsgaard, Geological Survey, dated January 19, 1956, commenting on the position of the holes as proposed by Mr. Armstrong. Mr. Donald R. MacLaren, Geological Survey, concurs in the conclusions of Mr. Kiilsgaard.

Mr. Kiilsgaard and Mr. MacLaren concur as whole in the conclusions of Mr. Armstrong. Hence, under your delegated authority you are authorized to write an amendment to Stage I, following roughly the proposals of Mr. Armstrong, but with the significant additions and changes suggested by Mr. Kiilsgaard. We are enclosing a rough draft of the proposed amendment for your information. Photostatic prints of Mr. Armstrong's map will be sent to you as soon as available, to be attached to and to form a part of the proposed amendment.

Inasmuch as Stages II and III will be dependent on the results obtained from Stage I, we shall wait for favorable results before writing amendments for these stages.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (HB)

Enclosure

APPROVED:

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

Thor H. Kiilsgaard (HB)
Member, Geological Survey

Copy to: Donald R. MacLaren with Mr. Kiilsgaard's memo.

cc to: Operating Comm.
Ft. REG. IV
T. H. Kiilsgaard, USGS
H. M. Meyers, USBM
Donald R. MacLaren, REG. III

1-20-56

cc to: Docket
Code 400
Admr. Read. File

Martin/TLChapman/foc

IN REPLY REFER TO:

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

January 19, 1956

Memorandum

WSM

To: W. S. Martin, Defense Minerals Exploration Administration

From: Thor H. Kiilsgaard, U. S. Geological Survey

Subject: Review of proposed amendment to Contrabando Dome exploration contract, DMEA Docket 3776 (mercury-uranium).

The operator of the Contrabando quicksilver property declined to do the exploration drilling authorized in the DMEA contract, but instead hired a consultant geologist to study the property and to lay out another program. This consultant, Mr. E. W. Armstrong, has submitted his report to the operator, and the operator now wants the contract amended to allow the work to be done at different sites and in a different order, although neither the over-all target nor the amount of the contract is to be changed.

To evaluate the operator's proposal, I have studied the consultant's report as well as other geologic reports on that part of Texas, and also obtained the opinion of Mr. D. R. MacLaren, Survey geologist familiar with the property. Both MacLaren and I are agreed that Stage I of the operator's proposed change in work should be acceptable to DMEA, but we wish to direct attention to some of the geologic factors involved in the holes to be drilled.

Holes 1 and 2, as previously laid out by MacLaren, were designed to intersect the intersection of an igneous dike or sill with underlying limestones. The detailed work by Armstrong indicates that cinnabar outcrops in Area No. 1 may be controlled by a southeast-trending, steeply-dipping fracture zone rather than by intrusives. On this assumption, holes 1 and 2, as laid out by Armstrong, are better located to hit the target as they will bracket the fracture zone. The operator may have trouble with Hole No. 2 as it will be drilled in the fracture zone where the distorted, flaggy, Eagle Ford formation may make drilling difficult. Some of the shaly members of the Eagle Ford are bentonitic and will swell when wet, thereby sticking the drill rods. Further, by drilling in the jumbled fracture zone, drilling water will be readily lost and the bit easily plugged. This will be all the more hazardous because most of the drilling will be above the water table, believed to be about 600 feet deep in this area.

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amended depending upon the results of Stage 1 drilling. If Stages 2 and 3 are changed now they will almost certainly have to be changed again before the program is completed.

If Stage I drilling proves favorable the operator should be instructed to get the drilling results and plans for Stage II drilling to the Executive Officer as quickly as possible so the Executive Officer can execute another amendment without a prolonged delay or shut down between drilling stages.

Thor H. Kiilsgaard

Thor H. Kiilsgaard

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED
JAN 16 1956

January 14, 1956

MEMORANDUM

To: D.M.E.A. Operating Committee, Interior Bldg., Washington 25, D.C.

From: Executive Officer, D.M.E.A. Field Team, Region IV, Joplin, Mo.

Subject: Geologic map and report with request for Amendment I to Project Contract Idm-E893 by Big Bend Mining, Inc., Docket DMEA-3776 (mercury-uranium), Contrabando Dome, Presidio County, Texas.

Forwarded herewith for your review and eagerly awaited opinions, are two copies each of the long-promised detailed geologic report, map, formal request for an amendment, and proposed draft of it, just prepared by the subject Operator and received here this morning.

In a telephone call from the Operator January 10, I suggested that this sort of support completely in writing, with a copy also sent to the Denver Office of the Geological Survey for its immediate review, would be necessary in order for me to obtain the consensus of your office and that of the Geological Survey and give our decision while I will be in Washington next week for a Bureau of Mines conference. The Operator explained that in order to keep its lease in good standing, the decision should be rendered in time to arrange for the project work to start by January 23.

Based only on what little I know about this Operator's properties, and on the hurried first glance I have taken at this new material this morning, however unqualified my opinion is, this appears to me to be the most comprehensive presentation of the Contrabando geology that I have seen. I have never met or heard of the consulting geologist who is responsible for this report and mapping, before this time, so he is possibly new in Alpine, but obviously his work shows much more study, thought, originality, and earnest effort than any we have received before from socalled consulting geologists of Texas. I note that he upholds some of our previous contentions as expressed in the existing contract, including the use of core drilling methods of preliminary exploration. Over the telephone, the Operator expressed its new confidence in some of the recommendations, as opposed to its previous stand. Therefore, subject to your office or that of the Geological Survey pointing out the fallacies of my present line of thinking, I believe, upon completing my study of this new material, I will recommend an amendment only to permit drilling the first six holes in the changed locations requested in the Operator's proposed amandment draft, enclosed here. Then if results of those six holes engender complete confidence in this consulting geologist's further recommendations, a second amendment could be negiotiated accordingly.

Since my tentatively recommended amendment seems not to change the original exploration plan, I presume it is within my authority execute such, and to call the Operator from Washington before leaving there next Saturday,

advising regarding the decision to do so as of a date prior to January 23. Possibly the deadline date for starting the project work also should be incorporated into that amendment, if offered.

I will try to contact some of the DMEA Offices as well as Thor Kiilsgaard, upon my expected arrival in Washington next Tuesday and will make every effort to have time available for brief discussions, at least on this, and possibly some of the few other DMEA affairs remaining in this region. So far as I know now, I will be engaged in work in the offices of Paul Zinner, Assistant Director, and Paul Allsman, Chief Mining Engineer of the Bureau of Mines, the entire week, but I hope to be able to spend a little time on DMEA business ~~on~~ upon arrival, and before I must return here January 21.

Clinton C. Knox

Clinton C. Knox

encl. 8

cc: DMEA Op. Com.
MacLaren, USGS, Denver
3776 file

BIG BEND MINING, INC.
Box 269
ABILENE, TEXAS

RECEIVED
MINERALS TECHNICAL
DIVISION
JAN 13 1956
BUREAU OF MINES
JOPLIN, MO.

January 12, 1956

RECEIVED
JAN 16 1956

Mr. Clinton C. Knox
Defense Minerals Exploration Admin.
Box 431
Joplin, Missouri

Re: DMEA-3776 (Mercury)
Contrabando Dome
Presidio County, Texas

Dear Mr. Knox:

Enclosed you will find detailed structural map and geological report of the part of Section 109 on which our exploration project is to start. Also enclosed is a requested amendment to the drill hole locations. This work has been time consuming and expensive but we believe the information gained will be invaluable to the project. The requested locations in the amendment in Section 109, in the area mapped are obviously of the utmost importance and we sincerely hope you will grant these as requested.

The approximate depths of the drill holes as requested in the amendment are somewhat less than they were in the original Exhibit A of the contract. This is according to the best information obtainable at this time, but as pointed out in the last paragraph of the enclosed geological report, it may possibly be necessary to drill somewhat deeper in order to encounter the Georgetown limestone. Because the history of the district clearly shows that the best ore bodies have been encountered in this horizon. We believe it necessary test this zone in all drill holes unless unusual and unexpected depths would make it impractical.

We have left Section 105 largely as it was because we will make a detailed map on it before drilling progresses that far, with possible exception of area #6 which is a sink hole that could not be affected materially by mapping.

It is very significant that the results of this detailed work indicate that we should closely parallel the original plan.

I am sending one copy of everything to McLarren direct, As per our telephone conversation.

We have secured an extension of timefor starting the work under the terms of the original lease in order to allow for consideration of the requested amendments.

We have made arrangments for drilling equipment which is ready to go to work,

I certainly hope this will all be in order as I have given it my best. Please get the amendment considered as quickly as possible.

Yours very truly,

BIG BEND MINING, INC.

By Geo. F. Fry Vice-President

GFF:vy
encls.

400

Docket
Martin
Talbert
Selfridge
Johnson
McKendry

MAR 16 1956

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
P. O. Box 431
Joplin, Missouri

Re: Docket No. DMEA-3776, Mercury
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas
Contract No. Idm-E893

Dear Mr. Knox:

With regard to Amendment No. 1 of the referenced contract, the fourth paragraph on page 3 is susceptible to the interpretation that the Fixed Unit Costs for work under Stages II and III may be changed (may be increased), and thus may conflict with the last paragraph of the amendment.

The amendment is now in force. However, if another change in the contract should become necessary, the new amendment, whether to be signed by you or signed in Washington, should be prepared here in order that the above-mentioned paragraph may be restated.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (SCS)

Approved:

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

Thor H. Kiilsgaard (THK)
Member, Geological Survey

cc: Docket
Code 400
Code 800
Oper. Committee
Adm. Read. File
T. Kiilsgaard, USGS
Helena Meyer, USBM
FT, Region 4

WSMartin/ls
3/16/56

R.G.G.

Notwithstanding these hazards, however, we believe Hole No. 2 should be drilled as suggested by Armstrong but with the stipulation that if undue difficulties are encountered the hole should not be fought but instead moved to a new location away from the fracture zone. In this respect, we wish to point out that Armstrong's cross section and plan view location of Hole 2 do not jibe. If the hole is to hit the target as shown in the section, it should be moved 30 feet southwest of the hanging wall strand of the fracture zone, or about 40 feet southwest of the position shown for the hole on the Surface Structural Map.

If the drilling of Hole No. 2, as suggested by Armstrong, proves troublesome we suggest the hole be moved further to the south so as to hit the Georgetown limestone in the fracture zone hanging wall. If the hole were to be moved 80 feet to the south, down the hillside from the location shown in Armstrong's section, it would intersect the Georgetown 20 feet in the hanging wall of the fracture zone.

The location of Holes 3 and 4 should depend upon the results of Hole No. 2. If No. 2 has no drilling trouble in the fracture zone, Holes 3 and 4 could be located as shown. However, if Hole 2 has to be moved, Holes 3 and 4 should also be moved. If Hole No. 1 finds the footwall favorable then Hole No. 3 might best be drilled as originally planned in the contract. Hole 4 could also be moved to the footwall of the fault. Should the hanging wall area prove more favonable in Hole No. 2, Holes 3 and 4 could both be moved about 50 feet south so they would both enter the Georgetown limestone about 20 feet in the hanging wall of the fault.

Both MacLaren and I are opposed to Hole No. 5 and recommend it be disallowed. As located it will be in a badly fractured area that will almost certainly pose drilling problems. Further, there are no signs of igneous activity in the nearby area, nor even along any of the intersecting faults and igneous activity seems to be synchronous with mercury mineralization on the dome. The lone placer sample of mercury near the drill site could have come from an outcrop higher on the dome.

The applicant has no holes numbered 6 and 8, but we recommend that the holes he calls 7, 9, and 10 be drilled as he has proposed.

Assuming Hole No. 5 is disallowed, the proposed Stage 1 drilling will consist of 7 holes, to be drilled as discussed in the foregoing paragraphs. We recommend approval of such a program with the stipulation that holes be moved if drilling troubles are encountered. Stage 2 and 3 should be left as is in the contract, although the operator should be told that the contract can be further

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JAN 16 1956

JAN 13 1956
BUREAU OF MINES
JOPLIN, MO.

EXPLORATION PROJECT CONTRACT
BIG BEND MINING, INC.
DOCKET NO. DMEA -3776

Amendment to Exhibit A, Annex 1 January 12, 1956

Whereas, on November 9, 1955 an agreement was made and entered into, by and between The United States Government and Big Bend Mining, Inc., a corporation chartered under the laws of the State of Texas, wherein certain exploratory drilling is to be done by said corporation, in Sections No. 109 and 105 in Block 341, T. C. Ry. Co. Survey, Presidio County, Texas as set out in Exhibit A, Annex 1 of Exploration Project Contract No. Idm-E 893, DMEA Docket No. 3776 to which reference is hereto made for all purposes.

Whereas, subsequent to said agreement, said corporation has caused to be made, a detailed structural map by a competent geologist, of part of Sec. 109 of said land, and because of conclusions drawn from said geological work, it is believed by said corporation that drill hole locations as herein below set out will materially enhance the chance of a significant ore discovery;

Now therefore, premises considered and for the mutual benefit of all parties concerned, stages 1, 2 and 3 of Exhibit A of said contract, be and hereby are amended to read as follows:

Stage 1

Bulldoze approximately 3 to 4 miles of access roads to drill sites, and prepare drill areas 1, 2, 6, 11, 14 and 18 at locations shown on Figure 1.

In Area 1, drill hole No. 1 at a point 150 ft. N. 65°W of the open cut to an approximate depth of 510 feet or the top of the Georgetown lime.

In Area 1, drill hole No. 2 at a point 100 ft. along the road S. SW of the open cut to approximately 510 feet or the Georgetown lime.

In Area 2, drill hole No. 3 at a point 90 ft. S 21°W from the smaller of two igneous intrusions, which occur in the major fault trace, to approximately 485 ft. or the Georgetown lime.

In Area 3, drill hole No. 4 at a point 140 ft. N. 12° E. of a small isolated igneous intrusion and being 70 ft. SE of the E. end of a larger igneous intrusion in the major fault trace. To a depth of approximately 505 feet or to the top of the Georgetown lime.

In Area 4A - drill hole No. 5 to approximately 500 feet or to the Georgetown lime at a point in approximate center of triangular fault block and being approximately 400 feet SW of BM elevation 2734 feet.

In Area No. 6, drill hole 7 at the center of the sink hole, to a maximum depth of 600 feet.

In Area No. 14, drill hole no. 9 on the southeast side of and within 5 feet of the fault, to a maximum depth of 700 feet.

In Area No. 18, drill hole No. 10 on the northwest side of and within 5 feet of the fault, to a maximum depth of 800 feet.

Stage 2

Bulldoze approximately 1500 feet of access roads to prepare drill sites for 19 holes.

In Area 1, drill hole No. 11 at a point 90 ft. ESE of BM, elevation 2678.9 feet and located in fracture zone, to a depth sufficient to test the top of the Georgetown lime as indicated by hole Nos. 1 & 2.

In Area 1, Drill hole No. 12 at a point 275 ft. NE of open cutas shown on map to a depth sufficient to test the top of the Georgetown lime as indicated by holes no. 1, 2 and 3.

In Area no. 2, drill hole No. 13 at a point 110 ffet E of No. 3, and hole #14, at a point 75 feet N of No. 3 to depths sufficient to test the Georgetown lime as determined by hole #3.

In Area #3, drill hole #15, at a point 150 ft. SW of #4 and approximately 90 feet NW of small isolated igneous intrusion to a depth approximately that of hole #4 or to the Georgetown lime. In area #3, drill hole #16 at a point approximately 390 ft. NW of #4, being approximately 185 ft. N. of the major fault trace and being 500 ft. NE of hole #14 to a depth of approximately 600 ft. or to the top of the Georgetown lime.

In Area #5, drill hole #17 at a point 1000 ft. NW of a windmill and being 540 ft. from the E. line and 785 ft. from the N. line of Sec. 109, to a depth of 600 ft.

In Area #6, drill three holes at points of an equilateral triangle each point to 100 ft. from hole #7. The maximum depth of each shall be 600 ft.

In Area 14, three holes shall be drilled at points 100 feet northeast, 100 feet southwest, and 50 feet southeast of hole No. 9. The maximum depth of each hole shall be 700 feet.

In Area #11, drill three holes at points 100 feet SW and 100 feet NE of the center of the igneous intrusion and five feet from the fault trace on north side and 100 feet S. of the center of the igneous intrusion.The maximum depth of each shall be 700'.

In Area No. 18, drill three holes at points 100 feet NE, 100 feet SW and 50 feet NW of hole #10, to a maximum depth of 600 feet.

In at least one hole of Stage 2, approved by the Government, the Georgetown limestone, when found, shall be penetrated to an approximate depth of 100 feet beyond the upper contact thereof.

The total drilling for stage 2 shall not exceed 12,000 feet.

Stage 3

Bulldoze approximately 3,000 feet of access road, and prepare drill sites for not to exceed 9 holes, if remaining footage from stage 2 so warrants.

Drilling under this stage shall be performed in areas recommended by the operator, based on information obtained from previous drilling and approved by the Government.

The total footage drilled in Stage 3 shall not exceed 1,100 feet plus any footages not used in Stages 1 and 2.

Executed in sextuplicate the day and year first written above.

BIG BEND MINING, INC. | The United States of America

By_____ | By

I, _____ certify that I am the Secretary of the corporation named as Operator herein; that _____ who signed this contract on behalf of the Operator, was then _____ 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.

_____

(Corporate Seal)

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MINERALS [illegible]
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JAN 13 [illegible]

BUREAU OF MINES
JOPLIN, MO.

Geologic Report
On a portion of Contrabando Dome, Presidio County, Texas

INTRODUCTION

This report is concerned with the structure and mining prospects of a portion of Contrabando Dome, a large structural feature located in southeastern Presidio County, Texas.

The report is to be considered as a progress report since only a portion of the southwest flank of the dome has been thoroughly examined and mapped. This mapped area comprises the major portion of the northeast quarter of Section 109, . . T. C. Ry. Co. Survey, Blk. 341.

Mapping has been done by standard surface mapping techniques. The completed map is included in this report. The map is based on a limestone bed 194 feet below the top of the Eagle Ford and in the Eagle Ford section. Scale of the map is 1" - 100' and the contour interval is 10'.

STRATIGRAPHY

Stratigraphic discussions in this report will be confined to those horizons present in the mapped area and such discussion will be limited to those facts which have an immediate bearing on the practical problem at hand.

The Cretaceous Eagle Ford (Boquillas) shales and limestones cover most of the area shown on the accompanying map. This formation is composed of alternating shales and limestones with the shales greatly predominant. The shales are dark gray to black in color and are quite bituminous. They also contain a considerable asphaltic hydrocarbon residue. The limestones are light gray, dense, and are also quite carbonaceous, containing a sufficient amount of hydrocarbons to give a distinctly petroliferous odor from the freshly broken surface. The Eagle Ford is about 500' thick in the area concerned in this report.

The Eagle Ford is overlain by the alternating chalky limestones and marly shales (limestones predominant) of the Austin formation. Except where metamorphosed by igneous activity, the color of both the limestones and shales is typically buff. The Austin is also about 500' thick in the subject area.

The Eagle Ford is underlain by the Buda limestone, a dense, nodular, white to light gray, limestone about 80 feet in thickness.

The Buda is underlain by the Del Rio Clay, a dark gray to black shale grading downward into a sandy phase at its base. The Del Rio is about 120 feet in thickness.

The Del Rio is underlain by a thick massive limestone about 1000 feet thick which represents the undifferentiated Edwards limestone at the base and the Georgetown limestone at the top. This horizon will henceforth be referred to as the Georgetown-Edwards. The upper portion of this horizon is relatively thin-bedded and porous, in some areas being somewhat cavernous. This horizon is of particular importance since it is considered to be the most favorable host rock for mercury mineralization.

It will be seen from the accompanying map that the Eagle Ford covers most of the mapped area, only a small area in the southwest portion of the map being covered by Austin.

This general area has been subjected to a very considerable amount of igneous activity. Most of the vulcanism occurred in the Tertiary, but it is the belief of the writer that some of this activity may well have occurred in Pleistocene time. Intrusion of the sediments by dikes and sills of acidic composition is widespread and most of the area has been covered in the past by thick flows of diabasic extrusives.

In the mapped area, igneous activity has been confined to the intrusion of rhyolite dikes along fault planes. Only the very highest points of the dikes are to be seen at the surface at this time. They have been but recently exposed by erosion and are seen as small irregular masses distributed along the fault traces of the area. It is to be presumed that these masses may well be connected at depth. In the area mapped they have in all cases been found situated in or near fault traces.

There is probably a much greater amount of igneous material at depth than is to be seen on the surface. The sediments at the surface are, over wide areas, metamorphosed by heat and by hydrothermal solution activity. These can be seen on the surface by distinct zones of color changes on even a superficial examination.

Travertine deposits cover a considerable amount of the surface of the area. These deposits are typical of limey hot springs deposits. At a very recent date they must have almost covered the area under consideration. The surfaces of the remaining deposits have been very little weathered. Erosion of the deposits

has been almost solely of the headward gulley erosion type. They are considered to be of very recent origin. To the southeast of this area, in the Big Bend National Park, one such hot spring is still flowing.

These deposits are considered to be of considerable significance because of their association throughout the Terlingua quicksilver district with hydrothermal solution activity and with mercury orebodies. In the Rainbow Mine, a few miles east of Contrabando Dome, it is said that heat conditions are such in certain levels as to make it necessary to shorten work shifts. It is also said that, in this mine, there are certain unidentified warm gaseous emanations that are strong enoughto be readily noticeable.

It may be significant that these travertine deposits show a minute trace of mercury content on a Willemite Screen test. However, it is very debateable as to whether this trace of mercury has been picked up from previously deposited mercury sulphide at depth. Certainly the content is not sufficiently high to indicate primary deposition.

Sellards and Baker* have attributed the hot springs of this general area to an igneous source due to their chemical compositon.

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* Sellards, E. H. and Baker, C. L. - The Geology of Texas, Vol. 11 (University of Texas Bulletin No. 3401, Jan. 1, 1934), P. 372.

STRUCTURE

The regional structure of this general area is controlled by the Solitario Uplift, a great circular dome considered to have been formed by Variscan folding in the Pennsylvanian. The dome is nearly circular and about 9 miles in diameter. This dome lies about 10-15 miles north of Contrabando Dome. Solitario merges with the Terlingua anticline, a long broad fold extending southeastward from the Solitario Uplift through the Terlingua quicksilver district. Contrabando dome is located on the southwest flank of the Terlingua anticline.

Contrabando dome is a roughly circular dome about 2 miles in diameter. The oldest rocks exposed at the surface on the dome is the Cretaceous Eagle Ford. It has closure in excess of 300 feet.

The portion of Contrabando dome mapped and herein considered comprises about a quarter section located on the southwest flank of the dome. The center of the

dome is located immediately to the northeast of the area shown on the accompanying map.

Folding of the rocks of the area is relatively uncomplicated, being monoclinal in nature, dipping to the southwest, and with strike circling the dome. These conditions are shown on the accompanying map.

However, the structure of the dome is greatly complicated by faulting. At least three separate periods of faulting have occurred in the area. The first and possibly most important of these produced the major faults of the dome. These faults trend across the dome in a generally northeast-southwest direction, and to a considerable degree control later faulting. Only one of these major faults occurs in the area covered by the accompanying map. It is the major fault extending northeast-southwest across the southeastern one-third of the map. Displacement varies along the fault from a few feet to about 250 feet, with the usual displacement being from 50-100 feet. The dip of the fault is at a high angle. It was possible to measure the dip accurately at only one place. At this occurrence the dip of the fault was 81 degrees to the southeast. The fault is of the normal, gravity type.

This fault system is intersected by another fault system, second in importance and in time of origin. This secondary fault system trends roughly east-southeast. It is best represented in the mapped area by the long fault extending across the northern portion of the map, and ending against the large fault of the primary system in the east central portion of the map. This fault dips 64 degrees to the south at the one point where the fault plane was sufficiently exposed to measure-in the northwestern corner of the map. It is of the overthrust type, with thrusting to the north.

A third, and later, system of faults occurs with trends extending roughly northwest-southeast. In several instances this system dies out against, or displaces, faults of the first and second systems. This third system is the least important of the three in magnitude of displacement, the displacement along these faults being usually from a few feet to a few tens of feet.

The major fault of the first system does not have a cleanent fault plane, but accomplishes its displacement by many shear planes in a zone frequently as much as 100 feet wide along the fault trace. One of these shearing planes is considerably

more pronounced than the others and has been mapped as the fault trace.

Faults of the first and third systems have been intruded along the fault planes by rhyolitic dike-like igneous masses. The writer has not as yet found the faults of the second system (east-southeast trend) associated with igneous activity. If future mapping does not disclose association of these faults with igneous activity, it may be indicative of two separate and distinct periods of igneous intrusion, ie; during or after the formation of the first and third fault systems, but lacking during the period of formation of the second system. This will have to be determinded by further field work.

An interesting occurrence is the association of faults of the second and third systems with fractured zones. These zones occur in the general trend of these two fault systems and are intensely shattered and fractured bands having definite margins at either side. They consist of a series of parallel vertical or near-vertical fractures. These parallel fractures are usually less than an inch apart. At their margins these fracture zones pass into areas of surrounding rock in which fracturing is normal. In several instances faults die out in and are continued by these fractured zones. The fractured zones have no vertical displacement and no apparent horizontal displacement although in some instances horizontal slickensides are found along the fracture planes.

Both the fault planes and the fracture zones are heavily mineralized by secondary, presumably hydrothermal, calcite with lesser quantities of limonite and hematite. With the exception of these shows found in igneous rock, all the shows of mercury which have been found on the dome have been found along the fault traces and in the fractured zones.

THE TERLINGUA QUICKSILVER DISTRICT

Quicksilver was first found in Texas, in the Mariposa district in 1894. The Terlingua district produced in the years 1895-1934 somewhere between 130,000 and 200,000 flasks, according to Sellards and Baker*. The writer does not have

*Sellards, E. H., and Baker, C. L., - The Geology of Texas, Vol. 11, Univ. of Texas Bull. No. 3401, 1 January 134, p. 562.

readily available to him data on more recent production - through World War 11, etc.

The main Terlingua district is in the form of an elongate rectangle about 14 miles long in the east-west direction and about 4 miles across in the north-south direction.

The quicksilver deposits of the district have been formed by depositon from ascending hydrothermal mineralizing solutions arising from magmas at depth. These ascending solutions have been dammed by impervious barriers - shale, etc., - and their mineral content deposited in voids in favorable host rock beneath the impervious barrier. The richest ore deposits have occurred in the upper portion of the Georgetown limestone, where mineralizing solutions have been trapped by the overlying impervious Del Rio clay and deposition has occurred in the porous, sometimes cavernous limestones of the Georgetown. The presence of the magmas at depth is indicated by the presence of hot spring deposits of travertine, by the remaining flowing hot spring, and by the profusion of intrusive and extrusive rocks of the district.

Quoting from Udden*.

*Udden, J. A., The Anticlinal Theory as Applied to some Quicksilver Deposits: University of Texas Bull. 1822, pp. 8-9, 1918.

"The present writer, who has had opportunity to see most of the quicksilver occurrences in Brewster County, believes that structural conditions clearly affect deposition in this district and have a direct practical bearing on the finding and development of the quicksilver ores. Briefly stated, observations here indicate that the deposition of the quicksilver fumes rising from great depths has resulted from the capture of the fumes and from their retention, mainly in the form of sulphides, in structures practically resembling those which determine the retention of upwardly migrating liquid and volatile bitumens. The quicksilver deposits in almost every case occur in anticlines and domes or along decided belts in what are known as "structural terraces," or arrested monoclines. Invariably they occur in these structures at levels where the rising solutions have encountered strata that are less pervious than those immediately below. This appears to be true both on a large and on a small scale. The richest cinnabar deposits so far encountered have been found in the contact between the Georgetown (which is the upper fifty feet of a thick limestone usually referred to as the Edwards) and the Del Rio clay. The next richest horizon has been proved to be the contact between the Buda limestone and the overlying, less penetrable flags and shales of the Eagle Ford. In the Eagle Ford itself, which in this region measures at least some 600 feet in thickness, and which consists of beds rapidly alternating from compact limestone to black shale, the distribution of ore frequently shows a direct relation to these alternations. Even in the small details of these beds it has been found that pockets of cinnabar frequently underlie layers of shale. It may be that there is a coincidence of other circumstances affecting this arrangement in the distribution of the cinnabar. All of these shales are more or less bituminous and contain organic matter. This may have aided in the precipitation of the quicksilver fumes as sulphides. Butthat the structures themselves have been the most important factor is indicated by the fact that bitumens also have accumulated in the same structures. Oil has been found in the ore in the Eagle Ford in sufficient quantity to materially aid in its reduction in the furnace."

Four factors control the deposition of mercury ore in the Terlingua district. Ascending mineralizing solutions, structural traps to direct these solutions, the

presence of a host rock with porosity and permeability, and an impervious layer to dam the solutions.

Sellards and Baker* give an excellent classification of

* Op. Cit., P. 549.

the conditions determining the occurrence of the quicksilver.

Quoting from them:

" (1) The structural control of ore deposition, the quicksilver being concentrated in anticlines and anticlinal-like structures in all essential respects just like oil and gas are concentrated in productive oil and gas fields.

(2) Attempts to make a minute classification of the different forms of ore-bodies no doubt have their value, but any opening in the rocks where quicksilver can enter and accumulate is apt to contain ore.

