DMEA Form 9
(Rev. 5/57)

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Idm-E No. 866

DMEA NO. 3830

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(Withdrawn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

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

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

Folder No. 1:

Left Side

✓ Royalty Audits 1/
✓ Certification of Discovery
✓ Cost Audits 2/
Termination Notice or Agreement
Recision Notice
Assignment of Contract
✓ Contract Amendments
✓ Contract with all exhibits and annexes
✓ Owner's Consent to Lien
Subordination Agreement
✓ Application and attachments
Envelope for maps

Right Side

✓ Project summary
✓ Work completed analysis
All other material filed in chronological order including the following reports if checked:

Field Team Semi-Annual Report for Certified Project
✓ Final Field Team Report (Tab)
✓ Operator's Final Report (Tab)
✓ Interim Field Team Reports
Operator's monthly reports and all attachments
✓ On-site Exam Report (Tab)
✓ Settlement Sheets
Drill Logs

Additional Folders:

Left Side

Folder No. 2: M.F-104
Analysis of Semi-Annual Inspection Reports
Interim Summary Reports by DMEA Engineers

Right Side

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

Folder No. 3: Maps (Use pocket folder or envelope.)

Folder No. 4: Settlement Sheets & Semi-Annual Reports

Folder No. ___: Drill Logs

Folder No. ___: Royalty material

1/ Or reports of royalty review
2/ Or cost reports of review

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DMEA
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DATE	INITIALS	CODE
2-10		

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

FIRST REPORT OF ROYALTY REVIEW

I have reviewed the files of the Executive Officer, DMEA Field Team, Region III, Denver, Colorado, pertaining to Contract Idn-E366, Docket No. DMEA 3830 (Uranium), dated September 1, 1955, including Amendment No. 1, with

Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

for the purpose of determining the amount of royalties due the United States Government on sale of uranium-bearing ores from the Wright Lease in Jefferson County, Colorado, during the period September 1, 1955 through November 20, 1957.

A Certificate of Discovery or Development was issued August 30, 1957, and in accordance with the contract, royalty is payable on all minerals mined or produced from the land described in Annex I, Article 2 of the contract during a maximum period of 10 years from the date of the contract. A Report of Review in lieu of a final audit, dated October 11, 1957, indicated accepted costs under the exploration contract amounting to $14,964.00, with the Government's contribution on a 75 percent basis being $11,223.00.

The scope of the review and the reasons therefor are stated on page two.

My review established the total net sales of uranium-bearing ores to be $93,684.73. (See Schedule I attached.) Royalty due the United States Government at the contract rate of 5 percent is $4,684.18. The royalty paid and balance due are as follows:

Total Royalty Due	$4,684.18
Total Royalty Received	4,284.24
Balance of Royalty Due (See Schedule II attached)	$ 399.94

February 4, 1958

Donald T. Finnh, Auditor

DESCRIPTION OF THE REVIEW
AND STATEMENT OF JUSTIFICATION

Contract No. Idm-E866 Docket No. DMEA 3830

My review included a tabulation and recomputation of all ore settlement sheets in the files of the Executive Officer, DMEA Field Team, Region III, for the period September 1, 1955 to November 20, 1957, and correspondence with the Chief of Accounting Branch, Finance Division, Field Operations Office, Atomic Energy Commission, Grand Junction, Colorado. The producer's sales reported to DMEA were reconciled with the production records maintained by A.E.C. Royalties paid were reconciled with the DMEA Finance Office, Denver, Colorado.

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

(a) All reported production was reconciled with records of the Atomic Energy Commission.

(b) The Examining Engineer is of the opinion that all sales of production are accounted for.

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

SCHEDULE I

FOOTHILLS MINING COMPANY
(Uranium)

SUMMARY OF PRODUCTION, SALES AND DMEA ROYALTIES
PERIOD SEPTEMBER 1, 1955, TO NOVEMBER 20, 1957.

Contract Idm-E866 | Docket No. DMEA 3830

	COLORADO PLATEAU URANIUM PROJECT	UNION CARBIDE NUCLEAR COMPANY	LUCIUS PITKIN, INC.	TOTAL
Period	1-18-56	12-7-55 to 9-6-56	3-1-56 to 7-10-57	9-1-55 to 11-20-57
Gross Weight: Pounds	94,200	740,780	3,540,802	4,375,782
Dry Weight: Pounds	90,008	715,945.82	3,321,733	4,127,686.82
Dry Weight: Tons	45.0040	357.9800	1,660.8665	2,063.8505
Assays (Averages)				
Uranium (U_3O_8)	.41	.37	.31	.32
Vanadium (V_2O_5)	-	.08	-	-
Pounds - U_3O_8	369.03	2,673.07	10,370.13	13,412.23
Base Payment Uranium	$1,291.61	$9,355.75	$36,295.50	$46,942.86
Development Allowance @ 50¢ per lb.	$ 184.52	$1,336.54	$ 5,185.07	$ 6,706.13
Premiums				
Excess of 4 lbs. U_3O_8 per ton				
Excess lbs. U_3O_8	189.01	1,241.15	3,726.65	5,156.81
Amount @ 75¢ per lb.	$ 141.76	$ 930.88	$ 2,794.98	$ 3,867.62
Excess of 10 lbs. U_3O_8 per ton				
Excess lbs. U_3O_8	-	32.46	84.32	116.78
Amount @ 25¢ per lb.	-	$ 8.12	$ 21.08	$ 29.20
Haulage Allowance				
Wet Tons	47.1	370.39	1,770.40	2,187.89
Average per ton	1.32	.16	4.26	3.50
Amount	$ 62.17	$ 58.74	$ 7,543.61	$ 7,664.52
Pounds V_2O_5	-	578.82	-	578.82
Vanadium Payment @ 31¢ per lb.		$ 179.43	-	$ 179.43
Excess Lime Penalty	$ 208.37	$ 967.48	$ 5,526.43	$ 6,702.28
Penalty for Shipments Less Than 45 Tons	-	-	$ 2.73	$ 2.73
Total Receiving Station Payments	$1,471.69	$10,901.98	$46,311.08	$58,684.75
A.E.C. Production Bonus	1,291.61	9,355.75	24,352.62	34,999.98
Total Value Subject to DMEA Royalty	$2,763.30	$20,257.73	$70,663.70	$93,684.73
Average Value per Dry Ton	$ 61.40	$ 56.59	$ 42.55	$ 45.39
Average DMEA Royalty Percentage	5%	5%	5%	5%
DMEA Royalty Due	$ 138.16	$ 1,012.90	$ 3,533.12	$ 4,684.18
DMEA Royalty Received	138.16	1,012.90	3,133.18	4,284.24
Balance DMEA Royalty Due (Schedule II)	$ 0.00	$ 0.00	$ 399.94	$ 399.94

Note: Last Liquidation No. in above is Lucius Pitkin No. 3762 dated 7/10/57. Last Certificate of Deposit in above is No. 58-28 dated September 5, 1957.

SCHEDULE II

FOOTHILLS MINING COMPANY

Contract No. Idm-E866 (Uranium) Docket No. DMEA 3830

SCHEDULE OF BALANCE OF ROYALTY DUE

Lucius Pitkin, Inc., Purchaser

DATE 1957	LIQUIDATION SETTLEMENT NO.	BALANCE OF ROYALTY DUE.
1-16	2723	$14.49
1-16	2724	36.53
1-16	2725	60.22
2-18	2906	52.37
2-18	2907	49.21
3-12	3019	48.20
3-12	3020	41.90
3-15	3072	42.44
4-1	3147	54.58

Balance of Royalty Due (on Bonus) $399.94

Check Sheet of Examining Engineer

Operator's Name Foothills Mining Company

Address 3240 Sixth Street

Boulder, Colorado

Exploration Contract No. 8866 Docket DMEA-3830

		Check One Yes	Check One No
1. (a)	Does the Operator stockpile ore subject to royalty repayment?	✓	
(b)	If so, is segregation and identification procedure adequate?	✓	
2. (a)	Does Operator commingle production subject to DMEA royalties with exempt production?		✓
(b)	If so, do you consider the allocation of the commingled production equitable?	Does not apply	
3. (a)	Does the Operator stockpile mine or mill rejects (low grade ore, tailing, middlings, etc.) that may have potential value within the royalty payment period?		✓
(b)	If so, are adequate records maintained on such material to protect the Government's interest?	Does not apply	
4.	Do you consider the assay controls in effect are adequate?	✓	
5.	Do you consider that the manner of disposing of production gives the Government its fair royalty returns?	✓	
6.	Do your periodic examinations of operations indicate the Operator is properly reporting his production of ores subject to DMEA royalties?	✓	
7.	Does the Operator buy from or sell to other Operators?		✓

8. Comment on any item 2 (b) to 6 if answer is No.

Operations suspended - Ore not presently acceptable for milling.

Date Jan. 29, 1958

W. W. Winkel
Mining Engineer

Docket

Ching
Ellis
Burton
Dunger
Chambers
Selfridge
Johnson

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

To: Foothills Mining Company
2040 Broadway
Boulder, Colorado

Pursuant to the provisions of Exploration Project Contract No. Idm-2866, dated September 1, 1955, (Docket No. DMEA-[illegible]), hereinafter called the "contract," between the Foothills Mining Company, a Colorado corporation, and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien therefor and on the land described in the contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration work.

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

Crosscutting and drifting on the land described in Article 2 of the contract exposed deposits of uranium ore in a complex shear zone in Precambrian metamorphic and igneous rocks.

Dated: AUG 30 1957

THE UNITED STATES OF AMERICA

By [signature]
Administrator, Leasable Minerals
Exploration Administration

MChing/lxm 8-27-57
cc to: Operator
Marcus G. Wright
Wright Engineering & Supply Co.
1300 South Bannock St.
Denver, Colorado
Contract Adm. & Audit Div.
DMEA FT Reg. III (2)
Finance Office
Docket
Jesse C. Johnson, Director
Div. of Raw Materials, AEC
Elton A. Youngberg, AEC, G.J. Colo.
Admr.'s Reading File
F. E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
Mr. Ching

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DATE	INITIALS	CODE
10-15	JRC	800
16	Dom	100
"	JEJ	110
		120
10/17	Ching	900

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

pertaining to Exploration Project Contract No. Idm-E866, Docket No. DMEA-3830, including Amendment No. 1, for the months of September, 1955 to September, 1956, covering a project for the exploration of Uranium on property known as Wright Lease, located in Jefferson County, Colorado.

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

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

> All of the costs incurred were under a contract provision for payment by the Government on the basis of fixed unit costs for 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		$14,964.00
Exceptions: (Schedule attached)		
By DMEA Finance Officer	$0.10	
Herewith (Reinstatement)	0.10	0.00
Total Accepted Cost		$14,964.00

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 Eleven thousand, two hundred twenty-three and 00/100ths Dollars

** $11,223.00 **

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

October 11, 1957

T. H. Brading, Auditor

SCHEDULE OF EXCEPTIONS

Foothills Mining Company

Docket No. DMEA-3830 | Contract Idm-E866

Operator claimed 290 feet of diamond core drilling @ $5.56/ft.	$1,612.50
290 x $5.56 =	1,612.40
Disallowed	$ 0.10

Contract provides (Amendment No. 1) 290 feet of diamond core drilling at $5.56 per foot, totaling (rounded) $1,612.50

Auditor reinstated $0.10 based on Amendment No. 1 to the contract which provided for allowable cost of $1,612.50 (rounded.)

Docket copy

EXPLORATION PROJECT CONTRACT
FOOTHILLS MINING COMPANY
DOCKET NO. DMEA-3830

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Amendment No. 1

It is agreed this 13th day of August, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and Foothills Mining Company, that Contract No. Idm-E-866, Docket No. DMEA-3830, dated September 1, 1955, is amended, effective September 1, 1955, as follows:

1. In Article 3 substitute the completion date "September 30, 1956" for the date "July 31, 1956".

2. In Exhibit "A", under Description of the Work, in the first line of the first sentence, after the word "by" insert the words "diamond core drilling,".

3. In Exhibit "A", Stage II of the Description of the Work, the First sentence is revised to read as follows: Drift, crosscut, and raise a maximum of 50 feet; and diamond core drill a maximum of 290 feet of AX (minimum size) hole.

4. In Exhibit "A", under Estimated Costs of the Project, Stage II, (1) the item of "100 feet of drifting, crosscutting, and raising @ $32.25/ft." Totaling "$3225.00", is changed to read: "50 feet of drifting, crosscutting, and raising, @ $32.25/ft." Totaling "$1612.50." (2) The estimated costs of a winze are deleted and the following new item is added: "290 feet of diamond core drilling @ $5.56/ft." Totaling "(rounded) $1612.50".

This agreement shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, or the "Fixed Unit Cost" of any item of work.

Rutin
Dwyer
"Appd. Sol. Off."

Ching
Ellis
Chambers
Martin
Fitzsimmons
Matthews

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

THE UNITED STATES OF AMERICA

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

FOOTHILLS MINING COMPANY

By Lloyd B. Lurvet

Title Sec.-Treas.

FROM SOLICITOR
JUL 27 1956
FOR SIGNATURE

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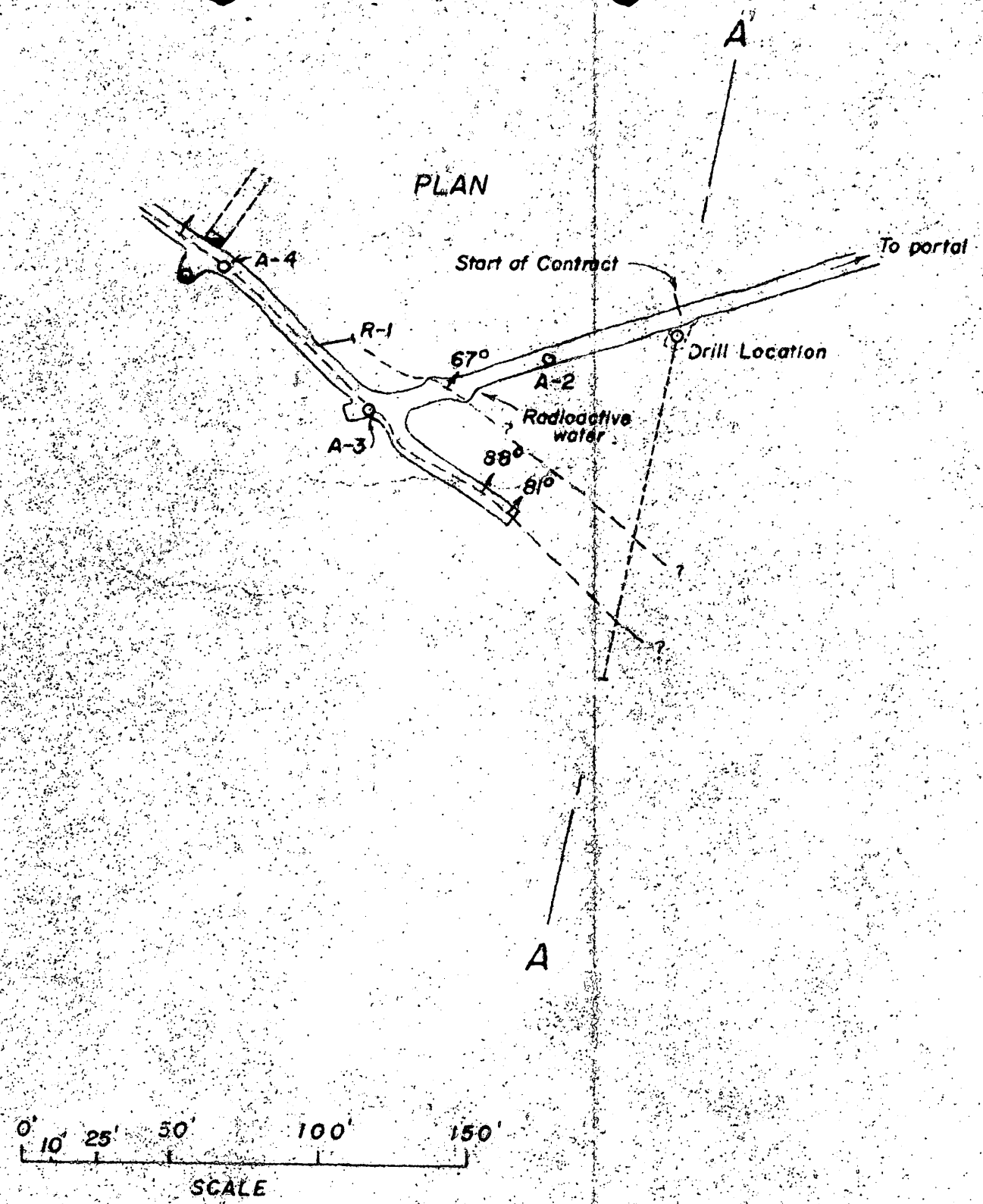
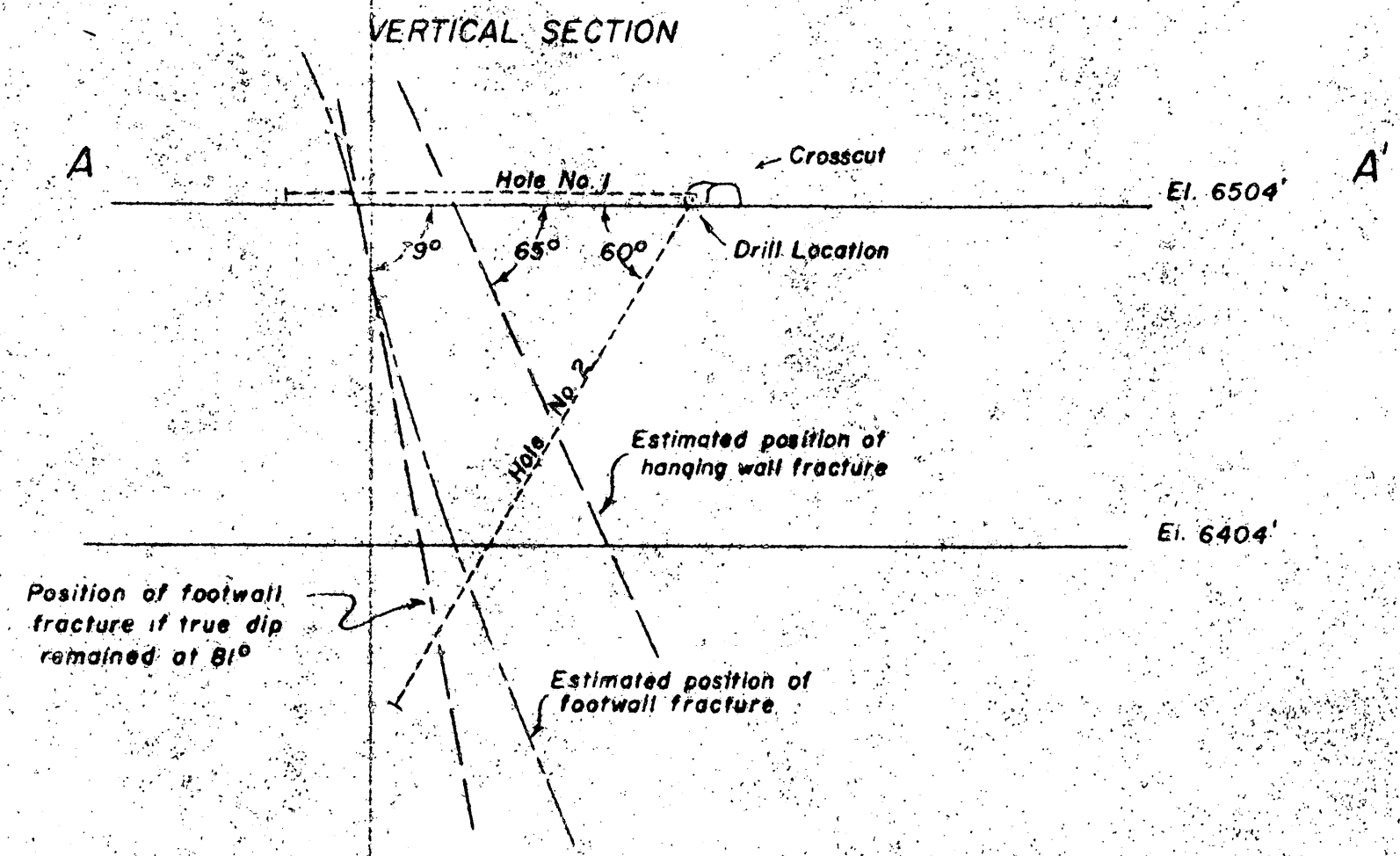
AUG 15 1956

RECEIVED
AUG 15 1956





SKETCH OF PROPOSED DRILLING

WRIGHT LEASE – D.M.E.A. CONTRACT NO. Idm–E866

H. L. BIRD, MINING GEOLOGIST

Docket copy

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SEP 15 1955

MF-200A
(Revised June 1954)

Docket No. DMEA-3330

Commodity Uranium

Contract No. Idm-E866

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

It is agreed this SEP 1 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] Foothills Mining Company, a Colorado corporation, ~~[illegible]~~, whose mailing address is ~~202 Mercantile Bank Building~~ Boulder, Colorado, 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 map, Figure 2.

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 Colorado, County of Jefferson, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] lease, [7] recorded in Book 873, page 513, 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 Marcus G. Wright, lessor.

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

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(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 Uranium. The work to be performed is described in Exhibit "A." The Operator on or before October 1, 1955 shall commence the work, and on or before July 31, 1956 (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" as 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 $15,275.00 The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $11,457.00: *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.

FOOTHILLS MINING COMPANY
(Operator)

By Charles A. Wilcox - Pres

M. J. Kraft
Sec Treas.

THE UNITED STATES OF AMERICA

By C. B. Mittendorf
Administrator, Defense Minerals Exploration Administration

Ching
Ellis

Hoffland
"Appd. Sol. Off."
Talbert

I, M. J. Kraft, certify that I am the Treasurer and secretary of the corporation named as Operator herein; that Charles A. Wilcox 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.

[CORPORATE SEAL]

Selfridge

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

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SEP 15 1955

EXPLORATION PROJECT CONTRACT
POCHEILLE MINING COMPANY
DOCKET NO. DMEA-3830

ANNEX I

The land referred to in Article 2 of the contract form consists of the NE¼ of the NW¼ of Sec. 32, T. 4 S., R. 70 W., Jefferson County, Colorado; excepting a 100-foot right-of-way for Colorado State Highway No. 74 and a 40-foot right-of-way for the access road to Little Park. The land and the exceptions therefrom are shown on the attached map entitled "Figure 2 - Map of Wright Lease . . ."

EXPLORATION PROJECT CONTRACT
FOOTHILLS MINING COMPANY
DOCKET NO. DMEA-3830

EXHIBIT "A"

Description of the Work

The work consists of exploration by crosscutting and drifting, and possibly raising or sinking, to test a radioactive shear zone at a depth below the zone of oxidation and leaching. The work is tentatively indicated on the attached map entitled "Figure 2 - Map of Wright Lease . . ." Representative samples shall be taken in the radioactive zone as the work progresses and such samples shall be analyzed chemically for uranium. The crosscut and drift shall be timbered as necessary and shall have minimum cross sections of 5 feet by 7 feet in the clear of timbers. Any raise or winze shall have a minimum cross section of 4 feet by 6 feet inside the timbers.

The work is divided into two successive stages, as indicated below. The Operator shall perform Stage I first, and shall thereafter perform as much of Stage II as the Government approves in writing in advance, based upon the results of Stage I.

The location, inclination, direction, and extent of all project work are subject to the approval of the Government.

Stage I

The "proposed crosscut" indicated on Figure 2 was started by the Operator for his own account without contribution by the Government prior to the date of this contract. Accordingly, notwithstanding the date of this contract, the starting point of crosscutting under this contract shall be fixed by the Government, and no costs of crosscutting incurred in advance of this point shall be eligible for contribution by the Government.

From the starting point in the crosscut fixed by the Government, the crosscut shall be continued in a southwesterly direction as indicated on the map, until the radioactive shear zone or vein is encountered. Thereafter, drift along the vein in a northwesterly direction for approximately 200 feet, as indicated on the map. If the estimated figure of 360 feet for Stage I crosscutting and drifting is insufficient to reach the target indicated on

the map, the additional footage required may be transferred from and deducted from the footage estimated for Stage II.