(3) Relatively impervious clays, shales, marls, or intrusive dikes, sills, sheet, or in fact, any kind of tight rock keep the quicksilver solutions or gas confined within anticlinal or anticlinal-like structures and direct the quicksilver-carriers in an ascending direction. If such hollow dome-like sheets are not sufficiently fractured to afford channels through them, the quicksilver must accumulate beneath their lower surfaces. If channels through them are afforded, some of the quicksilver will rise to higher rocks or in some cases to the surface. Such channels are not always filled with ore but may be so filled when there is not adequate space for all the quicksilver suppled to deposit above them."

QUICKSILVER PROSPECTS ON CONTRABANDO DOME

Contrabando Dome has the conditions listed above as being necessary for the accumulation of cinnabar deposits. It is a strongly developed anticlinal structure. There are igneous intrusions present on the dome which indicate a considerable magmatic activity at depth. There are numerous faults which provide channels for ascending hydrothermal mineralizing solutions. That these channels did carry some mercury is evidenced by the excellent shows of cinnabar found on the dome. Almost all of the igneous intrusions give a show of mercury on a Willemite Screen test. Around igneous intrusions placer shows of mercury are found. Visible cinnabar is found in ore in place at the mercury prospect in the central portion of the accompanying map. The writer has sampled this prospect and an assay has been made of the ore found here. This sample is listed as Sample No. 1 in the assay result sheet to be found at the back of this report. This sample was undoubtedly low-graded. Due to danger of a cave-in of a wall in this open pit it was considered inadvisable to try cutting a sample from the pit itself. Instead grab samples were taken from ore which had been previously removed from

from the open cut. These samples had been exposed to weathering for some years and it is very probable that many of the fine particles of cinnabar adhering to the surface of these rock fragments had been washed away. A more truly representative sample may well show this prospect to be marginally commercial. However if such were the case there are only a few thousand tons of ore in sight at the surface.

In an old shaft immediately to the north of the NW corner of the accompanying map the writer took more representative samples. Twenty-eight samples were taken from the shaft, which is about 120' deep, from the drifts extending off from the shaft and from open cuts adjacent to the shaft. These are listed in the assay result sheet at the back of this report as Samples #2 through 29. Sample No. 13 which gave an assay of 0.19 percent of mercury, was the best sample taken in the workings. It is significant that this sample was taken in the very bottom of the shaft.

The Fresno Mine, which is currently operating, is located just adjacent to the north flank of Contrabando Dome. The writer has had no access to production records of the Fresno Mine, but it's continued operation implies that it is operating at a profit. In the Fresno property, ore production has occurred from two ore bodies located in the upper part of the Georgetown limestone.

It has been previously mentioned that the Terlingua quicksilver district is a rectangle 4 x 14 miles in dimensions. This belt, which has its long axis trending east and west, would contain the Contrabando Dome area if it were extended west along the same trend for a distance of about seven miles. It is the belief of the writer that the Contrabando Dome area is apt to be a part of the Terlingua quicksilver district. This belief is given credence by the fact that commercially profitable ore bodies were found in the Fresno Mine immediately adjacent to Contrabando Dome. It is quite possible that hand picking of ore in the two localities which have been sampled and assayed might well give furnace quality ore. However it is unlikely that such a method of production would be profitable. Elsewhere in the district the grade of ore has become richer with depth. Theoretical considerations would lead one to expect that mercury deposits of this sort would become richer with depth. The samples taken in the workings just north of the mapped area in Section 108 indicate that such is the case, since the richest sample taken was found at the very bottom of the shaft.

The mercury prospect in the central portion of the mapped area is in igneous rock. Most of the samples taken in the old workings just north of the mapped area in Section 108 were taken in igneous rock, however Sample #13 which gave the best assay, was taken in Eagle Ford shales and limestones, near the igneous instrusions and at the very bottom of the workings. From this it appears probable that the sedimentary rocks near these igneous intrusions may well be carrying the best ore at depth. The most likely horizon for the accumulation of ore, the Georgetown limestone, occurs at considerable depth on Contrabando Dome and has not been examined. The Georgetown will be found at depths of between 500-800' on the Dome.

Considering the conditions which are highly favorable for the accumulation of cinnabar deposits and considering the shows of cinnabar on the surface in horizons which are normally not considered as being favorable host rocks, it seems almost certain that the Georgetown Limestone will be carrying commercial bodies of cinnabar. Considering the size of the dome and the favorable shows it is likely that such ore bodies would be sufficiently rich to repay the cost of going to these considerable depths to reach the ore. The principal difficulty will be in determining just where these local ore bodies occur. The most practicable means of exploring for these deep seated ore bodies is by means of the core drill. Should an ore body be encountered by these core holes, core drilling can be employed to block out the mass of the ore bodies to determine the commercial feasibility of sinking a shaft to reach the ore bodies.

It is recommended that such a core drill program be placed in operation. Considering the large size of the dome, random core drilling could be carried on extensively with little chance of penetrating the ore bodies, even though such ore bodies might exist in considerable numbers.

It is further recommended that detailed surface geology be used to place such core holes in the best possible locations in order to secure the maximum advantage from such core holes.

RECOMMENDED LOCATIONS FOR CORE HOLES

1. It is recommended that the first core hole be drilled 150' N65°W from the open cut in the mercury prospect in the central portion of the mapped area. The location is near to the excellent shows in the mercury prospect but far enough away from the igneous intrusion to avoid drilling the hole in igneous rock. It is to be expected that cinnabar deposition will be heavier in the country rock around the intrusion than in the intrusion itself. This location also will be situated on a

small anticlinal fold which is considered to be a prospective trap for such deposition. It is expected that the top of the Georgetown will be encountered at a depth of about 510 feet in this hole.

2. This location is similar to No. 1. It is located approximately 100 feet down the road to the south from the open cut in the mercury prospect. This measurement is to be taken along the road and the location is in the road. The location is surrounded by shows, by igneous activity, and is located in a fracture zone. Expected depth of the Georgetown is approximately the same as that of No. 1.

Subject to the geologic information gained in coreholes No. 1 and 2, locations No. 11 and 12 are tentatively recommended as follows:

11. This location is situated 370 feet southeast of No. 2, as shown on the accompanying map. The location is in a fracture zone and is so situated as to explore the mercury prospects of the country rock at a greater distance from the igneous intrusions than No. 1 or No. 2.

12. This location is situated 275 feet northeast of the open cut in the mercury prospect as shown on the accompanying map. It is situated in a fracture zone in the trend of a fault, is in a zone of mineralized and altered rock, and is close to the igneous intrusions and close to the mercury shows of the area.

The above described locations are in Drill Area #1.

3. This location is on the south side of the major northeast trending fault along the southern portion of the mapped area. It is 90 feet S 21° W from the smaller of two igneous intrusions and is 70 feet south of the principal shear plane in the major fault. As is shown in the rough drawing to scale of this location in cross section, this location should cut the fault plane at the contact between the Georgetown and Del Rio clay. The location is near two igneous intrusions with excellent shows. Placer shows of mercury are also strong around this location. The location is also in a highly fractured and mineralized area and along a major fault with intrusion of igneous masses and considerable mineralization.

13. This location is 110 feet east of No. 3, as shown on the map. Reasons for drilling this hole are similar to those given for No. 3. This hole should be drilled subsequent to No. 3 and the recommendation for this hole is tentative and dependent upon the information gained by the drilling of location No. 3.

14. Location No. 7 is also tentatively recommended and subject to information gained in the two previous holes in this area. This location is situated just north of the major fault of the mapped area. It is 75 feet north of location No. 3 and as shown on the map. Here, locally, the beds to the north of the fault are upthrown against

the fault, giving a reversal of the regional dip, and causing a structural trap for the accumulation of mercury deposits arising from the nearby igneous intrusions. Locations 3, 13 and 14 are in Drill area #2.

4. This location is somewhat similar to No. 3, being situated farther to the east along the same fault. The location is 140 feet X 12°E from a small igneous intrusion. This places the location 70 feet south of the major fault, which, as shown on the accompanying drawing, should cut the major fault at the Georgetown-Del Rio contact. The location is along the major fault and also is situated on a horst between two small faults of the third system. It is near to two igneous intrusions, each of which carries mercury as demonstrated by testing by the Willemite Screen test. It is surrounded by strong shows in placer as tested by the pan.

15. No. 15 is 150 feet southwest of location No. 4. Geological reasons for drilling this hole are similar to those given for No. 4, except that this hole would test a different fault block. This hole should be drilled after No. 4, and this recommendation is tentative and subject to the information gained by drilling No. 4.

16. This location is situated in a closed anticline just north of a major fault. It is approximately 175 feet northwest of the fault trace as shown on the map. The enclosed anticline and the situation in a fracture zone, plus the proximity to igneous intrusions, make this a favorable location.

Locations 4, 15 and 16 are in Drill Area #3.

5. Location No. 5 is in the center of the small triangular fault block in the north central portion of the mapped area. The area is complexly faulted and heavily mineralized. Panning of the stream which drains the area has given good shows. The Georgetown-Del Rio contact should be encountered at a depth of between 450 and 500 feet.

Location No. 5 is in Drill Area #4 as shown on the map.

17. This location is centered in the collapsed rechsone west of the windmill in the northeast quadrant of the mapped area. This is in a zone of collapsed rock along a fault. It is the belief of the writer that this collapsed area is probably a zone in which overlying rock has collapsed into a solution cavity. Certainly the rock layers have slumped into some sort of rather considerable void. Placer shows of cinnabar have been found in this sink. This location is in drill area #5.

Wherever it was considered that any degree of dependable accuracy was attainable, depths to the Georgetown lime have been given. However, the structure of the area is complicated and it should be pointed out that these depths could vary considerably from the estimated depths given.

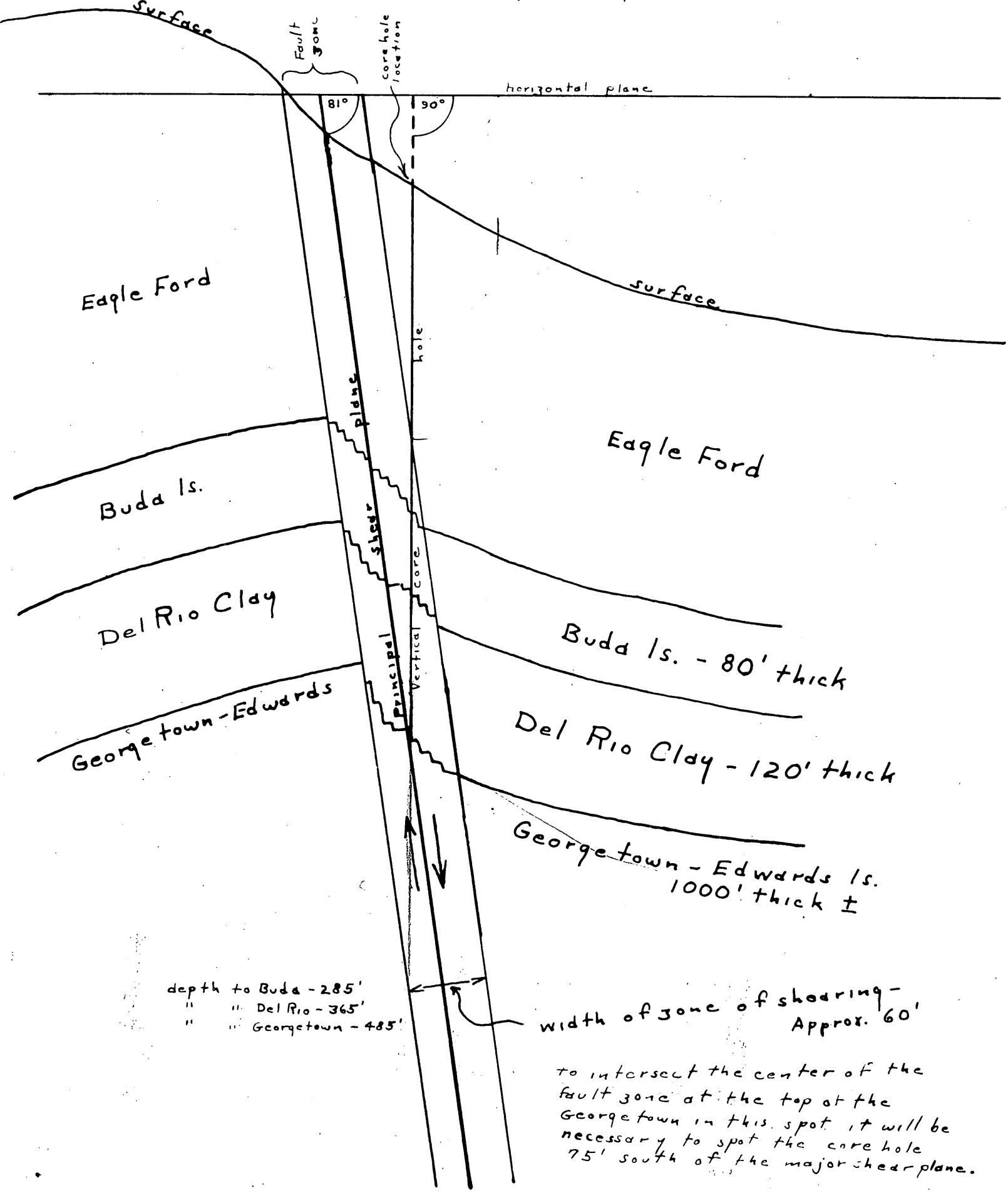
Edgar W. Armstrong

For
Big Bend Mining, Inc.
Abilene, Texas

Edgar W. Armstrong
Consulting Geologist
Abilene, Texas
10 January 1956

Cross-sectional scale drawing of recommended core hole #2

vertical displacement along fault = 85'



to intersect the center of the fault zone at the top of the Georgetown in this spot it will be necessary to spot the core hole 75' south of the major shear plane.

GEO. L. DICKINSON—PRESIDENT
GEO. G. DICKINSON—VICE-PRESIDENT
ROBERT L. DICKINSON—VICE-PRESIDENT

J. A. HANCOCK, PH. D.
CONSULTING CHEMIST

ASSAYERS — CHEMISTS — METALLURGISTS
UMPIRES

DICKINSON LABORATORIES, INC.

P. O. BOX 7006 • PHONE 2-9264
1300 WEST MAIN ST.
EL PASO, TEXAS

DICKINSON LABORATORIES

SUBSIDIARIES:
TEXAS TESTING LABORATORIES
COTTONSEED OILS
PHYSICAL TESTING
FARM SERVICE LABORATORY
SOIL AND WATER ANALYSES

LAB. NO. 8167

Big Bind Mining Co.
623 Mims Bldg.
Abilene, Texas

Analysis of twenty-nine samples for Mercury:

Sample No.	% Mercury		Sample No.	% Mercury	
1.	0.07	1.4	16.	0.00	
2.	0.00		17.	0.00	
3.	0.06	[illegible]	18.	0.00	
4.	0.03	[illegible]	19.	0.00	
5.	0.04	0.8	20.	0.04	0.8
6.	0.04	0.8	21.	0.04	0.8
7.	0.03	0.6	22.	0.00	
8.	0.00		23.	0.00	
9.	0.02	0.4	24.	0.00	
10.	0.00		25.	0.03	0.[illegible]
11.	0.00		26.	0.00	
12.	0.00		27.	0.00	
13.	0.19	3.8	28.	0.00	
14.	0.06	1.2	29.	0.00	
15.	0.00				

SHIPPER'S REPRESENTATIVES AT
EL PASO SMELTING WORKS
PHELPS DODGE REFINERY
FOR
ORES AND SCRAP COPPER

REPRESENTATIVES
FOR
ORE SHIPPERS AT
MEXICAN BORDER POINTS

GLD/jl

Respectfully submitted
George L. Dickinson
DICKINSON LABORATORIES
George L. Dickinson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Box 431
Joplin, Missouri

RECEIVED JAN 3 1956

December 29, 1955

AIRMAIL
Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: Docket DMEA-3776 (mercury)
Contrabando Dome
Presidio County, Tex.
Project Contract Idm-B893

Dear Mr. Kendrick:

This refers to your December 19 letter to me and the copies of the extension agreement of November 21 transmitted therewith relating to the mining exploration and lease contract which you and the other individual signers as lessee entered into last March 25 with W. G. Bledsoe et al, as the lesser of the said sections 105 and 109. I am advised that copies of an assignment to Big Bend Mining, Inc. of that extension agreement should be furnished the Washington Office of DMEA without undue delay. You will recall that an assignment likewise was required with your application to show that your operating corporation was legally in possession of the original lease contract with the landowners.

Subject to your furnishing of certain documents, as per my letter to you on November 4, DMEA in effect approved of that original lease and assignment upon entering into the exploration project contract with your corporation as of November 3, 1955. The lease amendment to extend the deadline date for start of the exploration work appeared desirable to keep the lease in good standing. The other part of this lease amendment, however, with the lessor's agreed relaxation on the exploratory drilling methods, in no way affects any of the specifications for the exploratory project work under the DMEA contract now in force, notwithstanding.

As indicated in my letter to you November 9, any changes in hole locations, exploratory drilling methods, or other aspects of the project work stipulated in your contract, would require prior contract amendment. I believe I explained to your satisfaction the necessity for requests for contract amendments and the technical justifications thereof to be originated by your operating personnel, during our discussions some time ago. In accordance therewith, it is my understanding from Mr. Fry's telephone call to me on November 7, and yours the next ~~morning~~ day, that one purpose of the detailed geologic mapping now in progress, was possibly to justify a contract amendment to permit changing the locations of the first two holes from those now stipulated in the contract, to sites which might appear more advantageous from a geologic standpoint. On that account and because of the advisability for having detailed work maps made of the various exploration sites, I have felt that the delay in starting ofthe actual project work under the contract was justifiable.

I also am informed that straight rotary drilling throughout, although apparently condoned by this recently executed lease amendment, would not be acceptable by DMEA under any circumstances. I believe, however, that you, Mr. Fry, and I agreed long ago that it would not be acceptable to your corporation, or to the Field Team, because representative sampling thereby could not be assured. Core drilling should be mandatory at least throughout all strata containing mercury and/or uranium mineralization.

As also indicated in my November 9 letter to you, I believe that under some conditions DMEA might approve of a contract amendment to permit rotary, diamond plug bit, and/or churn drilling through the barren rock formations if the zones of signifigant mineralization were drilled under careful technical supervision using a diamond core bit or a Baker or other wire line coring tools. Of course, the unit contract prices likely would be adjusted downward by any contract amendment that might be approved to permit any of these lower cost alternative drilling methods. Personally, I would like to see the first hole core drilled from the surface throughout its depth because of the mercury mineralization found in the igneous rock outcrops at the open pit near the No. 1 location and because of the need for basic stratigraphic and structural data there.

I will look forward to receiving the copies of your consulting geologist's report and maps when completed shortly as indicated by your December 19 letter.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

cc: DMEA Oper. Com. (2) ✓ — Please refer to teletype to me on this subject 12/28/55 Henry
McLaren, U.S.G.S., Denver
3776 file

DOCKET
Surname:
Holt
Martin
Rubin
Dunyon
Geehan
Killsgaard
Selfridge
Meyer
Mattendorf

DEC 28 1955

TELETYPE

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
Box 431
Joplin, Missouri

Reference is made to P. S. Kendrick's letter to you dated December 19, with attached copies of lease extension on Contrabando Dome, our Docket DMEA-3776.

Mr. Kendrick should be informed promptly that any changes in location of drill holes, unless of a minor nature, will require ~~approval of the Field Team, or may even require~~ amendment of contract; also that, regardless of the terms of his lease extension, core drilling is mandatory under the Government contract as now in force.

Change to rotary instead of core drilling is not acceptable on account of serious danger of unintentional salting of drill cuttings below any mineralized zone, as there is no provision in lease extension limiting rotary drilling to barren formations, or making core drilling mandatory in mineralized zones. For sampling mineralized zones, use of Baker or other wire line core barrel in conjunction with churn drilling, or coring bit with rotary drilling, might be permissible under careful technical supervision. Use of plug bits in barren formations, with diamond coring bits in mineralized zones, would also be possible. Of course, for any of these alternative methods, unit prices would have to be adjusted proportionately. We should have copies of assignments to Operator Corporation of any amendments of leases entered into by individuals.

George C. Selfridge
Chairman, Operating Committee (SHB)

cc: Docket
Code 400
Oper. Comm.
Adm. Read. File
T. Killsgaard, USGS
Helena Meyer, USBM

cc: FT, Reg. 4

SPHolt/ls 12/27/55

COPY - DMEA Oper[illegible]om (2)

C
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RECEIVED
DEC 23 1955

BIG BEND MINING, INC.
Box 269
ABILENE, TEXAS

December 19, 1955

WSM

Mr. Clinton C. Knox
Defense Minerals Exploration Adm.
Box 431
Joplin, Missouri

Re: DMEA 3776 (mercury)
Contrabando Dome
Presidio County, Texas

Dear Mr. Knox:

Enclosed are four copies of the extension contract between E. G. Bledsoe et al and P. S. Kendrick et al covering exploration and lease contract involving said parties dated April 23, 1955 on the Contrabando properties in Presidio County, Texas. Our detailed geological survey on Sec. 109 will not be completed until about the first of January. Upon completion of the survey we will immediately send you copies of the geology and the geologist's report.

It is costing considerable money and time to get this work done properly but we feel that it will save money in the long run in changing locations already made to more favorable sites.

Yours very truly,

BIG BEND MINING, INC.

By: /s/P. S. Kendrick, President
P. S. Kendrick, President

PSK;vy

****

Note: Made and sent 2 copies of the foregoing to DMEA Oper. Com - 12/20/55
" " " 1 copy " " " " MacLareN, USGS, Denver, 12/20/55
Copies of the extension contract mentioned therein were likewise distributed therewith.

CCK
Knox

RECEIVED
DEC 23 1955

RECEIVED
MINERALS TECHNOLOGY
DIVISION
DEC 20 1955
BUREAU OF MINES
JOPLIN, MO.

THE STATE OF TEXAS ‖
COUNTY OF PRESIDIO ‖ KNOW ALL MEN BY THESE PRESENTS:

That whereas E. G. Bledsoe and Elizabeth Bledsoe, L. B. Horton, W. E. Yaggy, Gordon Kenley and C. A. Duncan, as Lessors, and P. S. Kendrick, L. C. Whittiker and George F. Fry, as Lessees, did on April 23, 1955, enter into a certain lease contract covering Surveys 105 and 109, Block 341, T. C. Ry. Co., Presidio County, Texas, reference to said contract is hereto made for all material purposes.

AND

Whereas, in said contract paragraph 2 thereof provides that the work is to be commenced on or before ninety (90) days from the date of said contract, or $150.00 per month to be paid for an extension of time for the commencement of the work, said extension not to exceed four months and which extension would be up the 23 day of November, 1955; that Lessees were attempting to secure assistance from the government to more adequately explore said land for the purposes provided in said contract, which attempt has required additional time; that it would be tothe material advantage of both the Lessors and Lessees to extend the extension of said time for an additional sixty (60) days by the payment of $150.00 for each thirty-day extension;

That in said paragraph 2 of said contract it provides for "core or churn drilling" and that it would be to the advantage of all concerned to change said phrase to read: "rotary or churn drilling."

Now, Therefore, premises considered and for the mutual benefit of all parties concerned it is agreed that the extension of time to begin the operation as provided in said paragraph 2 of said original lease shall be extended for an addition sixty (60) days by the Lessees paying $150.00 for each thirty days thereof, and that the phrase "core or churn drilling" is and shall be changed to the phrase "rotary or churn drilling". That said original lease contract shall stand as originally made with the said two changes made therein

WITNESS OUR HANDS this 21 day of November 1955.

E. G. Bledsoe
E. G. Bledsoe

Elizabeth Bledsoe
Elizabeth Bledsoe

L. B. Horton
L. B. Horton

W. E. Yaggy

Gordon Kenley

C. A. Duncan

LESSORS

P. S. Kendrick

L. C. Whittiker

Geo. F. Fry

LESSEES

THE STATE OF TEXAS

COUNTY OF BREWSTER

Before me, the undersigned authority, on this day personally appeared E. G. Bledsoe and Elizabeth Bledsoe, his wife, both known to me to be the persons whose names are subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and consideration therein expressed; and the said Elizabeth Bledsoe wife of the said E. G. Bledsoe , after having been examined by me privily and apart from her husband, she, the said Elizabeth Bledsoe acknowledged to me that she willingly executed the same for the purposes and consideration therein expressed, and that she did not wish to retract it.

Given under my hand and seal of office this 21 day of November 1955.

Etta M. Koch

Notary Public, Brewster County, Texas

my commission expires 6/1/57

THE STATE OF TEXAS

COUNTY OF TOM GREEN

Before me, the undersigned authority, on this day personally appeared L. B. Horton, W. E. Yaggy, Gordon Kenley and C. A. Duncan, known to me to be the persons whose names are subscribed to the foregoing instrument, and acknowledged to me that they each executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 28 day of November 1955.

Sue Drake

Notary Public, Tom Green County, Texas.

THE STATE OF TEXAS

COUNTY OF TAYLOR

Before me the undersigned authority, on this day personally appeared P. S. Kendrick, L. C. Whittiker and Geo. F. Fry, known to me to be the persons whose names are subscribed to the foregoing instrument, and acknowledged to me that they each executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 21 day of Nov 1955.

Vivian Hardley

Notary Public, Taylor County, Texas

COPY - DMEA Op. Com. Washington, D. C.

400

C
O
P
Y

BIG BEND MINING, INC,
Box 269
ABILENE, TEX

December 9, 1955

RECEIVED
DEC 15 1955

Mr. Clinton C. Knox
Defense Minerals Exploration Adm.
Box 431
Joplin, Missouri

Re: DMEA-3776 (Mercury)
Contrabando Dome
Presidio County, Texas

Dear Mr. Knox:

We are in process of making a detailed structural map of Sec. 109 on Contrabando Dome. We have two geologists working with plane table and alidade. It will be several days before this work is completed which will delay our starting time probably until after the Holiday season. We have secured an extension of time for the starting date from all of the lessors. We will forward a copy of structural map and additional assay reports as soon as they are obtained, also photostatic copies of extension of time for starting.

Yours very truly,

BIG BEND MINING, INC.

By: /s/ Geo. F. Fry,
George F. Fry, Vice-President

GFF;vy

COPY - DME Operating Committee (2)

400

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

[redacted]

P. O. Box #431
Joplin, Missouri

November 21, 1955

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: Project Contract Idm-E893
Contrabando Dome
Presidio County, Texas
Docket DMEA-3776 (mercury-uranium)

WSM

Dear Mr. Kendrick:

Because no date for commencing the project work was inserted in Article 3 of the subject contract, this is to request that you advise me in writing what date work is started, to be noted on all copies of the contract. Please make a notation of that date on your copy as well. I am to forward the original of your letter stating that date to the Washington Office of DMEA for attachment to the original of the contract.

A supply of the Forms MF-104 and MF-104A are enclosed herewith for preparing and submitting with your monthly report to the Government through me. Since I presume the work will start near the close of November, the first monthly report is expected not later than January 15, 1956. I suggest that each monthly reporting period be closed upon the hole completion nearest the close of the month, a few days off one way or the other seemingly preferable to trying to split costs for partially completed holes under this particular unit-cost contract. I would be glad to offer any suggestions or advice as needed for preparing your monthly report. However, the project work may have progressed to a point where the Field Team's first inspection would be most opportune about January 1, when any advice you may request could be offered at the project while your first monthly report is being prepared.

In the meantime, I shall be anxious to hear of progress and results on the project and will appreciate greatly any such information as you might relate informally on occasion.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks
cc: DMEA Op. Com (2)
MacLaren, USGS, Denver
3776 file

400

DOCKET
Surname:
Martin
Selfridge
Hefner

NOV 1 8 1955

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
P. O. Box 431
Joplin, Missouri

Re: Docket No. DMEA-3776
Mercury-Uranium
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas
Contract No. Idm-E893

Dear Mr. Knox:

This will acknowledge receipt of your letter of November 14, 1955, transmitting original and two copies of the subject contract executed by the operator.

We note that the date by which the operator was to start work has not been entered on our copies of the contract. Please, therefore, request the operator to advise you in writing what date he started work. He should enter the same date on his copy of the contract; you should enter the date on your copies; and the operator's original letter to you should be sent to us so that we can note the same date on our copies of the contract.

Sincerely yours,

George C. Selfridge
by ESY
Chairman, Operating Committee

Approved:

[illegible]
by ESY
Member, Bureau of Mines

N. E. Nelson
by ESY
Member, Geological Survey

cc: Docket
Code 400
Oper. Comm.
Adm. Read. File
T. Kiilsgaard, USGS
H. M. Meyer, USBM
FT, Reg. 4

WSMartin/ls
11/17/55

R. Cy.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
NOV 16 1955

~~WASHINGTON, D.C.~~

P. O. Box #431
Joplin, Missouri

November 14, 1955

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

Re: Docket DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando Dome property
Presidio County, Texas
Project contract Idm-E893

Dear Mr. Selfridge:

Transmitted herewith are the original and two copies of the subject contract executed by the Operator and received here today. The reference to the Owner's Consent to Lien in all copies of the Guaranty form was changed and initialed by the Guarantors as requested in your November 3 letter.

The Operator retained its copy of the executed contract, the Field Team copy is being kept here, and the sixth copy has been transmitted to the Finance Officer, U. S. Bureau of Mines, Bartlesville, Oklahoma.

The Operator informed me by telephone that it plans to commence the project drilling not later than November 23 in order to keep in good standing its Prospecting-Lease Contract with the property owners.

Sincerely yours,

Clinton C. Knox

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

Encl. 3 w/attachments
cc: DMEA Op. Com. (1)
MacLaren, USGS, Denver
3776 file

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

RECEIVED
NOV 1 0 1955

P. O. Box #431
Joplin, Missouri

November 14, 1955

Mr. H. M. Smith, Regional Director
U. S. Bureau of Mines, Region IV
206 Federal Building
Bartlesville, Oklahoma

Re: Docket DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando Dome property
Presidio County, Texas
Project Contract Idm-E893

Attention: Regional Fiscal Officer

Dear Mr. Smith:

Transmitted herewith is the Finance Office copy of the subject project contract received from the Operator today, under which work is expected to be started shortly.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

Encl. 1 w/attachments

cc: DMEA Op. Com (2)
3776 file

COPY - DMEA Sp. Committee

C
O
P
Y

BIG BEND MINING, INC
Box 269
ABILENE, TEXAS

November 12, 1955

Mr. Clinton C. Knox
United States Department of the Interior
Defense Minerals Exploration Admin.
Box 431
Joplin, Missouri

Re: DMEA 3776 (mercury-uranium)
Contrabando Dome
Presidio County, Texas
Project Contract Idm-E893

Dear Mr. Knox:

This will acknowledge receipt of your letter of November 4, 1955, with the following enclosures - original and five copies of the contract for exploration project referred to above with Exhibit "A" (4 pages), Annex I (1 page), three maps, etc., attached as a part thereto.

We are returning herewith original and four copies executed by P. S. Kendrick as President and attested by Phil S. Kendrick, Jr. as Secretary.

Correction from 2(b) and 2(c) was made as requested in paragraph 3 of your letter.

Regarding the prospecting permit #M-43,695 on state owned Sec. 108 it is our purpose to secure a regular 5 year lease on this section.

When we receive this lease we will send you a photographic copy of same.

There are 2 minor errors on the first page of the contract - first you have the address of Big Bend Mining, Inc. as 702 Sayles Blvd. This should be Box 269, Abilene, Texas. You will note this change in address and make your records conform. Second in Article 2, item (c) it reads "consent to lien of lessors of non-metallic minerals". This should read "metallic minerals". If you think these important enough you can make the changes and return them for our initialing.

Referring to your letter of November 9, 1955, regarding core drilling we will go ahead and try to operate under the contract as written for the time being and will take the matter up with you at a later date.

Yours very truly,

BIG BEND MINING, INC.

By: /s/ P. S. Kendrick
P. S. Kendrick, President

PSK;vy
encls.

COPY - DMEA Operating Committee
Washington 25, D. C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
NOV 14 1955

P. O. Box #431
Joplin, Missouri

November 9, 1955

Airmail

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: Project Contract Idm-E893
Contrabando Dome
Presidio County, Texas
Docket DMEA-3776 (mercury-uranium)

Dear Mr. Kendrick:

Following your phone call to me yesterday afternoon, I conferred by telephone with W. S. Martin of DMEA in Washington on the provisions you questioned in the cited project contract tendered for your signature of acceptance on November 4.

He confirmed your interpretation that drafting of the proposed contract there was with the intent to require diamond core drilling of the holes. I understand that the general consensus there was that only diamond drill hole cores could be expected to furnish all the essential geologic data on that hitherto unexplored Contrabando structure and furnish adequate samples through the mercury-bearing rocks detected on outcrops at most of the drilling sites. Also, as I mentioned on the phone, your Prospecting-Lease Contract with the owners of the proposed exploration sites specifies "core or churn drilling".

Although representative up-to-date cost figures on such actual exploratory drilling experiences in the Terlingua district were unavailable, the unit price of $6.00 per foot set for diamond core drilling in this tendered contract (plus the additional $2.00 allowable for each foot actually requiring cementing and redrilling, or reaming and casing) was considered equitable in this particular case. Of course, the type of drilling, the depth of the holes, the ground and water conditions encountered therein, the total number of holes drilled on a project, the accessibility of their locations, and the proximity to a labor and supply center vary the costs a great deal. According to the figures available to me from similar exploratory drilling projects elsewhere, however, diamond core drilling costs range from a low of $1.75 per foot for depths to 100 feet, up to a high of $7.00 per foot for some drilling from 500 to 750 feet in hole depths; diamond plug bit drilling, from $1.00to $4.50; and, rotary rock bit drilling from $0.40 up to the highest rate of $4.00 per foot.

Under the circumstances, if after signing this contract you decide so to request, an amendment thereto could be recommended to the Washington Office to permit the generally lower cost rotary rock bit drilling wherever practical on an actual cost accounting basis but not to exceed the $6.00 allowable drilling cost set by the tendered contract. Also the rotary rock bit drilling would be considered practical only through strata barren of mercury and uranium minerals as demonstrated by continuous testing of the cuttings with the Willermite screen method and with a Geiger counter or scintillator.

Regarding the location for No. 1 hole specified in the tendered contract, although possibly somewhat at variance with your general project proposal, the vertical 460-foot hole specified there was calculated to penetrate the Buda limestone at its intersection with the igneous dike, on the basis of a dip of 36° to the southwest as measured by MacLaren at the site 1 open-cut exposure. I trust that the detailed mapping by your consulting geologist as mentioned by Mr. Fry in his call to me last Monday, will confirm that location calculation to your satisfaction.

I believe all concerned are agreed that amending of some minor specifications of this contract by the Field Team properly may become necessary as the project results begin to unfold for study both by your geologist and by the Government's geologist assigned for the periodic Field Team inspections of the project. Any amendment of major proportion which you may propose, however, particularly if it affects the set unit prices or specified methods of doing any of the work, thus changing the amount which the Government properly should contribute under the contract, must be referred to the Washington Office of DMEA for approval or denial.

Otherwise, I wish to reiterate here that if the proposed contract does not meet with your approval, please return all copies to me unsigned with your proposed changes for consideration.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

cc: DMEA Op. Com. ((2))
MacLaren, USGS, Denver
3776 file

COPY - DMEA Operating Committee
Washington, 25, D. C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

[redacted]

RECEIVED
NOV - 7 1955

P. O. Box #431
Joplin, Missouri

November 4, 1955

Airmail

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box #269
Abilene, Texas

Re: DMEA-3776 (mercury-uranium)
Contrabando Dome
Presidio County, Texas
Project Contract Idm-E893

Dear Mr. Kendrick:

Confirming the information given in my telephone call to you this afternoon, enclosed are the original and five copies of the proposed contract for your exploration program, signed by the Acting Administrator for the Government, with Exhibit "A" (4 pages), Annex I (1 page), three maps, etc., attached as a part thereto.

If the terms and conditions of this proposed contract are satisfactory to your company, all six copies should be properly executed, returning to me for the usual distribution all but the marked "Operator's Copy" which is for your files.

Also please change the paragraph reference in the first sentence of each copy of your Guaranty to paragraph 2(c) of the attached contract instead of "2(b)" as now written, and you, Mr. Fry, and Mr. Whittiker each should initial that change nearby in the margin of that document.

I understand that you will, or already have, furnished the Washington Office with copies of your Prospecting Permit No. M-43,695 on State-owned section 108. No doubt you also intend to furnish that office satisfactory information and/or documents showing how you intend to maintain that permit in good standing and accomplish the required prospecting within the year. I believe that would qualify you for a formal State mining lease under the rights granted by the Texas 54th Legislature (H.B. No. 508). As I understand it, with the periodic payment of the necessary land rentals and/or royalties thereafter, once such a State lease is obtained, it could be maintained in good standing throughout the life of this proposed project contract.

In order to expedite starting of your project work there is no wish to delay your signing of the enclosed contract but you are formally advised hereby that no Government participation payments

under this contract can be made until the above-mentioned documents covering your minerals rights on section 108 are received by the Government and determined to be satisfactory.

If any part of this proposed contract does not meet your approval please return all copies to me with your proposed changes for consideration.

I would be pleased to try to answer any questions that might arise if you will contact me at any time.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

Encl. (5) w/attachments

cc: DMEA Op. Com. (2)
MacLaren (USGS, Denver)w/copies
3776 file

DOCKET
Surname: Holt
Martin

Call Letters MCT Charge to: DMEA 14X4401(01)
Revolving Fund
GOVT NL November 3, 1955

P. S. KENDRICK, PRESIDENT, BIG BEND MINING, INC.
702 SALES BOULEVARD, ABILENE, TEXAS

YOUR CONTRACT BEING AIRMAILED TO FIELD TEAM.

Frank E. Johnson

ACTING ADMINISTRATOR, DMEA

cc: Docket
Code 400
Adm. Read. File
Oper. Committee
Thor Kiilsgaard, USGS
H. M. Meyer, USBM
FT, Region 4

SPHolt/ls
10/28/55

SENT
NOV 3 1955
Clerical Service Section

R.A.B.

DOCKET
Surname:
Holt
Martin

Call Letters HCT Charge to: DMEA 14X4401(01),
Revolving Fund
GOVT NL October 28, 1955

P. S. KENDRICK, PRESIDENT, BIG BEND MINING, INC.
702 SALES BOULEVARD, ABILENE, TEXAS

YOUR CONTRACT WAS SIGNED TODAY ~~BY THE ADMINISTRATOR~~ AND FORWARDED TO THE FIELD TEAM BUT NO PAYMENTS FOR WORK DONE CAN BE APPROVED UNTIL WE HAVE REVIEWED AND APPROVED STATE OF TEXAS PROSPECTING PERMIT FOR SECTION ONE ZERO EIGHT (108). UNLESS PERMIT WAS ISSUED IN NAME OF YOUR COMPANY, WE MUST ALSO REVIEW ASSIGNMENT OF SAME.

ACTING ADMINISTRATOR, DMEA

cc: Docket
Code 400
Adm. Read. File
Oper. Committee
Thor Kiilsgaard, USGS
H. M. Meyer, USBM
FT, Region 4

SPHolt/ls
10/28/55

DOCKET
Surname:

400

Holt
Martin
Meyer
Talbott
Williams
Gleason
Sebridge
Fishman

AIR MAIL

NOV - 3 1955

RWJ
~~noted~~

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
Box 431
Joplin, Missouri

Re: Docket No. DMEA 3776 - Mercury
Big Bend Mining Company
Contrabando Dome
Presidio County, Texas

Dear Mr. Knox:

Enclosed are the original and five copies of a proposed contract for an exploration program by the above-referenced applicant, signed by the Acting Administrator for the Government, together with Exhibit "A" (4 pages), Annex I (1 page), and 3 maps.

If the terms and conditions of this proposed contract are satisfactory to you and the applicant, all six copies should be signed and the usual distribution made.

If any part of the proposed contract does not have either your approval or that of the applicant and cannot be amended within your delegated authority, the original and all copies of the proposed contract are to be returned to this office, together with the proposed changes for consideration.

The Guaranty form submitted by the applicant refers to a requirement of the Owner's Consent to Lien in "Article 2(b)" of the contract form. Actually, the requirement in the present contract form is in Article 2(c). Therefore, at the time the contract is executed the parties who executed the Guaranty should make the change from "b" to "c" and initial such change in the margin of the form.

The leases to Sections 105 and 109, included in the contract, were assigned to applicant by an instrument dated March 25, 1955. The instrument does not mention the third section of land included in the project, section 108, nor was a copy of the State of Texas prospecting permit under which it is held submitted in connection with the application. Therefore, a copy of the permit should be

RS

submitted to us for legal review. It is our understanding that the applicant is mailing a copy to this office. In order to expedite the starting of the project, the applicant may sign the contract immediately if he is advised in writing by the Field Team that no payments under the contract can be made until above documents are received by the Government and determined to be satisfactory.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (SHB)

Enclosures

APPROVED:

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

W. P. Williams (SHB)
Member, Geological Survey

cc: Docket
Code 400
Oper. Comm.
Adm. Read. File
Thor Kiilsgaard, USGS
H. M. Meyer, USBM
FT, Region 4

SPHolt/ls
10/31/55

P. S. Also enclosed are two extra copies of Annex I, Exhibit "A", and two extra sets of maps for the use of the Field Team.

Please note that Finance copy and Division copy of contract are without Consent to Lien or Guaranty.

DOCKET
SURNAME
400 Martin
Rubin
Dwyer

AIR MAIL

NOV - 3 1955

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 869
Abilene, Texas

Re: Docket No. DMEA 3776 - Mercury
Comanchemole Dome
Presidio County, Texas

Dear Mr. Kendrick:

We have reviewed your "Permit No. M-43695 to Prospect", submitted with your letter of October 31. As we read it, you have the right to prospect for a remaining 5 month period, which period we deem insufficient for the purposes of the contract. We require, therefore, that you demonstrate to us your rights to explore upon the land beyond the 5 month period, such as rights to renew permit, etc. In addition, we should like to know what rights you have to obtain the lease mentioned in the prospect permit, so as to produce from the land.

Sincerely yours,

Frank E. Johnson (for)

Acting Administrator

MCRubin/WSMartin/foc
11-2-55
cc to: Docket
Code 400
Adm. Read. File
FT. REG. IV
Messrs. Rubin, Room 7343
Pennington, USBM
Kiilsgaard, USGS

R.C.S.

400

WESTERN UNION

Telefax

RB109 DA12

D ABA105 PD=ABILENE TEX 20 1052AMC=

SENDER WANTS ACK by wire

FRANK E JOHNSON, DEPUTY ADMINISTRRATOR=

UNITED STATES DEP OF THE INTERIOR DEFENSE

MINERALS EXPLORATION ADMIN WASHDC=

CONFIRMING OUR TELEPHONE CONVERSATION OF THE 15TH RE DOCKET DMEA 3776 MERCURY CONTRABANDO DOME, PRESIDIO COUNTY TEXAS WE URGENTLY REQUEST CONSUMMATION OF CONTRACT ON SHORT FORM UNIT COST BASIS PLEASE WIRE COLLECT IF THIS IS BEING DONE AND WHEN CAN EXPECT

WESTERN UNION

Telefax

D A B A105

CONTRACT FOR SIGNING=

BIG BEND MINING INC=

1985 OCT 20 PM 12 31

FAX

1270 (1-51)

Docket

BIG BEND MINING, INC.

Box 269
ABILENE, TEXAS

October 31, 1955

INTERIOR DEPT.
NOV 2- 1955
SOLICITOR

RECEIVED
NOV - 1 1955

Mr. William S. Martin
Director, Iron and Ferro-Alloy Div.,
Defense Minerals Exploration Admin.
Department of Interior
Washington 25, D. C.

Re: DMEA 3776 (Mercury)
Contrabando Dome
Presidio County, Texas

WSM

Dear Mr. Martin:

Complying with your request over the telephone this morning I enclose photostatic copy of Permit No. M-43695 to prospect for metallic minerals and precious stones to Big Bend Mining, Inc.

Yours very truly,

BIG BEND MINING, INC.

By P. S. Kendrick, President

PSK:vy
encl.

400

RECEIVED
NOV - 1 1955

PERMIT NO M-43695 TO PROSPECT

FOR

METALLIC MINERALS AND PRECIOUS STONES

Date April 26, 1955

WHEREAS, Big Bend Mining Inc. of Box 269, Abilene, Texas, on the 22nd day of April, 19 55, filed in this office his application to prospect the following area for gold, silver, platinum, cinnabar and other metallic ores and precious stones, in accordance with Section 12 of an Act approved May 29, 1931, and amendments thereto, and has paid the amount of $64.00 as the rental provided by law. Reg. #40386

Part	Sec.	Blk.	Tsp.	Cert.	Grantee	Acres	County
All	108	341			TC Ry Co Survey	640	Presidio

NOW, THEREFORE, I, J. EARL RUDDER, Commissioner of the General Land Office of the State of Texas, do hereby issue to the applicant a permit to enter upon said land to prospect for the minerals herein named, for a period of one year from and after April 22, 19 55.

None of the minerals or precious stones shall be removed in commercial quantities from the area covered by this permit before a lease is issued.

If the owner of this permit should fail or refuse to prospect the area embraced herein within a reasonable time and in good faith, or if the owner or his authorized agent should make any false report concerning such prospecting, or should fail or refuse to furnish information concerning the prospecting or development of such area to the Commissioner of the General Land Office, or his representative, this permit shall become subject to forfeiture.

IN TESTIMONY WHEREOF, I hereunto set my hand and cause to be affixed the seal of said office on this, the date first above written.

J. Earl Rudder

J. EARL RUDDER, COMMISSIONER
OF THE GENERAL LAND OFFICE

a5m

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

Rubin Sawyer

OCT 27 1955

Memorandum

To: The Administrator, DMEA
Attention: Chief, Iron and Ferro-Alloys Division

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-3776, Big Bend Mining, Inc. Mercury-Uranium

As requested in memoranda dated October 12 and 20 from Mr. Martin, we have prepared the attached contract, in satisfactory legal form for execution, subject to the following comments:

1. (a) The land included in the contract covers three sections of land. Sections 105 and 109 (survey Nos. in lease) are held by the applicant, by assignment, under two leases dated March 25, 1955, one lease for the metallic ores and another lease covering the nonmetallic ores. The applicant submitted a copy of the lease covering the metallic ores, but did not submit a copy of the lease covering the nonmetallic ores. As the project covers mercury and uranium, both of which we understand to be metallic ores, the requirement of the submission to DMEA of a copy of the lease covering the nonmetallic ores may be waived if DMEA is of the opinion that nonmetallic ores are of little significance to the project.

(b) The two leases referred to above were assigned to applicant by an instrument dated March 25, 1955. The instrument does not mention the third section of land included in the project, section 108, nor was a copy of the State of Texas prospecting permit under which it is held submitted in connection with the application. Therefore, a copy of the permit should be submitted for legal review, and if the permit does not run to the applicant a copy of the assignment of the permit to the applicant should be submitted also.

2. The applicant has submitted Consents to Lien signed by the owners of the nonmetallic minerals, and in addition

these same four persons are set forth in the assignment to applicant as four of the six owners of the metallic minerals. The applicant also has submitted Third-Party-Guaranty undertakings by P. S. Kendrick, George F. Fry, and L. C. Whittiker. In the letter dated October 15 transmitting these papers, Mr. Kendrick states that the guaranties should not be required because "50% of the minerals" have been covered by a Consent to Lien. We have no way of knowing the percentages of interest held by the various lessees, and we see no reason for accepting less security than has already been submitted. Therefore, we suggest that a specific response be made to Mr. Kendrick's statement, to the effect that the Government is relying upon the personal guaranties submitted.

Robert P. Dwyer

Robert P. Dwyer

Attachments

HCRubin/emd

Copy to: DMEA Docket
Solicitor's Docket
W. S. Martin (2)
G. C. Selfridge
R. P. Dwyer
chron.

P. S. The Guaranty form submitted refers to a requirement of the Owner's Consent to Lien in "Article 2(b)" of the contract form. Actually, the requirement in the present contract form is in Article 2(c). Therefore, at the time the contract is executed the parties who executed the Guaranty should make the change of "b" to "c" and initial such change in the margin of the form.

R. P. Dwyer

Docket

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

RECEIVED
OCT 24 1955

Copy retained 400

P. O. Box #431
Joplin, Missouri

October 21, 1955

Memorandum of Phone Call 4:30 P.M.

From: P. S. Kendrick, Pres., Big Bend Mining, Inc., Abilene, Tex.

To: Knox, Region IV, Field Team Executive, Joplin, Mo.

WSM

Subject: Proposed project contract, Docket DMEA-3776 (Hg)

Mr. Kendrick said he had complied with all of the various requests alledgedly made by the Washington Office for third party guaranty on the proposed project contract supposedly being prepared there.

He had wired the DMEA Administrator's Office to learn the status of the docket and contract preparation but no reply was received. I told him that the legal drafting of specifications required much time and deliberations and that no doubt he would receive a reply in due time. He also had obtained the impression in some undisclosed manner that the contract was not to be tendered on the "Short Form" which distressed him very much. I told him that the Washington Office had the right to make the decision as to the type of contract to be offered.

Clinton Knox
Clinton C. Knox

CCK/vks

cc: DMEA Op. Com. (2)

Copy retained 400

DOCKET
Surname:
Martin
Mayo

October 20, 1955

MEMORANDUM

To: Acting Assistant Solicitor, Defense Minerals

From: Iron and Ferro-Alloys Division, DMEA

Subject: Docket No. DMEA 3776 - Mercury
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas

Supplementing our memorandum of October 12 regarding the subject application, attached are related Consent to Lien and Guaranty, supported by three financial statements.

We find the Guaranty acceptable and believe it should be included in the contract, as well as the Consent to Lien, inasmuch as the Government has no other protection with respect to Section 108, Block 341, T. C. Railroad Survey, Presidio County, Texas.

Chief, Iron and Ferro-Alloys Division

Attachments

cc: Docket
Adm. Read. File
Code 400

WSMartin/ls
10/20/55

BIG BEND MINING, INC.

Box 269
ABILENE, TEXAS

Docket
RECEIVED
OCT 17 1955

October 15, 1955

Re: DMEA -3776 (Mercury)
Contrabando Dome
Presidio County, Texas

Mr. Frank E. Johnson
Deputy Administrator
United States Dept. of the Interior
Defense Minerals Exploration Admin.
Washington 25, D. C.

WSY

Dear Sir:

Enclosed are the following:

1. Lessors consent to lien from W.E.Yaggy, L.B.Horton, C.A.Duncan and Gordon Kenley representing 50% of the mineral interest covered by our lease.

2. Financial statements of P.S.Kendrick, Geo.F.Fry and L.C.Whittiker

3. Guaranty signed by P.S.Kendrick, Geo.F.Fry, and L. C. Whittiker

all in quadruplicate.

Inasmuch as we have secured lessors consent to lien covering 50% of the minerals involved we feel that P. S. Kendrick, Geo. F. Fry and L. C. Whittiker should be relieved of any personal liability on their part. ?

Negotiations for this exploration loan have been under way since April 8, 1955 and our lease provides that exploration operations be started on or before November 23, 1955. Before that date we must assemble equipment and personnel and establish camp facilities, therefore it is imperative that we get the contract signed at once.

Yours very truly,

BIG BEND MINING, INC.

By P. S. Kendrick
P. S. Kendrick, President

PSK:vy
encls.

assays
filed with
maps

BIG BEND MINING, INC.

Box 269
ABILENE, TEXAS
October 14, 1955

RECEIVED
OCT 17 1955

Re: DMEA - 3776 (Mercury)
Contrabando Dome
Presidio County, Texas

FINANCIAL STATEMENT

P. S. Kendrick
Box 269
Abilene, Texas

ASSETS		
Cash in banks	$ 1,481.00	
Accounts Receivable	31,340.00	
Automobile - Business	3,000.00	
Real Estate - Rental	57,000.00	
Royalty	7,500.00	
Stocks	51,925.00	
Kendrick Oil Co. (1/2 interest)	250,000.00	
Home	50,000.00	
LIABILITIES		
Accounts Payable		$ 7,463.00
Notes Payable		7,000.00
Net Worth		437 783.00
TOTAL	$ 452,246.00	$452,246.00

The above statement is true and correct to the best of my knowledge and belief.

Date: October 14, 1955

P. S. Kendrick

BIG BEND MINING, INC.

Box 269
ABILENE, TEXAS

RECEIVED
OCT 17 1955

Re: DMEA -3776 (Mercury)
Contrabando Dome
Presidio County, Texas

October 14, 1955

FINANCIAL STATEMENT

Geo. F. Fry
7306 Thurston Drive,
Dallas, Texas

ASSETS		
Cash in Banks	$ 1,500.00	
Real Estate: 3 bedroom brick house 7306 Thurston Drive, Dallas, Texas	15,000.00	
Producing & Non-Producing Royalties and minerals	11,000.00	
Cash value of insurance	2,000.00	
Automobiles	2,000.00	
Stock - Big Bend Mining, Inc.	44,925.00	
LIABILITIES		
Net Worth		$ 66,462.50
Accounts Payable - Big Bend Mining, Inc.		9,962.50
TOTAL	$ 76,425.00	$ 76,425.00

This is a true and correct statement of my financial condition as of this date to the best of my knowledge and belief.

Date: October 14, 1955

Geo. F. Fry

BIG BEND MINING, INC.

Box 269

ABILENE, TEXAS

October 14, 1955

RECEIVED
OCT 17 1955

Re: DMEA-3776 - (Mercury)
Contrabando Dome
Presidio County, Texas

FINANCIAL STATEMENT

L. C. Whittiker
1266 North 16th
Abilene, Texas

ASSETS:

1/4 mineral interest in 1280 acres Mica & Feldspar property, Culbertson & Hudspeth Cos., Texas	16,000.00	
1/32 overriding roy. int. on 3 prod. oil wells Wilbarger Co., Texas	30,000.00	
1/48 working int. in 4 prod. oil wells Willbarger Co., Texas	24,000.00	
1/64 Overriding roy.int. on one producing oil well, Runnels County, Texas	1,000.00	
30 acres full mineral int., Greer Co., Okla.	1,500.00	
Stock-Big Bend Mining, Inc.	44,925.00	

LIABILITIES

Notes Pay. - Banks		550.00
Notes Pay. - Finance Companies		1,700.00
Accounts Pay.- Big Bend Mining, Inc.		9,962.50
Net Worth		105,212.50
TOTAL	$ 117,425.00	$ 117,425.00

This is a true and correct statement of my financial condition as of this date to the best of myknowledge and belief.

Date: October 14, 1955

L. C. Whittiker

400

DOCKET
SURNAME
Martin

October 12, 1955

MEMORANDUM

To: Acting Assistant Solicitor, Defense Minerals

From: Iron and Ferro-Alloys Division, DMEA

Subject: Preparation of Contract
Docket No. DMEA 3776 - Mercury, Uranium
Big Bend Mining, Inc.
Contrabando Dome
Sec. 109 & 105, Block 341, T.C.Ry.
Presidio County, Texas

Transmitted herewith is a rough draft of a proposed Contract for your use in preparing the final draft.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

Attachment

TLChapman/foc
10/12/55
cc to: Docket
Code 400

EXPLORATION PROJECT CONTRACT
BIG BEND MINING, INC.
DOCKET NO. IMEA 3776

ANNEX No. I

The land referred to in Article 2 of the contract form consists of three land sections as follows:

A lease dated March 25, 1955, on Sections 105 and 109, Block 341, T. C. Ry. Company Survey, Presidio County, Texas, from E. G. Bledsoe and Elizabeth Bledsoe, Big Bend National Park, Brewster County, Texas, and L. B. Horton, and W. E. Yaggy, and Gordon Kenley and C. A. Duncan, San Angelo, Tom Green County, Texas, to P. S. Kendrick and L. C. Whittiker, Abilene, Texas, and George F. Fry, 7307 Thurston Drive, Dallas, Dallas County, Texas.

An Assignment dated March 25, 1955, from the aforesaid lessee's to the Big Bend Mining, Inc.

These sections containing 1,280 acres more or less.

Section 108, held by the applicant by Prospecting Permit No. M-43695, from the State of Texas.

Sections are outlined in green on accompanying maps, Figures 1 and 2.

The owners of Section 105 and 109 refuse to sign Consents to Lien, and in lieu it is expected to obtain suitable guarantees.

EXPLORATION PROJECT CONTRACT
BIG BEND MINING, INC.
DOCKET NO. DMEA 3776

EXHIBIT "A"

Description of the Work

Map, titled, Location of Mercury Mines and Prospects in the Big Bend Region of Texas.

Figure 1. Plan and Section showing Geology, Contrabando Dome, Sections, and sites of proposed drill holes, Terlingua Mercury District, Presidio County, Texas.

Figure 2. Map by applicant with contours, land sections, and proposed access roads and drill sites.

This project shall be worked in three stages, with the total diamond drilling not to exceed 18,000 feet, all holes to be not less than AX insize. All work shall be done on the basis of a fixed unit cost. Cores shall be tested for uranium with a Geiger Counter or Scintillator.

Stage I

Bulldoze approximately 3 to 4 miles of access roads and prepare drill sites 1, 2, 6, 11, 14 and 18.

From Site 1, drill hole No. 1, at a point 450 feet, S. 45° W. of open cut (Figure 1), to a maximum depth of 460 feet.

From Site 1, drill hole No. 2, at a point 950 feet, S. 45° W. of open cut (Figure 1), to a maximum depth of 690 feet. Should Hole No. 1, indicate a change in dip of the dike, then this hole should be changed accordingly to cut the Georgetown limestone at the above indicated depth.

From Site No. 2, drill hole No. 3, on north side and within 5 feet of fault to a maximum depth of 750 feet.

From Site No. 6, drill hole No. 4, at center of sink hole to a maximum depth of 600 feet.

From Site No. 11, drill hole No. 5, on northwest side and within 5 feet of fault to a maximum depth of 700 feet.

From Site No. 14, drill hole No. 6, on southeast side and within 5 feet of fault to a maximum depth of 700 feet.

From Site No. 18, drill hole No. 7, on northwest side and within 5 feet of fault to a maximum depth of 800 feet.

All holes shall be drilled vertically unless approval of inclined holes is obtained from the Government.

All holes to be not less than AX size, cores to marked and properly stored for inspection and from mineralized zones to be split and assayed for mercury. The total drilling for this Stage I shall not exceed 4,900 feet.

The Georgetown Limestone when found is to be penetrated to an approximate depth of 100 feet.

Stage II

All work on Stage II will be dependent upon the results obtained in Stage I and shall be approved in writing by the Government. Work can be carried out concurrently with Stage I. For instance, if the primary holes 1 and 2 in Stage I are satisfactory then the holes designated in Stage II to be drilled in this area can be drilled. Similarily holes designated in Stage II from drill sites 2, 6, 11, 14 and 18 areas can be carried on.