Stage II

Drift, crosscut, and raise a maximum of 100 feet; or, as an alternative, a maximum of 50 feet of fully timbered winze may be sunk. The kind, location, inclination, direction, and extent of Stage II work shall be determined by the Government after completion of Stage I work.

Estimated Costs of the Project

Fixed Unit Costs 1/

Stage I

360 feet of crosscutting and drifting @ $32.25/ft.		$11,610.00	
50 feet of timbering @ $4.00/ft.		200.00	
30 chemical sample analyses @ $3.00/sample		90.00	$11,900.00

Stage II

Either:			
100 feet of drifting, crosscutting, and raising @ $32.25/ft;	$3,225.00		
and			
25 feet of timbering @ $4.00/ft.	100.00		
	3,325.00		
Or:			
50 feet of timbered winze @ $66.50/ft.	3,325.00	[illegible]	
17 chemical sample analyses @ $3.00/sample		51.00	3,376.00
Estimated Total Cost of Project			$15,876.00
Government Participation @ 75%			$11,907.00

1/ Any timbering required for drifting, crosscutting, and raising in excess of the amounts estimated herein shall be at the sole cost of the Operator without contribution by the Government. The estimated costs of timbering under Stage II do not apply to the winze.

MF-203
Revised March 24, 1955

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SEP 15 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator [redacted]
Docket No. DMEA- [redacted]
Contract No. Idm-E_____
Contract Date_____

CONSENT TO LIEN

To the United States of America:

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

[redacted]

_____,

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

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

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

[redacted]

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

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

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

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

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AUG 22 1955

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

5. Added provision: _____

Dated this 16 day of August, 1955.

Marcus G. Wright [Seal]

_____ [Seal]

_____ [Seal]

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

_____

[Corporate Seal]

Room 202, Merc. Bank Bldg.
Boulder, Colo.
May 20, 1955

U.S. Department of the Interior,

Defense Minerals Exploration Administration,

Washington 25, D.C.

Gentlemen:

Since submitting our original application for a D.M.E.A. loan on our Wright lease under your docket number 3606, additional work has been done disclosing ore of commercial width and grade. We have consulted with the geologists in your Denver office who are familiar with this property and they have encouraged us to submit a new application for a loan with emphasis on the favorable results obtained from the additional work done since the field team examined the property early this year.

The new work consists of the diamond drilling of several holes which have proven the presence of a definite vein with continuity to a depth of at least 230 feet and commercial uranium ore.

In view of the favorable results of this new work and the establishment of a more definite target for further exploration we respectfully request your consideration of the accompanying new application for a Defense Minerals loan.

Y ours sincerely,

FOOTHILLS MINING COMPANY

by H.L. Bird, Vice President

H. L. Bird

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
MAY 23 1955

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. 3830.
Metal or Mineral Uranium
Date Received 5-23-55
Estimated Cost 26,909.64
Participation (Government %) 75

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: Foothills Mining Company, 202 Mercantile Bank Bldg., Boulder, Colorado.

(*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. Corporation, under laws of Colorado.

(*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 Northeast Quarter of Northwest Quarter, Sec. 32, T 4 S, R 70 W, excepting rights-of-way for State Highway 74 and the access road to Little Park, a Denver Mount ain Park. Je fferson Co.

(*b*) State any mine name by which the property is known. Wright Lease

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

(*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.

(*e*) If you own the land, describe any liens or encumbrances on it

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

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

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

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

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

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

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

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

(*c*) The work will start within 10 days and be completed within 12 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

[X] Money [X] Use of equipment owned by you [X] Other Labor

Explain in detail on accompanying paper.

CERTIFICATION

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

Dated May 20, 1955

Forthills Mining Company
(Applicant)

By H. L. Zirk Vice Pres

M. J. Kraft Sec

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

4 a Exploration activities include small cuts made by hand, several shallow rock drill holes, bulldozed cuts as indicated on map, a shallow shaft at Sta. 27, an opening for an adit at Sta. 26, and four completed diamond drill holes and a fifth now being drilled. The property has been surveyed by plane-table method through the courtesy of the Atomic Energy Commission, and a more precise transit survey will be made to properly direct underground exploration.

4 c The property is favorably situated geologically, being traversed by formations and structures similar to those existing in the Ralston Creek and Golden Gate Canon areas. The country rocks, of Pre-Cambrian age are mainly Idaho Springs formation and Swandyke hornblende gneiss, the latter occurring as tabular bodies suggestive of sills, and in larger irregular masses. These formations strike in an east- south-easterly direction for the most part, and have high southerly dips. Locally quite different attitudes are present as at Sta. 32, where a very steep synclinal fold is present in beds of Idaho Springs formation.

These formations are cut by major zones of faulting showing typical "breccia-reef" characteristics. Near the north boundary of the property a large reef of this type is well exposed at Stations 29, 22, 21, and a short distance north of Station 20. This is a wide and continuous zone striking about S. 80° E. and dipping northward at an angle of around 50° where clearly observable.

A divergent and minor zone of brecciation is exposed on the eastern side of the property near Station X-1 and can be traced northwest up the hill by exposure in a small gulch and higher still by float. This zone strikes N-50°-60°-W and dips about 50° N.E. near Station X-1. This minor breccia is of interest because of the radioactivity with which it is associated. An outcrop on the opposite side of Bear Creek on the projected strike of this zone is similarly brecciated, though in less degree, and is radioactive. At the exposure near X-1 there is a wide zone of fracturing with a sparse but significant occurrence of copper minerals and in one sample from this area a lemon-yellow mineral believed to be autunite. The following results of assays are from this zone and were taken by Mr. Roger Malan of the Atomic Energy Commission.

Field No.	eU_3O_8	U_3O_8	Description
F 32258	0.072	0.017	20" Channel
F 32259	0.19	0.027	Select
F 32260	0.089	0.	12" Channel
F 32261	0.26		3" Most R.A. portion, heavily iron stained
F 32262	0.078		8" at same point as 32261 and incl. that portion
F 32263	0.042		Selected to show distribution of ore minerals

The following assay was taken by us and run by Henry E. Wood Assaying Co., Denver Colorado.

November 16, 1954 U_3O_8 - 0.1% This was taken over a 12" width from the most radioactive portion of the exposure near Sta. X-1.

The wide disparity between radiometric and chemical uranium is believed to be due to leaching and results obtained in drilling seem to substantiate this opinion.

Drill hole No. 1 was drilled to prospect this breccia zone. Although no ore of commercial grade quantity was located in this hole, radioactivity in two places in the hole, namely 46 to 50 feet and 30 to 32 feet was high enough to clearly indicate the mineralized portions and a relationship between the breccia and uranium occurrence.

To the west of this area on the crest of the ridge is a definite zone of fracturing and mineralization with significant magnitude of radioactivity which has proven to be ore-bearing with depth. That portion of the vein northeast of Station 18 was selected after careful study as a good locality to drill H ole No. 3 with the object of testing the vein below the zone of oxidation and leaching. Hole No. 2 had disclosed a very encouraging degree of radioactivity and yet had not yielded any unoxidised vein material. It was felt that primary ore should be encountered below two hundred feet and this has proven to be the case. The uranium bearing ore is mineralized breccia and a sample from this zone gave the following results when analyzed by the Henry E. Wood Assaying Company:

April 30, 1955 U_3O_8 - 0.588%

This ore ocurred below 221 feet in H ole No. 3 as shown by the detailed sketch of that hole. A narrower portion at 212-213 gave good reading by probe and two small fragments recovered by themselves are radioactive enough to indicate that higher grade ore than 0.58% U_3O_8 exists, irregularly distributed in the mineralized breccia.

H ole No. 2 was directed at an angle designed to test both the vein exposed at Station 18 and the vein at Station 25.

This hole entered mineralized and radioactive ground at 71 feet. It is regretted that broken formations prevented core recovery in H oles 2 and 4 and to a somewhat lesser extent in H ole No. 3.

It was not possible to secure any representative samples of the vein zone cut by this hole and the meager geological data prevent a positive interpretation of structure. It is certain that the hole did cut a substantial thickness of the mineralized zone with important degree of radioactivity.

H ole No. 4 yielded radiometric data which indicate clearly the presence and boundaries of the vein zone which is also clearly exposed on the surface to the south and southeast of the hole. Here, again as at Hole No. 2, core recovery was very poor, the rock being broken, altered schist with a considerable quantity of pegmatite which gave a good deal of trouble in drilling. Although ore was not cut by the hole, we class it as a semi-favorable hole.

4 d As to accessibility of the project, it is second to none in this respect. It is served by State Highway No. 74, a modern paved road, and an access road of moderate grade has been built to the western area of interest. The eastern area is close to the highway and can be easily reached. The closest railroad point is Denver, Colorado, about 15 miles from the property. The town of Idledale is $\frac{1}{4}$ to $\frac{1}{2}$ mile distant and housing for a working crew is available.

4 e Manpower, materials, equipment and supplies are easily obtainable. Water and power can be secured at a very reasonable expense since they are close to the general area.

5 b We believe that results obtained by drilling warrant further exploration. The following estimates of costs are for this work:

The first part of the proposed work would be the driving of a drift from the point on the accompanying map marked "Portal of Proposed Drift" southeastward about 400 feet to a point on the vein directly up the dip from the ore cut in H ole No. 3. It is recognized that the walls should be drilled as the drift reaches favorable ground in order to preclude the possibility of drifting in barren rock alongside or near an ore-bearing vein. At this point, a winze should be sunk to explore the occurrence in drill Hole No. 3 and below. It is also planned to drift 100 feet southeastward to further explore the vein on the drift level. It is believed that this work represents the minimum amount of work necessary to explore this occurrence.

5 d The work will be under the general supervision of Mr. M.J. Kraft of Boulder, Colorado, a man with years of mining experience. Assisting will be Mr. H.L. Bird of Berthoud, Colorado, with a background of prospecting and geologic work, including geologic and mine surveying. We have every reason to believe that the counsel of the Atomic Energy Commission will be as available in the future as it has been in the past.

DRIFTING SECTION Wright Lease

Based on 500 Feet of Drifting

LABOR

1 Foreman @ $2.25 hr.	$ 18.00	
2 Miners @ $1.80 hr.	28.80	
	$ 46.80	
At an average advance of 3 feet per shift including timbering, track laying, etc., 500 feet of drifting will require about 170 shifts @ $46.80 per shift or		
Total Drifting Labor Cost		$ 7,956.00

OPERATING MATERIALS AND SUPPLIES

Timber, estimated at: 10 - 5 foot sets @ $15.70 per set	$ 157.00	
10 - 5 foot sets @ $8.50	$ 85.00	
Total Drift Timber		$ 242.00
Powder, estimated at one box per four foot round	$ 12.25	
Fuse, 18 holes per round @ 6 feet per fuse and $ .0144 cost per foot	1.51	
Caps, 18 caps @ $ .0235 each	.43	
Cost per round	$ 14.19	
Estimated 125 rounds		$ 1,773.75
Steel and Bits per round @ 50¢ per foot of advance	$ 2.00	
Gas and Oil per round	5.00	
Total	$ 7.00	
At 125 rounds, these items		$ 875.00
Carbide, Total for Drift @ 30¢ per shift		50.60
Total Operating Supplies		$ 2,941.35

DRIFTING SECTION (CONTINUED)

OPERATING EQUIPMENT

Compressor, Jackhammer and Jackleg Per Month	$ 350.00	
Mucking Machine	150.00	
Total Operating Cost	$ 500.00	
Estimated six months' use		$ 3,000.00

MAINTENANCE

Estimated at $250.00 for total period	$ 250.00

TOTAL DRIFTING COST BEFORE SUPERINTENDENCE AND CONTINGENCIES	$ 14,147.35

CONTINGENCIES DRIFTING SECTION

Additional timbering required if heavy ground is encountered - 80 sets @ $8.50 per set	$ 680.00
Extra labor installing additional timbering estimated	950.00
Total Allowance for Contingencies	$ 1,630.00

TOTAL DRIFTING COST WITH CONTINGENCIES	$ 15,777.35

SINKING SECTION — Wright Lease
100 Foot Winz

LABOR

1 Foreman @ $2.25	$ 18.00	
2 Miners @ $1.80	28.80	
Per Shift	$ 46.80	
At average advance of 1.5 foot per shift, 100 feet will require 66 shifts		
Total Labor		$ 3,088.80

OPERATING MATERIALS AND SUPPLIES

Timber - Red Spruce (Doug. Fir) Based on Frank Lumber Co. prices:			
Solid cribbing for first 10 feet of winze, estimated at 100 board feet per foot of winze		$ 80.00	
21 sets of shaft timbers (3 stulls, 1 wall plate) @ $3.90 per set		81.90	
Planking to divide shaft compartments below cribbed section about 500 board feet		40.00	
Skids - 190 lineal feet of 2 x 6 and 190 lineal feet of 2 x 4= 320 board feet @ $80.00 per M		25.60	
Ladders - 196 lineal feet 2 x 6	$ 15.68		
144 lineal feet 2 x 4	12.96		
Total ladder lumber		28.64	
Spikes and Nails		15.00	
Total Timber Cost			$ 271.14
Powder Fuse and Caps			
Powder estimated at 1 box per round	$ 12.25		
Electric caps 20 per round @ 17c each	3.40		
Blasting wire	1.00		
Estimated 33 rounds		549.45	

OPERATING MATERIALS AND SUPPLIES (CONTINUED)

Bits and Steel @ $3.00 round	$ 100.00		
Carbide - for total sinking	19.80		
Gas and Oil for drilling and hoisting (Based on 66 shifts operation)	396.00		
Total materials other than timber		$ 1,065.25	
Total Operating Materials			$ 1,336.39

OPERATING EQUIPMENT

Compressor, Jackhammer, rent 3 months @ $335.00	1,005.00	
"Tugger" rent @ $80.00	240.00	
Furnished: Air line 80 feet, Bucket, Cable, Bell and Cord		
Underground Headframe, estimated cost	500.00	
Total Equipment		1,745.00

MAINTENANCE

Estimated at $125.00 for full period	~~125.00~~	125.00

TOTAL SINKING SECTION BEFORE CONTINGENCIES AND SUPERVISION AND WITHOUT ITEMS LISTED AS "FURNISHED." (OR $62.95 PER FOOT)	$ 6,295.19

CONTINGENCIES

Extra allowance for close cribbing in heavy ground - cribbing 85 feet additional above 10 feet allowed at collar of winze.		
Timber - estimated at 100 board feet per foot of winze or 8500 board feet @ $80.00 M $680.00 less cost of timber allowance under heading "Operating Materials and Supplies" $680.00 - $121.90 = $558.10 equals net increase timber cost allowance	$ 558.10	
Allowance for extra labor involved in close cribbing instead of regular shaft sets	500.00	
Total Contingencies		$ 1,058.10

TOTAL WINZE COST WITH CONTINGENCIES (or $73.53 per foot)	$ 7,353.29

STATEMENT OF ESTIMATED COSTS, CONT'D

GENERAL COSTS

SUPERINTENDENCE

Mine Superintendent and Geologist

Estimated at one-half time for period of eight months. Full time salary is $500.00 per month.

Total Superintendence $ 2000.00

MISCELLANEOUS

Analytical Work	$ 500.00	
Accounting		
Included in Superintendence		
Compensation		
11.58% of total direct labor	$1,279.00	
Total Miscellaneous Cost		$ 1779.00

SUMMARY OF COSTS

DRIFTING SECTION

Labor	$ 7,956.00	
Operating Materials and Supplies	2,941.35	
Operating Equipment	3,000.00	
Maintenance	250.00	
TOTAL DIRECT COST		$14,147.35

SINKING SECTION

Labor	$ 3,088.80	
Operating Materials and Supplies	1,336.39	
Operating Equipment	1,745.00	
Maintenance	125.00	
TOTAL DIRECT COST		$ 6295.19

SUPERINTENDENCE

Mine Superintendent and Geologist

TOTAL COST $ 2,000.00

STATEMENT OF ESTIMATED COSTS

SUMMARY OF COSTS, CON'TD

MISCELLANEOUS		
Analytical Work	$ 500.00	
Accounting		
Included in Superintendence		
Compensation		
11.58% of total direct labor	1,279.00	
Total Cost		$ 1,779.00
CONTINGENCIES		
Drifting Section	$ 1,630.00	
Sinking "	1,058.10	
Total Contingencies Cost		$ 2,688.10
GRAND TOTAL OF ALL COSTS		$26,909.64

RESULTS OF HOLE PROBING BY A.E.C.
(Copy of letter from Commission)

May 10, 1955
Geologist: Roger Malan

All readings in milliroentgens per hour.

Hole number 1

Footage	Reading
129.5	.025
126	.030
121	.035
116	.033
111	.035
106	.045
101	.055
96	.040
91	.095
86	.07
84	.05
82	.06
80	.045
76	.035
74	.03
72	.035
70	.040
66	.025
62	.032
58	.045
54	.038
53	.065
52	.055
51	.08
50	.65
49	.55
48	.22
47	.75
46	.83
45	.23
44	.12
43	.50
42	.50
41	.55
40	.40
39	.26
38	.13
37	.16
36	.15
35	.15
34	.18
33	.32
32	.45
31	.82
30	.60
29	.35
28	.35
27	.35
26	.09
24	.14
22	.05
20	.035
18	.030
16	.040
14	.040
12	.040
10	.042
8	.045
6	.045
4	.048
2	.050
0	.055

Hole number 2

Footage	Reading
125	1.4
123	1.1
121	.7
119	2.3
117	2.3
115	1.3
113	1.4
111	1.4
109	1.5
107	3
105	3
103	2.0
101	1.5
99	1.4
97	1.7
95	1.7
93	2.0
91	2.5
89	1.7
87	2.5
85	1.5
83	1.7
81	1.1
79	1.0
77	.7
75	.7
73	.9
71	1.7
69	.6
67	.6
65	.55
63	.5
61	.5
59	.6
57	.55
55	.5
53	.6
51	.6
49	.5
47	.5
45	.5
43	.4
41	.5
39	.5
37	.5
35	.4
33	.4
31	.5
29	.4
27	.3
25	.6
23	.6
21	.3
19	.3
17	.3
15	.3
13	.25
11	.25
9	.2
7	.2
5	.25
3	.2
1	.2

Result s of Hole Probing by A.E.C. Wright Laease 1½
(Copy of letter from C ommission)

May 3, 1955
Geologist: Eugene L. Grossman
Hole number 3

Footage	Reading	Footage	Reading
250	0.38	165	0.12
245	0.09	160	0.11
243	0.10	155	0.12
241	0.09	150	0.10
240	0.12	145	0.10
238	0.11	140	0.10
236	0.18	135	0.10
235	0.10	130	0.11
233	0.18	125	0.10
231	2.3	120	0.10
230	2.4	115	0.11
228	2.0	110	0.08
226	2.5	105	0.12
225	2.2	100	0.08
223	2.5	95	0.14
221	0.90	90	0.11
220	0.80	85	0.04
218	0.45	80	0.04
216	0.44	75	0.04
215	0.44	70	0.10
214	0.58	65	0.09
213	2.0	60	0.14
212	2.5	55	0.14
211	0.68	50	0.13
210	0.12	45	0.12
208	0.10	40 m	0.12
206	0.11	35	0.12
204	0.10	30	0.11
202	0.10	25	0.13
200	0.12	20	0.11
195	0.12	15	0.11
190	0.12	10	0.09
185	0.13	5	0.11
180	0.10	0	0.11
175	0.11	or	
170	0.14	background	

Results of H ole Probing by A.E.C.
(Copy from C Ommission)

May& 7, 1955
Geologist Eugene L. G rossman
Hole number 4

Footage	R eading
175	0.06
173	0.05
171	0.13
169	0.20
167	0.12
165	0.20
163	0.06
161	0.06
159	0.08
157	,0.15
155	0.17
153	0.30
151	0.20
149	0.20
147	0.40
145	0.20
143	0.07
141	0.02
139	0.06
137	0.04
135	0.02
133	0.02
131	0.03
129	0.02
127	0.03
125	0.04
123	0.01
121	0.04
119	0.03
117	0.01
115	0.01
113	0.01
111	0.03
109	0.03
107	0.03
105	0.04
103	0.03
101	0.04
99	0.01

Footage	Reading
97	0.03
95	0.04
93	0.04
91	0.07
89	0.06
87	0.03
85	0.03
83	0.03
81	0.02
79	0.01
75	0.02
70	0.02
65	0.07
60	0.03
55	0.02
50	0.03
45	0.02
40	0.03
35	0.03
30	0.02
25	0.01
20	0.01
15 00	0.03
10	0.03
5	0.02

ESTABLISHED 1878

GAYLE F. FARNHAM

Certificate of Assay

THE HENRY E. WOOD ASSAYING COMPANY

TELEPHONE KEYSTONE 4-4816

DENVER 4, COLORADO

733 W. COLFAX AVE.

April 30, 1955

We hereby certify that the samples assayed for E.J. Kraft MAY 2 9 1955
gave the following results per ton of 2000 lbs.

MARKED	GOLD OZS.	SILVER OZS.	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	IRON PER CENT	INSOL. PER CENT	SULPHUR PER CENT	PER CENT	VALUE
									Uranium $_3O_8$	
									0.588	

Gold at $_____ per ounce
Silver at _____ per ounce
Lead at _____ per lb.
Copper at _____ per lb.
Zinc at _____ per lb.

Charges

$ 5.00 Paid

The Henry E. Wood Assaying Co.

By W. W. F.

DEPARTMENT OF THE INTERIOR
Lease Minerals Administration
RECEIVED
MAY 23 1955

ASSIGNMENT OF MINING LEASE

This Assignment of Lease, made this 16th day of May, 1955, by and between MELVIN J. KRAFT, assignor, and FOOTHILLS MINING COMPANY, assignee, witnesseth:

That for and in consideration of the sum of Ten ($10.00) Dollars, cash in hand paid, the receipt of which is hereby acknowledged, and for other good and valuable considerations, not herein recited but hereby receipted for, the assignor does hereby assign and transfer unto the assignee all of his right, title and interest in and to that certain lease made and entered into on the 27th day of September, 1954, for the period of five (5) years from the 27th day of September, 1954, between Marcus G. Wright, as lessor, and Melvin J. Kraft, as lessee, subject to all the conditions, stipulations and agreements contained therein with the express understanding and agreement that the said assignor shall be and remain liable for all obligations and the performance of all the covenants and agreements made in the said lease.

The said assignee hereby assumes and agrees to make all payments and perform all of the covenants and agreements in said lease contained, by the lessee therein agreed to be made and performed.

Consent to the assignment of the within lease to Foothills Mining Company is hereby given, on the express condition, however, that the assignor shall remain

liable for the prompt payment of the rent and performance of the covenants on the part of the lessee as herein mentioned, and that no further assignment of said lease or sub-letting of the premises or any part thereof shall be made without further written assent first had thereto.