Bulldozing, 200 hours at $12.50 per hour (includes operator, fuel, upkeep, etc.)	$ 2,500.00	
Diamond drilling 4,900 feet at $6.00 per foot - 7 holes	29,400.00	
2,450 feet of cementing, re-drilling, reaming and casing at $2.00 per foot	4,900.00	
140 samples, assay for mercury at $4.00 each	560.00	
Estimated total cost of Stage I		$37,530.00

STAGE II

Bulldozing, 40 hours at $12.50 per hour (includes operator, fuel, upkeep, etc.)	500.00	
Diamond drilling, 12,000 feet at $6.00 per foot - 17 holes	72,000.00	
6,000 feet of cementing, re-drilling, reaming and casing at $2.00 per foot	12,000.00	
340 samples, assay for mercury at $4.00 each	1,360.00	
Estimated total for Stage II		$85,860.00

STAGE III

Bulldozing, 60 hours at $12.50 per hour (includes operator, fuel, upkeep, etc.)	750.00	
Diamond drilling, 1,100 feet at $6.00 per foot 2 holes	6,600.00	
550 feet of cementing, re-drilling, reaming and casing at $2.00 per foot	1,100.00	
40 samples, assay for mercury at $4.00 each	160.00	
Estimated total for Stage III		8,610.00
Estimated total for project		$ 132,000.00
Government participation 75 percent		$ 99,000.00

DOCKET
Surname:
Martin
F Johnson

400

AIR MAIL

OCT 11 1954

Mr. F. S. Kendrick, President
Big Bend Mining, Inc.
702 Sales Blvd.
Abilene, Texas

Re: Docket No. DMEA 3776-Mercury
Contrabando Dome
Presidio County, Texas

Dear Mr. Kendrick:

As arranged in your telephone conversation with Mr. Frank E. Johnson on October 11, enclosed in duplicate is Standard Form 25, Performance Bond, revised November 1950, which is an acceptable document in lieu of Consent to Lien.

We also enclose a set of Consent to Lien forms because we understand that you may be able to obtain the signatures of the owners of a part of the land at the proposed project.

Sincerely yours,

W. S. Martin

W. S. Martin, Chief
Iron and Ferro-Alloys Division

Enclosures

cc: Docket
Code 400
Adm. Read. File
Thor Kiilsgaard, USGS
H. M. Meyer, USBM
FT, Region IV

WSMartin/ls
10/11/55

Docket

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

RECEIVED
OCT 6 - 1955

P. O. Box #431
Joplin, Missouri

October 3, 1955

Copy retained 401

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

WSay

Re: Docket DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas

Dear Mr. Selfridge:

In connection with my September 28 letter to you on this subject, forwarded herewith are the original and two copies of another letter just received, recommending the named official of Big Bend Mining, Inc.

Sincerely yours,

Clinton C. Knox

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

encl. (3)

cc: DMEA Operating Committee
3776 file

Docket

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

RECEIVED
SEP 1955

P. O. Box #431
Joplin, Missouri

September 28, 1955

Airmail

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Interior Building
Washington 25, D. C.

Copy retained 100

WBM

Re: Docket DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Abilene, Texas
Contrabando Dome prospects
Presidio County, Texas

Dear Mr. Selfridge:

In connection with your September 22 teletype to me and my Memo in reply to you that day, enclosed herewith are three copies of the cited applicant's Airmail letter, just received, with the original and two copies each of four letters of recommendation by banks of the named officials of the Applicant corporation.

Mr. Kendrick telephoned me on September 23 to say that he had decided as soon as possible to furnish a personal guaranty, as I suggested might be required, in addition to a guaranty by Big Bend Mining. He asked about the form in which the guaranty should be furnished. I told him that I believed first a financial statement of his worth by a bank would be most suitable and then you might offer him a guaranty form to sign. You will note that these letters from their banks do not exactly indicate the financial standing of these men. I presume, however, you will find that at least Mr. Kendrick has a satisfactory current Dunn & Bradstreet rating. I believe he would prefer that the corporation, as well as both Mr. Fry and Mr. Whittiker, also sign guarantees. Attached hereto are my suggested drafts of those guarantees. I also told him that a guaranty by the corporation alone likely would not suffice.

I have no previous knowledge of a case of this type, however, so I would appreciate your office advising either me or Mr. Kendrick directly thereon, if and when you are apt to offer a DMEA project contract.

Mr. Kendrick also asked if a short-form contract might be offered. I told him that I would have to leave that entirely up to your office to decide but that I hoped so.

Sincerely yours,

Clinton C. Knox

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

Enclosure (16)

cc: DMEA Op. Com. (2)
3776 file

SUGGESTED DRAFT OF A

G U A R A N T Y

In consideration of the waiver by the United States of America of the requirements for the Owner's Consent to Lien, as set forth in the attached document and in Article 2 (c) of the ~~attached~~ Exploration Project Contract, to the extent applicable, the undersigned hereby guarantees the payment to the United States of America through the Defense Minerals Exploration Administration, Department of the Interior, of royalties, as specified in said contract and any amendment thereof, upon all and any ore discovered or developed as a result of said contract and any amendment thereof, which is mined within 10 years from the date of said contract, whether or not the undersigned has any interest in the property covered by said contract, or any part in the mining operations at the time said ore is mined. If for any reason the net smelter returns or other net amounts, from operations that would be subject, under said contract and any amendment thereof, to such payments to the United States of America, are not available as a means of measuring the amounts of such payments, then the undersigned agrees and undertakes to make such payment according to the best estimates of the amount that can reasonably be made, and in the event of dispute as to such estimate, the undersigned agrees that the determination thereof by either the Administrator of the Defense Minerals Exploration Administration, or his designee, shall be final and binding upon the undersigned.

Dated: _____, 1955

_____
P. S. Kendrick

_____
George F. Fry

_____
L. C. Whittiker

(To be followed by standard notarizations of signatures by Notary Public)

SUGGESTED DRAFT OF AN

A G R E E M E N T

AGREEMENT made and entered this _____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 Big Bend Mining, Inc., a Corporation duly organized and existing under and by virtue of the laws of the State of Texas, with an office located at 702 Sayles Blvd., Abilene, Texas, (hereinafter called the "Operator").

W I T N E S S E T H:

WHEREAS, the Operator intends to enter into a contract with the Government designated as an Exploration Project Contract for the exploration for mercury and uranium in the State of Texas; and

WHEREAS, the subordination agreement of the Lessor or Lessors, required by Paragraph 2.(c) of ahe said Exploration Project Contract has not been obtained; and

WHEREAS, the Government is to agree to waive the requirement that a subordination agreement be executed by the Lessor or Lessors,

NOW, THEREFORE, in consideration of said exploration project contract and of the foregoing, the Operator hereby undertakes and agrees to pay all sums that may fall due and owing to the United States of America under the terms of said contract in the same manner and to the same extent as if the subordination agreement of the Lessor had been given. If for any reason the net smelter returns from operations that would be subject under said contract to such payments to the Government are not available as a means of measuring the amount of such payments, then the Operator agrees and undertakes to make such payments according to the best estimates of the amounts that can reasonably be made, and in the event of dispute as to such estimates, the Operator agrees that the determination thereof by either the Administrator of Defense Minerals Exploration Administration, or by his designee, shall be final and binding upon the Operator.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed the day and date hereinabove set forth.

BIG BEND MINING, INC.,

BY:_____
President

ATTEST:

_____
Secretary

UNITED STATES OF AMERICA

By:_____

STATE OF TEXAS)
) SS.:
COUNTY OF _____)

On this _____day of _____, in the year One Thousand Nine Hundred and Fifty _____, before me personally came _____to me known, who, being by me duly sworn did depose and say that he resides in Abilene, Texas, that he is President of the Big Bend Mining, Inc., the corporation described in and which executed the above instrument; that he knows the seal of said Corporation, that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation and that he signed his name thereto by like order.

_____
Notary Public

Bulldoze approximately 1,500 feet of access roads to drill sites and prepare drill sites for 17 holes.

From Site No. 1, at points 100 feet, N. 45° W. and 100 feet S. 45° E. from holes 1 or 2 (after study of results obtained from Holes 1 and 2), drill holes 8 and 9 to intersect Buda limestone or Georgetown limestone or both with a maximum depth of 680 feet.

From Sites 2, 11 and 18, if results are favorable three holes should be drilled from each site at points 100 feet northeast and 100 feet south west of holes 3, 5 and 6 and 50 feet northwesterly from holes 3, 5 and 6. Holes from Site 2 to have a maximum depth of 750 feet, Site 11, 700 feet and Site 18, 800 feet.

From Site 6, if a brecciated deposit is indicated, three holes shall be drilled at points of an equilateral triangle, each point to be 100 feet distant from Hole No. 4. These holes shall have a maximum depth of 600 feet.

From Site 14, the pattern will be the same as in sites 2, 11 and 18, except that they will be on the south east side of the fault. The maximum depth shall be 700 feet.

All holes shall be drilled vertically unless approval of inclined holes is obtained from the Government.

All holes to be not less than AX in size, cores to be marked and properly stored for inspection and from mineralized zones to be split and assayed for mercury. The total drilling for Stage II shall not exceed 12,000 feet.

The Georgetown limestone when located is to be penetrated to an approximate depth of 100 feet.

STAGE III

All the work on Stage III will be dependent upon the results obtained in Stages I and II and shall be approved in writing by the Government. The balance of 1,100 feet plus any unused footage remaining from Stage II may be used in Stage III.

Bulldoze approximately 3,000 feet of access road and prepare drill sites up to 9 holes if remaining footage from Stage II so warrants.

If the results of drilling at Site 2 are favorable then the remaining footage may be used for drilling at Site 3, the location of holes to be approved by the Government.

If there is any remaining footage from Stage II, because of some holes not being drilled, then this footage may be used for drilling at Sites 8 and 9.

All holes shall be drilled vertically, unless approval of inclined holes is obtained from the Government.

All holes to be not less than AX size, cores to be marked and properly stored for inspection and from mineralized zones to be split and assayed for mercury. The total allowable footage that may be drilled in Stage III, amounts to 1,100 feet plus any footage not used in Stage II.

The Georgetown limestone when found is to be penetrated to an approximate depth of 100 feet.

Estimated Cost of the Project
Fixed Unit Costs

Stage I

Transportation of bulldozer	$ 170.00

BIG BEND MINING, INC.

Box 269
ABILENE, TEXAS
September 27, 1955

RECEIVED
SEP 1955
RECEIVED
MINERALS TECHNOLOGY
DIVISION
SEP 28 1955
BUREAU OF MINES
JOPLIN, MO.

Mr. Clinton C. Knox
Box 431
Joplin, Missouri

Re: Docket No. DMEA-3776, Contrabando Dome
Presidio County, Texas

Dear Mr. Knox:

Enclosed are letters of recommendation in quadruplicate regarding the character and ability of P. S. Kendrick, Geo. F. Fry, and L. C. Whittiker as follows:

The First State Bank, Abilene, Texas dated Sept. 23, 1955- re.:P. S. Kendrick
The First National Bank, Albany, Texas dated Sept. 24, 1955 - re.: P.S.Kendrick
Republic National Bank of Dallas, Dallas Texas dated Sept. 26, 1955- re: Geo. F. Fry
The Central National Bank, San Angelo, Texas dated Sept. 24, 1955- re: L. C. Whittiker.

The directors of Big Bend Mining, Inc. are: P. S. Kendrick, Geo. F. Fry, L. C. Whittiker, Wilma Kendrick Lucas, and Phil S. Kendrick, Jr. These five directors own a majority of the stock in Big Bend Mining, Inc.

The officers of Big Bend Mining, Inc. are P. S. Kendrick, President; Geo. F. Fry, Vice-President; Phil S. Kendrick, Jr., Secretary-Treasurer.

Mr. P. S. Kendrick as President will have general supervision of affairs of the company, Geo. F. Fry and L. C. Whittiker will supervise the field operations. All three being well qualified for the work to be done on the Contrabando Dome area, Presidio County, Texas due to their long experience in such work and their general knowledge of the area.

In view of the reputation of these men who own a majority of the stock in Big Bend Mining, Inc. and who will have charge of the operations under the loan contract, we ask that you accept Big Bend Mining, Inc.'s guarantee of royalty payments in lieu of lessor's consent to lien.

Yours very truly,

BIG BEND MINING, INC.

By P S Kendrick
P. S. Kendrick, President

PSK:vy
encl.

J. A. LIVINGSTON
ASS'T CASHIER

No 10664

RECEIVED
SEP 30 1955

THE CENTRAL NATIONAL BANK
OF SAN ANGELO

CAPITAL AND SURPLUS $ 750,000 00

SAN ANGELO, TEXAS,

RECEIVED
MINERALS TECHNOLOGY
DIVISION

September 24, 1955

SEP 28 1955

BUREAU OF MINES
JOPLIN, MO.

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Adm.
Washington, D. C.

Dear Sir:

This is to certify that Mr. L. C. Whittiker has had a satisfactory account with this bank for about four years.

We have extended credit several times and he has always been prompt in taking care of his obligations.

We do not hesitate to recommend him as being honest, reliable and good for his obligations, also for his business ability.

Yours very truly,

J. A. Livingston
J. A. Livingston
Assistant Cashier

JAL:hs

THE FIRST STATE BANK

BRIGGS TODD
PRESIDENT

ABILENE, TEXAS

September 23, 1955

RECEIVED
SEP 2 8 1955

FEDERAL DEPOSIT INSURANCE CORPORATION
$10,000 MAXIMUM INSURANCE FOR EVERY DEPOSITOR
MEMBER

RECEIVED
MINERALS TECHNOLOGY
DIVISION

SEP 28 1955

BUREAU OF MINES
JOPLIN, MO.

Mr. C. O. Mittendorf
Administrator
Defense Minerals Exploration Administration
Washington, D. C.

Re: P. S. Kendrick, President
Big Bend Mining, Inc.,
Docket No. DMEA-3776-Mercury
Contrabando Dome Area
Presidio County, Texas

Dear Mr. Mittendorf:

Mr. P. S. Kendrick has been a customer of this bank for several years, and is very highly regarded. His net worth is substantial and we have extended credit in sizable amounts which has always been accorded prompt attention.

Mr. Kendrick has been in the oil business in this territory for many years, enjoying a most successful operation, and is highly respected in the oil fraternity. In addition, he is considered an outstanding citizen of our city.

We believe Mr. Kendrick to be a man of integrity and capable of carrying out any contract into which he might enter.

It is a pleasure to recommend him for your consideration.

Cordially,

Briggs Todd

President

BT:fc

ORGANIZED 1883

THE FIRST NATIONAL BANK

OF ALBANY, TEXAS

ALBANY, TEXAS

RECEIVED
SEP 30 1955

JOHN H. SEDWICK
EXECUTIVE VICE PRESIDENT

RECEIVED
MINERALS TECHNOLOGY
DIVISION

SEP 28 1955

BUREAU OF MINES
JOPLIN, MO.

September 24th.1955

United States Department of Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Attention: Mr. C. O. Mittendorf,
Administrator

Re: Docket No. DMEA 3776- Mercury,
Uranium Contrabando Dome Area,
Presidio County, Texas.

Gentlemen:

It is our understanding that Mr. P. S. Kendrick of the Kendrick Oil Company, Box 269, Abilene, Texas is desirous of transacting some business with your department.

Mr. Kendrick has been known to this bank for a period of longer than 25 years from both a personal and a business standpoint. We have found him to be honest and trustworthy and as a consquence have advanced him our limit loan on several occasions and he has always met his obligations as stipulated. Several years ago, Mr. Kendrick moved to Abilene from Albany, in the interests of his business, but we have kept in touch with him all the while.

We are familiar with his oil operations and know that he is considered to be one of the better independent oil men of the State, having made a distinct success as a producer in the West Central Texas district.

We feel you can deal with Mr. Kendrick without fear and with the assurance that he will carry out his obligations in a good and workmanlike manner.

Very truly yours,

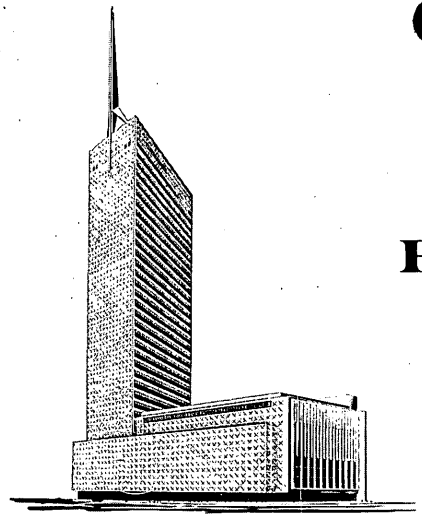
THE FIRST NATIONAL BANK OF ALBANY

John H. Sedwick

Executive Vice President

RECEIVED
MINERALS TECHNOLOGY
DIVISION
SEP 28 1955
BUREAU OF MINES
JOPLIN, MO.

RECEIVED
SEP 30 1955



REPUBLIC NATIONAL BANK
OF DALLAS

CAPITAL AND SURPLUS $60,000,000

DALLAS 22, TEXAS

CONFIDENTIAL

September 26, 1955

Any communication from this Bank or any of its officers as to the responsibility or standing of any person, firm or corporation, or as to the value of any property or securities, is a matter of opinion or information, and must be received as such without prejudice, and with the distinct understanding that no liability or responsibility is attached to them or this Bank in any event.

This letter is not to be reproduced, or used in any advertisement or in any way for purposes of promotion.

Department of Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Attn: Mr. C. O. Mittendorf

Gentlemen:

Re; DMEA-3776-Mercury
Contrabando dome
Presidio County, Texas

We are writing you at the request of Mr. George F. Fry, 7306 Thurston Drive, Dallas, Texas, who has been our well regarded customer for many years.

We consider Mr. Fry to be a man of honesty and integrity, and we deal with him with confidence. His relationship with us has included the carrying of cash balances and the extension of sizable sums of credit. Our experience with these transactions has been entirely satisfactory.

We are happy to recommend Mr. Fry to you, and it is our opinion that he would not make any commitments unless he thought that he possessed both the ability and the means to fulfill its provisions.

Very truly yours,

John L. Boynton

John L. Boynton
Vice President

JLB:jrm

WILSON, WILSON & LOGAN
ATTORNEYS
509 MCBURNETT BUILDING
P. O. BOX 685
SAN ANGELO, TEXAS

GEO. T. WILSON
RALPH W. WILSON
RALPH LOGAN

RECEIVED
OCT 6 - 1955

RECEIVED
MINERALS TECHNOLOGY
DIVISION
OCT 3 1955
BUREAU OF MINES
JOPLIN, MO.

September 27, 1955

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Washington, D. C.

Dear Sir:

I have been well acquainted with Mr. L. C. Whittiker of Abilene, Texas, for over five years, during which time I have handled the legal work for numerous deals in which Mr. Whittiker has been involved and without exception I have found L. C. Whittiker to be entirely reliable and trustworthy.

I have had an opportunity to observe Mr. Whittiker's business ability, and I feel that he is entirely capable to manage or supervise a mining project, and I know of my own personal knowledge that he has had many years of practical mining experience.

Yours very truly,

WILSON, WILSON & LOGAN

Ralph W. Wilson

Ralph W. Wilson

RWW/tb

Docket

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

September 22, 1955

MEMORANDUM

TO: George C. Selfridge, Chairman, DMEA Operating Committee

WSM

From: C. C. Knox, Region IV, DMEA Field Team, Joplin, Mo.

Subject: Your wire September 22, Re: Docket DMEA-3776, Big Bend Mining, Inc. Contrabando Dome,

Upon receiving your wire a while ago, I called Mr. P. S. Kendrick, President of the subject corporation. He reiterated that an Owner's Consent to lien could not be obtained from the principal owner's and expressed the hope that a guaranty from Big Bend Mining, Inc. would be acceptable in lieu thereof.

I reminded him that I had previously suggested to him that his personal guaranty might be found acceptable to the Government but that I doubted that that of the newly formed Big Bend Mining corporation would be. He said that after some thought he had decided that giving of a personal guaranty would not be entirely fair to himself. He said that banks would furnish letters showing that Big Bend Mining is a financially responsible concern, but that he would give the matter further thought tonight and advise me shortly as to his definite decision.

As for my suggestions, I believe that a personal guaranty or performance bond by Mr. Kendrick would be most acceptable, to be furnished with proper documentation of his financial responsibility. I told him on the phone that I had recommended such in my report. The guaranty, something on the order of the attached form, could be signed by him after he has read any ~~the~~ contract that may be let, but just before he is allowed to sign it.

So far I have not been able to assure myself that Big Bend Mining, Inc., As such, is a financially responsible concern. I invited it to send the proof tomorrow, however, if possible. I will advise you further as soon as more information is furnished.

Mr. Kendrick and Mr. Fry do not seem to be the easiest people in the world to convince so they may call your office for more information on how they can escape furnishing a personal guaranty.

Please excuse my hasty "hunt and peck" Memo.

Clinton C. Knox
Cl inton C. Knox

cc: DMEA Operating Com.
file docket DMEA-3776

C
O
P
Y

G U A R A N T Y

In consideration of the waiver by the United States of America of the requirement of the Owner's Consent to Lien, as set forth in paragraph 2(b) of the attached Exploration Project Contract, the undersigned hereby guarantees the payment to the United States of America of royalties, as specified in said Contract and any amendment thereof, upon any and all ore discovered or developed as a result of said contract and any amendment thereof, which is mined within 10 years from the date of said Contract, whether or not the undersigned has any interest in the property, covered by the said Contract, or any part in the mining operations at the time said ore is mined. If for any reason the net smelter returns or other net amounts, from operations that would be subject, under said Contract and any amendment thereof, to such payments to the United States of America, are not available as a means of measuring the amount of such payment, then the undersigned agrees and undertakes to make such payment according to the best estimates of the amount that can reasonably be made, and in the event of dispute as to such estimate, the undersigned agrees that the determination thereof by either the Administrator of Defense Minerals Exploration Administration, or his designee, shall be final and binding upon the undersigned.

Dated _____ 195 .

JOHN DOE ~~COMPANY~~

By: John Doe
President

I, T. R. Smith, certify that I am the Secretary of the corporation named as Guarantor herein; that John Doe who signed this guaranty, was then President of said corporation; that said guaranty 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.

T. R. Smith

(Corporate)
( )
(seal)

Notarization

DOCKET
Surname:
Chapman
Martin
Selfridge
Hoffman

Interior Department
Defense Minerals Exploration Administration
14X4401(01) Revolving Fund, Defense Production Act, Interior (Allocated Working Fund to the Office of the Secretary

SEP 22 1955

TELETYPE

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
Box 431
Joplin, Missouri

Reference is made to Docket DMEA 3776, Big Bend Mining, Inc., Contrabando Dome, and advice that owners will not sign Consent to Lien. Necessary to obtain reliable third party guarantee, or performance bond of surety company, if contract approved. Please investigate possibilities and give us your suggestions.

George C. Selfridge
Chairman, Operating Committee (GHB)

cc: Docket
Code 400
Oper. Comm.
Adm. Read. File
T. Kiilsgaard, USGS
H. M. Meyer, USBM
FT, region 4-confirmation

TLChapman/ls
9/22/55

R.C.S.

Docket

9/22/55

Re: DMEA 3776 -Contrabando Dome
and
DMEA 3787 - Adobe Walls
Big Bend Mining, Inc.

Mr. Phillips of Congressman Omar Burleson telephoned and talked with Mr. Martin regarding status of above applications, since Mr. Kendricks had called the Congressman for assistance in expediting matter.

Mr. Martin explained that contract being worked on for DMEA 3776; that a denial probable for DMEA 3787 due to lack of information. Also said a wire had today been sent to FT asking them to contact applicant re getting a 3rd party guarantee or surety bond in lieu of Owner's Consent to Lien.

Mr. Martin promised to notify Congressman when a contract was approved and sent out.

ls

Docket

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
SEP 20 1955

September 19, 1955

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

WSM

Subject: Review of Field Examination Report, DMEA Docket No. 3776 (Mercury), Big Bend Mining, Inc., Contrabando Dome properties, Presidio County, Texas.

After study of open-file geologic reports in U. S. G. S. files and from personal observations in the Big Bend country I believe a well-directed exploration project has a good chance of discovering minable mercury ore bodies on the subject property. The Fresno mine, about a mile and a half north of the property, produced over 2,000 flasks of mercury in the early 1940's and is at present producing ore from a recently-discovered extension. A DMEA project at the Fresno mine in 1953, DMEA 2202, Idm-E468, did not succeed in finding the new ore.

The examining team recommends a project consisting of geologic mapping, road building, and a total of 26 diamond drill holes with a total of 18,000 feet of drilling.

The Field Examination Report does not make clear whether Stage II drilling may be extended to locations other than those in Stage I or must be confined to Stage I sites.

Stage III, as proposed in the report, contains no drilling footage of its own, but is intended to use remaining footages from Stage II. It appears that the proposed work could adequately be provided for by two contract stages, thus avoiding the complications of a third stage in the contract.

Drilling depths on the Contrabando Dome will range from 500 to 800 feet. Other mines in the Terlingua District encountered prohibitive water flows at about the 800-foot level. If the water table rises somewhat under the Contrabando Dome, as might be expected, the ore host -- the Georgetown limestone -- may be below the water table in places.

On page 8 of his report the Executive Officer states, "The employment of a reputable consulting geological or mining engineer shall be subject to Field Team approval." While the quality of information obtained from DMEA projects is of prime importance I do not think DMEA should allow itself to become liable to serious criticism by engaging in the practice of judging the reputation of consulting geologists and engineers.

Diamond drilling on the Contrabando Dome will be difficult for reasons of lost circulation, core loss, stuck steel, etc. The first hole or two will probably show the practicability of the method.

WPWilliams

W. P. Williams

Docket

RECEIVED

SEP 1 3 1955

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

September 19, 1955

Copy retained 400

Memorandum

WSM

To: W. S. Martin, Defense Minerals Exploration Administration

From: J. W. Pennington, Branch of Base Metals

Subject: Review of application, DMEA Docket No. 3776 (mercury), Big Bend Mining, Inc., Contrabando Dome, Presidio County, Texas

The Field Team report and the descriptive literature indicate that the area the applicant proposes to explore is favorable for mercury mineralization. However, the revised program proposed by the applicant differs in some respects from the recommendations of the Field Team.

Although both the Field Team and the applicant agree that the project should be conducted in stages with a maximum of 26 holes, aggregating 18,000 feet of drilling, at six drilling sites, they do not agree on the selection of drilling sites. These differences should be resolved.

It is realized that the drilling costs for the project will be above average. Yet, it is believed that certain of the proposed costs should be reconsidered.

For example, elimination of overtime would decrease the labor costs for drilling even though the estimated time to complete the project as well as the equipment rental costs would be increased.

Another item is the proposed pay for the superintendent. This is a high salary for the supervision of two skilled and six semi-skilled laborers operating only one drilling rig. Besides, it is doubtful if the project would require the full time of the superintendent.

In a similar manner, the necessity of a consultant is questionable, especially with such a high-priced superintendent. It certainly seems that a superintendent should be able to direct this project and prepare all reports and maps.

Rental costs for some of the equipment appear high and in some cases it may be less expensive to buy equipment if possible.

Finally, providing free living facilities for the crew should not be included as part of project costs.

It is my belief that the proposed drilling costs could be decreased by evaluating the above items.

However, the proposed exploration of the Contrabando Dome area is warranted, and I concur with the Field Team's recommendation.

J. W. Pennington

J. W. Pennington

Copy to: Division of Minerals
Branch of Base Metals
H. M. Meyer
Thor Kiilsgaard
F i l e s

Docket

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
SEP 12 1955

September 12, 1955

Memorandum

Copy Returned 400

WSM

To: W. S. Martin, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of application, DMEA Docket No. 3776, Big Bend Mining, Inc., Contrabando Dome, Presidio County, Texas, (Mercury).

The subject application has been reviewed for the Geological Survey by E. L. Newcomb. Mr. Newcomb concluded that a small, staged program might be justified and recommended referral to the Field Team. After study of the application I concur with Newcomb's recommendation.

The Field Team examined the property and, apparently as a result of the field conference, the applicant has submitted a revised program and costs. The original program consisted of a total of 20 drilling sites and a total of 58 drill holes. The revised program proposes drilling a total of 6 drilling sites and a total of 26 drill holes.

The Contrabando Dome offers geologic structures and formations that appear favorable for mercury mineralization. The revised exploration proposal, in two stages, appears warranted.

Drilling costs of $7.48 per foot are high. On the other hand cinnabar in the district is found in broken, blocky, caved sink structures that make drilling difficult. The high, quoted cost per foot of drilling is probably justified.

Small, scattered occurrences of uranium mineralization are known in the Big Bend country. Although the chances for a significant uranium discovery seem remote the applicant wishes to include uranium in the application. I see no reason for not allowing the inclusion of uranium since uranium and mercury both carry 75% Government participation. The applicant makes no provision for uranium assays or gamma ray detection instruments.

W P Williams

W. P. Williams

Docket

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

RECEIVED
SEP 12 1955

P. O. Box #431
Joplin, Missouri

September 9, 1955

Memorandum

To: DMEA Operating Committee, Interior Building, Wash. 25, D. C.

From: Clinton Knox, Region IV Field Team Executive, Joplin, Mo.

Subject: Field Team Examination Reports, Docket DMEA-3776 (mercury)
Big Bend Mining, Inc., Contrabando Dome properties
Presidio County, Texas

Transmitted herewith is the original and 3 copies of my report on the subject property with copies of the geologic examination report, as prepared by Donald R. MacLaren, USGS, Denver, appended hereto.

We concur in recommending a DMEA project contract for the proposed Contrabando Dome exploration.

Also copies of a pertinent report believed to have been made about 1937 by the late Mr. Homer Wilson, Mining Engineer, obtained by MacLaren, are enclosed herewith.