Melvin J. Kraft, Assignor

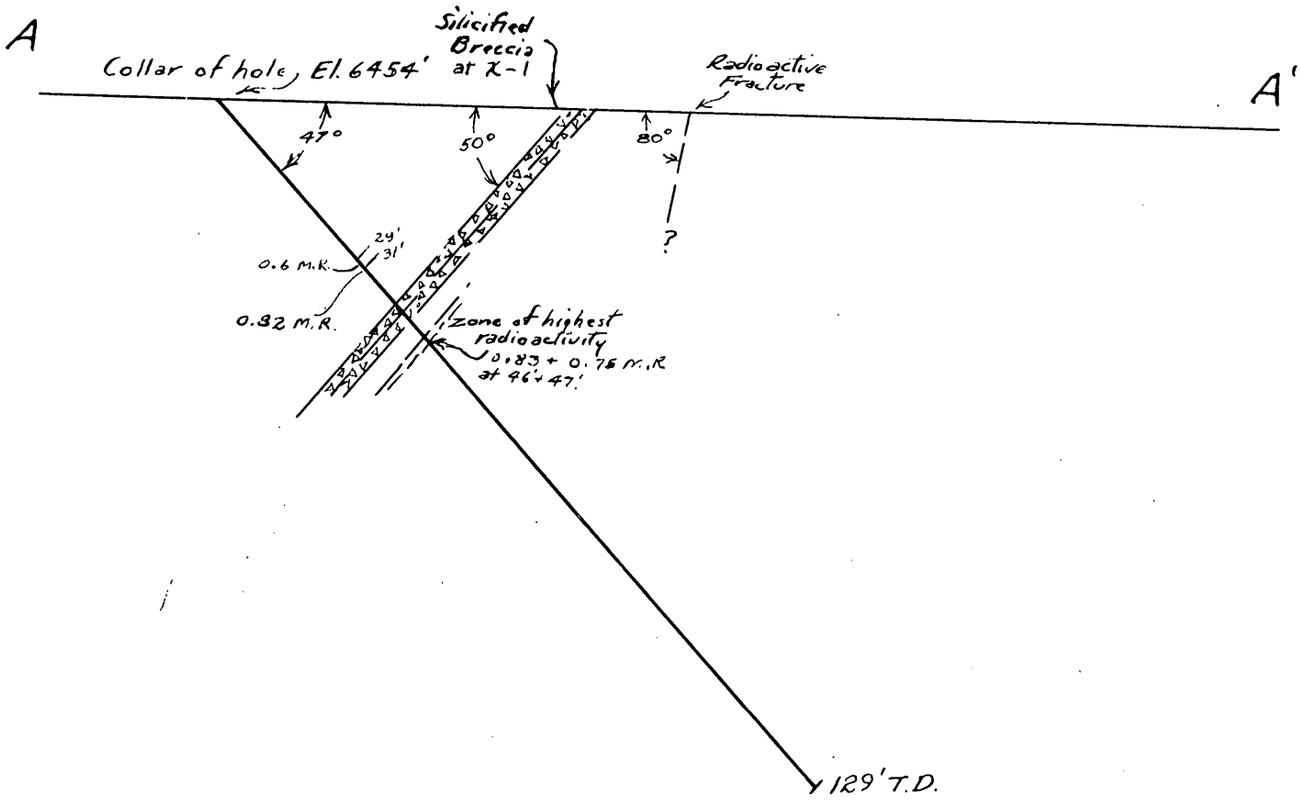
ATTEST:

M. J. Kraft, Secretary

Foothills Mining Company, Assignee
by: Pres.

CONSENT:

Marcus G. Wright, Lessor

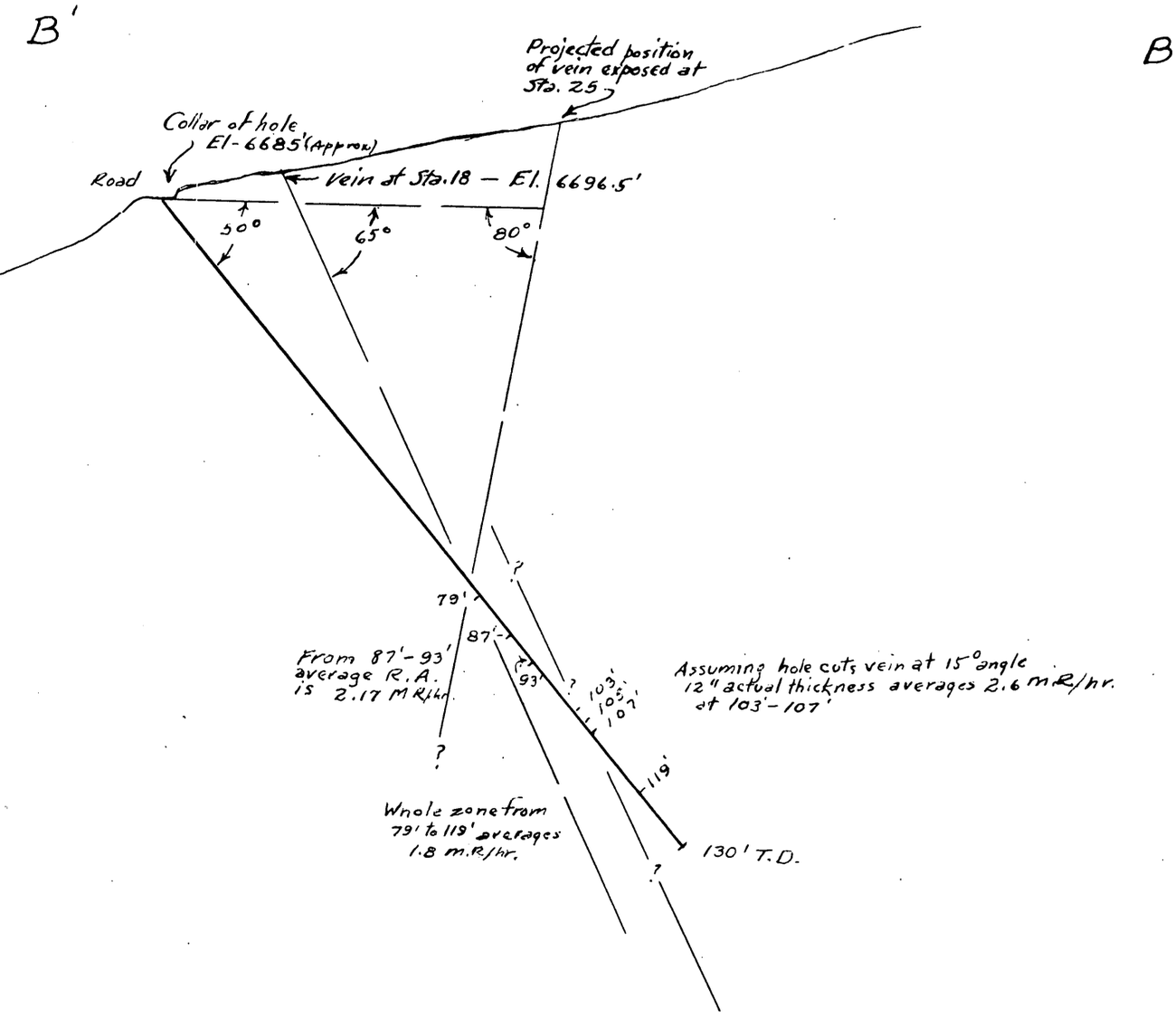


DRILL HOLE NO. 1

WRIGHT LEASE

Scale – 1" = 25'

H.L. Biri

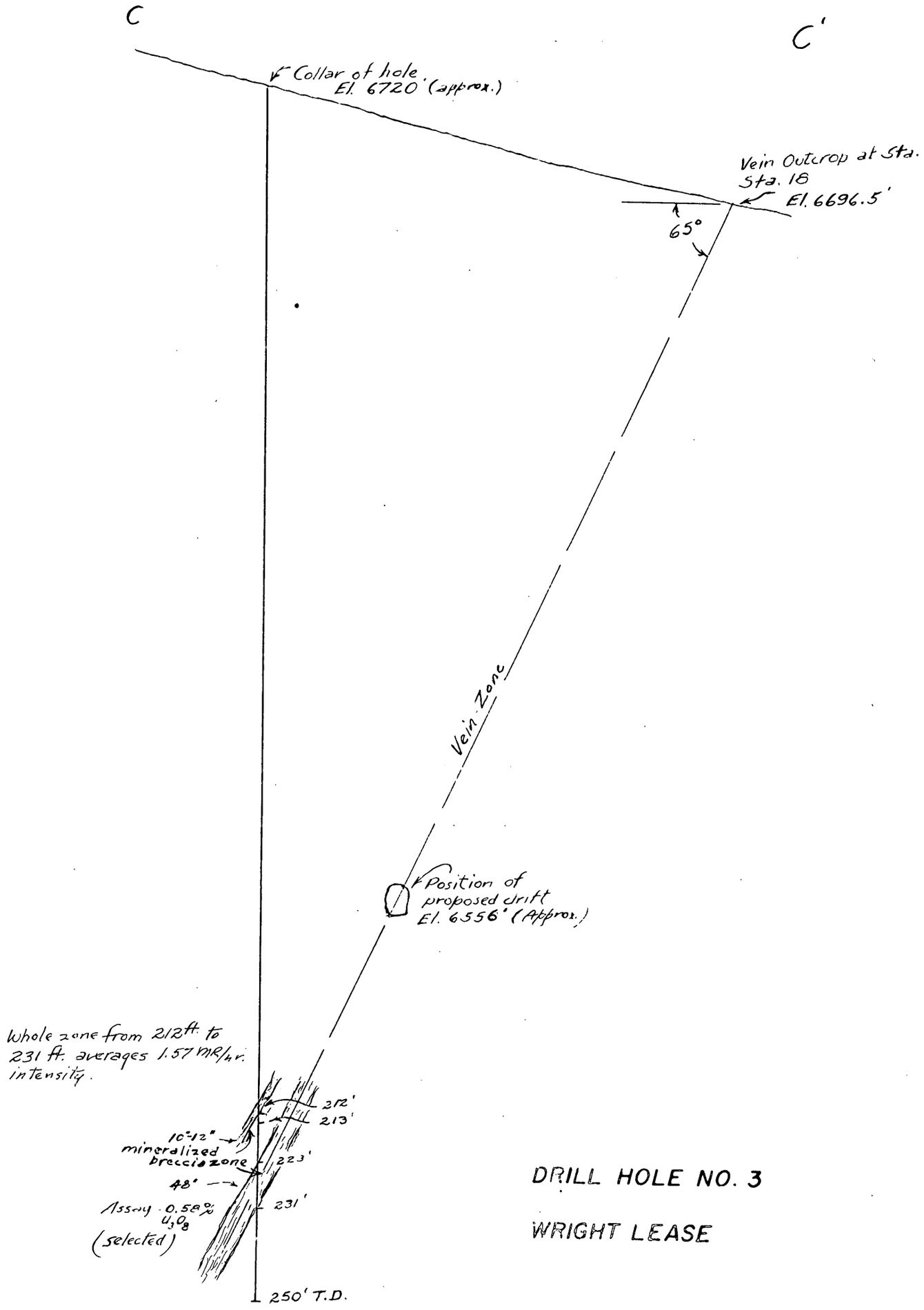


DRILL HOLE NO. 2

WRIGHT LEASE

Scale — 1" = 25'

H. L. Bird

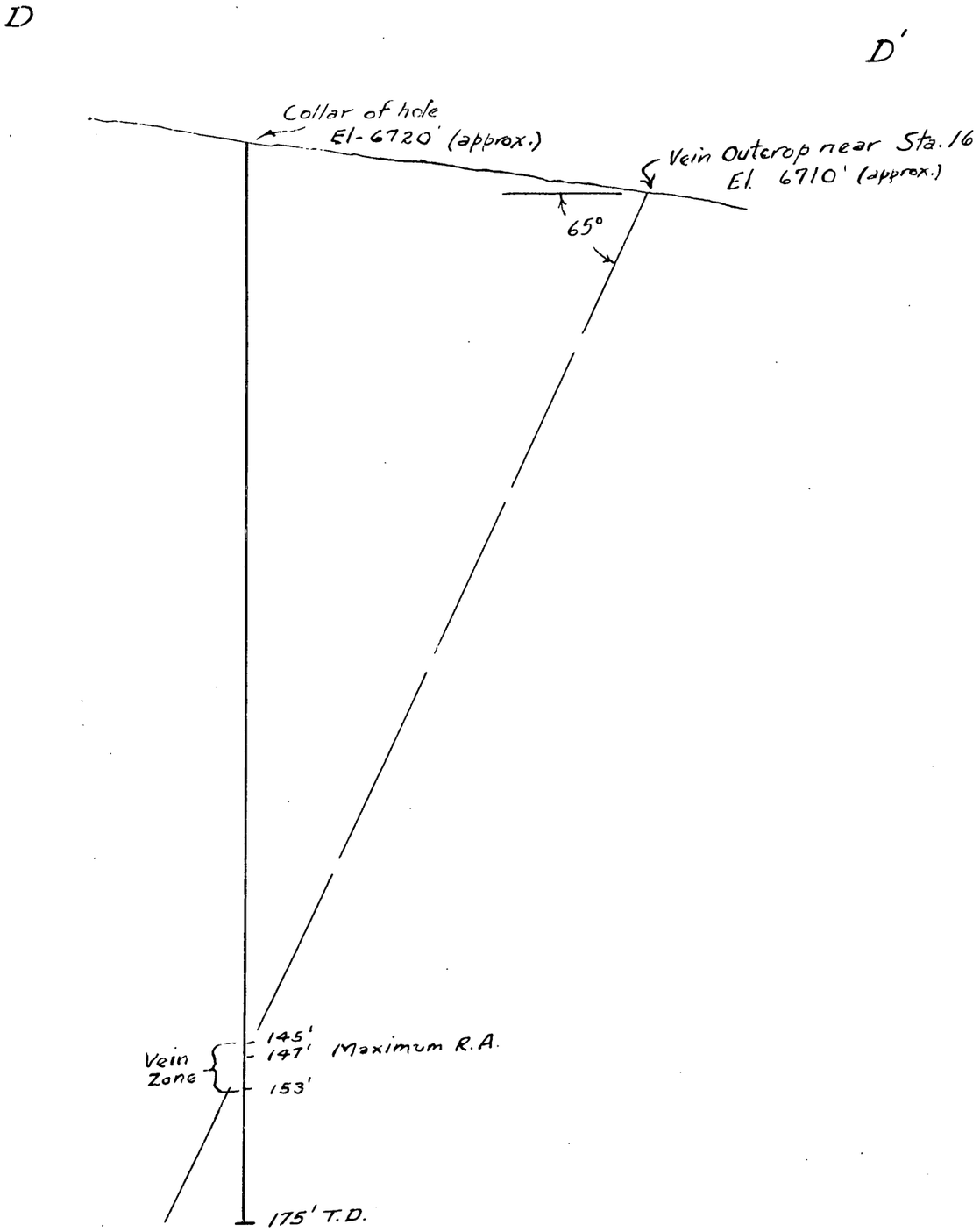


DRILL HOLE NO. 3

WRIGHT LEASE

Scale — 1" = 25'

H.L. Bird



DRILL HOLE NO. 4

WRIGHT LEASE

Scale - 1" = 25'

H.L. Bird

Recorded at 2:10 P. M., Sept. 28, 1954 Robert W. Newton, Recorder

586842

MINING LEASE

THIS INDENTURE, made this 27 day of September, A. D., 1954, between MARCUS G. WRIGHT, party of the first part, hereinafter referred to as the Lessor, and MELVIN J. KRAFT, party of the second part, hereinafter referred to as the Lessee.

W I T N E S S E T H:

That the Lessor for and in consideration of the royalties, covenants and agreements hereinafter reserved to be paid, kept and performed by the Lessee, has leased, let and demised, and by these presents does lease, let and demise unto the Lessee the following described premises situate, lying and being in the County of Jefferson and State of Colorado, to-wit:

The Northeast Quarter (NE¼) of the Northwest Quarter (NW¼) of Section 32, Township 4 South, Range 70 West.

TO HAVE AND TO HOLD the same unto the Lessee for the purpose of mining, removing and selling ore therefrom for a term beginning on the date hereof and expiring five (5) years from the date hereof, unless sooner forfeited or terminated under any of the provisions herein contained.

In consideration of such demise and of the covenants mutually agreed to be performed, the Lessor and Lessee hereby covenant and agree with the other as follows, to-wit:

1. The Lessee agrees to enter upon and take possession of the demised premises immediately upon the execution of this lease and to commence work on the said premises within ten (10) days from the date hereof and after a ninety (90) day prospecting period, to work the same continously in a thorough and workmanlike manner, employing at least two (2) men underground and working at least twenty (20) shifts each calendar month during the continuance of this lease; the work performed by the Lessee should be done in accordance with good mining practice and in the manner necessary to good and economical mining so as to take out the greatest amount of ore possible with due regard to the development and preservation of the premises as a workable mining property; to install and maintain all workings in a safe condition and to keep all openings of standard size, securely timbered and thoroughly drained and cleared of loose rocks, rubbish and obstructions.

2. The Lessee agrees to pay to the Lessor during the existence of this lease, as royalty, 15% of the amount

of payments received by the Lessee from ore buying stations or mills for all ores and minerals, including fissionable minerals produced from the said premises, be they concentrates or otherwise.

It is expressly understood and agreed by and between the parties hereto that the Lessor reserves the property and right of property in and to all ores and minerals extracted from the premises during the term hereof, and that all settlements for royalty payments shall be made upon the assay value of the mineral and ore that may be taken from the said premises or shall be based on and applied to the established market price posted by the Atomic Energy Commission as the same is established from time to time by the said Commission. Said payment of royalty shall be after deductions have been made of all assaying and milling charges and railroad transportation charges. The said payment of royalty shall not include any portion or percentage of the development allowance made, paid or given to the Lessee by the United States Government or any agency or division of any department thereof, for and on account of development work performed by the Lessee on the premises described hereinabove and particularly any government bonus for such purpose as provided and set out by the Atomic Energy Commission, Title 10, Code of Federal Regulations, Part 60, as amended, and Sections 60.5 and 60.5A. The Lessee, however, agrees to expend in the development and operation of the leased property, an amount of money at least equal to any such development allowance or bonus so paid. The Lessee agrees, however, to pay in addition to the 15% royalty above stated, 15% of anyother premiums or bonuses paid by the United States Government to the Lessee, including the initial or gross production bonus and anyother bonus paid to the Lessee for and on account of the quality of the ore produced from the said premises and as set out and described by the Atomic Energy Commission, Title 10, Code of Federal Regulations, Part 60, as amended, under Domestic Uranium Program, Section 60.6, Bonus for Initial Production of Uranium Ores from New Domestic Mines. The Lessee agrees to pay to the Lessor the same royalty percentage on anyother ore, concentrate or other minerals, other than uranium, which may be developed and recovered from the said premises by the Lessee. The Lessee shall be entitled to all transportation allowances paid by the Atomic Energy Commission or otherwise, but said allowance shall be taken to apply against the cost of railroad transportation in the computation of royalty payments. The sampling works, mill, smelter or ore buyer purchasing any ore produced from the said premises shall retain the amount of royalty herein stated and shall pay the amount to the Lessor at each settlement for ore purchased.

3. The Lessee agrees to obtain, carry and maintain in force, complete Workmen's Compensation Insurance

for any and all persons employed in or upon said property by the Lessee, and to conduct all operations so as to comply fully with the laws of the State of Colorado, including, specifically, those pertaining to mining and safety.

4. The Lessee agrees to comply with all federal laws and regulations, including those relating to Social Security, Unemployment Compensation and Withholding Tax.

5. The Lessee agrees to post a notice in a conspicuous place on the said premises, showing that the premises are being operated by the Lessee and that all creditors of the Lessee must look to him for payment of any accounts incurred after operations are commenced by the Lessee, and that the owner is not, nor will the said premises be liable for any labor performed upon, or materials furnished to the said premises at the instance or request of the Lessee who covenants and agrees to pay in full for all labor performed or material furnished to the said premises at his instance or request, and to keep the said premises free and clear from any and all liens of mechanics or materialmen. The Lessee further agrees to hold and save the Lessor harmless from any and all claims or demands arising or growing out of the exploration, development and operation of said premises by the Lessee.

6. The Lessee covenants and agrees to allow the Lessor, his agents or attorneys, at any and all times, to enter upon and descend into any and every part of the said premises for the purpose of inspection, sampling and surveying. The Lessee will render to the Lessor all the assistance in his power in so doing and to furnish to the Lessor duplicate copies of all maps, engineering reports, core-loggings and assays.

7. The Lessee agrees to maintain full and complete books of account covering all phases of the development and operation of the mining property, said books shall be open to the inspection of the Lessor at any and all reasonable times, and the Lessee agrees to furnish the Lessor quarterly statements of all operations.

8. The Lessee covenants and agrees to pay all taxes levied and assessed against the demised property, or any part thereof, including taxes measured on production, and also including taxes levied and assessed on improvements placed upon the premises by the Lessee during the continuance of this agreement, and further shall pay all taxes and fees levied by any government or agency thereof by reason of the Lessee's operations hereunder.

9. The Lessee covenants and agrees to occupy and hold all side veins, spurs, feeders, cross-lodes,

parallel lodes or mineral deposits of any kind or nature, which may be discovered by the said Lessee or by any person working under him or in privity with him, in any manner, by working within or from the said premises, as the property of the Lessor and as part of the premises demised, and to not allow any person not in privity with the parties hereto to take or hold possession of the said premises or any part thereof under any pretense whatever.

10. The Lessee covenants and agrees to complete the road that presently exists leading into the premises from the public highway, as far as the point of highest elevation of the said premises, and in addition to make or build a road leading therefrom to the site of the proposed well.

11. The Lessee agrees to fill all prospect holes in the event no ore in paying quantities is developed during exploration, if requested to do so by the Lessor.

12. The Lessee furthermore covenants and agrees that in case he fails in any respect to keep and fulfill any one or more of the covenants or agreements herein expressed or implied, then, and in that case it shall be lawful for the Lessor, his agent or attorney, to declare said term ended, upon written notice of default, and with or without process of law to enter upon and take possession of said premises, and in such case, and also at the expiration of this lease by limitation, the Lessee agrees to surrender, yield and deliver to the Lessor quiet and peaceable possession of said premises in good condition, and that time shall be of the essence hereof, and that all the covenants and agreements herein contained shall extend to and be binding upon the heirs, executors, administrators, successors and lawful assigns of the respective parties hereto.

13. This lease may not be assigned, nor the demised premises sub-let, in whole or in part, without the express written consent of the Lessor.

IN WITNESS WHEREOF, the parties hereto have executed these presents the day and year first above written.

M. D. Wright
Party of the First Part

Melvin J. Kraft
Party of the Second Part

Docket

Project Summary Report

By: Michael Ching Date: October 31, 1957

1. Docket No. DMEA-3830 (Uranium)
   Contract No. Idm-E866

   Operator - Foothills Mining Company
   ~~3040 Broadway~~
   ~~Boulder, Colorado~~

   Property - NE$\frac{1}{4}$ of the NW$\frac{1}{4}$ of sec. 32, T. 4 S., R. 70 W., 6th P.M.&B., Jefferson County, Colorado, excepting a 100-foot right-of-way for Colorado State Highway No. 74 and a 40-foot right-of-way for the access road to Little Park.

   Operator's Property Rights - Operator is the Lessee. Consent to Lien, dated August 16, 1955, executed by Marcus G. Wright.

2. Contract (Short Form) dated September 1, 1955

   Final starting date - October 1, 1955
   Actual starting date - September 15, 1955
   Contract completion date - September 30, 1956
   Project work completed - September 7, 1956

   Work Authorized (as amended):

   Test a radioactive shear zone below the zone of oxidation by crosscutting, drifting, raising and diamond core drilling in two stages.

   Stage I:

360 ft. crosscutting & drifting @ $32.25/ft.	$11,610.00	
50 ft. timbering @ $4.00/ft.	200.00	
30 chemical analyses @ $3.00/each	90.00	$11,900.00

   Stage II:

50 ft. drifting, crosscutting & raising @ $32.25/ft.	$1,612.50	
25 ft. timbering @ $4.00/ft.	100.00	
290 ft. core drilling @ $5.56/ft. (rounded)	1,612.50	
17 chemical analyses @ $3.00/each	51.00	$3,376.00

   Estimated Total Cost of Project $15,276.00
   Government Participation @ 75% $11,457.00

   Amendments:

   No. 1 - dated Aug. 13, 1956 - extends the completion date from July 31, 1956 to Sept. 30, 1956. Reduces Stage II drifting, crosscutting, and raising from 100 feet to 50 feet, eliminates an alternate provision for 50 feet of winze, and adds a provision for 290 feet of core drilling.

Work Completed:

Stage I:

121 ft. crosscutting @ $32.25/ft.	$3,902.25	
239 ft. drifting @ $32.25/ft.	$7,707.75	
12 ft. timbering @ $4.00/ft.	48.00	
27 chemical assays @ $3.00/each	81.00	$11,739.00

Stage II:

50 ft. drifting @ $32.25/ft.	$1,612.50	
290 ft. core drilling @ $5.56/ft. (rounded)	1,612.50	$3,225.00

Total Cost of Project $14,964.00
Government Participation @ 75% $11,223.00

Final Reports Received:

Operator - dated Sept. 30, 1957, received Oct. 14, 1957
Field Team - dated Aug. 9, 1957, received Aug. 15, 1957

3. Auditor's Report of Review - dated October 11, 1957
   Total Cost as billed by Operator $14,964.00
   Exceptions ..... None
   Total Accepted Cost $14,964.00
   Government Participation @ 75% $11,223.00

4. Certification of Discovery - dated August 30, 1957

5. Results and Comments:

The ore-bearing structure consists of a radioactive shear zone in predominantly Precambrian metamorphic rocks of the Idaho Springs formation. The shear zone is actually composed of two structures, referred to as the hanging and footwall veins. The latter is the prominent structure and the one explored under the subject contract.

A crosscut, started by the Operator for its own account, was extended southwesterly under the subject contract for a distance of 121 feet to cut the above-described shear zone. Drifting along the footwall vein to the northwest, for a distance of 239 feet, resulted in the discovery of two ore shoots. Drifting along the vein to the southeast, for a distance of 50 feet, did not encounter ore. Two core drill holes, one horizontal and one at -60°, were drilled from the crosscut to cut the shear zone ahead of the southeast drift, but only minor radioactivity was detected in the holes.

The two ore bodies found in the northwest drift range in width from 2 to 5 feet and persisted along the drift for distances of 20 and 60 feet respectively. Up to May 31, 1957, 1,736 tons of ore with an average grade of 0.29 % U_3O_8, had been mined. Remaining reserves were calculated as 2,429 tons of indicated and 832 tons of inferred ore, both containing 0.25% U_3O_8.

The work was conducted efficiently by the Operator. Monthly reports were satisfactory.

The work resulted in a significant discovery and a certification of discovery or development was issued on August 30, 1957.

Michael Ching

Michael Ching, Mining Engineer
Division of Rare and
Miscellaneous Metals

DMEA Form 18
Feb. 58

DEFENSE MINERALS EXPLORATION ADMINISTRATION

ANALYSIS OF SEMIANNUAL REPORT OF CERTIFIED PROJECT

Prepare in duplicate. File original in Official Docket. Send copy

To: Statistics Branch (Code 210)

From: Division of Minerals

Report Period: 1/1/59 thru 12/31/59

DMEA No.	Operator	Contract No.
3830	Foothills Mining Co	24M-6866

ORE ESTIMATES

	Tons	Analysis %
DMEA	5000	0.265
Operator to date	14666	0.40
Total	19666	0.265
Production to date	3358.85	0.313
Ore in ground	16307.15	0.265

INVESTMENT

Type	Size		Feet	Cost
Shafts	4'x8'		120	$8,000
Winzes				
Drifts and Crosscuts	4x7'		400	$5,500
Raises				
Drilling	Type			
Rehabilitation	Description			

FACILITIES

Mine Plant		
Mill		
Roads		

REMARKS

Govt Participation under contract $11,223.00
Royalty paid to date (incl. ht.) 6,217.76

Prepared by Fred Mitchell Date 4/11/60

[x] Audited

[x] Certified

WORK ANALYSIS SHEET - DMEA PROJECT

Analysis as of Oct. 31, 1957
Incl. Voucher for Sept., 1956

[ ] Actual Cost

[X] Agreed Unit Costs

Name Foothills Mining Company

Docket No. 3830

State Colorado

Commodity Uranium

Idm-E No. 866

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
	Feet		Feet		
Drifting & Crosscutting	410	$ 13,522.50	410	$ 13,270.50	$ 13,270.50
Raising					
Shafts					
Winzes					
Drilling (Specify) Core	290	1,612.50	290	1,612.50	1612.50
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Chem. Analyses		141.00		81.00	81.00
Totals		$ 15,276.00		$ 14,964.00	$ 14,964.00

Prepared by Michael Ching

71626

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
2/8	[illegible]	500
	Fraser	500
2/8	Talbert	800
2/8	Jefferson	1204
		110
2/8	Cole	220

FEB 8 1961

Foothills Mining Company
c/o Cotter Corporation
P. O. Box 751
Canon City, Colorado

Re: DMEA-3830 (Uranium)
Foothills Mining Company
Wright Lease
Jefferson County, Colorado
Contract Idm-E866

Gentlemen:

Thank you for repaying in full the Government's participation of $11,223.00 in the subject exploration contract for uranium. As a result of the repayment, the Government retains no lien or claim against the property or on any future production therefrom.

We appreciate your interest and participation in the DMEA exploration program.

Sincerely yours,

(signed) FRANK E. JOHNSON
Acting Director

(FH)

Copy to: Mr. Marcus G. Wright
1300 South Bannock Street
Denver, Colorado

FMMurphy/gla
2-8-61
cc to: Director's Reading File
Region III (2)
Code 800
Code 500
Docket
Chron

43683

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

OFFICIAL FILE COPY
O. M. E
RECEIVED FEB 10 1961

DATE	INITIALS	COPY
2-10	gad	2V0
2/10	[illegible]	800
~~2/13~~	~~Murphy~~	~~500~~
		220

February 6, 1961

Memorandum

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

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

Subject: Docket DMEA-3830 (Uranium)
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado
Contract Idm-E866

This is to advise that according to our records the royalty payment of $63.93 on liquidation No. 17 completes in full the repayment to the Government.

Hugh M. Connors
Hugh M. Connors

O.K. — wrote closing letter. Connors will get copy.
Murphy.

Mr. Selfridge: Re: DMSA-3830

I believe this letter should be addressed to:

Foothills Mining Company
c/o Cotter Corporation
P.O. Box 751
Canon City, Colorado.

That is the last address of record.

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
2/7	Murphy	500
	Dubel	500
2/7	Talbert	800
		120
		110
		220

Mr. R. J. Gaskin
Treasurer
Foothills Mining Company
P. O. Box 627
Santa Fe, New Mexico

Re: DMEA-3830 (Uranium)
Foothills Mining Company
Wright Lease
Jefferson County, Colorado
Contract Idm-E866

Dear Mr. Gaskin:

Thank you for repaying in full the Government's participation of $11,223.00 in the subject exploration contract for uranium. As a result of the repayment, the Government retains no lien or claim against the property or on any future production therefrom.

We appreciate your interest and participation in the DMEA exploration program.

Sincerely yours,

Acting Director

Copy to: Mr. Marcus G. Wright
1300 South Bannock Street
Denver, Colorado

FMMurphy/gla
2-7-61
cc to: Director's Reading File
Region III (2)
Contract Division
Code 500
Docket
Chron

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
2/7	Murphy	500
	Brown	500
2/7	Talbert	800
2/8	Selbridge	120
		110
2/8	cc	220

FEB 8 1961

Mr. Marcus G. Wright
1300 South Bannock Street
Denver, Colorado

Re: DMEA-3830 (Uranium)
Foothills Mining Company
Wright Lease
Jefferson County, Colorado
Contract Idm-E866

Dear Mr. Wright:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the subject contract.

This correspondence relates to the Consent to Lien signed by you on August 16, 1955, under the DMEA program.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

Enclosure

FMMurphy/gla
2-7-61
cc to: Director's Reading File
Region III (2)
Docket
Code 500
Chron

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
10/25	[illegible]	800
10/25	Talbert	800
	[illegible]	500
10/25	Murphy	500
10/25	[illegible]	120
10/25	[illegible]	110
	[illegible]	220

OCT 25 1960

OK

Mr. R. J. Gaskin, Treasurer
Foothills Mining Company
P. O. Box 627
Santa Fe, New Mexico

Re: DMKA-3830 (Uranium)
Foothills Mining Company
Wright Lease
Jefferson County, Colorado
Contract Idm-E866

Dear Mr. Gaskin:

Our records indicate that the Government contribution under the subject contract was $11,223.00 and that royalty payments through October 13, 1960, amounted to $10,614.81, leaving a balance of $608.19.

Your letter dated October 17, 1960, to our Denver office omitted three remittances of royalty applicable to sales to Cotter Corporation as follows:

Liquidation Nos.	Liquidation Date	Shippers Lot Nos.	Gross Proceeds	Royalty Paid
2	May 1959	2 and 3	$3,727.52	$186.38
3	April 1959	4	1,764.34	88.22
4	June 1959	5, 6, and 7	6,454.51	322.73
		Total omissions		$597.33

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

CEFisher/ama
October 25, 1960

Copy to: Docket
Director's Reading File
CA & A Division
Acting Field Officer, Region III (2)

43683

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

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 24 1960

DATE	INITIALS	CODE
10/24	Coe	270
"	CBS	800
10/25	[illegible]	500

October 19, 1960

Memorandum

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

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

Subject: Docket DMEA 3820 (Uranium)
Contract Idm-E866
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado

Enclosed are the original and one copy of a letter from the subject Operator dated October 17, 1960 and two copies of our reply.

Will you please forward this office a copy of your reply to Mr. Gaskin.

for Hugh M. Connors

Attachments
lm

Building 20 - Federal Center
Denver 25, Colorado

October 19, 1960

R. J. Gaskin, Treasurer
Foothills Mining Company
P. O. Box 627
Santa Fe, New Mexico

Re: Docket DMRA 3820 (Uranium)
Contract Idm-E866
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado

Dear Mr. Gaskin:

This will acknowledge receipt of your letter dated October 17, 1960 requesting confirmation of the balance of Royalty payments due under the above project.

Your letter is being referred to the Washington Office OME for reply and you will hear from them direct.

Yours very truly,

Original signed by TMR
for

Hugh M. Connors
Acting Field Officer
OME, Region III

lm
cc Chief, Division of Field Operations (2)
Royalty Corres E866
Chron

FOOTHILLS MINING COMPANY
P.O. Box 627
Santa Fe, New Mexico

OME
DEPARTMENT OF THE INTERIOR

October 17,1960

Executive Officer
OME Field Team Region III
Office of Minerals Exploration
Building 20 - Denver Federal Center
Denver 25, Colorado

RE: Docket DMEA 3820 (Uranium)
Contract Idm - E866
Foothills Mining Company
Jefferson County, Colorado

Gentlemen:

Please confirm balance due:

Balance after First Report of Royalty Review	$ 6,938.76
audit adjustment	399.94
	$ 6,538.82
Royalty payments 1957 thru October 13,1960-	
	253.53
	366.71
	316.01
	137.70
	1,035.81
	260.00
	616.34
	483.09
	783.30
	287.08
	793.73
Balance due as of October 13,1960	$ 1,205.52

Thank you,

R.J. Gaskin
Treasurer

COTTER CORPORATION
FIRST NATIONAL BANK BUILDING
CANON CITY, COLORADO
P. O. BOX 751

June 4, 1959

OME
DEPARTMENT OF THE INTERIOR
JUN 5 - 1959
REGION III
DENVER, COLORADO

PHONE 1825

official file

6/8	C	220
6/8	mwc	700

OFFICIAL FILE COPY
O. M. E.
RECEIVED JUN 8 1959
DATE INITIALS

Mr. J. W. Townsend
Executive Officer
OME Field Team, Region III
U. S. Department of the Interior
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA 3830 (Uranium)
Contract Idm-E866
(Wright Lease)
Jefferson County, Colorado

Dear Mr. Townsend:

Mr. Charles A. Wilcox, President of Foothills Mining Company, has forwarded to me your letter of May 20, 1959.

In accordance with our telephone conversation of June 2, 1959, I wish to inform you that Cotter Corporation has purchased controlling interest in Foothills Mining Company, and will continue operating the Wright lease as Foothills Mining Company.

We are aware of the DMEA loan and can assure you that we will respect the Government's royalty interests in the Wright lease.

Sincerely yours,

COTTER CORPORATION

David P. Marcott

David P. Marcott
Vice President and
General Manager

DPM:mwc

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAY 25 1959

DATE	INITIALS	
5/26	a	220
5/26	[illegible]	800
5/27	mc	700

25 Mev Customhouse
Denver 2, Colorado
May 20, 1959

Mr. Charles A. Wilcox, President
Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Docket DMA 3530 (Uranium)
Contract Am-E866
(Wright Lease)
Jefferson County, Colorado

Dear Mr. Wilcox:

We have been informed that the captioned property is now being operated by another corporation.

In accordance with Article 2.(d) of the contract: "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."

Will you please forward this office two copies of the instrument giving another the right to mine and remove ore from the captioned property.

Very truly yours,

Original signed by
J. W. TOWNSEND

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

HMC:jy
cc: Chm. Op. Comm. (2)
Belser, OME/DFC
Marshman
Roy. Corres. E866
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/25	Ching	700
7/25	Kuoste	700
7-28	[illegible]	800
"	[illegible]	110
"	[illegible]	100
7/29	C	220
		700

JUL 28 1958

Mr. Charles A. Wilsox, President
Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Docket No. DMEA-3830 (Uranium)
Contract No. Idm-E866
Wright Lease
Jefferson County, Colorado

Dear Mr. Wilcox:

Reference is made to our letter of August 30, 1957, enclosing a certification of discovery covering the subject property.

At the time of our letter the exact amount contributed by the Government under this project was subject to audit. Our auditors have subsequently determined the amount as $11,223.00. This is the amount to be repaid by your company through royalty payments on production. Payments should continue to be made in accordance with the instructions contained in the above-mentioned letter.

Sincerely yours,

C. O. Mittendorf, (for)

Administrator

MChing/izm 7-25-58
cc: Mr. Ching
Admr.'s Reading File
DMEA FT reg. 3 (2)

Marcus G. Wright, Denver, Colo.

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

July 23, 1958

7/28 St. 9. 225-
" Chang 700

Cy sent to 800

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket DMEA 3830 (Uranium) Contract Idm-E866, Foothills Mining Company (Wright Lease) Jefferson County, Colorado

In response to letter, dated July 8, 1958, from C. O. Mittendorf, Administrator, DMEA, to the Operator, please be advised that check, dated July 21, 1958, in the amount of $399.94, was received in this office today. The check is being credited to the royalty account of the subject contract.

J. W. Townsend

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/7	Fisher	800
7/7	Chambers	800
	Ching	700
7/7	Jacobsen	700
7/7	Selfridge	120
"	[illegible]	110
"	Mittendorf	100
7/8	C	220
		100

JUL 8 1958

Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

CERTIFIED MAIL

Re: Docket No. DMEA-3830 (Uranium)
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado
Contract No. Idm-E866

Gentlemen:

I am advised by our Region III Office, Denver, Colorado, that royalty due to the Government in the amount of $399.94, applicable to bonuses on sales by your company to Lucius Pitkin, Inc., has not been received. Also, you have not replied to a letter dated April 23, 1958, or previous letters requesting payment of such amount.

This Administration is charged with the responsibility of collecting all royalty due to the Government under provisions of exploration project contracts, including the institution of legal action should that be deemed necessary to protect the Government's interest. I trust that payment of this delinquent royalty will be received within the next 30 days, or that you will promptly present an acceptable plan for the orderly liquidation of the account so that further action by this office will not be required.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

CEFisher/ama
July 7, 1958

Copy to: Docket
Admr. Reading File
Mr. Chambers
Field Team, Region III (2)

8623

y sent to 800

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

7/5 C 220
~~AA~~ 900

June 30, 1958

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket DMEA 3830 (Uranium) Contract Idm-E866, Foothills Mining Company (Wright Lease) Jefferson County, Colorado

In reply to your letter of June 27, 1958, this office has taken no further action to effect the collection of $399.94 in delinquencies.

The Operator has failed to respond to our demand for delinquent royalties; therefore, we are referring the matter to your attention for whatever action is indicated to protect the interests of the Government.

J. W. Townsend

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/27	Fisher	800
6-27	Chambers	800
	Chung Kiilsgaard	700 700
6/27	[illegible]	130
"	Johnson	110
"	Townsend	100
6/30	[illegible]	220
		700

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

JUN 27 1958

Re: Docket No. DMEA 3830 (Uranium)
Contract Idm-E866
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado

Dear Mr. Townsend:

By letter dated April 23, 1958, Mr. Harshman advised the referenced operator that unless settlement was made of royalty due to the Government within 30 days the matter would be referred to the Washington Office for whatever action is necessary.

Will you please advise the present status of your efforts to collect the amount of $399.94.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

Frank D. Lamb
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

cc: Docket
Admr. Reading File
Operating Committee
THKiilsgaard
Mr. Chambers

CEFisher/GMcC
June 27, 1958

8623

OFFICIAL FILE COPY
DMEA
RECEIVED APR 25 1958

DATE		CODE
4/25	H.S.	220
4/25		900
"		700

224 New Customhouse
Denver 2, Colorado
April 23, 1958

CERTIFIED MAIL

Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Docket No. DMEA 3830 (Uranium)
Contract Idm-E866
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado

Gentlemen:

Enclosed is a photo copy of our letter to your company dated March 14, 1958, for which we have received no reply.

This office cannot defer indefinitely action which will protect the interests of the Government. Therefore, we hereby inform you that unless the amount of $399.94 has been received in this office within thirty days from the date of this letter, we will have no alternative but to refer the matter to the Washington Office, DMEA, for whatever action is necessary.

Very truly yours,

Original signed by
E. N. HARSHMAN

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

NHM:dp
cc: Royalty File E866
Sec. Op. Comm. (2)
DMEA/DFC (2)
Chron.

COPY
DMEA
RECEIVED MAR 17 1958

		CODE
3/17	C	220
3/18		800
"		700

CERTIFIED MAIL

224 New Customhouse
Denver 2, Colorado

March 14, 1958

Foothills Mining Company
3840 Sixth Street
Boulder, Colorado

Re: Docket DMEA 3830 (Uranium)
Contract Idm-E866
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado

Gentlemen:

By copy of First Report of Royalty Review, enclosed with a letter, dated February 13, 1958, from our Mr. Finch, you were informed that a balance of $399.94 in royalties is due for ore sold from September 1, 1955 through November 30, 1957.

As payment has not been received to date, you are hereby formally requested to submit your check for $399.94, payable to the Defense Minerals Exploration Administration, in care of the Executive Officer, DMEA Field Team, Region III, 224 New Customhouse, Denver 2, Colorado.

Very truly yours,

Original signed by
W. H. KING

W. H. King
Executive Officer, DMEA
Field Team, Region III

MHM:jy

cc: Royalty file E866
Sec. Op. Comm. (2)
DMEA,DFC (2)
Ghron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/10	Talbert	800
2/11	C	220
		700

FEB 10 1958

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

Re: Docket No. DMEA-3830
Contract No. Idm-E866
Foothills Mining Company

Dear Mr. Finch:

The recently submitted copies of your First Report of Royalty Review covering the above-cited project are accepted and normal distribution is authorized.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Director
Contract Administration
and Audit Division

EDTalbert/wb
February 10, 1958

Copy to: Docket
Admr. Reading File
Mr. Chambers

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/31	Ching	700
10/31	Elio	700
		~~700~~
		~~700~~
11/1	C	700
		700

Mr. Jesse C. Johnson
Director, Division of Raw Materials
Atomic Energy Commission
1717 H Street, N.W., Rm. 800
Washington 25, D. C.

OCT 31 1957

Re: Docket No. DMEA-3830 (Uranium)
Contract No. Idm-E866
Foothills Mining Company
Wright Lease
Jefferson County, Colorado

Dear Mr. Johnson:

In accordance with our letter of August 30, 1957, we are supplying the following additional information regarding the subject certified project for your records.

The contract, dated September 1, 1955, covered an exploration project estimated to cost $15,276.00, with Government participation amounting to 75 percent, or $11,457.00. Total accepted costs of the project were $14,964.00, of which the Government paid $11,223.00.

The project work was confined to the NE¼ NW¼ sec. 32, T. 4 S., R. 70 W., 6th P.M.&B., Jefferson County, Colorado. It consisted of 410 feet of crosscutting and drifting, and 290 feet of core drilling in two holes.

The exploration work resulted in the discovery of two ore bodies. As of May 31, 1957, a total of 1,736 tons of ore averaging 0.29 percent U_3O_8 had been mined, and remaining reserves were estimated as 2,429 tons of indicated and 832 tons of inferred ore, both containing 0.25 percent U_3O_8.

Sincerely yours,

Frank E. Johnson (for)

ACTING Administrator

MChing/izm 10-31-57
cc: Mr. Ching
Admr.'s Reading File
THKiilsgaard, 5224
DMEA FT Reg. 3 (2)

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

October 21, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 24 1957

DATE	INITIALS	CODE
10/24	C	220
10/25	C Fleming	700

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket No. DMEA-3830 (Uranium), Contract No. Idm-E866
Foothills Mining Company (Wright Lease)
Jefferson County, Colorado - FINAL REPORT

The original and two copies of Joint Final Engineering and Geologic Report by DMEA field examiners were forwarded by memorandum of August 13, 1957, and the original and one copy of a final engineering and geologic report submitted by the Operator were forwarded by memorandum of October 10, 1957.

Final payment to the Operator was processed by this office October 18, 1957, in conformance with Report of Review of reported project costs by the Contract Administration and Audit Division, DMEA, dated October 11, 1957.

Acceptable units of work or service completed under the contract consist of 410 feet of drifting and crosscutting, 12 feet of drift timbering, 290 feet of diamond drilling in 2 holes, and chemical analysis of 27 samples for U_3O_8 content, all at a total accepted cost of $14,964.00, toward which the Government contributed 75 percent, or an amount of $11,223.00.

The exploration work completed resulted in a discovery or development of a significant quantity of uranium ore on which a certification was issued August 30, 1957.

E. N. Harshman

By E. N. Harshman,
Acting Executive Officer

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/15	Talbert	800
10/15	C	220
"	Chamy	700

OCT 15 1957

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

Re: Report of Review
Foothills Mining Company
Idm-E866, DMEA-3830

Dear Mr. Brading:

Your Report of Review in lieu of a final audit of the referenced project is accepted and normal distribution is authorized.

It is to be noted, however, for your future guidance in similar instances, that your reinstatement of the certifying officer's 10 cent disallowance is improper. Amendment No. 1 to the contract provided for "290 feet of diamond core drilling @ $5.56/ft.", which amounts to the $1,612.40 properly allowed by the certifying officer, although the Operator had claimed $1,612.50 the "rounded" estimate for the item of work.

The MF-200A (Revised June 1954), the short form of contract, specifies in Article 5 that "a fixed unit cost for each unit of work to be performed **** is hereby agreed upon ****." The later MF-200A (Revised April 1956) has substantially the same wording in Article 1. Accordingly, all payments must be based on the number of units of work performed (up to the maximum number of units specified) at the fixed unit cost agreed upon. Any "rounding" of the estimated total cost of either an item of work or of the project is simply an administrative expedient to establish obligations in even dollars.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Director
Contract Administration
and Audit Division

EDTalbert/wb
October 15, 1957

Copy to: Docket
Admr. Reading File
Mr. Chambers

8623

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 16 1957

DATE		
10/16	C	220
10/16	E.E.B.	800
10/17	[illegible]	700

224 New Customhouse
Denver 2, Colorado
October 14, 1957

Foothills Mining Company
3240 6th Street
Boulder, Colorado

Re: Docket DMEA 3820 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Gentlemen:

Enclosed is a copy of our letter of September 11, 1957 for which we have received no reply.

We will appreciate your prompt attention to payment of $399.94 still due the Government on production made from land subordinated under the terms of the captioned contract.

Very truly yours,

Original signed by
E. N. HARSHMAN

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

Enclosure

MHM/vj

cc: Royalty File E866
Corres. File E866
Sec. Opr. Comm. (2)
DMEA/DFC
Marshall
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

OCT 1 0 1957

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 14 1957

DATE	INITIALS	CODE
10/14	C	220
10/14	[illegible]	800
1	[illegible]	700

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket No. DMEA 3830 (Uranium), Contract No. Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Enclosed are the original and one copy of a final engineering and geologic report submitted by the Operator, pertaining to work completed under the subject contract.

A summary report of accomplishments on the project, by the DMEA Field Team, Region III, will be forwarded upon release of a final audit by the Contract Administration and Audit Division, DMEA, and final settlement of the account.

E. N. Harshman

E. N. Harshman

Enclosures

DIRECTORS
H. LEON BIRD
MEL. J. KRAFT
DUANE KRAFT
EARL LAMBETH
CLARENCE I. SWAEBY
LLOYD B. SWEET
CHARLES A WILCOX
VERNE E. WILCOX

FOOTHILLS MINING COMPANY

3240 6th ST. — BOULDER, COLORADO

OFFICERS
CHARLES A WILCOX, PRES.
LEO JONICK, VICE-PRES.
LLOYD B. SWEET, SEC., TREAS.