Clinton C. Knox
Clinton C. Knox

CCK/vks

Enclosures (9)

cc: DMEA Op. Com. (3)
MacLaren, USGS, Denver
C. C. Knox
3776 file

ON-SITE
Jtam.

Reviewed by
DMEA OPERATING COMMITTEE
9-16-55
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR

RECEIVED
SEP 12 19

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FIELD EXAMINATION REPORT

Application Docket DMEA-3776 (mercury and uranium)
Big Bend Mining, Inc., Box 269, Abilene, Texas
$263,992 Exploration Project Proposal
Contrabando Dome Properties, Presidio County, Texas

By
Clinton C. Knox, Mining Engineer
U. S. Bureau of Mines
DMEA Field Team, Region IV
Joplin, Missouri

September 8, 1955

Reviewed by
DMEA OPERATING COMMITTEE
9-16-55
(date)

Summary and conclusions:

Shallow prospecting on Contrabando Dome in the southwest part of the Terlingua mercury mining district of Texas during the past 20 years, disclosed cinnabar disseminations in small discontinuous igneous outcrops along indicated faults. The mercury mineralization evidently stemmed from depth despite constriction by the 500 to 800 feet of relatively impervious igneous and sedimentary rock formations nearest the surface on Contrabando Dome. Underneath should lie the porous and altered Georgetown limestone strata which were found to have been most receptive to mercury ore deposition in the neighboring Terlingua district mines.

Most of the 150,000 flasks of mercury production reported for those neighboring mines of the district from 1899 to 1946, came from ore deposits in trap structures generally in the Georgetown limestone strata immediately beneath the Del Rio clay (Grayson formation). Pre-ore igneous dikes, plugs, and/or sills also were evidenced at most of those mines. The shallow workings on Contrabando Dome (the so-called Shoemaker prospects) reportedly produced nearly three flasks of mercury about 1940.

Therefore, while the sparse-appearing superficial cinnabar indications on Contrabando Dome present an exploration target of only passing interest due to the faint possibility for proving them amenable to a low-cost open-pit mining and large-scale furnacing operation, they are regarded as reliable leads to more lucrative deposits which reasonably are inferred in hitherto unexplored trap structures at depth, and which should be the prime target for each of the proposed exploratory drill holes. An important intermediate target, not to be overlooked during the drilling of each hole, is the possible ore that might have been deposited on the underside and/or in fractured zones of an igneous laccolith or sill intrusive which has been postulated in the sedimentary bedding and to have been the cause of the Contrabando Dome, as indicated by the surface expanse of baked Boquillas Flags (Eagle Ford).

Of course, more or less mercury mineralization probably pressed upward to shallower levels in the large so-called breccia pipe structures indicated on Contrabando Dome. The greatest concentrations, however, are expected to be found encircling the breccia on the level of the Georgetown limestone wall rocks and throughout fragments thereof in the basal portion of the cave filling. That broken limestone may have dropped downward from a few feet to several hundred during the pre-ore dissolution collapses when the pipes were formed. Therefore, in so far as possible, the proposed drill holes in breccia pipe structures should be located to test the indicated wall zones and continued in depth through the basal limestone cave breccia.

Because of the erratic-appearing attitudes of the cinnabar-bearing structures, as indicated by the outcrops, three stages in the proposed exploratory drilling program appear to be preferable. Even basing the location of the preliminary vertical hole proposed for the stage I drilling in each selected prospective area, on the best geologic evidence available, it still might emerge from the structure down dip before intersecting the prime target. Nevertheless, essential geologic data is expected to be obtained which would justify authorizing additional holes in locations where stage II drilling most accurately can be directed toward bringing the prime target clearly into focus. Then whenever and wherever justifiable, the stage III drilling could be authorized to reasonably delineate and sample any ore deposits indicated at the most favorable-appearing targets.

Following recommendations in the geologic examination report by Donald R. MacLaren (USGS, Denver), appended hereto, I suggested an alternative project proposal to the Applicant which it substantially endorsed on August 25 by submitting a revised project plan for only the most essential access road building and diamond drilling of about 26 holes, not to exceed 18,000 feet in aggregate, at an estimated over all project cost of $134,500.

Recommendations:

I concur substantially with recommendations in the geologic report by MacLaren, covering his examination of the Applicant's property in June, 1955. Based on my brief examination and discussions there August 18 with Messrs. George F. Fry and L. C. Whittiker, the Applicant's representatives, I now am convinced that letting of the proposed limited DMEA project contract is justified and that the Applicant's revised project proposal and cost estimates submitted August 25, are realistic in view of present known conditions there and the many unknown factors which must be considered in the unprecedented deep drilling exploration proposed on this structure. I further recommend as follows:

1. The proposed DMEA project contract should be set up on the agreed three-stage basis, stages I and II to run concurrently in so far as adequate geologic justification is furnished the Field Team for the necessary prior authorization of each drill hole location and within the limitations to be set by the agreed cost estimates; stage III work is to be authorized by the Field Team only after satisfactory completion of stages I and II and adequate justification by their results.

2. The type of drilling, location, direction, inclination, size, and depth to completion of each of the holes should be subject to the prior approval of the Field Team.

3. The Operator should present acceptable project maps on an adequate scale showing elevation contours, roads, tie to a land corner, surface geologic features in detail, prospect workings, proposed drill hole locations and all other pertinent information on each of the six prospective areas tentatively to be explored which will justify Field Team authorization of the specific location prior to starting the drilling of each hole.

4. While the skeletonized work plans for the proposed exploration are agreed upon, exact locations for any of the proposed stage I drill holes yet should be subject to the geologic recommendations by MacLaren after review of the Operator's revised project proposal and approvals of all stage II and III hole locations thereafter should await unfolding of results of the stage I drilling.

Location and accessibility:

The Applicant's properties almost cover Contrabando Dome in the southwestern part of the Terlingua mercury mining district, a mile south of the Fresno mine, and include all of sections 105, 108, and 109, Block 341, T. C. Ry. Co. Survey, in the southeastern corner of Presidio County, Texas. Contrabando Dome is about 105 miles by road south of Alpine, the nearest town with mainline railroad, highway, airline, telephone, telegraph, and other service facilities. Some mining supplies can be obtained in Alpine but El Paso, 225 miles west, is the principal supply center. The property is reached by traveling the newly improved State Highway 118 from Alpine 85 miles southward to the abandoned Study Butte mercury mine and thence 20 miles westward over unimproved desert roads. The properties are only about 4 miles north of Lajitas, a remote Mexican border trading post on the Rio Grande where emergency food and gasoline may be purchased.

Main traveled local desert roads are generally maintained in passable condition but the very infrequent, usually violent, rain storms virtually obliterate all traces of those roads especially in the clay badlands sections.

The Applicant:

The applicant corporation is actually a newly formed, wholly owned, subsidiary of the Kendrick Oil Co., of Abilene, Texas, understood to have a very successful record of oil field exploration, development, and production but heretofore not engaging in any metalliferous mining venture. Its financial responsibility evidently is good. Mr. P. S. Kendrick, President and principal owner of both the Kendrick Oil Co. and the applicant corporation, designated Mr. George F. Fry as supervisor of the proposed exploration project.

Mr. Fry's experience likewise has consisted primarily of oil field supervisory work but he obviously has a satisfactory working knowledge of the geologic and mining engineering aspects of this proposed exploration venture and has sought and used the advice of competent geologists, geophysicists, metallurgists, engineers, prospect drilling contractors, and others informed on the essentials of this proposed mining project. He spent much time with Mr. L. C. Whittiker and prospectors of the Terlingua district on examination work and prospecting there during the past year.

The Applicant's property rights:

The applicant holds a mining lease on sections 105 and 109, owned by Mr. and Mrs. Bledsoe and associates as stated in the copy of the lease attached as a part of the original application. Mr. Fry stated to me on August 18 that the lease was being kept in good standing by making various payments stipulated therein in lieu of the required amount of exploratory drilling. The representative of the owners and brother of Mrs. Bledsoe, Mr. Harris S. Smith of Joplin, Missouri, original owner and prospector of the Contrabando Dome and Fresno mining properties and the very successful operator of the latter during World War II, indicated very clearly that no Owner's Consent to Lien would be executed for the proposed DMEA exploration project contract. The Applicant has not been able to obtain control of section 104 which would have completed coverage of the dome.

Upon a July 1 application, however, the State of Texas awarded the Applicant Permit No. M-43695 to prospect on the adjoining section 108, the mineral rights on which are State-owned. Therefore, although no work is specifically proposed thereon, it should be included in the contract as land controlled by the Applicant that might be benefited by the proposed exploration.

Since Owners' Consents to Lien will not be obtainable covering any of the three sections involved, a guaranty in lieu thereof should be required from Mr. Kendrick at the proper time to cover any eventual Government participation in the costs under the proposed exploration project contract.

Description of the property:

The surface of the properties is barren rough rocky terrain on which much rock excavation work will be mandatory to prepare only the most essential access roads and drilling sites. Relief on the properties ranges from 2,700 to 3,000 f.a.s. In connection with the strategic minerals investigations during World War II, the Geological Survey prepared memorandum examination reports and maps on most Terlingua mercury district properties, one of which describes

the Shoemaker prospects on Contrabando Dome. No work has been done there since.

From an unpublished manuscript and maps, entitled "Structural Geology of the Terlingua Quicksilver District, Texas", by George A. Thompson, Jr., which the Geological Survey placed on open file in 1948, the summary description of the Contrabando Dome on pages 20 and 20, is quoted as follows:

> "Southeast of the Wax Factory laccolith is a broad domical structure, Contrabando Dome. It is more than two miles in diameter and has a structure relief of approximately 500 feet. The dome is crossed by a number of small faults of northeast and northwest trends characteristic of faults in the entire district. Rhyolite dikes and plugs are intruded discontinuously along two faults; other rhyolite plugs are scattered over the dome, and a large rhyolite sill is exposed at the eastern extremity of the dome. The Boquillas flags are baked throughout the area where most of the dikes and plugs are exposed. As dikes and plugs elsewhere in the district have not baked the surrounding rocks for such great distances laterally, the baked rocks here must indicate a more widespread intrusion below, probably a laccolith or sill. This concealed intrustion, indicated only by an expanse of baked rock, is very likely the cause of the dome".

I believe Contrabando Dome may present much geologic similarity to the flat-lying intrusives that were found at the "248" mine, the Study Butte, and the Mariscal, respectively 18, 20, and 40 miles to the eastward. Important ore deposits on the underside and in fractured zones of those intrusives were mined on the Study Butte and Mariscal properties. The post-breccia igneous sill intrusion at the "pipe" of the "248" mine is nearly at the base of the Boquillas Flags which were raised the thickness of the sill, about 70 feet, showing that reliable estimates cannot be made for the depths to be drilled in exploratory holes to reach preferred target strata. After the work by the Geological Survey at the "248" mine, as summarized on pages 38 to 41 of the above-mentioned manuscript, the exploratory shaft sinking and a little mining was continued to 852-foot level according to notes I made 4 years ago from a copy of a report made by Mr. Charles Worthington, Mine Foreman, before his death in 1948. He also stated that the contact between the Del Rio clay and the Georgetown limestone in the wall of the "248" breccia pipe, was at 804 feet in depth and that the best mercury ore, along with a heavy water inflow, was encountered on the 852-foot level just before the mine was abandoned in 1945 due to disasterous declines in the mercury price.

From a breccia pipe found in the Chisos mine (also described in the above-mentioned Geological Survey memorandum

examination reports and maps) at Terlingua about 1915, good ore was stoped continuously until about 1933, the most productive single stope ever found in this country.

According to the recollections of Mr. Harris S. Smith, nearly three flasks of mercury was retorted from the concentrate produced by beneficiation of the cinnabar-bearing material mined at the Shoemaker prospect on Contrabando Dome about 1940. Before that, encouraged by preliminary prospecting results and some unusually coarse crystalline cinnabar found in the tiny fracturing in the igneous outcrops on Contrabando Dome, Mr. Smith, with the assistance of a retired mining engineer, Mr. Homer Wilson, set up a small experimental flotation mill in Fresno canyon, 2-1/2 miles to the northwest and treated a few tons of the cinnabar-bearing material. Then upon making further favorable exposures on the Fresno deposit which became a very profitable operation for them 1-1/2 miles north of Contrabando Dome, their Contrabando properties were leased to a Mr. Shoemaker. He reportedly did virtually all of the mining that has been accomplished there, treated the unknown but small quantity of cinnabar-bearing material in a gravity-table concentrator that he built in Fresno canyon, and reportedly the nearly three flasks of mercury were recovered in a small retort then being operated by Messrs. Smith and Wilson at the Fresno mine.

That very insignificant production and source, however, in no way is any indication of the potentialities of the prime target zone for this proposed exploratory drilling which is the upper Georgetown limestone strata in "traps" and/or "pipes" as exemplified in the "248" and Chisos mines mentioned above.

The cinnabar-bearing outcrops at Contrabando are not believed to indicate a possibility for delineation of any deposits which would prove amenable to a low-cost, open-pit mining and large-scale furnacing operation but they might be reliable leads to possible intermediate targets, not to be overlooked during the drilling of each hole, where ore deposits might be found geologically similar to those in the Study Butte and Mariscal mines mentioned above. Only by a very bold deep-drilling or shaft-sinking exploration program, can hopes be held for achieving any success, however, on Contrabando Dome; no shallow ore reliably can be inferred.

No facilities exist and no mining labor supply resides in this region of Texas since virtually all mines were abandoned at the close of World War II.

Due to unfortunate experiences of drilling contractors in the Terlingua district, dating at least as far back as 1942 when the exploratory holes described in the Bureau of Mines Report of Investigations No. 3995, were diamond drilled; the many more lucrative

drilling contracts now offered elsewhere; the very small minimum footage that could be guaranteed on this proposed drilling project; this remote isolated location; and, due to the unavailability of any adequate supplies, services, living conveniences, or other facilities in this region, no responsible diamond drilling contractors have been induced to bid, or at least to make any realistic bid, on the proposed project work. Therefore, the only alternative is for the Applicant to assume the risk of force account drilling. Except for the ability to drill incline holes with a diamond drill wherever found desirable at the proposed sites, churn drilling with adequate cable-tool coring when warranted, might be equally satisfactory as an exploration method but is estimated to cost at least as much there as diamond drilling.

The owner of the Lajitas trading post does have a bulldozer and operator available for hire for preparing the sites.

Adequate water for drilling and domestic use is available from a spring in Fresno canyon, 2-1/2 miles to the northwest in accordance with the water right granted in section 107, as per the lease attached as part of the application.

The Applicant plans to obtain air-conditioned trailer houses to use for living quarters at the proposed project.

Proposed exploration project:

The project drilling is to start within 3 months after the proposed contract is approved, and be completed before 2 years have elapsed.

The exploratory drilling in search of mercury and uranium ores is to be done in three stages:

Stage I work will consist of adequate mapping, access road building, and the drilling of 7 vertical holes not to exceed 5,000 feet of drilling in aggregate. tentatively located for preliminary tests of six of the wide-spread prospective areas as recommended by MacLaren and designated on the maps attached to his report as sites 1, 2, 3, 6, 11, and 18. The exact locations however, should be subject to prior Field Team approval on the basis of the Operator's detailed geologic mapping, and justifications when the preliminary project work under the proposed contract is in progress.

Stage II work may be done concurrently and be a continuation of stage I mapping and roadbuilding but up to 19 additional holes may be drilled, not exceeding 13,000 feet of drilling in

aggregate, and not exceeding four holes located in any one of the areas tested by stage I holes. Prior written Field Team approvals should be required, however, for each and every stage II hole location to be based on adequate geologic justification and maps submitted by the Operator.

Stage III may be authorized by the Field Team only after work on stages I and II has been terminated. This final phase of the project work would consist of drilling only to reasonably delineate and sample any ore deposits indicated more or less in cross section by stage I and II holes. The stage III drilling would not exceed the unused footage and holes left over from stage II drilling, or the allowable maximum to be set by the proposed contract which is 26 holes, aggregating 18,000 feet of drilling, and an over all cost of $134,500.

Proper drill hole samples shall be taken and chemical analyses obtained as warranted, subject to Field Team approval.

The employment of a reputable consulting geological or mining engineer shall be subject to Field Team approval.

Allowable project costs:

(a) Independent contracts - None.

(b) Labor

		Total 18,000 units	Per foot
Drilling site preparation and access:			
2 Jackhammer men, 20 days at $13.00--520.00			
1 Foreman-Powderman, 20 days at $20.-400.00		$920.	$0.051
Exploratory drilling (18,000 feet allowable)			
1 Foreman-driller-312½ da. at $18.-5,625.00			
plus 62 O.T. days at $27.00	1,674.00		
1 driller - 312½ days at $16.00	5,000.00		
plus 62 O.T. days at $24.00	1,488.00		
2 helpers - 312½ days at 14.80	9,250.00		
plus 62 O.T. days at 22.20	2,753.00		
2 samplers-water trucks, 312½ days at $12.00	7,500.00		
plus 62 O.T. days at $18.	2,232.00	$35,522.	1.973
General and camp:			
1 cook - 312½ days at $12.00	3,750.		
plus 62 O.T. days at $18.	1,116.		
1 helper - Night cook - 312½ days at $8.00	2,500.		
plus 62 O.T. days at $12.	744.	8,110.	0.451
Total labor		$44,552.	$2.475

		Total 18,000 units	Per foot
1 Supervisor-Project Engineer-Geologist 15 months at $600.00		$9,000.	$0.500
1 Consulting Geological or Mining Engineer 19 days at $75.00		1,425.	0.079
(c) Operating materials and supplies:			
Drilling site preparation and access:			
Drill steel and bits	$150.00		
Explosives and accessories	657.		
Pipe (300'-2")	150.	957.	0.053
Exploratory drilling:			
Rock bits, core drill bits, core barrels	18,000.		
Pipe (260'-4½" and 900'-3")	1,076.		
Drilling mud, cement, filling etc	1,668.		
Core splitter, boxes, sample sacks etc.	360.	21,104.	1.172
General and camp:			
Material for building crew living quarters and/or trailer house rentals, water pump, pipe, stoves, refrigerators, kitchen utensils, etc. - Less salvage value	1,875.		
Fuel - camp, trucks, drill compressor	5,020.	6,895.	0.382
Total supplies, etc.		$28,956.	$1.608
(d) Operating equipment (none to be purchased under the contract and none owned by the operator. To be rented -			
Drilling site preparation and access:			
1 210 CFM air compressor. 1 Mo.	323.		
2 jackhammers & accessories, 1 mo at 55.00	110.		
1 DC7 bulldozer with operator - 200 hours at 12.50	2,500.	2,933.	0.163
Exploratory drilling:			
1 large diamond drill, complete 375 days at $55.	20,625. ?		
1 truck-2 ton cap. 14½ mos. at 148. plus 10 cents/mi	3,016.	23,641.	1.314
General and camp:			
1 Pickup truck 14½ mos. at 120. plus .06/mi	3,110.		
2 light plants 14½ mos. at $59/mo each	1,711.		
Drill hole survey equipment, etc. 14½ mos. at 100.	1,450.	6,271.	0.348
Total equipment rental		32,845.	1.825

		Total 18,000 units	Per foot
(e) Initial rehabilitation and repairs - None			
(f) New buildings - None			
(g) Miscellaneous -			
Operating equipment repairs	$4,100.00		
208 mercury analyses at 4.00 ea	832.		
Accounting-14½ mos. at 30.	435.		
Workmen's compensation insurance	3,665.		
Payroll taxes	1,019.		
Texas Employment Compensation	821.		
Supervisor's and consultant's expense	6,850.	$17,722.	$0.985
Total allowable project costs		$134,500.	$7.472

Clinton C. Knox

CCK/vks

Clinton C. Knox

cc: DMEA Op. Com. (3)
MacLaren, USGS, Denver
C. C.Knox
3776 file

DMEA Docket 3776

RECEIVED
MINERALS TECHNOLOGY
DIVISION
JUL 14 1955

RECEIVED
GEOLOGY SEP 12 1955

BUREAU OF MINES
JOPLIN, MO.

The geology of the Terlingua district has been described in University of Texas Bulletin 3401 by Sellards and Baker, and by Clyde P. Ross (1934), in AIME Technical Publication No. 335 by C. N. Schuette (1930), and in University of Texas Bulletin 1822 by J. A. Udden (1918). An exploratory drilling program conducted by the U. S. Bureau of Mines at the Chisos and Fresno mines is described in U. S. Bureau of Mines RI 3995 by A. M. Evans and W. M. Traver, Jr., (1947). An unpublished report on the Contrabando Dome area by H. M. Wilson was made available to the examiners by the applicant. Mr. T. F. Adams, engineer for Brown and Root, Inc., the present owners of the Chisos and Rainbow mines, was consulted and supplied additional helpful information. All these sources of information have been freely used in preparing the following report.

Most of the known mercury mines in the Terlingua district are within an area approximately 15 miles long in an east-west direction, and 4 miles wide, north to south. If deposits in the Mariscal mountains southeast of Terlingua and others in Mexico are included, the area is about 30 miles long and 20 miles wide.

Rocks in the Terlingua district are limestones, shales, and clays of Cretaceous age. Paleozoic and older sediments that are exposed in the Solitario Dome, about 10 miles to the northwest, probably underlie the Cretaceous rocks. There are many intrusive igneous rocks of Tertiary age, mostly andesite, trachyte, and trachyandesite that form

Reviewed by
DMEA OPERATING COMMITTEE

(date)

small laccoliths, pipes, dikes, and sills. The normal section of the economically important sediments is:

Eagle Ford shale (Boquillas flags)	1,000 feet
Buda limestone	50 - 85 feet
Del Rio clay	100 - 170 feet
Georgetown (Devil's River) lms.	800 - 1,000 feet

The structure is slightly complex due to faults, folds, domes, and collapsed areas. A large anticline plunges southeasterly from the Solitario Dome. In general, the dips are moderate, ranging from 1° to 10°, except on the southwest flank of the anticline where they are locally vertical. There are two major fault systems, one striking N. 40° W. parallel to the axis of the anticline, the other striking N. 60° to 80° E. Faulting has resulted in uplifted and depressed blocks, and at least one northwesterly striking graben. Locally, intrusion of small laccoliths and igneous pipes has resulted in doming of the sediments, while the formation of solution cavities in the underlying limestones followed by collapse of the overlying beds has resulted in the formation of depressions and sink holes.

The mercury ore bodies in the district may be generally classified as ~~manot~~ manto, fissure, and pipe-like breccia deposits. The largest and richest deposits are of the manto type and are found in the upper 100 feet of the Georgetown limestone where mineralizing solutions migrating upwards along the faults are trapped beneath the impervious Del Rio clay. Solution cavities in the limestone along faults are filled by fragments of limestone and clay that have fallen from the roofs and

walls of the cavities. Cinnabar and calcite have filled the resulting voids and cracks as well as some of the pore spaces in the limestone fragments, forming pipe-like breccia deposits. Along the faults, smaller fissure-type ore deposits were formed by the deposition of cinnabar in a calcite gangue. At Study Butte, in the eastern part of the district, the ore occurs in fissures in an igneous sill and in small manto-type deposits between the sill and the overlying shales. At the Chisos and Rainbow mines the ore is mostly in mantos and breccia pipes in the upper 100 feet of the Georgetown limestone, with smaller deposits of the same types in the Buda limestone. Perhaps the best example of the manto-type deposit is at the Mariposa mine in the California Hill area. Here much of the Del Rio clay has been eroded exposing the ore at the surface. At the Fresno mine in the western part of the Terlingua district, there are two ore bodies of the manto type, 6 to 12 feet wide in the upper part of the Georgetown limestone, and one smaller body in the Buda limestone, which outcrops on the surface. Elsewhere in the district small deposits of the manto and breccia types have been found in the Buda limestone below the Eagle Ford shale. A few deposits have been found in the Austin series which overlies the Eagle Ford shale, but they are small and insignificant.

Contrabando Dome, the area in which the applicant proposes to explore, is west of the Terlingua anticline, about $1\frac{1}{2}$ miles south-southwest of the Fresno mine, 7 miles west of the Mariposa and California mines, and 12 miles west of the Rainbow and Chisos mines. It is an area roughly circular in plan and about 2-1/2 miles in diameter, in which the rocks have been pushed up into a dome, probably by igneous activity.

The dip of the beds on the eastern, northern, and southern sides of the dome ranges from about 5° to 12°, and on the western side from about 5° to 20°. The stratigraphic section, according to H. M. Wilson in an unpublished report on the area, is:

Eagle Ford shales (Boquillas flags)	175 - 500 feet
Buda limestone	80 feet
Del Rio clay	120 feet
Georgetown limestone	(thickness not given)

Although faults are not as numerous in the dome as they are in the anticlinal area to the northeast and east, there are three strong northeast striking faults near the apex of the dome and another on the southern side, and at least two strong northwest faults along the western side. Along the southernmost of the three faults near the apex of the dome, at proposed drill sites 2, 3, and 11, there are pipe-like areas of igneous rocks ranging from rhyolite to trachyte. There are three dikes of the same material on the western side of the dome, one at site 1 in section 109, and two in section 108, not far from site 20. In section 105 at site 6 there is a depression along the middle fault that suggests slumping and indicates a probable breccia pipe. At some of the proposed drilling sites mercury can be identified as small specks disseminated along tiny cracks in the rock, and its presence at all the sites is established by the willemite screen test.

At site 1 in section 109 there is an open-cut about 25 feet long, 10 feet wide and 15 feet deep along a rhyolite dike that strikes S. 45° E. and dips 36° SW. The intruded rock is Eagle Ford shale at the surface,

from which as much as 150 feet may have been eroded. Assays of 9 samples taken by the applicant from the trench, dump, and surface at site 1 are:

Applicant's sample no.	% Hg
1-	0.00
1-A	0.12
2	0.06
3	0.00
4	0.01
5	0.10
6	0.62
7	0.20
10	0.13

Cinnabar was observed as small specks along cracks in the dike material and in calcite-filled veinlets.

At site 2 in the same section several small open-cuts expose a dike or plug of similar igneous material in Eagle Ford shale. No cinnabar was observed but the willemite screen showed dense black clouds of vapor and a grab sample taken by the examiner assayed—0.01 % Hg.

Sample N° 2

In section 108 (not included in the area to be explored) about 800 feet northwesterly from site 20 is a fault that strikes S. 20° E. and dips 73° SW. Two short crosscut tunnels expose a rhyolite dike along the fault. Small specks of cinnabar were found in the dike and a sample taken by the examiner assayed 0.11 % Hg. Near the two cross-cuts there is another rhyolite or trachyte dike along a fault that strikes N. 74° E. and dips 60° SE.

Sample N° 3

The applicant included uranium as a commodity for which he wished to explore. Radioactive anomalies have been found at various locations in the Terlingua district, one about 1-1/2 miles northeast of section 105 is being explored at the present time. This prospect could not be visited, but it is reported that samples have assayed as high as 0.28 percent U_3O_8 and just under 1 percent V_2O_5. No radioactive anomalies appreciably above background were recorded on the applicant's property.

SUMMARY

Mercury ore bodies in the Terlingua district occur as manto and breccia deposits in the Georgetown and Buda limestones and as fissure deposits in igneous pipes, dikes, and sills, their deposition usually being controlled by northeast trending faults and to a lesser extent by northwest trending faults. In the Contrabando Dome area there are three strong northeast trending faults that have been intruded by pipes and dikes of rhyolite and trachyte, and that show the presence of small amounts of mercury. Along one of the faults there is a depressed area that strongly suggests the presence of a breccia plug. The surface rocks are mostly Eagle Ford shale that has been partially eroded and is underlain by both the Buda and the Georgetown limestones. The only workings on the property are shallow open-cuts and tunnels in the Eagle Ford shale and associated igneous intrusions. Only small pockets of ore grade material have been found in these workings. All the known deposits in the district have been found stratigraphically below the Eagle Ford shale.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that the presence of favorable structure and host rocks and the evidence of mercury in small amounts at the surface along the faults and in some of the igneous intrusives indicate that Contrabando Dome merits some exploration. Because of the complete lack of workings or exposures in the most favorable horizons the presence of ore bodies can only be inferred and therefore any program at this time will be more in the nature of prospecting than exploration. For this reason it is also concluded that the extensive program proposed by the applicant is not justified.

The advisability of a more cautious, conservative, and somewhat reduced program was suggested to Mr. Kendrick, President, and Mr. Fry, Vice-President, of the applicant company. Although both gentlemen expressed a reluctance to consider any reduction of the proposed program, it is concluded that the most that can be recommended is a reduced program, carried out in three stages as described below.

RECOMMENDED PROGRAM

Insert correct figure number

The applicant has selected 20 sites (fig. 1) at each of which he proposes to drill 1 to 6 holes to depths ranging from 300 to 1,000 feet. The total number of holes proposed is 58 and the total depth is 46,400 feet. The estimated total cost of the project, including supervision, consulting geologist fees, road construction and maintenance,

sampling, and assaying, etc., is $265,832.64, or $5.729 per foot of hole drilled, of which the Government's share is $199,374.48. The applicant's proposal to complete the program at a unit cost of $5.535 per foot of hole drilled would reduce the Government's share to $192,618.00. The chance of finding enough ore to justify this extensive program is not sufficiently good, and it is recommended that this proposal be denied.

It is recommended that approval be given to a program set up in three stages to allow for drilling a maximum of 26 vertical holes to a combined total depth of 12,930 feet. Stage I should allow not more than two holes at site 1 and one hole each at sites 2, 6, 11, 14, and 18. Although these holes might be considered as prospect drilling, they are justified by the fact that they are located at the most promising sites from the standpoint of structure and weak mercury mineralization at the surface.