DMEA
DEPARTMENT OF THE INTERIOR
OCT 1 - 1957
REGION III
DENVER, COLORADO

September 30, 1957.

OPs FINAL Report

Operators Final Report
on D. M.E.A. Contract I.D.M.E. 866
Operated by Foothills Mining Co., Boulder, Colorado, on property known as The Wright Lease, located near Idledale, Colorado.

Operations began September 15, 1955 at a point 353.5 ft. from the portal of a crosscut, the point to which it had been driven by work on the Company's account. Crosscutting was continued 121 ft. farther to a point 474.5 ft. from the portal where a vein , or the mineralized zone on top of the hill was intersected.
The formations encountered included biotite, schist, horneblend gneiss and pegmatites some of which showed a low degree of radioactivity. The schists in this portion of the crosscut is impregnated with pyrite, minor amounts of chalcopyrites and glassey quartz.
After the vein was drifted through, drifting was started on the footwall vein which was the most radioactive of several fissures in a zone of sheared and altered gneiss and schist about 20 ft. in width where intersected by crosscut.
Selected samples showed ore grade material but not of any quantity. At 21 ft. from crosscut the vein was much narrower and harder with lower radioactivity .10 MR in upper part of face. Not much change in this condition occured until at a distance of 38.5 ft. a hard breccia from 12" to 20" in width wasdisclosed which gave a maximum reading of .5 M R.
The drifting continued and at 42 ft. from the crosscut on the hanging wall side of the drift a commercial grade of ore was disclosed with a maximum width of 4 ft. and extended about 17 ft. along the vein gradually tapering to a width of about 6".
Three samples were taken in this ore chute. One select sample was 1.57% U 308, and one select sample of 0.279% U 308. Also a channel sample of about 3 ft. was taken with a value of 0.79% U 308. A sample lot of nearly 10 tons was taken to Rifle, Colorado to the Nuclear Carbide Corporation on November 9 for [redacted] amenability tests. This lot assayed .26% U 308 but also contained 12% lime.
Drifting continued, and at a point 120 Ft. from the crosscut a second ore chute of commercial ore was opened for a length of about 60 ft. This ore is similar in composition to that disclosed in the first ore chute, but is a little darker in color and contains some portions of very good grade ore. A sample over 4 ft. was taken at 126 ft. from the crosscut and assayed 0.543% U 308. Another sample taken at 129 ft. assayed 0.354% U 308 over a 4 ft. width.
The drift continued on to a point 239 ft. from the crosscut and little more commercial ore was exposed, although the structure remained definite it was agreed to stop in this Northwestern direction and take up stage two of the contract . However, approximately 1000 tons of ore were taken out containing 7261 # of U 308.

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DATE	INITIALS

As was agreed upon, work was started on Stage Two of the contract which consisted of 50' of drifting Southeastward from the crosscut and 290' of core drilling which was substituted for another 50' of drifting. The drift was driven on the footwall vein and continued to a point 57' from the crosscut, but no ore of commercial value was exposed. Throughout most of the distance the vein was tight and poorly mineralized. The dips in the vein have become progressively steeper and at this point it was agreed to stop the drift and core drill.

DIRECTORS
H. LEON BIRD
MEL. J. KRAFT
DUANE KRAFT
EARL LAMBETH
CLARENCE I. SWAEBY
LLOYD B. SWEET
CHARLES A WILCOX
VERNE E. WILCOX

FOOTHILLS MINING COMPANY

3240 6th ST. — BOULDER, COLORADO
OFFICERS
CHARLES A WILCOX. PRES.
LEO JONICK. VICE-PRES.
LLOYD B. SWEET. SEC., TREAS.

Two holes were drilled, one horizontally pointed to intersect the footwall vein 50 ft. ahead of its present breast. A second hole drilled downward at a 60 degree angle from the horizontal hole but in the same direction as hole one which disclosed no ore, but yielded the information that both the hanging wall and foot wall fractures, are present at a depth of about 60' and 100 ft. respectively below the main crosscut. Ahead of the present breast this intersected several feet of very low radioactive material and was completed 115' from the collar. The logging of these holes are included in this report :

Costs on the project were : 410 ft. of drift @ $32.25 -~~b~~--- $13,222.50
290 ft. of core drilling @ $5.56- 1,612.40

Since the time that this contract was completed it might be of interest to note that there has been a vertical winze put down at a point between the two ore chutes to a depth of 86 ft. Then a crosscut to the vein 20 ft. A drift was put in following the vein to the North West 100 ft.. An ore chute was cut through averaging about 4½ ft. in width and approximately 50 ft. long and averaging about .45% U 308.

Above the drift about 15', oxidation was encountered and the ore narrowed down to about 20 ft. in length and continued so through the stope to the top level.

The drift was continued to the South East for 110 ft. from the crosscut to a point 65'. The vein was about 4½ ft. in width and the ore averaged about .16% U 308. However, it was all mixed with the ore in the stope and shipped. At the present time a raise has been put up 15' in length at a point from 50' to 65' from the crosscut, and now is up about 20 ft. from the level. The ore is between .30% and .40% U 308.

The present plans are now to continue the winze down another 80' hoping to find the ore without oxidation.

Trusting you will find this report satisfactory, we reamin

Sincerely yours,

FOOTHILLS MINING COMPANY

Clarence Swaeby
Mine Superintendent.

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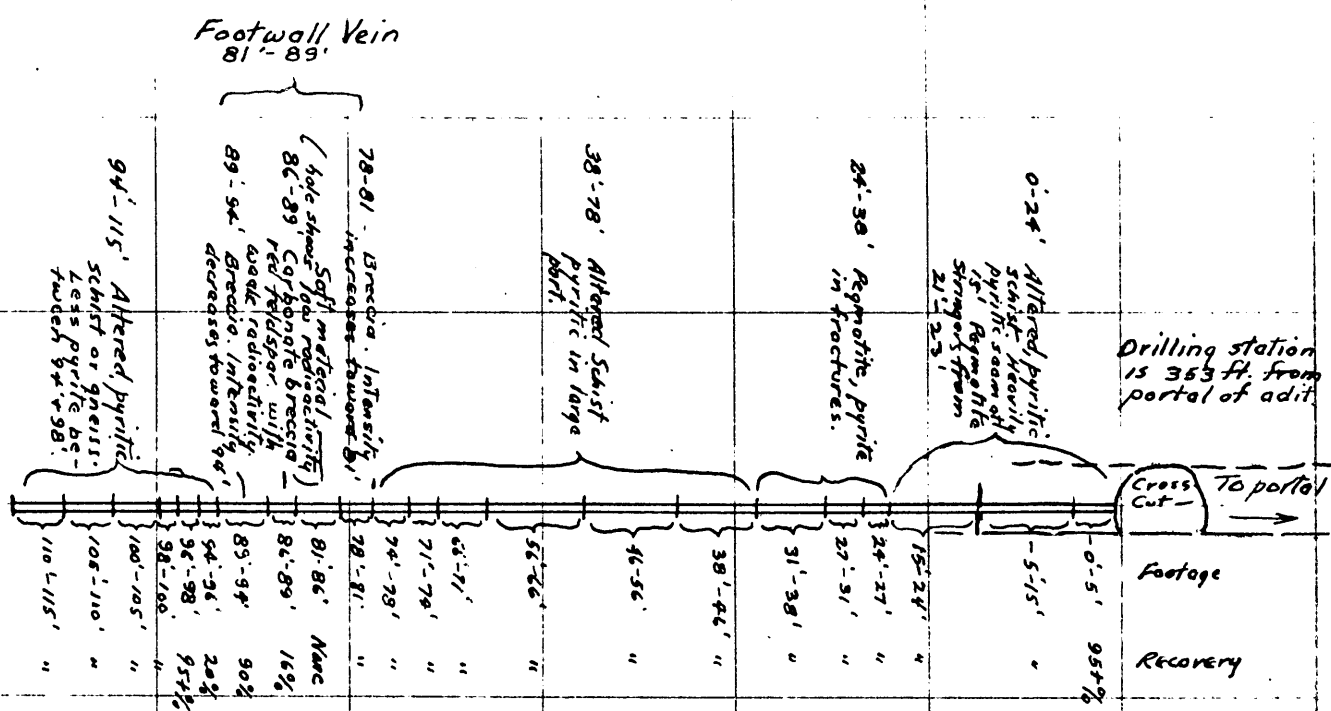
DATE | INITIALS | CODE
CS:g

DMEA
DEPARTMENT OF THE INTERIOR
OCT 1 - 1957
REGION III
DENVER, COLORADO

Hole No. 1 – AX core



Drilled by George Marshall
D.M.E.A. Contract Idm-866
Wright Lease, Foothills Mining Company.
Hole No. 1 is horizontal in a S-13°-W direction. Total depth, 115 ft.
Not surveyed for deflection.

Scale - 1" = 20'

H.L. Bird,
Mining Geologist.

OFFICIAL MAIL CENTER
DMEA
RECEIVED OCT 14 1957

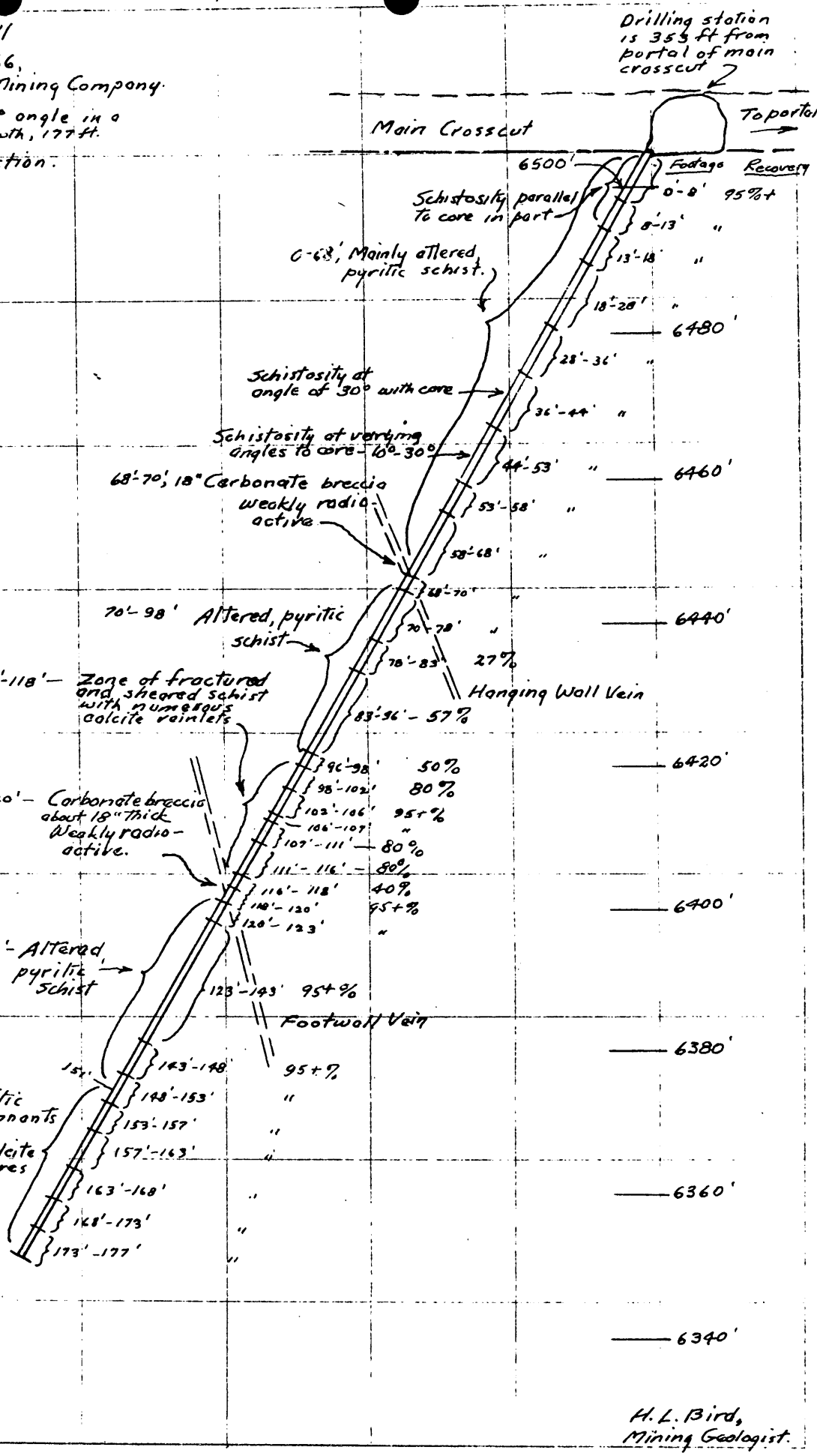
DATE	INITIALS	CODE

Hole No. 2 - AX core

Drilled by George Marshall
D.M.E.A. Contract Idm-E866,
Wright Lease, Foothills Mining Company.

Drilled downward at 60° angle in a S-13°-W direction. Total depth, 177 ft.

Not surveyed for deflection.
Scale - 1" = 20'



H. L. Bird,
Mining Geologist.

ORIGINAL FILE COPY
DMEA
RECEIVED OCT 14 1957

DATE	INITIALS	CODE

LOG OF RADIOACTIVITY IN DDH NO. 1, UNDERGROUND
WRIGHT LEASE, JEFFERSON COUNTY, COLORADO

Operated by Foothills Mining Company.
Probed by J. Schlottmann.

Depth/Ft.	MR/hr.	Depth/Ft.	MR/hr.	Depth/Ft.	MR/hr.
Collar	0.10	79	0.22	98	0.35
5	0.14	80	0.35	99	0.30
10	0.15	81	0.45	100	0.30
15	0.16	82	0.90	101	0.28
20	0.20	83	0.85	102	0.25
25	0.20	84	0.60	103	0.24
30	0.19	85	0.75	104	0.29
35	0.20	86	0.85	105	0.24
40	0.20	87	0.55	106	0.25
45	0.20	88	0.55	107	0.22
50	0.20	89	0.65	108	0.24
55	0.22	90	0.65	109	0.25
60	0.25	91	0.50	110	0.30
65	0.20	92	0.50	111	0.26
70	0.20	93	0.37	112	0.24
75	0.19	94	0.36	113	0.22
76	0.19	95	0.35	114	0.21
77	0.20	96	0.35	115	0.20
78	0.20	97	0.35		

Drilling angle 60° off main adit.

DMEA
DEPARTMENT OF THE INTERIOR
OCT 1 - 1957
REGION III
DENVER, COLORADO

LOG OF RADIOACTIVITY IN DDH NO. 2, UNDERGROUND
WRIGHT LEASE, JEFFERSON COUNTY, COLORADO

Operated by Foothills Mining Company.
Probed by A. Green - 9-10-56.

Depth/Ft.	MR/Hr.	Depth/Ft.	MR/Hr.	Depth/Ft.	MR/Hr.
Collar	0.02	75	0.10	118	0.07
5	0.03	76	0.05	119	0.10
10	0.02	77	0.05	120	0.18
15	0.02	78	0.04	121	0.11
20	0.03	79	0.09	122	0.55
25	0.03	80	0.04	123	0.35
30	0.025	85	0.025	124	0.02
35	0.02	90	0.025	125	0.015
40	0.025	95	0.025	130	0.02
45	0.025	100	0.025	135	0.02
50	0.02	105	0.02	140	0.015
55	0.02	110	0.02	145	0.015
60	0.025	111	0.06	150	0.02
65	0.025	112	0.08	155	0.06
70	0.06	113	0.08	160	0.06
71	0.19	114	0.13	165	0.07
72	0.30	115	0.07	170	0.04
73	0.08	116	0.07	175	0.04
74	0.10	117	0.07	177.5	0.04

Drilling angle 60° off main adit.
Collar is 0.5' above floor of drift.
Background reading 0.02 MR/Hr.

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DMEA
DEPARTMENT OF THE INTERIOR
OCT 1 - 1957
REGION III
DENVER, COLORADO

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1957
10/15 C 220
~~C being~~ 700

224 New Customhouse
Denver 2, Colorado

October 9, 1957

Memorandum

To: T. M. Brading, DMEA Auditor

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

Subject: Docket No. DMEA 3830 (Uranium), Contract No. Idm-2866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

All authorized work under the subject contract has been completed and the Operator has rendered a final accounting and a final engineering and geologic report, as required by the contract.

Therefore, final payment of the Operator's account is in order, contingent on release to this office of a Report of Review of reported project costs.

Acceptable units of work or service completed under the contract consist of the following:

Drifting and crosscutting.....	410 feet
Timbering.....	12 feet
Diamond drilling.....	290 feet
Chemical analyses.....	27 samples.

The amount of $400.00 was withheld from reimbursement to the Operator in processing its final accounting report, which was for the month of September, 1956.

Original signed by
E. N. HARSHMAN

E. N. Harshman

JWT:prl

cc: Chmn. Op. Comm. (2)
Harshman
Townsend
Corres. file
Chron.

224 New Customhouse
Denver 2, Colorado

October 1, 1957

OFFICIAL FILE COPY
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RECEIVED OCT 4 1957
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10/4 | C | 222
10/4 | [illegible] | [illegible]
10/7 | [illegible] | [illegible]

Mr. Clarence Swasky
3040 Broadway
Boulder, Colorado

Re: Docket No. DMEA 5830 (Uranium)
Contract No. 14m-2866
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado

Dear Mr. Swasky:

Thank you for the one copy of the Operator's final report, dated September 30, 1957, which we received today.

The contract provides that the Operator shall furnish five copies of the final report. We can, if necessary, reproduce the narrative portion of the report, but we do not have facilities to reproduce the maps. Therefore, please supply four additional copies of the three maps included with the report.

Since the report has been delayed to such an extent, we will appreciate your prompt attention to the matter of supplying the additional copies of the maps.

Very truly yours,

Original signed by
J. W. TOWNSEND

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

JWT:prl

cc: Chmn. Op. Comm. (2)
Marshman
DMEA/DPC
Townsend
Corres. file
Chron.

CERTIFIED MAIL

224 New Customhouse
Denver 2, Colorado

September 24, 1957

9/27 9/30 C 220 800 700

Mr. Clarence Swaeby
3040 Broadway
Boulder, Colorado

Re: Docket No. DMEA 3830 (Uranium)
Contract No. Idm-E866
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado

Dear Mr. Swaeby:

In reference to our letter of August 13, 1957 and prior correspondence directed to Foothills Mining Company, relative to the rendering of a final report as provided for under Article 6 (c) of the Contract, this is the final effort to obtain the required report before submitting the matter to the Washington Office, DMEA, for their consideration and such action as is indicated to protect the Government's interest in the matter.

In our letter to you of August 13, we requested advice by return mail as to the date on or before which we could expect to receive the required report. However, we have not been favored with a reply. Therefore, if we do not hear from you by September 30, 1957, with a definite commitment as to the date on or before which we will receive the required report, we will be forced to take the action heretofore indicated.

Very truly yours,

Original signed by
J. W. TOWNSEND

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

JWT:prl

cc: Chmn. Op. Comm. (2)
Harshman
DMEA/DFC
Townsend
Corres. file
Chron.

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 16 1957

DATE	INITIALS	CODE
9-17	C	220
9/17	[illegible]	800
"	[illegible]	700

224 New Customhouse
Denver 2, Colorado

Sent
August 11, 1957

CERTIFIED MAIL

Foothills Mining Company
3240 6th Street
Boulder, Colorado

Re: Docket DMEA 3820 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Gentlemen:

Enclosed are your copies of sales evidence, which was loaned to this office for duplicating purposes in conjunction with your check for $2,785.69, submitted as royalties due on this production.

From copies of the settlement sheets submitted, an additional $399.94 is due the Government as follows:

Date	Liq. No.	Dry Tons	Royalty Due	Royalty Paid	Bonus Roy. Due	Bonus Roy. Pd.
1956						
4/10	328	58.411	$100.62	$100.62	$63.82	
4/10	329	81.570	131.56	131.56	108.49	
4/19	427	60.225	150.88	150.88	120.15	
6/27	1032	51.792	40.15	40.15	30.25	
6/28	1080	46.534	38.87	38.87	34.20	
7/5	1133	53.864	46.34	46.34	41.48	
7/9	1156	59.432	53.67	53.67	47.84	
7/23	1322	53.813	49.05	49.05	50.85	
8/13	1423	56.379	72.89	72.89	53.28	
1957						
1/16	2722	46.210	55.22	55.22	40.43	
1/16	2723	47.606	70.66	70.66	53.32	
1/16	2724	40.145	50.25	50.25	36.53	
1/16	2725	50.604	78.55	78.55	65.22	
2/18	2906	48.267	66.64	66.64	52.37	
2/18	2907	50.218	64.71	64.71	49.21	
3/12	3019	52.969	64.30	64.30	48.20	
3/12	3020	47.889	55.28	55.28	41.90	

Date	Liq. No.	Dry Tons	Royalty Due	Royalty Paid	Bonus Roy. Due	Bonus Roy. Pd.
1957						
3/15	3072	50.526	$56.50	$56.50	$42.44	
4/1	3147	69.395	76.99	76.99	54.58	
4/2	3151	51.919	59.37	59.37		
4/22	3282	67.472	78.40	78.40		
5/17	3433	60.053	81.57	81.57		
6/24	3688	67.031	126.09	126.09		
6/24	3689	61.702	122.64	122.64		
7/5	3738	46.149	65.03	65.03		
7/5	3739	50.141	67.03	67.03		
7/5	3740	52.639	83.88	83.88		
7/10	3762	50.494	80.93	80.93		
			$2,130.07	$2,130.07	$1,055.56	$655.62

Total Royalty Due	$3,185.63
Total Royalty Paid	2,785.69
Balance Royalty Due	$399.94

Your check for $399.94 should be made payable to the Defense Minerals Exploration Administration and sent at once to the Executive Officer, DMEA Field Team, Region III, 224 New Customhouse, Denver 2, Colorado.

Very truly yours,

Original signed by
E. N. HARSHMAN

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

MHM/vj

cc: Royalty File E866
Corres. File E866
Sec. Opr. Comm. (2)
DMEA/DFC (2) Attn. Winkel
Marshall
Chron.

IN REPLY REFER TO:

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

Memorandum August 30, 1957

To: E. W. Ellis, Defense Minerals Exploration Administration

From: T. H. Kiilsgaard, U. S. Geological Survey

Subject: Final report from Field Team, Foothills Mining Co., Docket DMEA 3830, Uranium

I have reviewed the Final Report by D. H. Richter and W. W. Winkel, Geological Survey and Bureau of Mines respectively, both of whom recommend issuance of a certification of discovery to the Operator.

Work done under the contract consisted of 121 feet of crosscutting, 289 feet of drifting, and 290 feet of diamond drilling. Drifting to the northwest, off the crosscut, disclosed two small ore shoots of uranium ore, from which approximately 1,736 tons containing 0.29 percent U_3O_8 had been mined at the time the report was written. Reserves have been estimated at 2,429 tons of indicated ore of 0.25 percent U_3O_8, and 832 tons of inferred ore of 0.25 percent U_3O_8.

I concur with the authors of the report. A significant discovery has been made and certification is hereby recommended.

T. H. Kiilsgaard

T. H. Kiilsgaard

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" 700

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(12-[redacted]

OFFICIAL FILE COPY

Date	Surname	Code
8-27	Chiang	700
8-27	Ellis	700
	Rubin	140
	[illegible]	140
8-29	[illegible]	800
8/30	Bishop	130
"	[illegible]	110
"	[illegible]	100
		220

8/30 Kilogaard 700
8/30 Selfridge 8/30

Mr. C. A. Wilcox, President
Foothills Mining Company
c/o Mr. Clarence Swaeby
3040 Broadway
Boulder, Colorado

AUG 30 1957

INTERIOR DEPT.
AUG 27 1957
SOLICITOR

Re: Docket No. DMEA-3830 (Uranium)
Contract No. Idm-E866
Wright Lease
Jefferson County, Colorado

Dear Mr. Wilcox:

Enclosed is a "Certification by the United States of America of a Discovery or Development Under an Exploration Project Contract." This certification covers all the land described in Article 2 of the subject contract.