At site 1 the first hole should be drilled 450 feet S. 45° W. of the open-cut to a depth not to exceed 460 feet. This hole is located on the assumption that the measured dip of the dike at the opencut does not vary down the dip. The purpose of this hole is to explore the Buda limestone close to and below the dike. The second hole should be drilled 950 feet S. 45° W. of the opencut to a depth not to exceed 680 feet to explore the Georgetown limestone close to and below the dike. Should the first hole indicate a change in dip of the dike, the second hole should be moved accordingly, to cut the Georgetown limestone - dike intersection at a depth of about 680 feet. At site 2

the attitude of the igneous intrusion could not be determined. The Stage I hole at this site, therefore, should be drilled on the north side and within 5 feet of the fault to a depth of 750 feet to explore the top 100 feet of the Georgetwon limestone. At site 6, the Stage I hole should be drilled at the center of the sink-hole area to a depth of 600 feet to explore the possible breccia dike through the upper part of the Georgetown limestone. At site 11 the Stage 1 hole should be drilled on the northwest side and within 5 feet of the fault to a depth of 700 feet to explore the upper part of the Georgetown limestone. At site 14 the Stage I hole should be drilled on the southeast side and within 5 feet of the fault to a depth of 700 feet to explore the upper part of the Georgetown limestone. At site 18 the Stage I hole should be drilled on the northwest side and within 5 feet of the fault to a depth of 800 feet to explore the upper part of the Georgetown limestone.

Stage II should provide for four holes at site 1 and three holes each at the other sites drilled in Stage I. The holes allowed in this stage are to explore for the extension of any ore found in Stage I and no holes in this stage are to be drilled unless the Stage I hole at that site has encountered ore or indicated the probability of ore close by. At site 1 in the event that the Buda horizon is favorable, one hole should be drilled 100 feet N. 45° W. and one hole 100 feet S. 45° E. of the original hole to depths of 460 feet. Should the Georgetown horizon be favorable, one hole 100 feet N. 45° W. and one hole 100 feet S. 45° E. should be drilled to depths of 680 feet. At sites 2, 11, and 18, should the results

of the Stage I holes be favorable, three holes should be drilled at each site, one hole to be 100 feet northeast of the Stage I hole and within 5 feet of the fault, one hole 100 feet southwest of the Stage I hole and within 5 feet of the fault, and one hole 50 feet northwesterly from the Stage I hole, to explore the ground away from the fault. The depths of the holes at site 2 should not exceed 750 feet each; at site 11, 700 feet each, and at site 18, 800 feet each. At site 14 the pattern of the three holes will be the same except that they will be on the southeast side of the fault. They should be drilled to a depth not to exceed 700 feet. At site 6, if the results of the Stage I hole are favorable and a breccia deposit is indicated, three holes should be drilled to a depth not to exceed 600 feet each, one hole at each corner of an equilateral triangle that falls on the apparent edge of the sink area.

Stage III should provide that any unused footage in Stage II may be used to drill at site 3, provided that the results of Stage I and II drilling at site 2 are favorable; at sites 8 and 9, providing that the results of Stage I and II drilling at site 6 are favorable. The depth of the holes at site 3 should not exceed 700 feet, at site 8, 600 feet, and at site 9, 700 feet. At each of these sites only one hole should be allowed unless the results of that hole are favorable, in which case three more holes may be drilled at that site as outlined for Stage II drilling.

Stage II drilling may begin at any site as soon as the Stage I hole warrants it. Stage III drilling should not be allowed to start until all the drilling to be done under Stage II has been completed.

REFERENCES

Udden, J. A. (1918) The anticlinal theory as applied to some quicksilver deposits. Univ. of Texas publication Bull. No. 1822, 30 p. 1918.

Schuette, C. N. (1930) Occurrence of quicksilver orebodies, AIME Tech. Pub. No. 335, 88 p. 1930.

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Ross, Clyde P. (1934) Preliminary report on the Terlingua quicksilver district, Brewster County, Texas. Univ. of Texas publication Bull. No. 3401. pp. 558-568. 1934.

Evans, A. M., and Traver, W. M., Jr. (1947) Terlingua mercury deposit, Brewster and Presidio Counties, Texas. U.S.B.M. R.I. 3995. 10 p. 1947.

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GEOLOGICAL REPORT OF THE CONTRABANDO DOME AREA

Presidio County, Texas
and the

TERLINGUA QUICKSILVER DISTRICT

Brewster County, Texas

INTRODUCTION The writer and Harris S. Smith, during the latter part of 1935, decided to acquire mineral leases for quicksilver production on a structurally elevated area known as Contrabando Dome, located as a subsidiary structure on the Southwest flank of the Terlingua anticline. At that time no quicksilver was known to be in this area except a light showing near the south central part of Section 104, Blk. 341 (marked X on the map) near the top of the Austin Marls.

LOCATION The above area is located 12 miles due West of Terlingua, where the Chisos Mining Co. is operating and 7 miles West of the Mariposa mining district. The nearest shipping point is Casa Piedra on the Santa Fe railroad 45 miles to the Northwest. Marfa, the county seat, is 40 miles beyond Casa Piedra. Ample water for mining purposes is located in Fresno Creek in the Northwest corner of Sec. 107.

The main Terlingua quicksilver producing district lies in Southwestern Brewster County about 85 miles South of Alpine. It is a rectangular area about 15 miles long, East and West, and about four miles wide, North and South. Practically all the production has come from this limited area. A few scattered prospects and one small mine at Mariscal, about 30 miles Southeast of Terlingua, are the only other areas where development has been carried on.

PRODUCTION Development was begun in the Northern part of Section 59, Blk. G 12 in 1895 and since then the entire district has produced around $20,000,000.00 worth of quicksilver. At present properties are being operated at Mariposa, Rainbow, Chisos and Study Butte.

GEOLOGY There is an area called the Solitario Basin about 10 miles Northwest of Terlingua where the lower Cretaceous strata are exposed, overlapping highly folded Paleazoic and Pre-Paleazoic strata. The lower 1500 feet of these strata are of Trinity and Glen Rose age. Above the Glen Rose is a massive limestone 800 to 1000 feet thick, the upper part of which is the Georgetown and the lower part the Edwards. The upper 100 feet is thin bedded and porous. Above it is the Del Rio clay, a dark shale containing thin sandstone ledges near its base. At Terlingua it is 180 feet thick and near the Contrabando Dome 120 feet thick. Capping it is the Buda, a compact, dense, white limestone 80 feet thick; overlying it is the Eagle Ford shale, 600 feet thick in the Eastern Terlingua District and 500 feet thick on the Contrabando dome. It is more marly and less flaggy on the Dome than at Terlingua. (The later formations are eroded from the properties herein described and therefore are not mentioned.)

INTRUSIVE ROCKS Numerous intrusive masses are present in both areas. They are mostly acidic and in the form of small laccoliths, sills and dikes and are porous.

STRUCTURE A large anticline plunges from the Solitario Basin to the southeast through the quicksilver area. Dips are slight, from 1 to 10 degrees, except on the Southwest flank, where in places they are vertical. The faulting of the area is probably controlled by a regional joint system having a trend of N 60 deg E, to N 80 deg E, and a complimentary system parallel to the Cordilleran folding of the area and having a trend of approximately N 40 deg W.

In the Terlingua area all of the limestone orebodies were capped by the Del Rio clay and occur on structurally elevated areas and are parallel to the joint system normal to the folding of the area. This system of joints was evidently opened by being normal to the major axis of the structure or to rotational stresses exerted during the process of folding. A large number of the faults of the Northeast system have horizontal movement. Numerous grabens are present bounded by faults of the two systems. Evidently a subsurface zone of faulting or a line of weakness in the Paleozoic or Pre-Paleozoic formations exists beneath the cretaceous. This is reflected on surface by the overthrust tendency to the Southwest flank of the Terlingua Anticline and by a series of Northeast treading faults in echelon, forming East-West belt, and having horizontal movement. Along some of these faults intense brecciation occurs in the lower Cretaceous. Also the Northeast trending faults contain practically all the ore deposits.

Practically all anticlinal and domal structures in the Chisos Mountain Synclinal area are somewhat asymetrical, and have a tendency to overthrust to the Southwest. The Contrabando Dome carries this tendency. Its faulting systems are identical with that of the Terlingua Area. An East and West belt 15 miles long and four miles wide includes all of the important ore bodies of the district, namely, Study Butte, Chisos, Rainbow and Mariposa. If this belt is extended due West eight miles it will include the Contrabando Dome.

ORE DEPOSITS: The principal ore of the district is Cinnabar, and is the result of primary concentration. The chief gangue minerals are calcite and jaboncillo (altered clay). The mineralized solutions being magmatic in origin and rising through fault or joint planes were checked by impervious clay, fault gouge, igneous sills, or some form of capping, where they deposited their mineral load in any available space or replaced the country rock. The richest deposits have been found at the Georgetown Del Rio clay contact in every mine which has reached that contact, ie, Mariposa, Rainbow and Terlingua. This is due to the Del Rio being the best impedimentum. Due to faulting the Del Rio was opened and allowed mineralization in the fractured area near the main fault fissures, which spread out in the Eagle Ford at Terlingua. An igneous sill was the retaining factor at Study Butte. At Rainbow and Mariposa, where the Del Rio was a perfect seal the richest ore of the district has been found.

CONTRABANDO AREA The structure of the Contrabando Dome is shown on the map accompanying this report. It is asymmetrical with faults of both the Northeast and Northwest systems. Structure centers with an interval of 100 feet were made on top of the Eagle Ford shales. The map also shows a stratigraphic Section A-A across the dome in a Northwest and Southeast direction. Approximately 325 feet of Eagle Ford has been eroded in places in the southern part of Survey 108, the

Southwestern part of 105 and Northeastern part of 109. The section to be penetrated by mining operations before the top of the Georgetown is reached is from a minimum of 375 feet to a maximum of 700 feet and is as follows:

Eagle Ford shales	175 - 500 ft
Buda Limestones	80 - 80 ft
Del Rio Clay	120 - 120 ft

The Georgetown Edwards water table in the Chisos mines at Terlingua is 2165 ft above sea level. They have mined some of their richest ore deposits to a depth of 150 ft below the water table by cementing and grouting ahead, which of course was very expensive.

By placing the Georgetown Edwards water table in this area at 2175 ft, the area on this dome above the 2875 ft contour will be above the water table and constitute approximately 800 acres.

The three northeast trending faults across the apex of the dome are mineralized and have quicksilver showings along calcite veins at various intervals. Several quartz porphry dikes and stocks have been intruded in these fault planes. Another set of dikes have the northwest trend. It cuts the three northeast trending faults along the southwest flank of the Dome. At the three intersections three surface prospects have been located with cinnabar in the joint planes and shrinkage cracks of the dike materials. In places it was noted that the quartz crystals were replaced by cinnabar crystals. At a point marked "X" in the southwestern part of survey 108, a short tunnel passed through about 8 feet of such mineralized material between two fault gouges. Careful assortment of this will make furnace ore. Two similar prospects were found in Survey 109 and are marked "E" on structure map. The surface formation at all three of these prospects is in the upper part of the Eagle Ford shale. There is a possibility of ore production of igneous material from the surface down in these prospects.

FRESNO CLAIMS In the Fresno group of mining claims about one and one half miles North of the Contrabando Dome two orebodies have been found in surface pits in the upper part of the Georgetown. They are from 6 to 12 feet wide and yield furnace ore. Also another good prospect showing ore at the surface is in the Buda Limestone.

SUMMARY AND CONCLUSIONS: The mineralized solutions of magmatic origin, migrating upward through the joints and faults of the Northeast trends until they are dammed by the next to impervious Del Rio clay shale, formed the Fresno ore bodies in the top of the Georgetown limestone. Where the faulting was great enough some of the deposition took place in the Buda limestone under an impervious capping of Eagle Ford shale. Numerous calcite jabencillo veins parallel to the above and carrying quicksilver showings are present in these claims and should show good ore with further exploration.

The same type of mineralization and quicksilver showings are present in the Eagle Ford on the Contrabando Dome and good ore bodies will undoubtedly be present at the Del Rio - Georgetown contact. Ore bodies should also be developed in the igneous dikes on the Southwest flank of the dome where the mineralized Northeast trending fractures cross them. The replacements of quartz in the quartz porphry dikes by cinnabar should increase with depth as the mineralization was stronger there.

In my opinion the Contrabando Dome area is a West extension of the Terlingua quicksilver district.

Respectfully submitted,

/s/ H. M. Wilson, M.E.

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Docket

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AUG 31 1955

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

P. O. Box #431
Joplin, Missouri

August 29, 1955

Airmail

Mr. Donald R. MacLaren
U. S. Geological Survey, D.M.E.A.
Federal Center, Building 25
Denver 2, Colorado

Re: DMEA-3776 (mercury)
Big Bend Mining, Inc.
Contrabando Dome
Presidio County, Texas

Dear Don:

After you left El Paso, I spent the morning with Mr. Campbell discussing his Amicus Oil Co. application DMEA-3865 and made suggestions for preparing others that he had in mind, before catching the plane to Marfa-Alpine. Thanks to your suggestion, I contacted Mr. Littleton of the Water Resources Office upon arriving in Alpine and he welcomed an opportunity to see the Terlingua district so took me there that Thursday morning, August 18.

Following my inspection of production operations in the Fresno mine, I was able to spend a couple of hours on Contraband Dome with Messrs. Fry and Whittiker. I was primarily concerned with briefly viewing their proposed access roads and drill sites with regard to estimating costs for the minimum of blasting and bulldozing which still would permit water and equipment haulage. I had to agree that considerable hard rock excavating would be necessary to satisfactorily accomodate moving of equipment and water hauling with a tank truck.

They had been doing some additional prospecting there for a week. I also agreed that initial concentration on their proposed access road building and drilling on Nos. 1 and 2 outcrops as designated on the Applicant's maps, would appear logical. But, while the road building equipment is at hand, and while the proposed drilling of Stage I holes at sites 1 and 2 is in progress, they hoped to immediately extend the road, which is eventually to reach site No. 6, on a grade up the hillside from site 2 at least through the igneous pipe outcrops designated as sites No. 3 and 4. Then, based on their recent cinnabar pannings on Nos. 3 and 4 outcrops, and on favorable results that they anticipate obtaining by

drilling a "fence or fan" of holes indicating the geologic section through outcrops No. 1 and 2, they insist drilling of one preliminary hole in each No. 3 and 4 might be justified before or while extending the access road to No. 6, the indicated "sink" structure.

After that, they insisted No. 7 "sink" should be drilled next instead of site 11 that you recommended. During the lengthy detailed discussions, I expressed all the reasons I knew in support of our suggested alternative project proposal, but actually I see little particular preference except that a separate access road would be needed to site 11. Also I was not able to put up much of an argument for vertical drilling of all the proposed holes. While they agreed that the first hole at each site might be drilled vertical, they insisted that it might emerge from the favorable structural zone down dip thus requiring some sort of a "fan" of holes to actually obtain a geologic cross section of the target. Also, they insisted that the target for every hole should be the upper Georgetown limestone strata, and as much deeper as the significant alteration and mineralization continued. At No. 1 site, they insisted that the preliminary "fan" of holes as justified, be drilled near the open pit and normal to the S45°E trend indicated therein, instead of 450 and 950 feet southwest as you recommended. I believe, however, that if favorably mineralized structural trends are indicated by the Stage I drilling, additional holes eventually should be drilled at intervals of possibly 400 to 500 feet along all indicated trends to reasonably delineate and sample any inferred ore deposits.

Then by Airmail Friday afternoon I received this compromise exploration project proposal by the Applicant (the Survey's copy of which is enclosed herewith). It contains some more surprises for me, particularly on cost estimates which I will try to digest. You will note what the cost estimates indicate considerable diamond drilling pessimism. Since seeing results of some of the diamond drilling during the past three months at the Fresno mine, I am inclined to be somewhat pessimistic also, but on the other hand, I believe it can be accomplished effectively at a price. At least one nice little ore body was discovered and mined on the west of the Fresno mine, missed by the DMEA project there.

If you happen to be in the office when this arrives, and can spare the time, I will greatly appreciate any comments you care to make regarding this revised proposal by the Applicant. I am leaving on another field examination trip tomorrow but will try to get this Contrabando report on its way to Washington as soon as possible when I return.

I also went to this applicant's Adobe Walls property, DMEA-3787, during the forenoon before my plane left Alpine that Friday, August 19. They had built a new access road to the site designated No. 15 on the Applicant's map, and done some bulldozer trenching there for annual assessment work. They wanted suggestions on eventually preparing a more comprehensive application which might justify approval. I explained that no geologic mapping had been done on Adobe Walls Dome as was done at Contrabando when the U.S.G.S. map was prepared which is included in the structural Geology of the Terlingua district by Thompson, so it would be up to the Applicant to properly map Adobe Walls in detail. I certainly agree with your recommendations for denial of the present application. Although much work has been done on Adobe Walls since I was there four years ago, little of it constituted systematic prospecting, none of which was systematically recorded or given proper mention in the application at hand on which I am preparing the report to be submitted to Washington.

cross ref. put in 3787 file. L.S. 9/2/55

With best personal regards and hopes that you had an enjoyable return flight from El Paso, I am

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

cc: DMEA Op. Com. (2) w/encl
3776 file

RECEIVED
MINERALS TECHNICAL
DIVISION
AUG 26 1955
BUREAU OF MINES
JOPLIN, MO.

DMEA Docket

Big Bend Mining, Inc.
Box 269
Abilene, Texas

RECEIVED
AUG 31 1955

August 25, 1955

Re: DMEA-3776 (Mercury)
Contrabando Dome
Presidio County, Texas

Mr. Clinton C. Knox
Defense Minerals Exploration Admin.
Box 431
Joplin, Missouri

Dear Mr. Knox:

We have received and carefully considered your alternate proposal of July 22, 1955. We are somewhat disappointed that you have been unable to recommend the project as it was originally set out. Since receiving your above mentioned proposal, we have conducted a detailed review of the entire project on the ground and we do agree with you that it can be done in stages as you have suggested, but it will not be practical to comply with your suggested figures, since they do not represent actual costs on this smaller scale operation.

The locations of the seven drill holes in stage one should be changed as follows: Two holes in drill area #1, one in #2, one in #3, one in #4, one in #6 and one in #7. We would change the access road as shown on the map to drill area #3 and build this road to #3 from location #2. We agree with the locations you have suggested in stage two, and believe that concentration of effort in these areas will bring about a commercial discovery, since while reviewing this project in light of your proposal we have double checked these areas and are very encouraged by the excellent surface shows of cinnabar.

We have requested contract bids on stage one of this project from several core drill contractors including Joy Manufacturing Co.. All have refused, because of lack of experience in the area and the very bad experience Joy Manufacturing Co. had in drilling about two miles from this area in which they lost two strings of tools and a large part of the time were able to make only six feet of hole in 8 hours. However, I was present during the time they were drilling and their trouble was caused largely by lack of proper supervision. Some of their locations were not practical, the rig was too light and above all it was not equipped with a mud pump.

Since it may be mutually desireable to both us and the Government for stages one and two to be in part or all carried out concurrently, we herewith submit the following proposal based on 18,000 feet of drilling at the locations specified, or at amended locations with field team approval as indicated by information gained in progress of drilling. Upon completion of stages one and two, and a review of all information gained by this drilling, if indications are such that exploration should continue, stage three could be negotiated in the light of experience gained in stages one and two.

Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (Mercury)
Contrabando Dome
Presidio County, Texas

It is extremely important that the type and kind of drilling equipment used be limited only to that which will most efficiently do the job. We propose to use a swivel head rotary core drill, for drilling angle holes, and to use either or both, drag bits and rock bits, and diamond core when mineral indications and rock formation indicate desireability of coring. If however, experience proves that this equipment is not practical, we would change either to heavier rotary equipment or to cable tools.

The drill locations would be as you have suggested, first, two holes at drill area #1- not to exceed 800 feet unless it is evident by the formation that a few feet additional would reach the Del Rio-Georgetown contact. However, we believe this contact will be reached between 600'-700'. Then one hole each in drill areas #2, #3, #4, #6 and #7 under the same conditions except that depth requirements might be changed based on information from the first drill area, and also that drill areas #6 and #7 are solutions cavities, and might justify deeper holes subject to mineral shows at or above this depth. This would complete stage one.

Stage two as justified, and with field team approval, would not exceed four additional holes in drill area number one, and three each in the other five areas mentioned, depth to be determined by information obtained as drilling rprogresses. If, as justified, and with your approval, stage two drilling may be conducted at any or all of these drill sites immediately upon completion of stage one drilling in any drill area.

You will notice that the enclosed proposal includes crews quarters and kitchen. This is made necessary by cutting the project down so that employees cannot be required to furnish their own housing and eating facilities and will of course, increase the cost of drilling to that extent.

In order to achieve maximum results from rental equipment we have proposed two air hammer operators, and one powder monkey on road building and location leveling. It would not be practical to keep a bulldozer standing by while one man did all the drilling and shooting.

The rental rates quoted herein are used nationally and were obtained from several rental equipment companies.

We have included 10 sacks of drilling mud per hole and some material (Tough plug, Fibertex, crud, and cottonseed hulls) to correct and prevent lost circulation. While it may not be standard practice nationally to use mud in core holes it is still the best protection afforded for diamond bits. Also the samples will come out in much better condition and lost circulation material will give much better results if a little mud is used. From your inspection of the formation at the proposed drill sites we believe you will agree, since we will be drilling in faulted and fractured zones that this is absolutely necessary.

Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (Mercury)
Contrabando Dome
Presidio County, Texas

For continued relatively slow water loss but in sufficient volume to impair circulation, either or both toughplug and/or fibertex would be used. Sudden loss of circulation where tools do not indicate too large a cavity, crud and/or cotton seed hulls or possibly cement would be used. Also it is frequently necessary in case of a crooked hole to run cement in the hole around a boulder or other obstruction and re-drill.

We have included ten feet of 4½" surface pipe for each hole, 900 feet of 3" flush joint to be used when it is necessary to maintain circulation, and/or when there is danger of losing a hole and tools from caving, and 300 feet of 2" to connect with the air-compressor, and keep it far enough away from an area being shot to prevent damage.

No salvage value is considered on this pipe because when the project is finished it will have depreciated to the point that salvage will be little if any more than the freight necessary to get it to a buyer.

We have included 208 mercury assays. This is an average of only one assay per hundred feet of drilling and since they will be taken from what we hope is a large low grade ore body we do not believe any less than this could possibly furnish comprehensive information. Also the price is $3.00 net at El Paso, Texas, therefore, we have allowed $4.00 each to cover shipping costs since they will of necessity be rather large amounts of rock to obtain an average.

Groceries will not be included as an expense item since the crews will pay for these.

Since your recent inspection of this property we are sure you understand that the two stages of this project under discussion is by far the most difficult drilling of the entire project. The first four drill areas will be in igneous rock where the fracturing that has made mineral deposition possible, will increase circulation difficulties and may also cause considerable caving. The estimated rate of penetration has been arrived at by the best examination of the rock to be drilled that is possible to make. It is a higher foot per hour rate than that suggested by Joy Core Drill Co. In a recently completed core drill project in San Saba County, Texas by the President of this corporation, rate of penetration was slower than we have estimated and bit costs were $1.80 per foot. This drilling was conducted in Pennsylvania limestone.

We have expended many weeks in studying this project, and have investigated thoroughly as to methods and equipment, and have concluded that the only practical way to carry it out is a contract at a specified figure per foot of drilling. We believe the enclosed cost figures are an absolute minimum.

In light of the foregoing we will agree to complete this project as herein set out or that part of it approved by the field team for $7.48 per foot for all footage drilled.

Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA -3776 (Mercury)
Contrabando Dome
Presidio County, Texas

All drilling will be constantly supervised. Sampling will be done thoroughly and conscientiously. All cores, assay reports, maps and records will be preserved and/or presented as per DMEA regulations.

As before mentioned, time and expense involved in this project have considerable proportions therefore we kindly ask that you expedite its progress toward final approval in every way possible.

We appreciate your cooperation and trust that this will meet with your approval as outlined.

Yours very truly,

BIG BEND MINING, INC.

By _____ President

By _____ Vice-President

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BIG BEND MINING, INC.
Box 269
Abilene, Texas

Re: UMEA-3776 (Mercury)
Contrabando Dome
Presidio County, Texas

ESTIMATED COSTS FOR SUBJECT:
EXPLORATION PROJECT

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LABOR

Labor: Estimate based on overall average of 20 minutes per foot for 18,000 feet of drilling which includes time going in and out of the hole for connections, bits, core barrel, casing for lost circulation and caving, moving, rigging up and repairs.

Two eight hour shifts per day for 375 working days, or 62½ weeks, or 14½ months.
6,000 hours working time.

	TOTAL (Includes Overtime)	RATE PER FOOT
1. First Drillier -2.25 hr. -40 hrs. 3.375 hr. 8 hrs. Second Driller- 2.00 hr. -40 hrs. 3.00 hr. - 8 hrs.	$ 13,812.50	$ .7673
2. Two Roughnecks @ 1.85 hr. each -40 hrs. 2.775 hr. " - 8 hrs.	12,025.00	.6681
3. Two Sampler-WaterTruck Drivers @1.50 hr. each- 40 hrs. @2.25 hr. each- 8 hrs.	9,750.00	.5417
4. One Cook- 1.50 per hour- 40 hrs. 2.25 " " - 8 hrs.	4,875.00)	
5. One Cook's Helper - 1.00 per. hr. -40 hrs. 1.50 " " - 8 hrs.	3,250.00)	.4514
6.* One Superintendent- 15 months - $600.00 salary 400.00 expense account	15,000.00	.8333
7. One consultant -4 trips 1 trip every 90 days-(3 days each) 75.00 per day Plus 27.50 per day expenses - total 307.50 per trip Final Report and map	1,230.00) 500.00)	.0961
(Road Building and Location Leveling)		
8. Two Air Drill Operators - (4 weeks time)-1.625 hr. each - 40 hrs.	520.00)	.0511
9. One Powder Monkey- (4 weeks time) -2.50 hr. -40 hrs.	400.00)	
10. One Bookkeeper (part time) 14½ Months - 30.00 per mo.	435.00	.0258
11. Workman's Compensation Insurance	3,664.80	.2036
Social Security Tax Paid by Employer	1,018.97	.0566
Texas Employment Compensation	820.80	.0456
Sub Total	$ 67,302.07	$ 3,7406

* - Note: It will be necessary for the Superintendent to start two weeks ahead of the project in order to provide camp and get equipment on the ground.

BIG BEND MINING, INC.
Box 269
Abilene, Texas

Re: DMEA -3776 (Mercury)
Contrabando Dome
Presidio County, Texas

RENTAL EQUIPMENT

		Total	Rate Per Foot
1.	One 210 CFM Aircompressor - one month @ 323.00 per mo. Two 55 lb. air drills & 200' hose @ 55.00 per mo. each	$ 323.00) 110.00)	.0241
2.	One Bulldozer and Operator - 200 hours @ 12.50 per hr.	2,500.00	.1389
3.	One Drilling Rig -375 days @ $55.00 per day (This includes 3x5 mud pump)	20,625.00	1.1510
4.*	One 2 ton truck for hauling water & moving equipment- @ 148.00 per month plus .10 per mile Monthly rate - 14½ months 600 miles per month @ .10 per mile	2,146.00) 870.00)	.1676
5.	One 1 ton 4 wheel drive Pickup -for transporting crews, transportation for supplies & communication 120.00 per month plus .06 per mile Mo. rate 120.00 - 14½ months 1375 Miles per mo. @ .06 per mile	1,740.00) 1,370.25)	.1728
6.	Two light plants - one at rig, one at camp 59.00 each per month - 14½ months Drill hole radiation test equipment -Willemite screen @ 100.00 per month	1,711.00)) 1,450.00)	.1756
	Sub Total	$ 32,845.25	$ 1.8300

* Note: This will be a bbb tail wench truck with de-mountable water tank, oil field bed, and headache rack, in order to be a multi-purpose unit and deliver maximum results for amount of rental paid.

BIG BEND MINING, INC.
Box 269
Abilene, Texas

Re: DMEA-3776 (Mercury)
Contrabando Dome
Presidio County, Texas

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SUPPLIES

		Total	Rate Per Foot
1.	Crew Quarters, kitchen, water pump, 1000' -1" water pipe, Stowes, Refrigerators, kitchen hardware etc. Total cost $3750.00 - salvage value $1875.00 net cost	$ 1,875.00	$ .1042
2.	Rock bits, diamond bits, core barrels	18,000.00	1.0000
3.	Fuel: Camp, trucks, air compressor, rig - 14½ mons.	5,020.00	.2789
4.	260 sacks drilling mud and freight from Odessa, Texas Tough plug, Crud, Fibertex, cottonseed hulls 100 sacks Quickset cement	585.00) 923.00) 160.00)	.0927
5.	Pipe: 260' - 4½" 900' - 3" 300' - 2"	338.00) 738.45) 150.00)	.0682
6.	Explosives: 36 cases Powder @ 11.00 $ 396.00 7200' fuse @ .03 per ft. 216.00 1500 caps @ .03 45.00 Jack steel and bits	657.00) 150.00)	.0449
7.	*Rig Repairs and Replacements Oil, grease, misc. repairs & replacements, repairs to trucks, pumps, light plants	3,600.00) 500.00)	.2278
8.	208 hg. assays @ 3.00 ea. plus 1.00 mailing cost Core splitter & boxes, sample sacks, map & report forms and records	832.00) 360.00)	..0662
9.	Freight on rig from ElPaso, Texas $ 156.00 Freight on supplies from Odessa 210.00 Miscellaneous supplies freight 100.00	466.00	.0259
	Sub Total	$ 34,354.45	1.9088
GRAND TOTAL (three pages)		$ 134,501.77	7.4794

* Note: This will include all repairs due to breakage and normal wear including drill pipe but will not include bits.