By the terms of the Exploration Project Contract, as amended, and of the certification, all minerals mined or produced from September 1, 1955 to September 1, 1965, are subject to the Government's percentage royalty as set forth in the contract until the amount contributed by the Government is repaid.

Payments should continue to be made to Mr. William H. King, Executive Officer, DMEA Field Team, Region III, 224 New Customhouse Building, Denver 2, Colorado. Checks should be payable to the Defense Minerals Exploration Administration. The purchaser should be advised to deduct the royalties from the amount due on each shipment and forward the check directly to the Executive Officer. Any bonus payments or allowances received by you from the sale of ore are considered to be a part of the purchase price to which the Government's royalty applies. Royalty payments to the Government should be accompanied by suitable evidence, such as copies of settlement sheets, showing quantity and grade of the products sold, the name of the purchaser, and the price and charges, certified to be correct by the purchaser.

You are requested to notify Mr. King of any changes in ownership or production rights that might have any effect on the Government's right to its percentage royalty. Also,

if production ceases at any time for an extended period, please notify Mr. King at six-month intervals that no production has been made, when that is the case.

Sincerely yours,

C. O. Mittendorf (flw)

Administrator

Enclosure

MChing/izm 8-27-57
cc to: Marcus G. Wright
Wright Engineering & Supply Co.
1300 South Bannock St., Denver, Colo.
Admr.'s Reading File
Operating Committee
F. E. Johnson
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
DMEA FT Reg. III (2)
Docket
Contract Adm. & Audit Div.
Mr. Ching

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8-27	Ching	700
8-27	Ellis	700
		~~140~~
		~~140~~
		~~800~~
8/30	Selbridge	130
"	Jordan	110
"	Mittendorf	100
		220
		700
8/30	Bishop	130
8/30	Kilsgaard	130

INTERIOR DEPT.
AUG 27 1957
SOLICITOR

AUG 30 1957

Mr. Marcus G. Wright
Wright Engineering and Supply Company
1300 South Bannock Street
Denver, Colorado

Re: Docket No. DMEA-3830 (Uranium)
Contract No. Idm-E866
Foothills Mining Company
Wright Lease
Jefferson County, Colorado

Dear Mr. Wright:

Enclosed is a copy of a certification of discovery or development, with copy of covering letter to the Operator, which has been issued pursuant to the terms of the above-cited contract.

This correspondence relates to the Consent to Lien signed by you on August 16, 1955. The Government's prior lien on the land and upon any production therefrom will continue in existence for the length of time mentioned in the enclosed copy of the letter to the Operator. You are obligated during that period to commit no act and to assert no claim in conflict with the Government's rights under the agreement signed by you, and to give advance notice of the Government's rights to any transferee or lessee of any part of your interest in the land or the production therefrom.

Sincerely yours,

G. O. Mittendorf (fw)

Administrator

Enclosures

MChing/izm 8-27-57
cc to: Admr.'s Reading File
F. E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
DMEA FT Reg. 3 (2)
Mr. Ching

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8-27	Ching	700
8-27	Ellis	700
		140
		140
		800
8/30	Selledge	130
"	Johnson	110
"	Mittendorf	100
8/30	C	220
		700
8/30	Bishop	130
8/30	Kilsgaard	130

AUG 30 1957

INTERIOR DEPT.
AUG 27 1957
SOLICITOR

Mr. Jesse C. Johnson
Director, Division of Raw Materials
Atomic Energy Commission
1717 H Street, N.W., Rm. 800
Washington 25, D. C.

Re: Docket No. DMEA-3830 (Uranium)
Contract No. Idm-E866
Foothills Mining Company
Wright Lease
Jefferson County, Colorado

Dear Mr. Johnson:

I am enclosing one copy of a certification of discovery or development relating to the subject exploration contract.

The final report of the Operator and the final accounting of funds expended on this project have not been completed. Accordingly, we will supply additional information for your records upon receipt of these reports.

Sincerely yours,

G. O. Mittendorf

Administrator

Enclosure

MChing/izm 8-26-57
cc to: Admr.'s Reading File
F. E. Johnson
Operating Committee
Frank D. Lamb, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
DMEA FT Reg. 3 (2)
Mr. Ching
Elton A. Youngberg, AEC, Grand Junction, Colorado
w/cc of certification

8623

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DMEA
RECEIVED AUG 1957

DATE	INITIALS	CODE
8/20	P	820
"	Chuy	700

August 20, 1957

3830
Idm-E866
Uranium
Foothills Mining Company
Wright Lease
Jefferson County, Colorado
$14,963.90

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
James Paone, Bureau of Mines Member
Uranium Commodity Committee

Final Report

8/9/57 8/19/57

Recommend certification of discovery be issued

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 20 1957

DATE	INITIAL	CODE
8/16	G	820
8/16	EEF	800
"	~~[illegible]~~	700

Denver 2, Colorado
224 New Customhouse

CERTIFIED MAIL

August 14, 1957

Mr. Clarence Swaeby
3040 Broadway
Boulder, Colorado

Re: Docket DMEA 3820 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Dear Mr. Swaeby:

We have recently been informed that you are the remaining official of the organization which is the designated Operator in the captioned contract. Accordingly, we enclose a copy of letter dated August 2, 1957 to Mr. Lloyd B. Sweet, with the request that the required information and indicated royalties be submitted promptly to this office.

Very truly yours,

Original signed by
E. N. HARSHMAN

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

Enclosure

MHM/vj

cc: Royalty File E866
Corres. File E866
Sec. Opr. Comm. (2)
DMEA/DFC
Harshman
Townsend
Marshall
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 1957

DATE	INITIALS	CODE
8/15	Q	220
8/15	JHB	130
"	FEJ	110
		130
8/20	C	220
"	Chiny	700

August 13, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket No. DMEA 3830 (Uranium), Contract No. Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Enclosed are the original and two copies of a Joint Engineering and Geologic Report, dated August 9, 1957, by D. H. Richter, Geologist, Geological Survey, and W. W. Winkel, Mining Engineer, Bureau of Mines; and memorandum in transmittal thereof, dated August 12, 1957, from E. N. Harshman, pertaining to work completed under the subject contract.

Accomplishment and cost figures in the report are subject to the findings of a final audit by the Contract Administration and Audit Division, DMEA.

We are having difficulty in obtaining a final report from the Operator, as correspondence in your files will indicate. In addition, the matter of unreported production and payment of royalty thereon is being investigated.

The final summary report will be submitted by the DMEA Field Team, Region III, after receipt of an acceptable final report from the Operator and upon final settlement of the account.

It is recommended that a Certification of Discovery or Development be issued as a result of the exploration work performed.

E. N. Harshman

E. N. Harshman

Final F.T. Report

Reviewed by
DMEA OPERATING COMMITTEE
8-19-57
(date)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

DMEA
DEPARTMENT OF THE INTERIOR
AUG 12 1957
REGION III
DENVER, COLORADO

August 12, 1957

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Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3830 (Uranium) Contract Idm-E-866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado
FINAL REPORT

Enclosed are the original and eight copies of a joint final report describing the results of exploration completed under the subject contract.

The completed project consisted of 121 feet of crosscutting, 289 feet of drifting, 290 feet of diamond drilling (two holes), 12 feet of timbering, and 27 chemical assays. The approved cost of the project, before final audit, is $14,963.90, Government participation $11,222.93.

The project resulted in the discovery of an estimated 4,997 tons of ore as follows:

Type	Tons	U_3O_8 (percent)
Mined	1,736	0.29
Indicated	2,429	0.25
Inferred	832	0.25
	4997	

Certification of a discovery is recommended.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (9)

Reviewed by
DMEA OPERATING COMMITTEE
8-19-57
(date)

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FINAL REPORT BY FIELD TEAM
REGION III

DMEA
ARTMENT OF THE INTERIOR
AUG 12 1957
REGION III
DENVER, COLORADO

DMEA 3830

Contract Idm-E 866

Foothills Mining Company

Wright Lease

Jefferson County, Colorado

Uranium

Joint Engineering and Geologic Report

by

D. H. Richter
Geological Survey

W. W. Winkel
Bureau of Mines

August 9, 1957

Reviewed by
DMEA OPERATING COMMITTEE
8-19-57
(date)

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DMEA 3830
Contract Idm-E 866

FOOTHILLS MINING COMPANY
WRIGHT LEASE
JEFFERSON COUNTY, COLORADO

SUMMARY AND INTRODUCTION

The Foothills Mining Company, 202 Mercantile Bank Building, Boulder, Colorado, applied to the Defense Minerals Exploration Administration for assistance to explore for uranium on the NE$\frac{1}{4}$ NW$\frac{1}{4}$ of sec. 32, T. 4 S., R. 70 W., Jefferson County, Colorado, which they hold under a 5-year lease from the owner, M. G. Wright of 1300 South Bannock Street, Denver, Colorado. On June 23, 1955, they submitted an amended request. The company was formerly known as the W. H. B. F. Mining and Engineering Company, and their application for exploration assistance under that name, DMEA Docket 3606, was denied.

The applicant, Foothills Mining Company, subsequently submitted the results of additional and more favorable exploration, and a supplemental examination was made by the DMEA examining team on July 11, 1955.

Foothills Mining Company started work on their adit during the middle of June, and by August 1955 they had advanced about 350 feet.

On September 1, 1955, a contract was signed, authorizing a two-stage program consisting of 460 feet of crosscutting, drifting, and raising at an estimated cost of $15,276.00. Government participation at 75 percent was $11,457.00.

On September 15, 1955, a measuring station was established by a Bureau of Mines engineer at a point 353.5 feet in from the portal, to be used to measure all subsequent advances under Government participation. Exploration under the contract started at the same time and continued until January 30, 1956, at which time all crosscutting and drifting under Stage I of the contract was completed. The first 50 feet of crosscut under Stage II was completed during March 1956, and further work was temporarily recessed pending an amendment to the original contract. On August 13, 1956, an amendment was signed which extended the completion date to September 30, 1956, and revised 50 feet of drift and/or crosscut to 290 feet of AX diamond core drilling at an estimated cost of $5.56 per foot. This final phase of exploration work was completed and inspected by September 7, 195~~7~~6. The approved over-all total cost was $14,963.90.

Two uranium ore bodies, in a complex shear zone that transects Precambrian metamorphic and igneous rocks, were discovered during the exploration program. Uraninite, the ore-bearing mineral, occurs in small veinlets and breccia fillings in structurally favorable (?) areas along the shear zone. Approximately 1,736 tons containing 0.29 percent U_3O_8 have been mined from the deposit to date. Reserves are estimated to be 2,429 tons of indicated ore containing 0.25 percent U_3O_8 and 832 tons of inferred ore containing 0.25 percent U_3O_8.

It is recommended that the project be certified.

LOCATION AND ACCESSIBILITY

The property leased by the operator, also known as the "Wright Lease" after the owner of the property, is the northeast quarter of the northwest quarter of sec. 32, T. 4 S., R. 70 W., 6th P. M., Jefferson County, Colorado. The altitude ranges from 6,400 to 6,800 feet above sea level. The property is in fairly rugged terrain about 0.1 mile from Idledale, 4 miles west of Morrison, and about 15 miles southwest of Denver, Colorado. Colorado State Highway 74, a paved road, is adjacent to the property. Water is available from nearby springs, wells, and Bear Creek. Electric power is available at Idledale. The nearest rail transportation is at Denver. The portal of the exploration crosscut is 0.1 mile west of Idledale and about 100 yards north of State Highway 74.

PROPERTY

The owner of the property (fig. 2) is Marcus G. Wright who resides at Idledale and has his place of business, Wright Engineering and Supply Company, at 1300 South Bannock Street, Denver, Colorado. The owner granted a 5-year lease, dated September 27, 1954, to Melvin J. Kraft. Mr. Kraft was a member of a partnership in the process of incorporation at that time, and known as the W. H. B. F. Mining and Engineering Company. It consisted of the following officers and members:

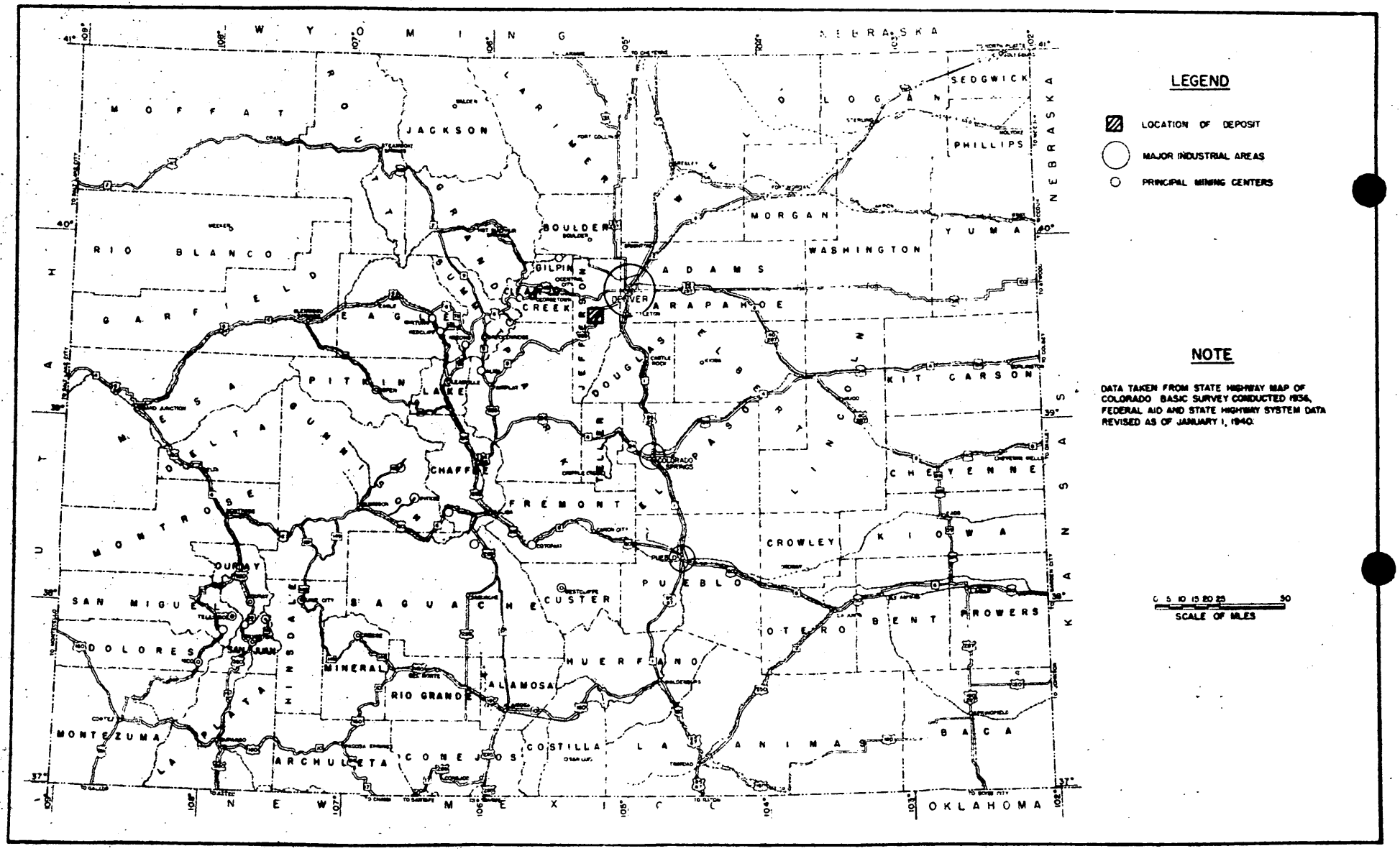

FIGURE 1 – LOCATION MAP OF FOOTHILLS MINING COMPANY LEASE (URANIUM), JEFFERSON COUNTY, COLO. DMEA 3830

C. A. Wilcox, president	3040 Broadway, Boulder, Colo.
Vern Wilcox, secretary	" " " "
M. J. Kraft, treasurer	635 Hawthorne Ave., Boulder, Colo.
Duane Kraft, vice-president	
Dr. W. J. Huls	2490 Iris, Boulder, Colo.
Cody Bish	" " " "
Earl Lambeth	2925 Morehead Ave., Boulder, Colo.
Clarence Swaeby, director	Rt. 1, Box 124, Lafayette, Colo.
H. L. Bird, director	P. O. Box 383, Berthoud, Colo.
Leo Jonick	809 Beulah Ave., Pueblo, Colo.

In the process of incorporating, the name was changed to: Foothills Mining Company, and Melvin J. Kraft assigned his lease to the company on May 16, 1955. This transaction was agreed to by the owner, M. G. Wright. The lease expires on September 27, 1959, unless renewed. The southwest portion of the ground (fig. 2) under lease includes a 100-foot right-of-way for Colorado State Highway 74 and a 40-foot right-of-way for an access road to the Starbuck Ranch Heights, and Little Park, which are in the vicinity of the proposed exploration program.

HISTORY AND PRODUCTION

There is no record of mineral production prior to 1955, the land being used for grazing only. Foothills Mining Company started a crosscut adit during June 1955 and drove about 350 feet prior to active participation on the subject contract.

According to AEC production figures as of May 31, 1957, 1,735.68 tons, averaging 0.29 percent U_3O_8 have been produced from the mine. However, DMEA records on ore production and shipments shows only 530.401 tons of ore shipped, up to September 6, 1956, on which a royalty has been paid.

GEOLOGY AND ORE DEPOSITS

The Wright lease is underlain entirely by Precambrian granite, pegmatite, schist, and gneiss. The metamorphic rocks, which belong to the Idaho Springs formation and probably, in part, to the Swandyke hornblende gneiss series, are predominant. The schistosity and layering have a general northwesterly strike and southwesterly dip. A wide breccia reef, trending about N. 70° W. and dipping 50° to 60° north, crosses the northern portion of the lease (fig. 2). A second smaller breccia and complex shear zone which does not appear to intersect the larger structure is present in the southern portion of the lease. This shear zone, which exhibits anomalous radioactivity over most of its length, strikes N. 25° to 50° W., dips 44° to 80° NE., and is sporadically exposed over a length of 900 feet on the surface. Good exposures in the highway cut and adit level crosscut indicate that the radioactive breccia-shear zone is composed of at least two close set major shear structures--referred to as the hanging and footwall veins or shears. The footwall vein, which was explored under the subject contract, is the prominent structure.

Work under the contract consisted of 121 feet of crosscut and 289 feet drifting, comprising 50 feet of drift southeast of the crosscut and 239 feet northwest of the crosscut.

The rocks encountered in the crosscut consisted of biotite-schist, hornblende gneiss, and pegmatite. The schist and to some extent the gneissic rocks, are impregnated with pyrite, glassy quartz, and very minor amounts of chalcopyrite.

The northwest drift, which contains the only known commercial uranium ore bodies discovered through the exploration program, has been driven along the footwall vein in a wide shear zone of altered gneiss, schist, and pegmatite. The schistosity strikes approximately N. 75° W. and dips 70° to 80° SW; the shear zone strikes N. 25° to 50° W. and dips 65° to 80° NE. Large irregular masses and seams of brecciated pegmatite (apparently paralleling the general attitude of the schistosity) are present between 38 and 120 feet from the crosscut. The strike and dip of the shear zone varies considerably within the brecciated pegmatite and the two ore shoots discovered in the drift apparently occur where the vein turns to the right and the dip flattens.

Uraninite, which occurs in small veinlets and breccia fillings, is the ore mineral in the deposit. Calcite, quartz, and iron oxides are the chief gangue minerals.

In the drift southeast of the crosscut the shear zone is well defined and contains disseminated pyrite and veinlets of calcite but the vein is tight and unoxidized. Furthermore, the reddish iron oxide

alteration, which is so prominent in the brecciated pegmatite in the productive northwest drift, is absent and radioactivity is not above background level. Two diamond core holes (fig. 2), one horizontal and one at -60°, have been drilled to the southwest from the crosscut to test the shear zone ahead of the southeast drift. Although both the hanging and footwall veins were apparently encountered, only minor radioactivity was detected.

The two uranium ore bodies discovered along the northwest drift range in width between 2 and 5 feet and occur in the intervals of 35 to 55 feet and 110 to 170 feet from the crosscut. At the present time (July 1957) the larger ore body has been stoped approximately 100 feet above the adit level and, in part, down to the 86-foot level.

Subsequent to the completion of the contract work, the operator sunk a winze from the adit level to the 86-foot level and, as of July 1957, had driven approximately 150 feet of drift on this lower level to develop the ore bodies discovered under the contract (fig. 2).

ORE RESERVES

The following reserves, as of May 31, 1957, have been calculated for the remaining ore in the two ore bodies discovered under the DMEA exploration program:

	Indicated ore (tons)	Inferred ore (tons)
Large ore body	1,363 (of which 740 tons represents ore remaining above the 86-foot level)	623
Small ore body	1,066	209
Totals	2,429	832

The grade for both the indicated and inferred reserves is estimated to be 0.25 percent U_3O_8, or slightly less than 0.29 percent average grade of the 1,736 tons mined up to May 31, 1957.

Factors used in calculating the ore reserves are as follows (see fig. 2):

1) Dimensions of ore bodies--large ore body; 60 feet long, 3 feet wide

   small ore body; 20 feet long, 3 feet wide

2) Indicated ore is assumed to extend between drifts and 45 feet below or above drifts (or 1/4 the dip length of the large ore body above the 86-foot level).

3) Inferred ore is assumed to extend an additional 45 feet below or above the indicated ore (or 1/2 the dip length of the large ore body above the 86-foot level).

4) Tonnage factor: 13 $feet^3$/ton.

AEC calculated ore reserves for the subject property as of January 1, 1957, were 2,000 tons of indicated ore containing 0.25 percent U_3O_8 and 4,000 tons of inferred ore containing 0.15 percent U_3O_8. Subtracting

the 683 tons mined between January 1, 1957, and May 31, 1957, results in an AEC reserve figure of 1,317 tons of indicated ore (0.25 percent U_3O_8) and 4,000 tons of inferred ore (0.15 percent U_3O_8).

THE PROJECT

The purpose of the project was to explore a zone of brecciation and shearing which had been traced for about 800 feet on the surface. Uranium occurred in small amounts throughout this structure. Assays taken from surface indicated disequilibrium due to leaching; however, drill hole samples taken at a depth below the zone of oxidation averaged 0.362 percent U_3O_8 and indicated a vein width of 3.38 feet. From the data available, it was considered favorable for the occurrence of ore-grade material below the oxidized zone.

Original program and modifications

The original program submitted to DMEA was by the company formerly known as the W. H. B. F. Mining and Engineering Company, DMEA Docket 3606, which was denied without prejudice. The Foothills Mining Company then applied for assistance in the amount of $26,909.46. This request was amended on June 23, 1955, and a program amounting to $24,389.00 was recommended, which included 460 feet of crosscut and 200 feet of drift. On September 1, 1955, a contract was signed authorizing a two-stage program consisting of 460 feet of drifting, crosscutting, and raising at

an estimated maximum cost of $15,276.00. Government participation at 75 percent was $11,457.00. The contract was amended once during the program, and extended the life of the contract to September 30, 1956, and revised the last 50 feet of timbered winze at $66.50 per foot to 290 feet of AX size diamond core drilling at an estimated cost of $5.56 per foot.

On November 26, 1956, the operator requested supplemental funds under the contract to continue exploration on and below the 86-foot level by 900 feet of drifting and 5,000 feet of drilling. A modified program consisting of 5,000 feet of drilling was recommended by DMEA examiners but was declined by the operator.

Description of work completed

Exploration work under contract Idm-E 866 started on September 15, 1955, and was continued until January 30, 1956, at which time all cross-cutting and drifting was completed under Stage I of the contract. The first 50 feet of Stage II was completed during March 1956, at which time further work was temporarily recessed pending an amendment to the original contract. On August 13, 1956, amendment No. 1 was signed which advanced the completion date to September 30, 1956, and revised 50 feet of timbered winze to 290 feet of AX size diamond core drilling at an estimated cost of $5.56 per foot. This final phase of exploration work was completed and inspected on September 7, 1956. The approved over-all total cost of the project was $14,963.90.