RECEIVED

AUG 31 1955

Big Bend Mining, Inc.
Box 299
Abilene, Texas

Re: DMEA - 3776 (Mercury)
Contrabando Dome
Presidio County, Texas

Mr. Clinton C. Knox
Defense Minerals Exploration Admin.
Box 431
Joplin, Missouri

Dear Mr. Knox:

With reference to item 3 (a) of our original application for DMEA assistance on Contrabando Dome, please be advised that subsequent to the date of this application, on April 26, 1955 we acquired Prospect permit #M-43695 on Section 108, Block 341, T C Railway Co. Survey, Presidio County, Texas containing 640 acres of land more or less. Since this is part of the structure considered in this application and adjoins Section 109 on the North and Section 105 on the East, it will be a part of the land included under the above mentioned item 3 (a).

Since this section 108 also holds promise of production, we may at a later date, after additional prospecting and mapping, apply for DMEA assistance on this area also.

Yours very truly,

BIG BEND MINING, INC.

By

GFF:vy

DOCKET
Surname: Holt
Chapman
Selfridge
Mathews

AUG 1 9 1955

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
P. O. Box 431
Joplin, Missouri

Re: Docket No. DMEA 3776
Mercury - Uranium
Big Bend Mining Company
Contrabando Mine
Presidio County, Texas

Dear Mr. Knox:

Your letter of August 3, 1955, to Mr. George F. Fry, Vice-President, Big Bend Mining, Inc., refers to a special notice and in the fourth paragraph to DMEA circulars.

Such special notices and circulars are issued for the information of the Field Teams and our staff here, but the contents are not to be made available to applicants or operators, except to the extent specified therein.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

Approved:

/s/ Robert W. Geehan (HB)

Member, Bureau of Mines

Thor H. Kiilsgaard (HB)

Member, Geological Survey

cc: Docket
Adm. Read. File
Oper. Comm.
FT, Reg. 4
T. Kiilsgaard, USGS
H.M. Meyer, USBM
Code 400

TLChapman/WSMartin/ls
8/16/55

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
AUG 10 1955

[redacted]

P. O. Box #431
Joplin, Missouri

August 8, 1955

Copy retained 400

Mr. L. C. Whittiker
1266 North 16th Street
Abilene, Texas

Re: DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabando Dome property
Presidio County, Texas

Dear Mr. Whittiker:

With reference to MacLaren's August 5 letter to you, I am returning herewith the copy of the report and map made on the subject property by Mr. Homer M. Wilson in 1937.

I am sorry that I did not know they were to be returned to you when you was here with Mr. Fry two weeks ago.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

Enclosure (2)

cc: DMEA Op. Com. (2)
MacLaren, USGS, Denver
3776 file

TLC

Please ask FEJ if we should call Knox on the starred paragraph.

Why does he cite DMEA circulars by number to the applicant. That's not what we mean by "explain to the operator"

WSM

8/9/55

~~DMEA Operating Committee~~

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~

P. O. Box #431
Joplin, Missouri

RECEIVED
AUG - 8 1955

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August 3, 1955

Airmail

Mr. George F. Fry, Vice-President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury-uranium)
Contrabando Dome
Presidio County, Texas

Dear Mr. Fry:

In our conference here last week I also should have advised that if your company is successful in actions you mentioned to acquire rights on mining claims in section 108, Block 341, then I believe those claims would benefit indirectly from your proposed Contrabando Dome explorations in sections 105 and 109, and therefore should be included under item 3(a) of the application describing the land your company controls, in accordance with a special notice received from Washington today, quoted as follows:

> "The land described under Article 2 of the exploration contract forms should be of sufficient extent for the purposes of the contract. Normally, all of the operator's land holdings in the vicinity of the exploration project are to be included in the contract. The operator may be required to obtain additional land if the area proposed is not of sufficient quantity to repay the Government's contribution in royalties in the event a discovery or development is certified.
>
> In establishing an exploration project under a DMEA contract, all the land that is reasonably expected to be benefited either directly or indirectly by the exploratory work should be included as subject to the contract. Usually, specific areas previously explored by the operator, producing areas, and areas containing blocked-out ore reserves may be excluded provided the Government does not participate in the costs of any work performed in such areas or in any work that will benefit such areas.
>
> Field Teams should again review DMEA Circulars 14 and 21 on the subject of this special notice. Circular 14 discusses what land should be included in Article 2 of the contract

forms and Circular 21, in addition to mentioning what land should or should not be included in Article 2, comments on the relationship between the land described in Article 2 and production subject to the Government's royalty.

The Field Team when discussing a proposed contract should explain these matters carefully to the operator so that he will be fully aware of the Government's requirements."

For your further information, the revised booklet, just off the press, explaining the Defense Minerals Exploration Program, is enclosed herewith. You will note that answers to questions 27, 28, and 29 reiterate the possibility that unit-cost form of contracts still may be let, of which I was in doubt. Therefore, if your revised cost estimates can be furnished so that they are subject to breakdown on the basis of your proposed units of project work, further simplification may be induced in the drafting and administering of any contract that might be let as well as in the accounting to be done by you thereunder.

I trust that the foregoing suggestions may be mutually advantageous and that shortly I will receive your written comments and suggested revisions of the tentatively proposed project contract to submit with the Field Team reports to Washington.

With best personal regards, I am

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

Enclosure (1)

cc: DMEA Op. Com (2)
MacLaren, USGS, Denver
3776 file

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 28 1955

Box 431
Joplin, Missouri

July 22, 1955

Mr. P. S. Kendrick, President
Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: DMEA-3776 (mercury)
Contrabando Dome
Presidio County, Tex.

Dear Mr. Kendrick:

In response to your request by phone July 8, this is to advise that I have received and carefully studied MacLaren's examination report for the Field Team on your above-cited property, and that I concur with his findings. Therefore, in preparing the transmittal of that report to Washington, I cannot justify recommending adoption of your exploration proposal in its entirety. I feel, however, that an alternative proposal suggested here for your consideration, would be justifiable and might result in a more cautious approach for your accomplishment of the essential exploration work by conservatively limiting it in scope somewhat as follows:

The proposed project work to be carried out in three stages:
Stage I - Build about 40 percent of the access roads and drill hole sites as outlined in your original proposal and diamond drill seven holes x aggregating 4,680 feet, two near your designated No. 1 site, and one each at sites 2, 6, 11, 14, and 18. The results of those seven holes should furnish needed preliminary information on the stratigraphy, the structural configurations, the attitudes of the indicated faults, igneous dikes, or breccia "pipes" at those sites, the previously postulated igneous sills on bedding planes, and the most favorable mercury ore-bearing horizon for further explorations. It is recognized that the primary objective of your proposed exploration program may be to reasonably delineate and sample the disseminated cinnabar showing in the igneous outcrops there such as at the so-called Shoemaker mine which reportedly only produced a very few flasks of quicksilver just before World War II, and which might prove amenable to low-cost open-pit mining and large-scale furnacing operations. However, the possibility should not be overlooked that those shallow low-grade mercury mineralizations might lead in depth to the more lucrative ore concentrations as in other Terlingua district mines. Such depositions more likely concentrated in trap structures beneath impervious flat-lying formations such as igneous sills, the Del Rio Clay strata, or the Kiamichi Marl, and in deeper porous sands, all of which may present important preliminary exploration targets, however elusive, to eventually investigate for the underground mining potentiallities of your property.

Stage II - If and as justifiable, additional diamond drilling with Field Team approval, may be done at the sites mentioned in StageI above, but

estimated not to require in excess of four additional holes at site No. 1, and three at each of the other five sites, aggregating 12,930 feet. These estimated 19 additional holes would be drilled to pinpoint and further delineate and sample favorable-appearing targets indicated by the Stage I drilling.

Stage III - Any unused drilling footage upon completion of all Stage II drilling as authorized, with Field Team approval, may be expended in diamond drilling at sites 3, 8, 9, or others that may be found favorable, but in any case the allowable maximum for all the proposed project work as suggested here, should not exceed the following estimates:

6 (a) Contract drilling 18,000 feet in 26 holes (the deepest estimated not to exceed 800 feet) to include 1,800 feet of coring @ $6.50 and 16,200 feet of plugging @ $4.00 per foot, or a total of $76,500 - - $76,500

(b) Labor - 1 Miner drilling and blasting for access roads, 150 hrs. @ $1.60 - -	$240	
1 Sampler, 1,440 hrs. @ 1.50	2,160	
Superintendent-Engineer-Project Geologist 12 mos. @ $1,000	12,000	
Consulting Geologist 4 trips - 12 days @ $ 75	900	
expenses " " " "	320	
Total personnel		$15,620
(c) Materials-supplies		
Powder, caps, and fuse on roads	$360	
Sample sacks, core boxes, splitter, et	200	
Gasoline, oil, and miscl.	100	
Total supplies		$660
(d) Equipment rental		
Bulldozer on roads 200 hrs. @$12.50	$2,500	
Compressor 100 hrs @1.20	120	
Pickup (12 mos.) 20,000 mi. @.06	1,200	
Total equipment		$3,820
(g) Bookkeeping (12 mos.) 1 da./mo. @ $30.00	$360	
Analytical work- 100 hg assays @ $3.00	300	
Workmen's Comp., payroll tax, etc.	740	
Total miscellaneous		$1,400
Total estimated project cost		$98,000

It is realized that drilling exploration on Contrabando Dome is unprecedented and therefore I believe any contract that the Government might enter into should be on an actual cost basis, and that the Field Team should anticipate the possibility that diamond drilling might be found infeasible thus causing a change to cable-tool drilling and coring or exploratory shaft sinking to acheive success.

I would be glad to receive your comments on the foregoing suggestions.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Reg. IV

cc: DMEA OP. Com. 2
MacLaren, USGS, Denver
3776 file

400

RECEIVED
JUL 13 1955

Defense Minerals Exploration Administration

July 12, 1955 WSY

3776 Contrabando Dome Mercury

Mr. Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV
P. O. Box 431
Joplin, Missouri

Through: E. N. Harshman E.N.H.

Re: Geologic reports for
Dockets 3770 and 3776

Dear Clint:

Enclosed are the original and three copies of my geologic reports on Contrabando Dome (Docket 3776), and Neyland Manganese (3770). I hope to have Adobe Walls (3786) on the way in a few days. Illustrations to accompany the enclosed reports are being draughted and have been promised for next Thursday.

In the case of the Neyland report, I don't feel justified in making a firm conclusion or recommendation until we get the settlement sheets for the shipments of ore that have already been made, because of the high silica assays from the samples taken in and around the workings. Two samples Neyland took from his stockpile are below the maximum of 15% acceptable but they average 12.1% which suggests that they might have been too carefully selected. In spite of your letter to him requesting copies of the settlement sheets, he did not have them with him when we met in the field and, in spite of my urging him to get them to us, he still has not come through. Geologically, there appears to be a chance of finding a fair tonnage of manganese bearing material but if the silica content is going to be too high I feel that denial should be recommended. As for his program, he didn't seem to have much idea about what he wanted to do, but rather expected me to tell him how to find "a large ore body in the core of the hill". He finally decided to accept the suggestion that he start a new tunnel on the lower road (dashed on my sketch) in, or along, the edge of a vesicular zone that appears to be between a dike and the intruded ash beds; to continue the road to cut No. 2 and start a tunnel there. The tunnels are to go 200 feet, and allowance is to be made for a maximum of 100 feet of cross-

cutting and/or raising at locations to be determined later. This depends, of course, on the acceptability of his ore, silica-wise. He has had a survey made and was to have a map made up and forward it, but that too has not come in. I sketched by tape and compass the two tunnels and that portion of the road from tunnel No. 4 to about 150 feet or so southeast of tunnel No. 1. The locations of cut No. 2 and the lower road are estimated and can be spotted on his map if he will only send it in. Incidentally, I pulled a boner, after looking up the Texas vara, and converted on the basis of 33.33 feet instead of inches. This resulted in part of my sketch falling dangerously near an outside claim boundary. Neyland gave me a distance of 540 feet from the No. 4 portal to the section corner. I began to wonder if he had confused the No. 540 (shown on his claim map in varas) with the number 540 (in feet) which he gave me. I wrote him a letter urging him to get his map in, and sent you a copy for your files. Apparently a copy of that letter was forwarded to Washington as Selfridge sent me a wire and straightened me out on the vara-foot ratio. The map you will receive is corrected accordingly, but I still don't know for sure that the section corner-tunnel 4 tie-in is correct. On the question of costs, I couldn't get to first base with Neyland. He said his figures were based on the cost of the work already performed, but when I insisted that $15,600 for gas, oil, and water and $10,400 for dynamite and powder seemed extremely excessive, he said, "I guess my accountant made a mistake." Also, he insists a 5 x 7 tunnel will cost much more than the more or less 10 x 12 hole he has made (to accommodate a 1 ton scoop), principally on the grounds of tramming and track costs. However, he agreed to check his estimated cost figures and make them more realistic, but so far I have heard nothing more. So much for Docket 3770.

At Contrabando Dome there is evidence that mercury bearing solutions came up along at least three faults, and small specks of cinnabar associated with calcite were observed in one igneous dike in section 109 on the applicant's property and at two dikes in section 108, north of the property to be explored. The two best host rocks in the main Terlingua district, the Georgetown and the Buda limestones, are inferred to be present within 600 feet of the surface. However, evidence of the existence of an ore body to be explored is lacking. Therefore, I have picked six sites that appear to me to be most promising and have suggested an approach by stages in the hopes of doing a minimum amount of dead work at those sites that do not lead to ore. In the event that ore is discovered at certain sites, I have added three more sites that might be considered favorable. Thus, if acceptable to you and then to DMEA, a contract can be set up that will provide for considerable drilling, but DMEA will not be obligated to drill more than six holes unless some or all of those holes indicate a favorable area. I feel that this cautious approach is advisable because of the distance of the Contrabando Dome from the best mines so far known, and because of the wildcat nature

of the undertaking. The question of costs and whether cable drilling is more suitable than diamond drilling I leave to you. One thing I know and that is that the applicants are going to be very unhappy at the recommended reduced program, but I can not justify recommending anything more than I have. Incidentally, the same situation exists at Adobe Walls. The proposed program appears to me to be difficult to justify on the basis of what I saw. I think some drilling is justified, but certainly not all that proposed by the applicants.

I am sorry these reports were not awaiting your return but they have been "stinkers" to work out without being unfair one way or another. I have indicated the sample number in pencil on the margin of the pages on which reference is made to assays. Please fill in the gaps. I am also enclosing a smaller photostat of Contrabando Dome that Mr. Fry gave me, along with a copy of Wilson's report for which it was made, and photostats of assay returns which Mr. Heyland gave me.

Sorry to miss your visit through here, and even sorrier you didn't drop by on the way home as I am sure we could spend at least a half day in profitable discussion of the three projects.

Sincerely yours,

Don

Donald R. MacLaren

DRMacLaren:dr

Enclosures

bc: DMEA Operating Committee (2)
Kiilsgaard
File

400

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

RECEIVED
JUL 14 1955

P. O. Box #431
Joplin, Missouri

July 12, 1955

Airmail

Mr. Donald R. MacLaren
U.S. Geological Survey, DMEA
Denver Federal Center, Bldg. 25
Denver 2, Colorado

Re: DMEA-3770,-3776, and -3787

Dear Don:

With reference to my July 11 letter to you, this is to transmit copies of analyses received from Rolla today on the three samples you submitted June 14.

They do not appear too spectacular. If you require P and Zn-Pb-Cu analyses on the manganese sample, please let me know. Perhaps Mr. Neyland furnished you copies of the settlement sheets on his shipments to Deming.

I assume the L.01 on the second sample is intended to be the U.S.B.M. Chemists designation for less than 0.01 percent Hg.

Judging from my cursory observations and from production reportedly obtained from the so-called Shoemaker prospect on Contrabando Dome, Presidio County, I expect there is some fair mercury mineralization showing there.

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks
Encl. (2)
cc: DMEA Op. Com (2)
3770 file
3776 "
3787 "

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
[redacted]

RECEIVED
JUN 20 1955

P. O. Box #431
Joplin, Missouri

June 16, 1955

DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: DMEA Docket 3776 and
DMEA Docket 3787
Big Bend Mining, Inc.

Dear Sirs:

Enclosed are copies of letters to Mr. D. R. MacLaren, U.S. Geological Survey, Denver, Colorado, referring to above referenced Dockets, indicating changes desired in connection with the application for these Defense Minerals Exploraton Programs of ahe Big Bend Mining, Inc.

We had already rec'd these ltrs direct from applicant.

Sincerely,

Edwin T. Perkins

Edwin T. Perkins
Mining Engineer

For: C. C. Knox
Executive Officer
DMEA Field Team, Region IV

ETP/vks

cc: DMEA Operating Committee (1)
Mr. D. R. MacLaren
C. C. Knox

COPY DMEA Operating Committee
Washington 25, D. C.

C. C. Knox

RECEIVED
JUN 30 1955

BIG BEND MINING, INC.
Box 269
Abilene, Texas

Re: DMEA 3787
Exploration
Assistance

Mr. D. R. MacLaren
U.S. Geo. Sur.
Minerals Deposits Branch
Bldg. 25
Denver Federal Center
Denver, Colorado

Dear Mr. MacLaren:

This will call your attention to several errors in cost figures which we submitted to DMEA on this project. Please make the following corrections:

Under Paragraph 6, Section B, cost of the extra man, as set out in the written report under Para. 5, Section B was not included. This man would be principally occupied in panning and preparing samples for shipping and preservation. Please ender additional cost item for this man under Para. 6, Section B of Cost Sheet for 2,880 hours at .75 per hour - total $2,160.00.

Under Paragraph 6, Section D, line #3 should read as follows: Maintaining roads for 18 mos. 60 hours at 12.50 per hour. It is very questionable whether this figure is adequate but since we cannot predict rainfall, we will leave it as submitted, contingent on the road building being acceptable.

Under Paragraph 6, Section G, please correct the following: Workmen's Compensation $277.35, Employers' Tax $22.78, Social Security Tax $389.40, making a total of $689.53 for insurance instead of $1,019.19.

Please adjust the grand total to $136,270.91 and increase the offer under the short form contract to $132,675.34.

Trusting that your recent examination of this property will result in a favorable report for this project, I remain

Yours very truly,

BIG BEND MINING INC

By: /s/ Geo. F. Fry, Vice-Pres

GFF;vy
ccs: Clinton Knox
4 - Robert E. Adams, Chief
Operations Control and
Statistics Division

COPY - DMEA Operating Committee
Washington 25, D. C.

C. C. Knox

C
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P
Y

RECEIVED
JUN 20 1955

BIG BEND MINING, INC
Box 269
Abilene, Texas
June 14, 1955

Re: DMEA-3776
Exploration Assistance

Mr. D. R. MacLaren
U.S. Geo. Sur.
Minerals Deposit Branch
Bldg. 25
Denver Federal Center
Denver, Colorado

Dear Mr. MacLaren:

This will call your attention to several errors in cost figures which we submitted to DMEA on the subject. Please make the following corrections:

Under Paragraph 6, Section B, Supervision should read as follows:
Supervision-24 months-$14,400. Supervisor's Expenses-$9,600.

Under Paragraph 6, Section G, sample sacks were omitted. Please enter an item for 14,250 sample sacks at .05 - total $712.50. This will be an average of one sample per each 3 feet drilled.

Under Paragraph 6, Section G, please correct to read: Workmen's Compensation $881.40 - Employers' Liability $39.51, Social Security Tax $675.40 - making a total of $1,596.31.

Please adjust the grand total to $265,832.64, and increase the offer under short form contract to 5.535 per foot.

Trusting that your recent examination of this property will result in a favorable report for this project, I remain

Yours very truly,

BIG BEND MINING, INC.

By: /s/ Geo. F. Fry, Vice-Pres.

GFF;vy
cc: Clinton Knox
4 - Robert E. Adams, Ehief
Operations Control and
Statistics Division

Docket

BIG BEND MINING, INC.

Box 269
ABILENE, TEXAS

June 14, 1955

Re: DMEA 3776
Exploration Assistance

Mr. D. R. MacLaren
U. S. Geo. Sur.
Mineral Deposits Branch
Bldg. 25
Denver Federal Center
Denver, Colorado

Copy retained 400

3776

WSM

Dear Mr. MacLaren:

This will call your attention to several errors in cost figures which we submitted to DMEA on this subject. Please make the following corrections:

Under Paragraph 6, Section B, Supervision should read as follows: Supervision - 24 months - $ 14,400.00, Supervisors'Expenses - $ 9,600.00.

Under Paragraph 6, Section G, sample sacks were omitted. Please enter an item for 14,250, sample sacks @ .05 - total $712.50. This will be an average of one sample per each 3 feet drilled.

Under Paragraph 6, Section G, please correct to read: Workmen's Compensation $ 881.40, Employers' Liability $ 39.51, Social Security Tax $ 675.40 = making a total of $ 1,596.31.

Please adjust the grand total to $265,832.64, and increase the offer under short form contract to $5.535 per foot.

Trusting that your recent examination of this property will result in a favorable report for this project, I remain

Yours very truly,

BIG BEND MINING, INC.

By Geo. F. Fry

Geo. F. Fry, Vice-Resident

GFF:vy
cc: Clinton Knox
4-Robert E. Adams, Chief
Operations Control and
Statistics Division

COPY - DMEA Operating Committee
Washington, D. C.

Copy retained add

Docket

RECEIVED
MINERALS TECHNOLOGY
DIVISION

MAY 27 1955

BUREAU OF MINES
JOPLIN, MO.

May 26, 1955

Defense Minerals
MAY 31 1955

Mr. Clinton C. Knox
Defense Minerals Exploration Admin.
Box 431
Joplin, Missouri

WSay

Re: DMEA Dockets 3776 and 3787, Mercury and Uranium, Presidio and Brewster Counties, Texas

Dear Mr. Knox:

Uranium was included along with quicksilver in our applications for DMEA participation in our projected core drilling program in above captioned areas because of the following reasons:

Bureau of Economic Geology of University of Texas has recently issued a statement, that because of the many encouraging shows of carnotite in this area all prospecting and exploration should be done with a possibility in mind of encountering commercial quantities of this mineral. To be more specific, assays from carnotite samples on Adobe Walls show as high as .58 content. On Contrabando the fault that crosses Sections 109, 104 and 105, we believe is a continuation of the fault in Section 49 about one and one-half miles Northeast where assays have been returned to Universal Service Mining, Corp. showing .28 Carnotite content. The assay reports on this fault also show just under 1% Vanadium and Berylium. Indications on Contrabando with scintillation counters have shown some encouragement.

As you know, both of these prospects are regarded as primarily quicksilver prospects, but uranium was included also because of the foregoing facts and the belief that this mineral will be discovered in this area in commercial quantities.

Yours very truly,

BIG BEND MINING, INC.

By Geo. F. Fry, Vice-President

GFF:vy

Docket

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

P. O. Box 431
Joplin, Missouri

Defense Minerals Administration
RECEIVED
MAY 31 1955

May 26, 1955

Mr. Donald R. MacLaren
U. S. Geological Survey, DMEA
Denver Federal Center, Bldg. 25
Denver 2, Colorado

Copy retained 400

WSM

Re: Application Docket
DMEA 3770, 3776, and 3767

Dear Mr. MacLaren:

Before Clinton C. Knox left for Washington he requested that any matters having reference to your visit to the Big Bend country be forwarded to you.

Enclosed find letter from Mr. George E. Fry, Vice-President, Big Bend Mining. Inc.

If any additional information is needed Mr. Knox will doubtless request it after his return from Washington and before he leaves on his vacation.

Sincerely,

Edwin T. Perkins

Edwin T. Perkins, Mining Engineer

For: Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

ETP/vis

Enclosures

cc: DMEA Op. Com (2)
File 3776
File 3767

COPY DMEA Operating Committee
Washington 25, D. C.

Docket

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BIG BEND MINING, INC.
Box 269
ABILENE, TEXAS

May 25, 1955

Mr. Clinton C. Knox
Defense Minerals Exploration Admin.
Box 431
Joplin, Missouri

Re: Dockets DMEA 3776 and 3787, Mercury and Uranium, Presidio and Brewster Counties, Texas

Dear Mr. Knox:

We have received an appointment from Mr. Donald R. MacLaren from Denver to meet him in Alpine on Monday, June 6th which we will do. Sorry you couldn't make it.

Since we submitted reports, maps, etc. on Adobe Walls Dome and Contrabando Dome, we met Mr. Gordon I. Gould of the Gould Furnace Co., of San Francisco, California at Alpine and made a one day inspection trip to Contrabando. Most of the time was spent in and near the old prospects in Section 109. After this examination of the prospects, Mr. Gould assured us that his company could supply furnace equipment that will recover a minimum of 95% of the quicksilver from the rock exposed in this area. They are now in process of building and installing a furnace of approximately 200 tons capacity per day to process ore as low as 3 pounds per ton. This will be installed in Idaho for El Paso Natural Gas CompanY's subsidiary mining corporation. Of course, the key to working this low grade ore is open pit mining, which will be possible and practical on Contrabando if a sufficient quantity is present, which can only be determined by drilling. Williamite screen and panning tests along the fault that crosses Sections 109, 104 and 105 indicate fully as good possibilities as the prospect on Section 109. However, a very extensive core drilling and assaying program will be necessary to supply sufficient information to determine the advisability of a drilling and sampling program calculated to estimate reserves.

I am enclosing copy of assay reports from Customs Assay Office in El Paso of 9 samples (one was evidently lost in the mail) taken at random from the dump, in the hole, and from the surface around the prospect in Section 109. Since all the igneous outcrops in the above mentioned fault have good shows of cinnabar, a very large body of ore that can be mined by open pit methods may be developed along this fault.

We will be with Mr. McLaren on his inspection trip of this property and will be happy to render him every assistance.

Please advise at once if additional or supplemental information will be necessary to process these requests as we are very anxious that delay may be held to a minimum.

Yours very truly,

BIG BEND MINING, INC.

GFF;vy

/s/ George F. Fry, Vice-President

A. J. Rowland

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Laboratory at 105 S. Santa Fe St.,
Since 1898

The Custom Assay Office
Box 811
El Paso, Texas

Name: Big Bend Mining, Inc. May 10, 1955

Lot	Hb.	Mn
#6	.62	
#7	.20	
#8 - No sample		
#10	.13	
#11		.30
#1	None	
1-A	.12	
2	.06	
3	None	
4	.01	
5	.10	

Charges - $38.00

Custom Assay Office
/s/ AJR

COPY - DMEA Operating Committee

Docket 3776

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON, D.C.~~

P. O. Box #431
Joplin, Missouri

Defense Minerals Administration
RECEIVED
MAY 26 1955

May 25, 1955

Mr. Donald R. MacLaren
U. S. Geological Survey, DMEA
Denver Federal Center, Bldg. 25
Denver 2, Colorado

Copy retained 400

Re: Application dockets
DMEA 3770, 3776, and 3787

Dear Don:

I was glad to receive your May 23 letter about the arrangements you have affected for getting to Texas June 6 for the three examinations. I too regret not being able to accompany you on these interesting missions but I expect that we will meet there again before too long. That country presents a sort of rough challenge that always has intrigued me - no doubt its better that I won't be with you on this trip.

Mr. George Fry, Vice-President of Big Bend Mining called me from Dallas Monday to learn if plans had been made for the examinations. I told him that I had just received a letter from Mr. Mittendorf inviting me to Washington and mentioning that Big Bend's applications among many other matters would be topics for discussions beginning tomorrow (hence I am flying to Washington tonight). I also explained the unusual tentative examination assignments, assuring him that I felt certain you would contact him directly as soon as a definite date could be set. He said he would submit additional data within a week from his Contrabando prospecting operations which have been in progress. He also advised that a recent six inches of rain at Terlingua had obliterated all traces of what roads existed in that region so Alpine garages probably would not want to furnish a car for such a trip but that he was obtaining a four-wheel-drive truck which would take you to the property. He can be contacted through the Abilene Office.

Later Monday, Mr. P. S. Kendrick, President of Big Bend and of the Kendrick Oil Co. called me from that Abilene Office to offer full cooperation and explain both company's eagerness to get

the proposed explorations completed while mercury prices are so high. As you have probably gathered, the bold-appearing exploration approach this company has proposed is such as you would expect from a successful Texas oil company - maybe what Terlingua needs. Although I do not believe these men ever have been in a mining venture before, their visit with me here some time ago impressed me with their sincereity and eagerness to properly conduct the proposed operations. I promised that their Abilene office would be contacted as soon as a definite time for the examinations is set and explained about the discussions I am to have in Washington.

I believe you will receive your copy of the second Big Bend mining application in ample time. I doubt that we get any of the data requested from Neyland but I am leaving instructions for this office to forward copies to you and the Washington office immediately if any pertinent data on these three dockets is received here during my absences. I plan now to be here only June 1 to 4 and then go on vacation until July 5.