Stage I consisted of crosscutting a total of 121 feet and drifting 239 feet. Total assays were 27, and 12 feet of timbering was completed. Drifting northwesterly along the footwall vein, which had been encountered from the end of the crosscut, disclosed two bodies of uranium ore that ranged from 2 to 5 feet in thickness. A trial lot of 19,600 pounds of sorted material was shipped to the Rifle Plant but was not acceptable due to the high lime content. Settlement for this shipment was made on a dry basis of 18,855.96 pounds averaging 0.26 percent U_3O_8, 0.16 percent V_2O_5, and 12.4 percent $CaCO_3$. Returns on the first car of ore shipped under AEC contract showed 45 dry tons assaying 0.41 percent U_3O_8. During February 1956 two carloads of ore totaling 140 tons were shipped to Vitro Uranium Corporation, Salt Lake City, Utah. The control assays showed 0.235 percent and 0.367 percent U_3O_8, respectively. The ore came from the drift at 120 to 160 feet northwest of the crosscut. Settlement sheets showed 0.33 percent and 0.40 percent U_3O_8, respectively. The total wet tons shipped to Salt Lake City is shown as 245, under the "Fringe Area Contract Act."

Stage II consisted of 50 feet of drifting southeasterly along the footwall vein. Radioactivity in this 50 feet of drift did not indicate ore-grade material. The second phase, as per amendment No. 1 to the contract, consisted of two AX size drill holes. Hole No. 1 was drilled horizontally a length of 115 feet. Hole No. 2 was drilled at minus 60 degrees to intercept the same structure at depth. Total drilling was 292 feet, 2 feet more than contract maximums. Although the shear zone was mineralized, no commercial ore was indicated by AEC probing.

Summary of accepted project costs

Item of work	Stage I Units	Amount	Stage II Units (ft)	Stage II Amount	Totals Units	Totals Amount
Crosscutting	121 ft.	$ 3,902.25		$	121 ft.	$ 3,902.25
Drifting	239 ft.	7,707.75	50	1,612.50	289 ft.	9,320.25
Core drilling AX			290	1,612.40	290 ft.	1,612.40
Assays	27 ea.	81.00			27 ea.	81.00
Timbering	12 ft.	48.00			12 ft.	48.00
		$11,739.00				$14,963.90
Government participation at 75 percent						$11,222.93

SUMMARY OF FACTUAL DATA

Work under the subject contract was accomplished between September 15, 1955, and September 7, 1956. Total exploration completed was 410 feet of crosscutting and drifting, and 290 feet of AX size core drilling in two holes. The total cost of crosscutting and drifting was $13,222.50. The cost of 290 feet of core drilling was $1,612.40. The over-all total cost of the project was $14,963.90. The Government's share at 75 percent was $11,222.93.

AEC records show 1,735.68 tons of ore shipped up to May 31, 1957; DMEA records show 530.401 tons of ore shipped up to September 6, 1956, on which royalty has been paid, and no shipments since that date. The discrepancy is being investigated.

Exploration crosscutting, drifting and core drilling were done on a unit cost basis, thereby leaving no salvage nor disposal problems.

CONCLUSIONS

Contract work was efficiently performed and supervised by the operator. The narrative reports were factual and complete, and the MF-104 forms were correctly filled out. No unusual difficulties were encountered in completion of the approved contract work.

The DMEA exploration program resulted in the discovery of two uranium ore bodies along a breccia-shear zone in Precambrian gneiss, schist, granite, and pegmatite. The larger ore body is 60 feet long by 2 to 5 feet thick. It has been mined 100 feet up the dip and is currently being mined from the 86-foot level. The smaller ore shoot is also currently being developed.

Reserves for the property are estimated to be 2,429 tons of indicated ore containing 0.25 percent U_3O_8 and 832 tons of inferred ore containing 0.25 percent U_3O_8.

It is recommended that the project be certified.

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8/16	~~Chang~~	700

224 New Customhouse
Denver 2, Colorado

August 13, 1957

CERTIFIED MAIL

Mr. Clarence Sweeby
3040 Broadway
Boulder, Colorado

Re: Docket DMEA-3830 (Uranium), Contract Idm-E866
Foothills Mining Company (Wright Lease)
Jefferson County, Colorado

Dear Mr. Sweeby:

We have been informed that you are a director of Foothills Mining Company and the only remaining official to look to for resolution of matters concerned with Contract No. Idm-E866.

Enclosed are one copy each of our letters of February 12, 1957 and July 2, 1957, to Mr. Lloyd E. Sweet, previously Secretary-Treasurer of Foothills Mining Company, pertaining to the rendering by Foothills Mining Company of an acceptable final engineering and geologic report, as provided for under Article 6(c) of the contract.

We have been unable to obtain a reply from Mr. Sweet in the matter of the report. Therefore, the matter is referred to you for attention. We will appreciate advice by return mail as to the date on or before which we can expect to receive the required final report, as we are desirous of closing this account at an early date.

Unless an acceptable final report will be forthcoming at an early date, it will be necessary that we refer the matter to the Washington Office, DMEA, for such legal action against Foothills Mining Company as the case indicates.

Very truly yours,

Original signed by
E. N. HARSHMAN

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

Encls.
JWT:bh
cc-Chairman, Op. Comm. (2)
Harshman
DMEA/DFC
Townsend
Corres. File E-866
Chron.

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224 New Customhouse
Denver 2, Colorado

August 2, 1957

Mr. Lloyd B. Sweet, Secretary-Treasurer
Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Docket DMEA 3[illegible] (U[illegible]), Contract Idn-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Dear Mr. Sweet:

We have recently been informed that approximately 1700 tons of production has been made from land included in the captioned contract. Of that production, approximately 1550 tons are subject to AEC bonus payments.

We wish to advise you that we have received settlement sheets and royalties on only 530.401 tons of production. The most recent report of production we have is covered by settlement sheet bearing Liquidation Number R1572, dated September 6, 1956, Union Carbide Nuclear Company, purchaser.

You are requested to submit promptly, royalties and three copies of all settlement sheets with load detail when applicable, on all production previously unreported to this office.

Very truly yours,

Original signed by
E. N. HARSHMAN

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

MHM/vj

cc: Royalty File E866
Corres. File E866
Sec. Opr. Comm. (2)
DMEA/DFC (2) Attn: Minkel
Harshman
Marshall
Chron.

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7/8		800
		700

224 New Customhouse
Denver 2, Colorado

July 2, 1957

CERTIFIED MAIL

Mr. Lloyd B.Sweet, Secretary-Treasurer
Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Docket No. DMEA 3830 (Uranium)
Contract No. Idm-E866
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado

Dear Mr. Sweet:

Reference is made to our letter of February 12, 1957, the last paragraph, wherein we called your attention to the requirement of your Company's rendering a final engineering and geologic report pertaining to work completed under Contract No. Idm-E866.

We are desirous of closing the account at an early date. Therefore, we will appreciate prompt attention to the matter of rendering the required final report. We will appreciate advice by return mail as to the date on or before which we can expect to receive the report.

Very truly yours,

Original signed by
W. H. KING

W. H. King
Executive Officer, DMEA
Field Team, Region III

JWT:prl

cc: Chmn. Op. Comm. (2)
Harshman
DMEA/DFC
Townsend
Corres. file
Chron.

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

224 New Customhouse
Denver 2, Colorado.

February 13, 1957

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Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-3830 (Uranium), Contract No. Idm-E866
Foothills Mining Company (Wright Lease)
Jefferson County, Colorado

Enclosed are two copies of a self-explanatory letter to the Operator dated February 12, 1957. Also enclosed are the following:

1. Two copies of the Operator's proposal for additional work under the contract.

2. Four copies of a joint memorandum report dated January 21, 1957, from R. U. King, Geologist, Geological Survey, and E. W. Buel, Mining Engineer, Bureau of Mines, and transmittal thereof dated January 22, 1957 from John F. Shaw and E. N. Harshman, pertaining to the request for additional work and funds.

3. Four copies of the Operator's letter of February 6, 1957.

W. M. Traver
W. M. Traver

Encls.

Maps submitted in map folder

224 New Customhouse
Denver 2, Colorado.

February 12, 1957

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RECEIVED FEB 15 1957

DATE	INITIALS	CODE

Mr. Lloyd B. Sweet,
Secretary - Treasurer,
Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Docket No. DMEA-3830 ~~(Uranium)~~
Contract No. Idm-E866
Foothills Mining Co. (Wright Lease)
Jefferson County, Colorado

Dear Mr. Sweet:

Thank you for your letter of February 6, 1957, wherein you advise that you do not wish to accept the exploration program proposed by the Government in conjunction with your request for approval of additional work and funds under Contract Idm-E866.

Inasmuch as additional work is not to be performed under the contract and since all present authorized work has been completed, your attention is directed to the provision of Article 6(c) of the contract relative to the rendering by your Company of a final engineering and geologic report pertaining to work completed under the contract. Prompt attention should be given the matter of rendering the required final report.

Very truly yours,

Original signed by
W. M. TRAVER

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

JWT:bh

cc-Chair. Op. Comm.(2)
Harshman
Shaw
Townsend
Corres. File E-866
Chron.

DMEA
DEPARTMENT OF THE INTERIOR
FEB 8 1957
REGION III
DENVER, COLORADO

3240 Sixth Street
Boulder, Colorado

February 6,1957

Mr. W. M. Traver,
Executive Officer
D.M.E.A. Field Team, Region III
New Custom House
Denver, Colorado

Dear Mr. Traver:

After consideration of the revised plan for work to be done under a proposed Stage III of our D.M.E.A. Contract, Idm-E866 on the Wright Lease at Idledale, Colorado, the Foothils Mining Company has decided not to accept this plan, preferring to combine a program of additional drifting along the zone with diamond drilling at sites further southeast and northwest.

Thanking you for your friendly cooperation in this matter within the limits of D.M.E.A. provisions and for the great assistance which our company has received under this contract, we are,

Yours truly,

FOOTHILLS MINING COMPANY

Lloyd B. Sweet
Secretary-Treasurer

LBS:aj

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RECEIVED FEB 15 1957

DATE	INITIALS	CODE

3240 - 6th Street
Boulder, Colorado
November 26, 1956

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RECEIVED FEB 15 1957

DATE	INITIALS	CODE

DMEA
DEPARTMENT OF THE INTERIOR
NOV 27 1956
REGION III
DENVER, COLORADO

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

Dear Mr. Traver:

This revised application for supplemental funds under our D.M.E.A. Contract Idm-E866 is to replace the original application submitted to your office dated May 24, 1956. In its preparation consideration has been given to the results obtained by core drilling under an amendment of the contract and by winzing and a small amount of drifting on the 86-foot level below the main crosscut done at company expense.

Briefly reviewing work so far performed under the contract it may be stated that operations began in September, 1955, at a point 353.5 feet from the portal of the crosscut, the point to hich it had been driven by work on the Company's account. This point is indicated on the accompanying plan view of the property at the beginning of the orange colored portion of the mine workings, which is the part completed with D.M.E.A. participation. Crosscutting was continued 121 feet further to a point 474.5 feet from the portal.

Drifting northwesterly on the footwall of the uranium-bearing zone was the next work and 239 feet of drift was finished by January 31, 1956, completing Stage I of the contract. Two occurrences of commercial ore were opened by this drift and and to date 1054.3 tons of ore containing 7261.6 lbs. U_3O_8 have been shipped from the ground above the crosscut level.

Work under Stage II of the contract consisted of 50 feet of drifting southeastward from the crosscut on the footwall vein and 290 feet of core drilling, which was substituted for the remaining 50 feet of drifting allowable under Stage II. Two holes were drilled, one horizontally, pointed to intersect the footwall vein fifty feet ahead of its present breast which intersected several feet of radioactive material and was completed at 115 feet from the collar and a second drilled downward at an angle of 60° from the horizontal in the same direction as hole No. 1 which disclosed no ore but yielded the information that both hanging wall and footwall fractures are present at a depth of about 60 and 100 feet below the main crosscut respectively.

Total depth of Hole 2 is 177'

Radioactivity in this hole was weak. Further work is warranted to explore the area near Hole No. 1 which may be on the margin of another ore shoot which if it pitches easterly like the first shoot would miss drill hole No. 2.

Work on the company's account has included the sinking of a 4 x 8 winze about 90 feet almost vertically and at 86 feet about 20 feet of crosscutting to the vein. At the present time 50 feet of drifting has been done on the vein which was about six feet wide where first opened and has yielded over a carload of ore from drifting to date.

The additional work proposed in this request for additional funds for exploration consists of a Stage III of drifting on the vein from appropriate points and a Stage IV of deeper exploratory core-drilling to test the structure at depths substantially below the present workings. The time required to complete the work will be about eighteen months from the granting of this proposed amendment to the contract.

Stage III - Drifting

It is proposed to drive 500 feet on the vein to the northwest of the winze. The starting point for this drifting would be established by D.M.E.A. after drifting through the known ore shoot has been completed by the company and for purposes of estimation this point has been assumed to be 75 feet from the winze. After or during the driving of the above northwest drift it is desired to drift 400 feet to the southeast beyond a point directly up the dip of the footwall vein from the intersection of No. 2 core drill hole, which would be about 180 feet southeast of the winze. Drifting on the vein to reach this point will be at company expense.

Stage IV - Drilling

If results obtained by drifting warrant additional exploration it is proposed to continue by drilling several holes from locations to be determined after Stage III is completed. These holes will be placed to test the structure well below the drifting and should aggregate about 5000 feet.

It is believed that this program of exploration will sufficiently test the zone as a whole and give a fairly complete idea of the potential uranium production from the property.

At this juncture it seems appropriate to discuss the reasons why drifting has been favored as a major means of exploration rather than core drilling.

In the area northwest of the winze, the vein at the 80 foot level will be a minimum of 230 feet vertically beneath the surface. Shallower depths can be secured but at the expense of favorable angles of penetration. Better angles of penetration may be secured by moving the drill sites northeastward, but as the topography rises in that direction, depth of drilling will be markedly increased so that 300-350 foot holes would be necessary. In order to be conclusive, holes at a maximum of 100 foot spacing along the vein will be required, with offset holes necessary to explore any favorable occurrence of mineralization discovered. The expense of drilling at close intervals, plus the cost of offset drilling, will total a considerable part of the cost of drifting.

Further, it is expected that the pitch of ore-shoots will be closer to vertical than to horizontal, and, therefore, it would seem that drifting will be a more conclusive type of exploration than holes spaced at intervals of 100 feet along the zone.

Long holing from an existing drift can be done to greatly increase the range of exploration in a deposit of this type where ore may occur in parallel structures or in divergent "horsetail" fractures.

Costs of the proposed work are outlined as follows:

Stage III - Drifting

Costs are figured on a basis of $32.25, the contract price per foot allowed in the work thus far completed, plus the extra cost per foot of drifting from the winze which has been found to be about $9.45. Two extra men per shift are required which at an average advance of 3½ feet per day adds $8.00 per foot to the cost. Pumping, hoisting and maintenance are estimated at $5.00 per day or $1.45 per foot in round figures. These costs total $41.95 per foot which figure has been used in this statement. Timber cost is estimated on a possible 100 feet required at a price per foot of $4.00. Cost of assaying is figured on a basis of 50 assays at $3.00 each.

Drifting Costs

Northwest drift.	500 ft. @ $41.95	$ 20,975.00
Southeast drift.	400 ft. @ $41.95	16,780.00
		$ 37,755.00
Timbering, 100 ft.		400.00
Assays - 50		150.00
	Total Drifting Cost	$ 38,305.00

Stage IV - Drilling

Drilling costs have been figured after consideration of previous bids, our own drilling experience, and the price of $5.56 allowed for 297 feet of core drilling underground under Stage II of the contract by amendment. In view of the probable greater average depth of the holes to be drilled and consequent increase in cost per foot, the figure of $6.10 per foot seems reasonable. This would include necessary assaying and directional surveying 5000 feet of drilling is requested with definite location subject to information derived from drifting under Stage III and the approval of the D.M.E.A. geologists.

5000 lineal feet of AX size diamond drilling @ $6.10 per ft.	$ 30,500.00
Total Drilling Cost	$ 30,500.00

Summary of Costs

Stage III Drifting	
900 Ft. of drift @ $41.95	$ 37,755.00
Timbering allowance 100 ft. @ $4.00	400.00
Total	$ 38,155.00
Stage IV Drilling	
5000 Ft. A.X. size @ $6.10	30,500.00
Total cost of proposed work	$ 68,655.00

Trusting you will find this proposal satisfactory, we are

Yours truly,

Foothills Mining Co.

H. L. Bird

by H. L. Bird
Mining Geologist

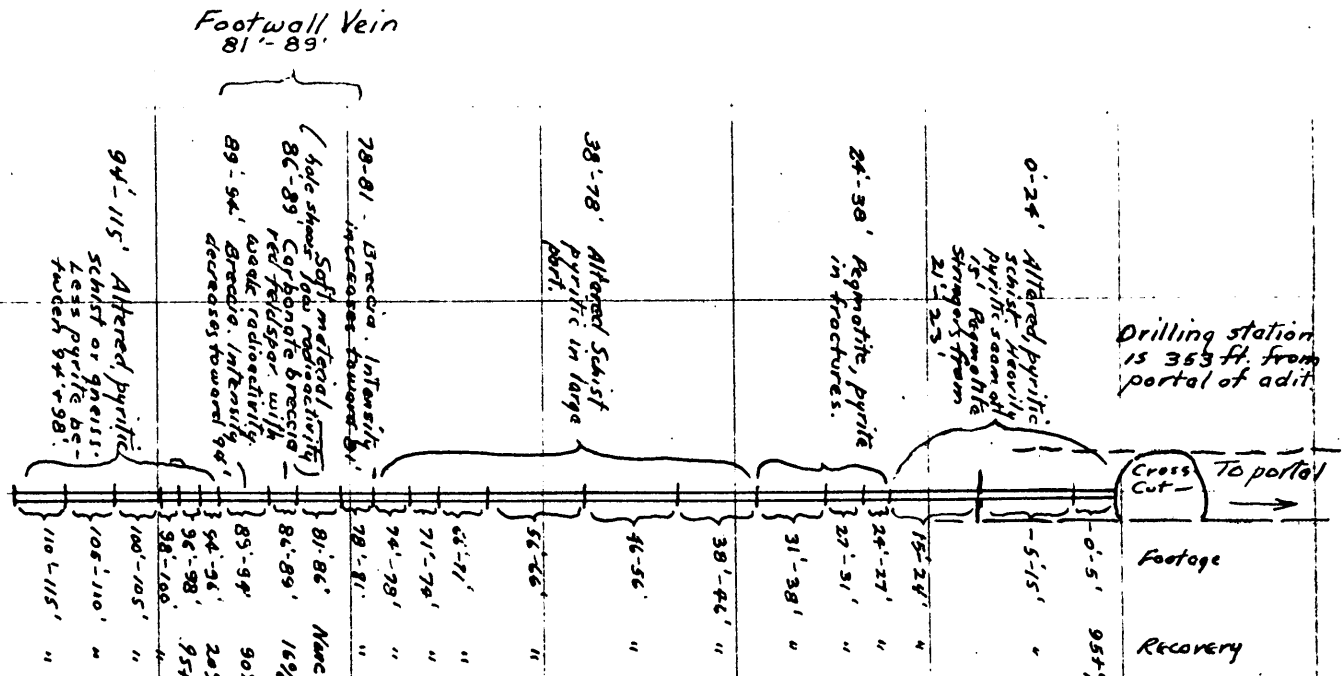
Approved:

Lloyd B. Sweet

Lloyd B. Sweet
Secretary-Treasurer

HLB:k

Hole No. 1 – AX core



Drilled by George Marshall
D.M.E.A. Contract Idm-866
Wright Lease, Foothills Mining Company.
Hole No. 1 is horizontal in a S-13°-W direction. Total depth, 115 ft.
Not surveyed for deflection.

Scale - 1" = 20'

H.L. Bird,
Mining Geologist.

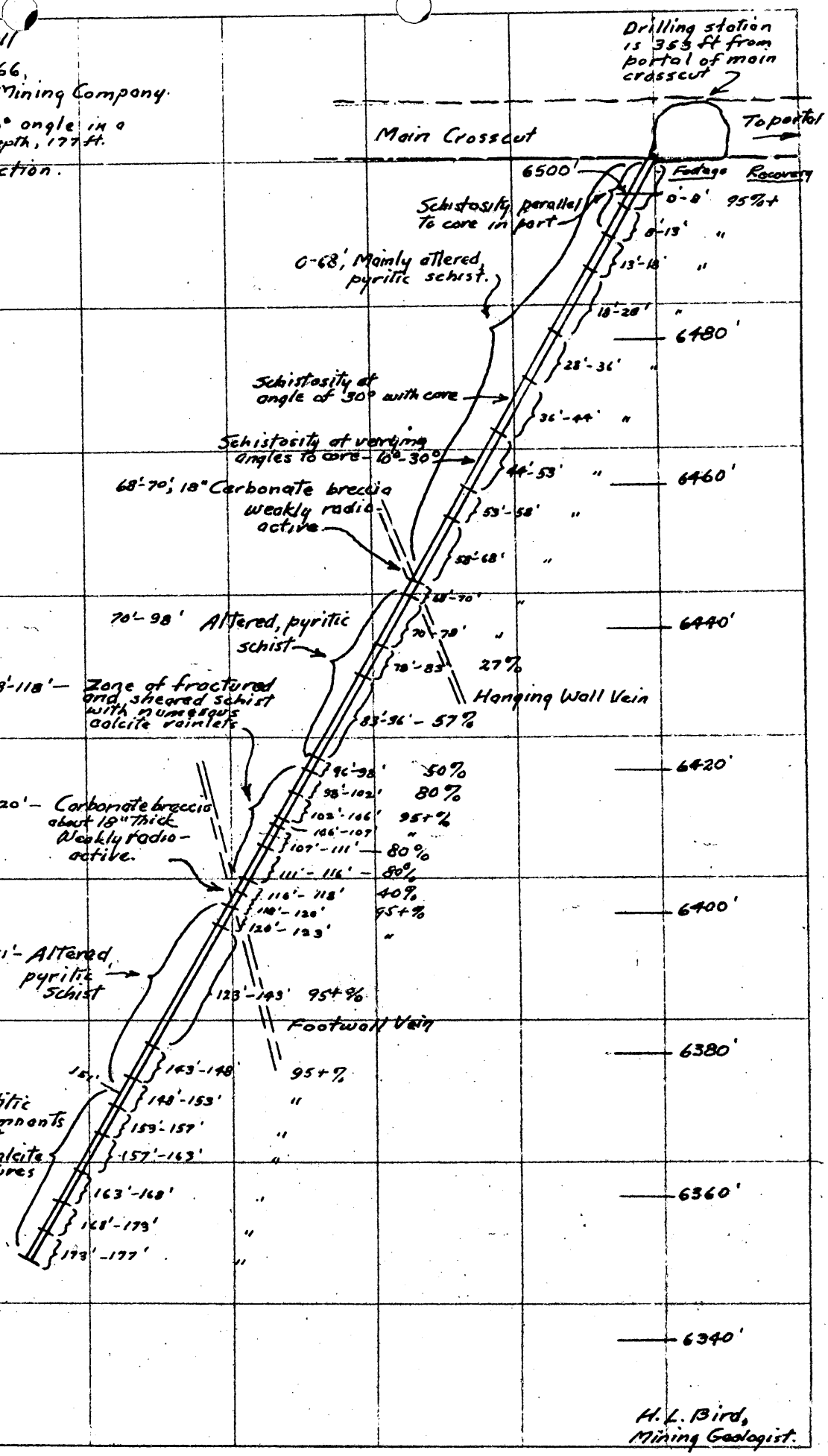
RECEIVED
FEB 15 1957
D.M.E.A.

Hole No. 2 - AX core

Drilled by George Marshall
D.M.E.A. Contract Idm-E866,
Wright Lease, Foothills Mining Company.

Drilled downward at 60° angle in a 5-13° W direction. Total depth, 177 ft.

Not surveyed for deflection.
Scale - 1" = 20'



DUNKIN BLUE PRINT CO. - Grand Junction.