With best personal regards, and wishing you pleasant Texas trips, I remain

Sincerely yours,

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

cc: DMEA Op. Com (2)
3770 file
3776 file

COPY - DMEA Operating Committee
Washington

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Department of the Interior
Defense Minerals Administration
RECEIVED
MAY 26 1955

~~WASHINGTON~~
GEOLOGICAL SURVEY
DENVER FEDERAL CENTER
DENVER, COLORADO

C
O
P
Y

May 23, 1955

Re: DMEA Dockets 3770, 3776, and 3787

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
P. O. Box 431
Joplin, Missouri

Dear Clint:

Thanks for your letters of May 2 to Harsh and May 3 to me, and the various enclosures. By straining a bit here and there and going some minor shuffling of our work program, I will make the three Texas examinations the first part of June. Tentatively, I plan to leave here June 6, fly to Alpine, and get a car there. I'll write to the various applicants to have their agents meet me, trying to get the Neyland job done June7, go to Terlingua June 8 and get those two jobs. If it should turn out that I am too optimistic on the Neyland time estimate I will go to Terlingua the day after completion. I am sorry not to have your excellent and cheery companionship.

So far we have received only the Neyland and the Presidio County applications, but there is plenty of time for the Brewster County one to get here. When you get the dope you asked Neyland to send, shoot it on, but I will proceed in any case to make the examinations.

Sincerely yours,

/s/ Don
Donald R. MacLaren

COPY -DMEA Operating Committee
Was[redacted]25, D. C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

C
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[redacted]
GEOLOGICAL SURVEY
DENVER FEDERAL CENTER
DENVER, COLORADO

Department of the Interior
Defense Minerals Administration
RECEIVED
MAY 26 1955

May 23, 1955

Re: DMEA Dockets 3776 and 3787,
Mercury and uranium, Presidio
and Brewster Counties, Texas

Big Bend Mining Co.
P. O. Box 269
Abilene, Texas

Copy retained 300

3776

Gentlemen:

I have been requested to make a geologic examination of the two properties referred to in DMEA Dockets 3776 and 3787 for the Defense Minerals Exploration Administration. I plan to arrive in Alpine by plane late Monday June 6, 1955, and will pick up a Government sedan there. I have one examination to make before proceeding to Terlingua which I should reach late on Wednesday, June 8. Will you please arrange to have your agent meet me on that date and advise me where.

Sincerely yours,

/s/ Donald R. MacLaren
Donald R. MacLaren

Copy to: C. C. Knox

DRMacLaren: arh

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~

Defense Minerals Administration
RECEIVED
MAY 4 - 1955

P. O. Box #431
Joplin, Missouri

May 2, 1955

Airmail

discussed in Op. Comm. 5/6/55 & 5/9/55

Mr. E. N. Harshman
U. S. Geological Survey
Denver Federal Center, Bldg. 25
Denver 6, Colorado

Re: DMEA-3776 (mercury-uranium)
Big Bend Mining, Inc.
Contrabrando Dome
Presidio County, Texas

Dear Mr. Harshman:

Forwarded herewith are the second copies of a Field referral, etc., on the cited application.

I am expecting soon to receive another one under an application by the same concern, Docket DMEA-3786 (mercury-uranium), Adobe Walls Dome, Brewster County, Texas. Obviously those two requested examinations as well as the one on the Neyland manganese property, Jeff Davis County, Texas, Docket DMEA-3770, which I believe was referred formally to you last week, all three should be handled on the same trip.

My schedule is very tightly filled from May 15 to July 1. Also I was informed that the amount remaining in my 1955 Travel Allotment now is insufficient to permit scheduling the nearly 2,000 miles of travel that would be involved in going to southwest Texas and back before May 15. Therefore, possibly a joint examination cannot be arranged, but I will make every effort for such when the time is ripe. I believe the problems presented by each of those three anticipated Field examinations are primarily geological in nature. Please do not let my inertia detain any of your men that might be assigned to those examinations and best of luck to them - I will get down there as soon as possible.

Incidently, I believe Bill Traver got some first-hand project information in that Texas mercury mining district shortly after that so-called Shoemaker mine was in operation - he is co-author of the Bureau's R.I. #3995. Likewise Contrabando dome is mentioned in the unpublished "structural Geology of the Terlingua Quicksilver District" by George A. Thompson (USGS).

Sincerely yours,

Copy retained 400

Clinton C. Knox
Executive Officer
DMEA Field Team, Region IV

CCK/vks

cc: DMEA Op. Com (2)
3776 file

400

Martin
Kilsgaard
Graham
Selfridge
K Johnson

APR 2 9 1955

Big Bend Mining, Inc.
Box 269
Abilene, Texas

Re: Docket No. DMEA 3776 - Mercury,
Uranium
Centrubando Dome Area
Presidio County, Texas

Gentlemen:

Reference is made to the above-docketed application for exploration assistance which has been reviewed by the Defense Minerals Exploration Administration and referred to Mr. Clinton C. Knox, Executive Officer, DMEA Field Team, Region IV, P. O. Box 431, Joplin, Missouri, for review and possibly a field examination of the property.

Any assistance that you can render the members of the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

WSMartin:foc
4-27-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. IV
Messrs. Hedges, USBM
Kilsgaard, USGS

P.C.B.

DOCKET
SURNAME
Martin
Selfridge
Johnson

400

APR 29 1955

Mr. Clinton C. Knox, Executive Officer
DMEA Field Team, Region IV
P. O. Box 431
Joplin, Missouri

Re: Docket No. DMEA 3776 - Mercury,
Uranium
Big Bend Mining, Inc.
Contrabando Dome Area
Presidio County, Texas

Dear Mr. Knox:

The above-docketed application for exploration assistance is being referred to your office for a field examination.

Two copies of a relevant memorandum dated April 21, 1955, by E. L. Newcomb, U. S. Geological Survey, and two copies of memorandum dated April 19, 1955, by J. H. Hedges, U. S. Bureau of Mines, are enclosed for your information.

This application was submitted for uranium as well as mercury. Please give us your recommendations on its merits as a uranium prospect, as well as a mercury prospect.

Sincerely yours,

George C. Selfridge
By ESJ
Chairman, Operating Committee
WSMartin:rce 4-27-55

Enclosure:

APPROVED:

/s/ Robert W. Gephan
By ESJ
Member, Bureau of Mines

Thor H. Kiilsgaard
By ESJ
Member, Geological Survey

cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. IV
Messrs. Hedges, USBM
Kiilsgaard, USGS

P.S.S.

4/22/55-gla

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 21 1955

April 21, 1955

Re: DMEA-3776
Big Bend Mining Co.
(Contrabando Dome Area)
Presidio Co., Texas
$263,992.78
Mercury-Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of application

The applicant has proposed an extensive program of drilling which consists of 58 holes for a total footage of 46,400 feet. The depth of the holes will range from 300 feet to 1000 feet. The objective of the program will be to test the Contrabando Dome structure for possible deposits of quicksilver and uranium.

The present proposal is too extensive; however, a more limited program may be warranted. Mercury mineralization is widespread in the area (Terlingua district) and several mines have produced considerable ore in the past.

Available information in our files indicates the Shoemaker prospects are on the applicant's property. In 1943, the U.S.G.S. studied these prospects and a large part of the Terlingua quicksilver district.

The following material has been excerpted from a report in our files.

The country rocks are the Boquillas flagstones which are flat-dipping, cut by numerous faults, gently folded, and intruded by numerous rhyolite plugs and dikes.

Cinnabar occurs in most of the rhyolite plugs as irregular pockets of ore along brecciated contact zones and in breccia zones within the plugs. The more extensive and continuous ore shoots are likely to be in the brecciated contact zones.

Possibilities of substantial production from the prospects are small.

The operator reports the presence of uranium in the area near his property. Although no specific data are presented in the application, there are widespread uranium occurrences (prospects) in the Big Bend area.

I recommend this application be referred to the Field Team for an examination. A small staged project may be justified.

E. L. Newcomb

E. L. Newcomb

4/20/55-gla

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

Defense Minerals Administration
RECEIVED
APR 29 1955

April 19, 1955

Memorandum

To: E. W. Ellis, Chief, Rare and Miscellaneous Metals Division

From: J. H. Hedges

Subject: DMEA-3776 (Mercury-Uranium) Big Bend Mining, Inc., Presidio County, Texas

The property of Big Bend Mining, Inc., is located about 1 to 2 miles in a southerly direction from the Fresno mine which has been one of the principal producers of mercury in the Big Bend district. From 1940 to 1944 reported production of the Fresno mine was 3,095 flasks.

The description and map submitted by the applicant indicate the existence of favorable structural conditions in the area to be explored, and evidence in shallow pits and surface exposures of some mercury mineralization. A field examination will be necessary to properly evaluate the proposed project. I believe the general area has been quite intensively studied by the Geological Survey.

I recommend referral of the application to the field team for investigation and appraisal.

J. H. Hedges

J. H. Hedges

Copy to: Division of Minerals
Miss Meyer, Room 3623
Mr. Hedges

400

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BIG BEND MINING, INC

Box 269
Abilene, Texas

April 19, 1955

file in 3776-Mercury

Mr. Clinton C. Knox
Box 431
Joplin, Missouri

Dear Mr. Knox:

Attached you will find our application for DMEA assistance on Adobe Walls Dome, Brewster County, Texas. The application consists of geological map, cross section, a list of drill areas numbered, enlarged aerial photograph and answers and statements to all required information on Form MF-103. All information is included in quadruplicate. If anything is lacking or is not clearly explained, please advise and it will receive our immediate attention.

We have today received Docket Number for Contrabando Dome. If a USGS report is necessary sincerely hope you will be able to make the trip.

Yours very truly,

BIG BEND MINING INC.

By: /s/ Geo. F. Fry
George F. Fry, Vice-President

GFF;vy

copy also put in 3787-Adobe Walls application

April 15, 1955
Subject: DMEA 3776
Re: Exploration Assistance

Big Bend Mining, Inc.
Box 269
Abilene, Texas

Gentlemen:

The receipt of your application dated April 8, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3776 and referred to the Rare and Miscellaneous 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

60932

April 15, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Operation's Control and Statistics Division

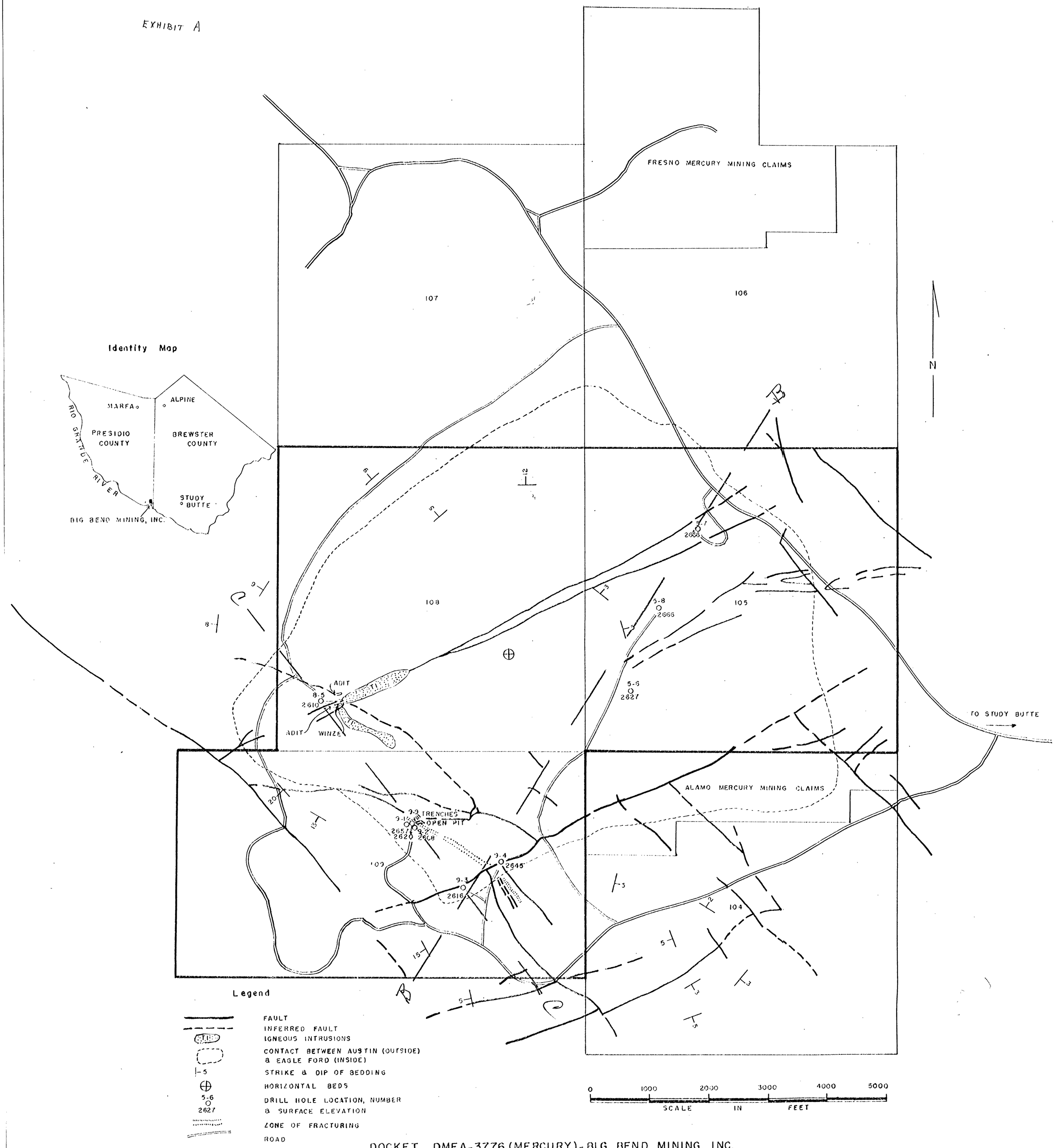
Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region IV.

DMEA - 3776 Big Bend Mining, Inc.

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

EXHIBIT A



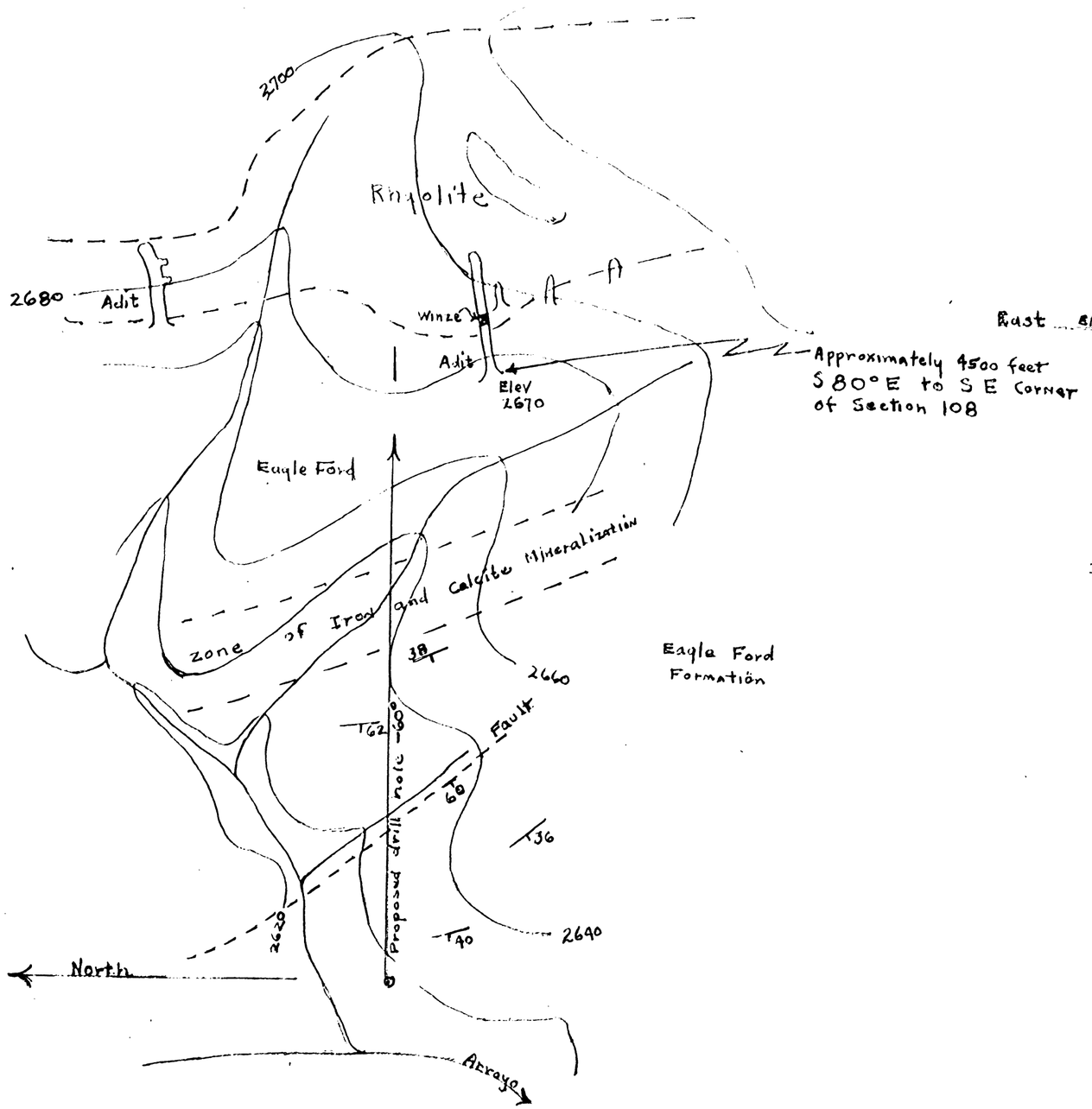
DOCKET DMEA-3776 (MERCURY)-BIG BEND MINING, INC.

CONTRABANDO DOME, PRESIDIO COUNTY, TEXAS

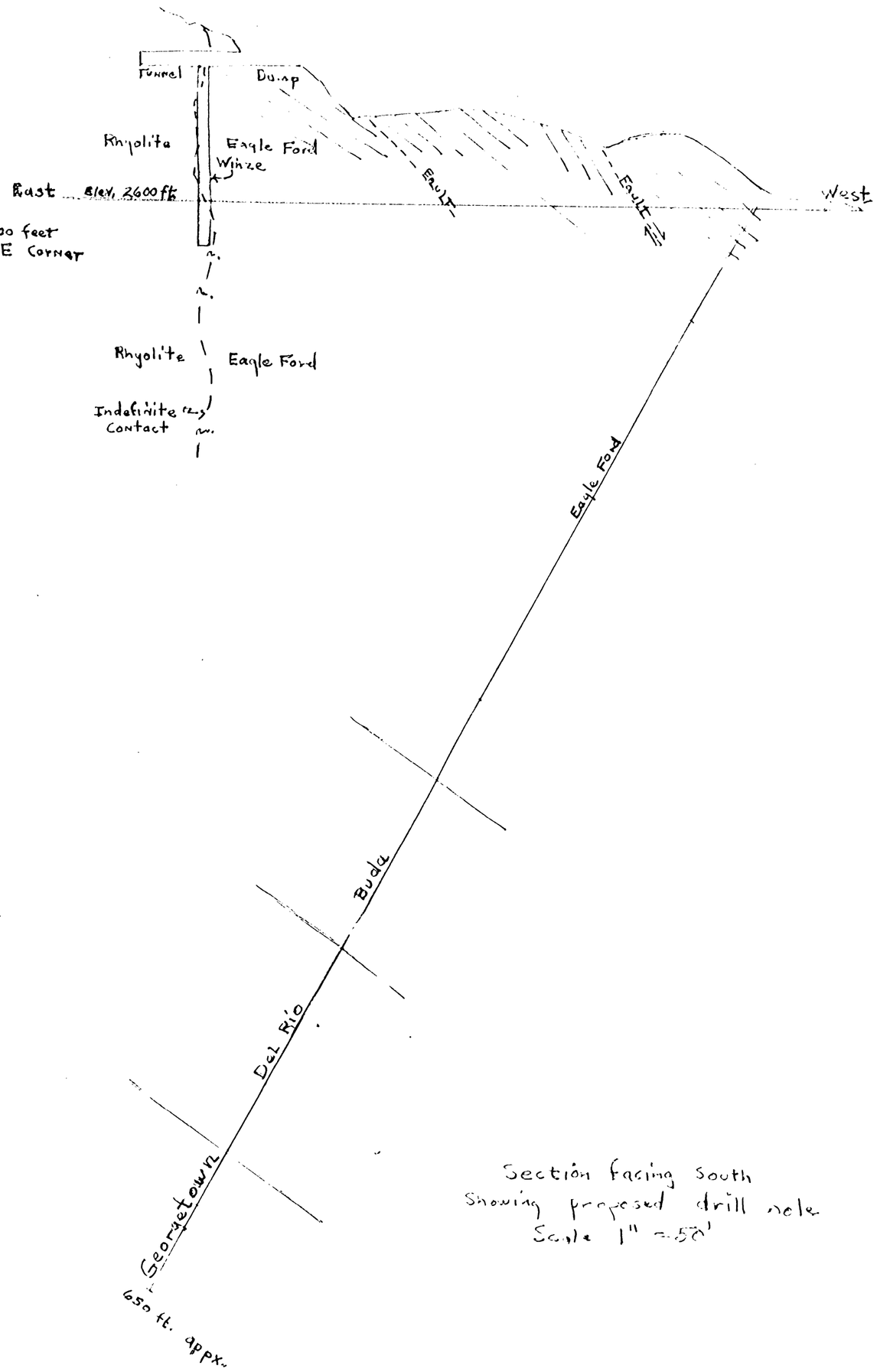
Project Contract Idm-E 893

Sections 105, 108, & 109, Block 341, T. C. Ry. Co. Survey

3-1-57



GEOLOGY AND TOPOGRAPHY
Shoemaker Prospect
Section 108, Block 341
Presidio County, Texas
Scale 1" = 50'



Section facing South
Showing proposed drill hole
Scale 1" = 50'

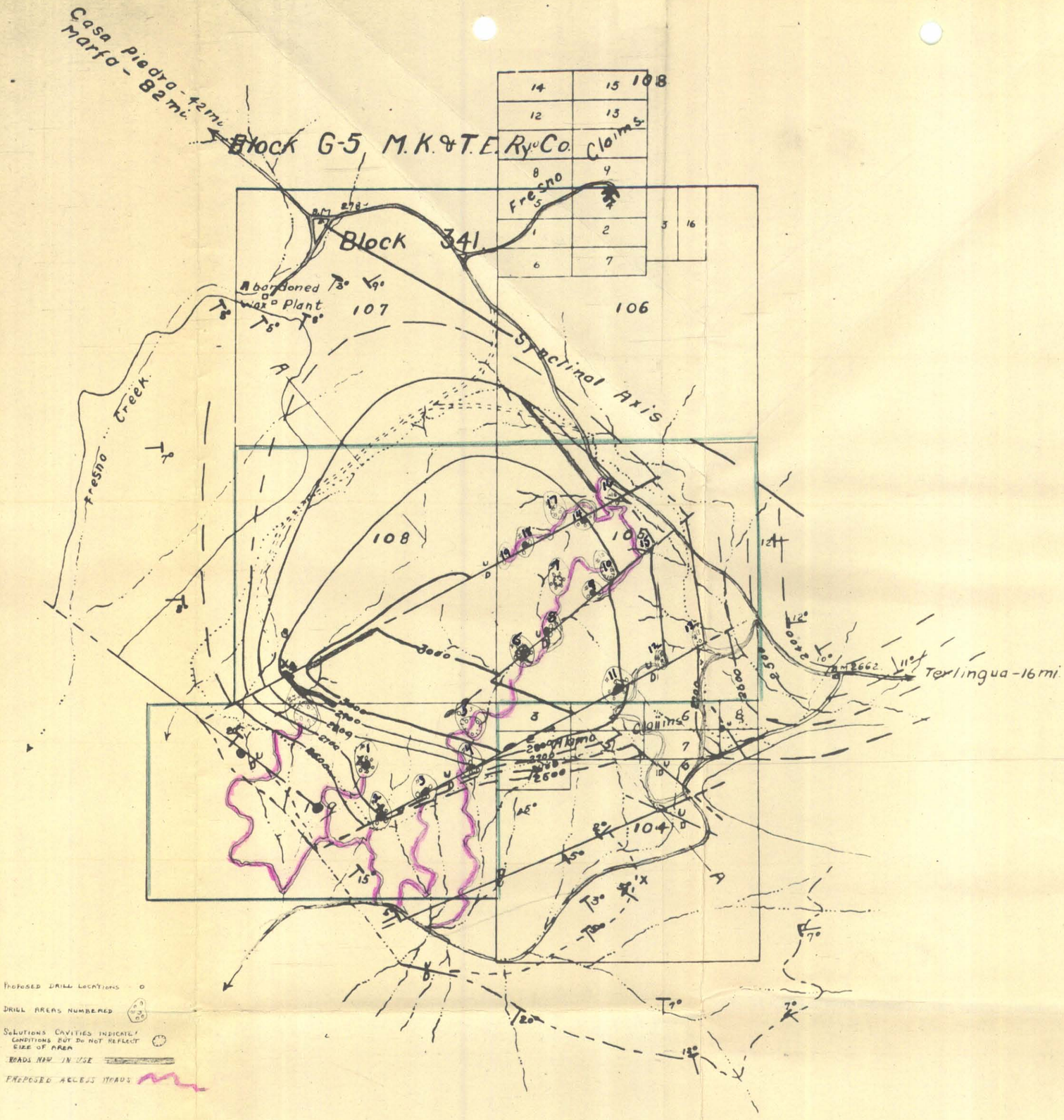
Reconnaissance Structure Map of Contrabando Dome

Presidio Co., Tex.

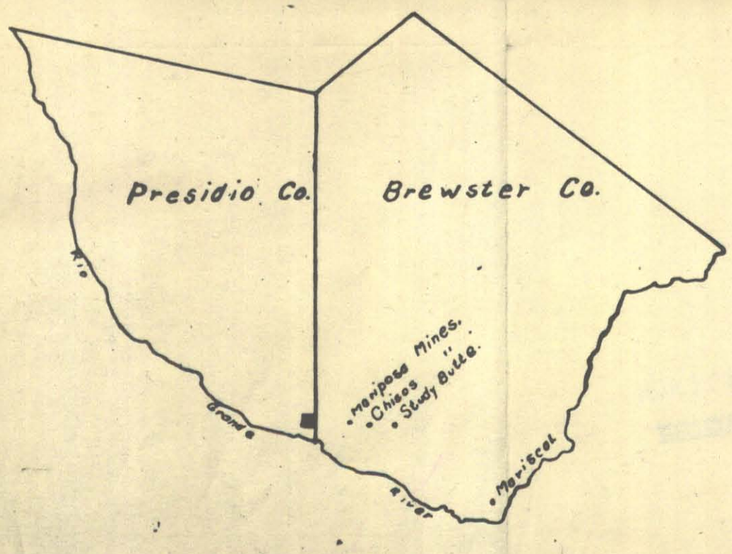
Taylor - Tertiary (lava & tuff cont).
Taylor - Austin.
Austin - Eagle Ford.
" - Tertiary
Igneous Sills & dikes.
Sills & Dikes (Intr.)
Tertiary Volcanics (Extr.)
Taylor.
Austin.
Eagle Ford.
Buda.
Del Rio
Geo - Edw.
Faults.
Faults (concealed)
Datum - Sea level.
Contours - top Eagle Ford.
Contour Interval - 100'
Collapsed caverns or sinks.
Quicksilver Mines - ⚒
Quicksilver Prospects - x
Quicksilver Showings - •
Scale - 1" = ~~2000'~~ 1000'

Geology by - H.M. Wilson.
1-20-1937.

N



Index Map.



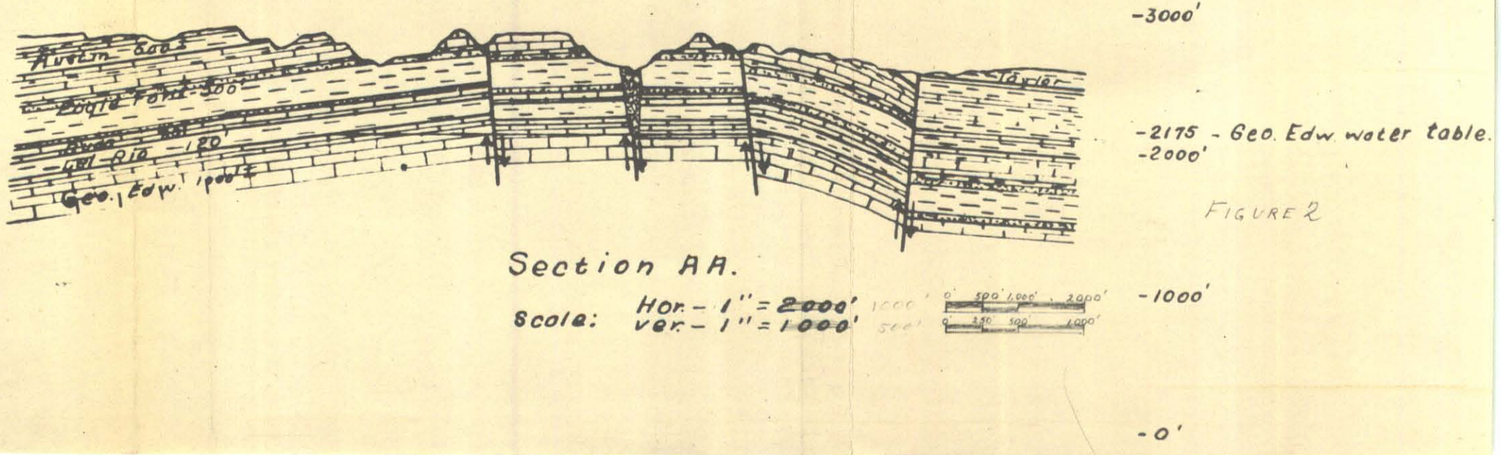


FIGURE 2