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IN REPLY REFER TO:

DATE	INITIALS	CODE
January	22, 1957	

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA
DEPARTMENT OF THE INTERIOR
JAN 25 1957
REGION III
DENVER, COLORADO

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 3830 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright lease), Jefferson County, Colorado

Enclosed are the original and nine copies of a joint memorandum in which additional exploration at the subject property is recommended.

The work proposed by the operator consists of exploration by drifting on the 86-foot level and drilling from the surface at an estimated total cost of $68,655. The work proposed by King and Buel consists of drilling from the surface at an estimated cost of $31,170.

The program proposed by the operator will satisfactorily explore the uranium-bearing shear zone on and below the 86-foot level although drilling from stations on the 86-foot level would appear to be a more satisfactory method of exploring below that level than drilling from the surface as proposed by the operator.

The program proposed by the examiners is designed to explore a somewhat longer section of the shear zone than proposed by the operator and at a very much lower cost.

The examiners discussed their alternative program with representatives of the Foothills Mining Company. During these discussions the representatives stated that a program acceptable to them must include sufficient development work to enable them to mine, with a minimum of additional development, any ore bodies found by exploration. The development feature is lacking in the drilling program proposed by King and Dual and thus is not acceptable to the operator.

Certain advantages of underground exploration compared with exploration by drilling are recognized and where the cost differential between the two methods is modest, underground work is generally recommended. In this instance, however, and from the Government's viewpoint, the difference between the cost of the operators' program and the alternative program recommended by the examiners appears to be excessive and the propriety of approving the more costly (operators') program is questioned.

It appears that further discussions with the operator, prior to final Field Team action, are required.

John F. Shaw
Supervising Mining Engineer

E. H. Harshman
Member, Field Team

Enclosures (10)
EHHarshman:mp

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

January 21, 1957

Memorandum

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

From: R. U. King
E. W. Buel

Subject: DMEA 3830 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright lease) Jefferson County, Colorado. Request for additional funds.

In a letter dated November 26, 1956, the operator, under Contract Idm-E866, requested supplemental funds to continue exploration on the Wright lease of the Foothills Mining Company, Jefferson County, Colorado.

The operators' proposed supplemental exploration would consist of 900 feet of drifting on the 86-foot level to explore laterally along the shear zone exposed on the surface and in the adit level drift driven with DMEA assistance (figs. 1, 2a, 2b). If the results of drifting on the 86-foot level indicate that additional exploration below that level is warranted it is proposed to accomplish

this exploration by 5,000 feet of drilling from the surface. The total cost of the applicants' proposed exploration program is $68,655.

The applicant discusses his reasons for proposing a program including both drifting and diamond drilling, a program which actually combines development and exploration. His arguments for drifting on the 86-foot level are to some extent nullified by the fact that he proposes exploration below the 86-foot level by diamond drilling from the surface.

In view of the results to date of exploration performed under DMEA Contract Idm-8866, we conclude that there is a good chance of finding new ore shoots along the mineralized fault structure by additional exploration. However we believe that a program of drilling from the surface will adequately explore a greater interval along the uranium-bearing structure than that included in the applicants' proposal and at a cost appreciably less than proposed by the applicant.

It is recommended, therefore, that a two-stage program of exploration to consist of 5,600 feet of core drilling be approved. The cost of this exploration is estimated to be $51,170. The Government's share at 75 percent would be $23,377.50.

Exploration under contract Idm-E 866 resulted in the discovery of two uranium ore bodies along a breccia reef structure in Precambrian hornblende gneiss and quartz-biotite schist. The larger body is 70 feet long by 3 to 5 feet thick. It has been mined 100 feet up dip and explored 90 feet down dip. The operator has produced about $50,000 worth of uranium ore from this ore shoot, above the adit level, and it is likely that an equivalent amount of ore exists below the adit level. The operator is currently exploring the larger ore shoot on the 86-foot level. The small ore shoot remains undeveloped.

Inasmuch as the uranium ore bodies thus far explored are steeply to vertically raking shoots along a steeply dipping vein, further exploration should be concentrated in a direction normal to the probable elongation of ore bodies. The recommended exploration is staged, and holes spaced to take advantage of the probable size and shape of the exploration targets.

Stage I exploration would consist of 10 AX or larger core-drill holes, to be drilled from the surface at locations approximately as shown on figure 1, at a maximum inclination of -75°, and bearing approximately S. 50° W., so as to intersect the uranium-bearing vein at intervals of 100 feet, at elevations between 6,400 and 6,450 feet above sea level (fig. 2a and 2b). Holes would be drilled through the vein but not more than 25 feet into the footwall of the vein. It is estimated that the average length of holes will be 280 feet.

Stage II exploration would consist of an equal amount (2,800 feet) of core drilling to offset mineralized Stage I holes and to

extend mineralized ground discovered as a result of Stage I drilling. The location, inclination, and bearing of Stage II holes will be dependent on the results of Stage I drilling, and exploration under Stage II will require prior approval of the Government. Stage II holes should intersect the ore-bearing vein structure not closer than 100 feet from a previously drilled hole.

Drilling costs are estimated from allowable costs on the Grapevine mine (RMSA 4324, Contract Ism-E 1639) which is nearby the subject property and whose general surface drilling conditions can be considered as similar to the subject property's.

Cost details

Stage I

Fixed unit costs

2,800 feet (10 holes) of AX (or larger) at $5.25/ft. (subject to revision for competitive bids)	$14,700.00
45 hours stand-by time for cementing and probing of holes at $6.00/hr. (subject to revision.)	270.00
10 chemical sample analyses at $3.50/each	35.00
30 hours bulldozing (D-7 or equivalent) at $10/hr.	300.00
200 cardboard core boxes at $1/each	200.00
Total	$15,505.00
Government's share, 75 percent	$11,628.75

Stage II

Same as for Stage I

Total, Stage II	$15,585.00
Government's share, 75 percent	11,688.75
Stages I and II total	$31,170.00
Government's share at 75 percent	$23,377.50

R. U. King

R. U. King

R. W. Keel

RUKing:arh

U. S. DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

224 New Customhouse
Denver 2, Colorad

Date: February 7, 1957

Memorandum

To: Chairman, Operating Committee, DMEA
From: Executive Officer, DMEA Field TEam, Region III
Subject: Royalty payments, Docket DMEA 3830 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado
Period: January, 1957

Enclosed are settlement sheets for which royalty payments were received for ore or concentrates shipped from the subject property during the above month:

Date	Lot No.	Dry Tons	Royalty Due	Royalty Paid	Bonus Roy. Due	Bonus Roy. Pd.

None

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DATE	INITIALS	CODE
2-11	C	220
"	~~Chron~~	700

Totals:

Past Due Royalties Collected $694.42
Royalty on bonus payments as listed in our letter of 1/17/57 to L.B. Sweet
Total Dry Tons (Ore or Cons.) Shipped to Date 530.401

W. M. Traver

vj
cc: Royalty File E866 w/settlement sheets
Monthly Royalty Payment File
J. F. Shaw (2)
Chron.

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

OFFICIAL FILE COPY DMEA RECEIVED JAN 22 1957		
DATE	INITIALS	CODE
1-22	CW	220
1-22	Ching	700
		225

224 New Customhouse
Denver 2, Colorado

January 17, 1957

Mr. Lloyd B. Sweet, Secretary-Treasurer
Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Docket DMEA 3820 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Dear Mr. Sweet:

Enclosed are the four load details submitted to us by your letter of December 31, 1956. Thank you.

For future ore shipments, please instruct your purchaser to submit four (4) copies of the load detail, wherever applicable, with the settlement sheets and royalty payments submitted to this office.

We also enclose the letter dated April 13, 1956 from the AEC which informs your company that the above subject property is certified as eligible for bonus payments. Accordingly, royalty is due the Government on all bonus payments received for production of the first 10,000 lbs. U_3O_8 from land described in Contract Idm-E866, from the date of the Contract.

From settlement sheets received, royalty on bonus payments is due as follows:

Liq. No.	Bonus Roy. Due
R-1199	$ 8.57
9632	64.58
45	77.03
85	85.02
R-1454	63.89
R-1549	100.48
R-1556	164.06
R-1572	130.79
	$694.42

Your company's check for $694.42 made payable to the Defense Minerals Exploration Administration should be sent to this office immediately. If you have not as yet received payment on all these liquidation settlements, you are requested to list the production by liquidation no. for which you have received payment, noting the amounts, and make your royalty payment accordingly.

Yours very truly,

Original signed by
W. M. TRAVER

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

Enclosures

MHM/vj

cc: Royalty File E866
Corres. File E866
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Marshall
Chron.

UNITED STATES
ATOMIC ENERGY COMMISSION
GRAND JUNCTION OPERATIONS OFFICE
GRAND JUNCTION, COLORADO

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 22 1957
DATE | INITIALS | CODE

IN REPLY REFER TO:
MD:DRH

April 13, 1956

Foothills Mining Company
635 Hawthorne Avenue
Boulder, Colorado

Re: CERTIFICATION OF THE WRIGHT LEASE, JEFFERSON COUNTY, COLORADO
(APPLICATION NO. 1280)

Gentlemen:

Reference is made to your application dated December 9, 1955, requesting certification of the Wright Lease for bonus payments under the provisions of Domestic Uranium Program Circular 6.

This will serve as notification that the captioned application has been reviewed and the following described property is hereby certified as a unit eligible for bonus payments:

> The Northeast quarter of the Northwest quarter (NE$\frac{1}{4}$NW$\frac{1}{4}$) of Section thirty-two (32), Township four (4) South, Range seventy (70) West of the Sixth Principal Meridian, Colorado; except that portion conveyed to Alfred C. Phelps by warranty deed recorded in book 27, at page 211 of the records of the Office of the County Clerk and Recorder of said Jefferson County, and except those portions conveyed to the County of Jefferson in the State of Colorado by warranty deeds recorded in book 359 at page 255 and book 472 at page 283 of the records of the Clerk and Recorder of said Jefferson County.

The above property is situated in Colorado Mining District (DEB) Jefferson County, Colorado.

Production records show that no U_3O_8 was produced from this property between April 9, 1948, and February 28, 1951, inclusive. Therefore, bonus payments will be made on each pound of U_3O_8 up to and including the first 10,000 pounds contained in ores mined from this property and accepted by a qualified mill or Commission ore-buying station between March 1, 1951, and February 28, 1957, inclusive. Such ores are eligible to receive bonus payments in the order of their dates of settlement, so that it is possible that previous shipments, other than yours, are eligible.

The certification number you will use in making application for bonus payment is D.U.P. C6-C-707. Several copies of an "Application for Bonus Payment" form are enclosed for listing each month's production since March 1, 1951.

Very truly yours,

R. H. Toole

R. H. Toole, Chief
Leasing & Development Branch
Mining Division

Enclosure:
AEC-300 (6 sets)

UNION CARBIDE NUCLEAR COMPANY

[redacted]

A Division of Union Carbide and Carbon Corporation
RIFLE, COLORADO

Purchased Ore LOAD DETAIL

PERIOD 5-16-56 thru 5-31-56

NAME Foothills Mining Co ADDRESS

CLAIM Wright Lease

DATE SHIPPED	TICKET NUMBER	POUNDS ORE	H_2O %	POUNDS DRY ORE	U_3O_8 GRADE	POUNDS U_3O_8	V_2O_5 GRADE	POUNDS V_2O_5	$CaCO_3$ GRADE	POUNDS $CaCO_3$
5-22	43714	24860	2.9	24139.06	0.34	82.07	0.09	21.73	13.6	3282.91
5-22	43715	22080	2.9	21439.63	0.34	72.89	0.09	19.30	13.6	2915.80
5-22	43717	23060	2.9	22391.26	0.34	76.13	0.09	20.15	13.6	3045.21
5-22	43718	24660	2.9	23944.86	0.34	81.41	0.09	21.55	13.6	3256.50
5-22	43719	15920	2.9	15458.32	0.34	52.56	0.09	13.91	13.6	2102.33
		110580	2.9	107373.18	0.34	365.06	0.09	96.64	13.6	14602.75

DMEA
DEPARTMENT OF THE INTERIOR
JAN 8 1957
REGION III
DENVER, COLORADO

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

MU-3-56 Rifle Telegram

UNION CARBIDE NUCLEAR COMPANY
[redacted] VANADIUM COMPANY
A Division of Union Carbide and Carbon Corporation
RIFLE, COLORADO

Purchased Ore LOAD DETAIL

PERIOD 7-16-56 thru 7-29-56

NAME Foothills Mining Co ADDRESS Boulder Colo

CLAIM Wright Lease

DATE SHIPPED	TICKET NUMBER	POUNDS ORE	% H_2O	POUNDS DRY ORE	U_3O_8 GRADE	POUNDS U_3O_8	V_2O_5 GRADE	POUNDS V_2O_5	$CaCO_3$ GRADE	POUNDS $CaCO_3$
				Car #17126						
7-23	45705	26000	2.7	25298.00	0.53	134.08	0.08	20.24	13.4	3389.93
7-23	45707	21240	2.7	20666.52	0.53	109.53	0.08	16.53	13.4	2769.21
7-23	45708	24360	2.7	23702.28	0.53	125.62	0.08	18.96	13.4	3176.11
7-23	45710	25060	2.7	24383.38	0.53	129.23	0.08	19.51	13.4	3267.37
7-23	45712	14680	2.7	14288.64	0.53	75.70	0.08	11.43	13.4	1914.01
		1113.40		108 33[illegible].82	0.53	574.16	0.08	86.67	13.4	14516.73

DMEA
DEPARTMENT OF THE INTERIOR
JAN 8 1957
REGION III
DENVER, COLORADO

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

RIFLE COLORADO

Purchased Ore

LOAD DETAIL

PERIOD 8-1-56 thru 8-15-56

NAME Foothills Mining Co ADDRESS Boulder Colorado

CLAIM Wright Lease

DATE SHIPPED	TICKET NUMBER	POUNDS ORE	% H_2O	POUNDS DRY ORE	U_3O_8 GRADE	POUNDS U_3O_8	V_2O_5 GRADE	POUNDS V_2O_5	$CaCO_3$ GRADE	POUNDS $CaCO_3$
		Car # 16972		Lot # 15						
8-6	46144	21560	4.2	20654.48	0.52	107.40	0.07	14.46	12.4	2561.16
8-6	46145	24640	4.2	23605.12	0.52	122.75	0.07	16.52	12.4	2927.03
8-6	46147	25160	4.2	24103.28	0.52	125.34	0.07	16.87	12.4	2988.81
8-6	46148	11100	4.2	10633.80	0.52	55.30	0.07	7.44	12.4	1318.59
8-6	46151	13600	4.2	13028.80	0.52	67.75	0.07	9.12	12.4	1615.57
8-6	46153	12000	4.2	11496.00	0.52	59.78	0.07	8.05	12.4	1425.50
		Car # 16842		Lot # 16						
8-7	46180	22360	2.7	21756.28	0.33	71.80	0.09	19.58	11.0	2393.18
8-7	46183	22820	2.7	22203.86	0.33	73.27	0.09	19.98	11.0	2442.42
8-8	46222	23800	2.7	23157.40	0.33	76.42	0.09	20.84	11.0	2547.31
8-8	46223	24880	2.7	24208.24	0.33	79.89	0.09	21.79	11.0	2662.91
8-8	46224	23040	2.7	22417.12	0.33	73.98	0.09	20.18	11.0	2465.77
8-8	46227	7420	2.7	7219.44	0.33	23.82	0.09	6.50	11.0	794.16
		232380	3.4	224484.84	0.42	737.50	0.08	181.33	11.6	26142.63

TOTAL

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

1000 [illegible] Telegram

UNION CARBIDE NUCLEAR COMPANY

[redacted]

A Division of Union Carbide and Carbon Corporation
RIFLE, COLORADO

Purchased Ore LOAD DETAIL

PERIOD 8-16-56 thru 8-31-56

NAME Foothills Mining Co ADDRESS Boulder Colorado

CLAIM Wright Lease

DATE	TICKET	POUNDS ORE	H_2O %	POUNDS DRY ORE	U_3O_8 GRADE	POUNDS U_3O_8	V_2O_5 GRADE	POUNDS V_2O_5	$CaCO_3$ GRADE	POUNDS $CaCO_3$
		Car # 73550								
8-16	46514	25560	3.7	24614.28	0.27	66.46	0.08	19.69	10.1	2486.04
8-16	46515	20400	3.7	19645.20	0.27	53.04	0.08	15.72	10.1	1984.17
[illegible]	[illegible]	[illegible]40	3.7	22014.18	0.27	59.44	0.08	17.61	10.1	2223.43
		23040	3.7	22187.52	0.27	59.91	0.08	17.75	10.1	2240.94
8-16	46521	22400	3.7	21571.20	0.27	58.24	0.08	17.26	10.1	2178.[illegible]
8-16	46522	20660	3.7	19895.58	0.27	53.72	0.08	15.92	10.1	2009.45
8-16	46523	20300	3.7	19548.40	0.27	52.78	0.08	15.64	10.1	1974.44
		Car #16605								
8-29	47081	22020	3.8	21183.24	0.32	67.79	0.06	12.71	9.9	2097.14
8-29	47082	23240	3.8	22356.88	0.32	71.54	0.06	13.41	9.9	2213.33
8-30	47088	25920	3.8	24935.04	0.32	79.79	0.06	14.96	9.9	2468.57
8-30	47090	23220	3.8	22337.64	0.32	71.48	0.06	13.40	9.9	2211.43
8-30	47091	17280	3.8	16623.36	0.32	53.19	0.06	9.97	9.9	1645.71
		266900	3.7	256913.02	0.29	747.38	0.07	184.04	10.0	25733.34

[redacted]

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

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

224 New Customhouse
Denver 2, Colorado

December 20, 1956

Mr. Lloyd B. Sweet, Secretary-Treasurer
Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Docket DMEA 3830 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Dear Mr. Sweet:

Enclosed is a photocopy of a letter dated November 16, 1956 for which we have not received your reply.

Please submit the required number of the requested statement by return mail.

Yours very truly,

Original signed by
W. M. TRAVER

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

Enclosure

MHM/vj

cc: Royalty File E866
Corres, File E866
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Marshall
Chron.

RECEIVED
DEC 31 1956
D.M.E.A.

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

224 New Customhouse
Denver 2, Colorado

December 6, 1956

Mr. H. L. Bird, Vice President
Foothills Mining Company
3240 6th Street
Boulder, Colorado

Re: Docket DMEA 3830 (Uranium)
Contract Idm-E866
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado

Dear Mr. Bird:

Form MF-104, Operator's Monthly Report and Voucher, for September, 1956, has been received in this office and is being processed for payment.

The following deductions and reinstatement have been made.

1. An amount of $0.10, excess cost for core drilling during September, has been disallowed.

2. The amount of $266.06, which was withheld from the March, 1956 voucher, is reinstated.

3. An amount of $400.00 is withheld pending possible additional work under the contract.

Very truly yours,

Original signed by
W. M. TRAVER

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

JDC:jy
cc: Chm. Op. Comm. (2)
Shaw (2)
Harshman
Townsend
Corresp. E866
Chron.

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

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

November 16, 1956

Mr. Lloyd B. Sweet, Secretary-Treasurer
Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Docket DMEA 3830 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colo.

Dear Mr. Sweet:

To bring our royalty files current, you are requested to submit an original and six (6) copies of a statement regarding your status of eligibility to receive AEC bonus payments for production of the first 10,000 lbs of U_3O_8 from land subordinated to the Government by the terms of Contract Idm-E866.

Yours very truly,

Original signed by
W. M. TRAVER

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

MHM/vj

cc: Royalty File E866
Corres. File E866
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Marshall
Chron.

RECEIVED NOV 19 1956 DMEA

W.C.

DIRECTORS
H. LEON BIRD
MEL. J. KRAFT
DUANE KRAFT
EARL LAMBETH
CLARENCE I. SWAEBY
LLOYD B. SWEET
CHARLES A WILCOX
VERNE E. WILCOX

FOOTHILLS MINING COMPANY

3240 6th ST. — BOULDER, COLORADO
OFFICERS
CHARLES A WILCOX. PRES.
LEO JONICK. VICE-PRES.
LLOYD B. SWEET. SEC.. TREAS.

November 14, 1956

DMEA
DEPARTMENT OF THE INTERIOR
NOV 15 1956
REGION III
DENVER, COLORADO

Mr. W. M. Traver,
Executive Officer, D.M.E.A.,
Field Team, Region III,
New Customhouse,
Denver 2, Colorado.

Dear Mr. Traver:

Confirming our telephone conversation of this morning this is to report that in a directors meeting last evening it was decided to proceed immediately with preparation of a revised application for supplemental funds under our D.M.E.A. contract, Idm - E866. Results of winzing and a small amount of drifting from the winze at a depth of about 85 feet below the main cross-cut level are distinctly encouraging.

We plan to have this application completed and in your office by November 21, 1956.

Yours sincerely,

H. Leon Bird

H. Leon Bird
Mining Geologist

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

RECEIVED NOV 13 1956 D.M.E.A.

224 New Customhouse
Denver 2, Colorado

November 9, 1956

Mr. H. L. Bird, Vice President
Foothills Mining Company
635 Hawthorne Avenue
Boulder, Colorado

Re: Docket DMEA 3830 (Uranium)
Contract Idm-E866
Foothills Mining Company
(Wright Lease)
Jefferson County, Colorado

Dear Mr. Bird:

Reference is made to your letter of September 26, 1956 in which you indicated that pertinent information would soon be available and that you would submit for consideration by the Government a revised request for additional work and funds under Contract Idm-E866.

The contract cannot be held in its present indefinite status for a prolonged period. Therefore, if you still plan to request additional work and funds, we will appreciate advice by return mail as to when we may expect to receive your request.

In the event that you do not wish to pursue the contract further, please advise this office by return mail as to when we may expect to receive your final report, as required under Article 6 (c) of the contract form.

Very truly yours,

Original signed by
W. M. TRAVER

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

JDC:jy
cc: Corresp. E866
Chm. Op. Comm. (2)
Harshman
Shaw (2)
Townsend
Chron.

OCT 12 1956

U. S. DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

224 New Customhouse
Denver 2, Colorado

Date: October 9, 1956

RECEIVED
OCT 12 1956

Memorandum

To: Chairman, Operating Committee, DMEA
From: Executive Officer, DMEA Field Team, Region III
Subject: Royalty payments, Docket DMEA 3830 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado
Period: September, 1956

Enclosed are settlement sheets for which royalty payments were received for ore or concentrates shipped from the subject property during the above month:

Date	Lot No.	Dry Tons	Royalty Due	Royalty Paid	Bonus Roy. Due	Bonus Roy. Pd.
9/6/56	R-1572	128.457	$146.96	$146.96		
Totals:		128.457	$146.96	$146.96		

Past Due Royalties Collected None

Total Dry Tons (Ore or Cons.) Shipped to Date 530.401

E. M. Hansbrough
for W. M. Traver

vj
cc: Royalty File E 866 w/settlement sheets
Monthly Royalty Payment File
J. F. Shaw (2) w/settlement sheet
Chron.

UNION CARBIDE NUCLEAR COMPANY
A Division of Union Carbide and Carbon Corporation

RECEIVED
OCT 12 1956

2

ORE SETTLEMENT

Receiving Station: Rifle, Colorado — Rifle, Colorado, September 6, 1956

Liquidation No.: R-1572 — Lot No.: See Lot Detail — Shippers Lot No.:

Bought of: Foothills Mining Company — A.E.C. License No.: P-2849

Address: 3240-6th St., Boulder, Colorado

Type of Ore: Carnotite — Date Received: 8-16-56 thru 8-30-56

Mining Claim: Wright Lease — Mining District: Jefferson County, Colorado — Pile No.:

Lot No.	Net Weight Pounds	% H_2O	Dry Weight Pounds	SETTLEMENT ASSAYS U_3O_8	SETTLEMENT ASSAYS V_2O_5	SETTLEMENT ASSAYS $CaCO_3$	CONTENTS POUNDS U_3O_8	CONTENTS POUNDS V_2O_5	CONTENTS POUNDS $CaCO_3$
				Report	Averages				
	266900	3.7	2569302	.029	0.07	10.0	747.38	184.04	25753.84

PRICED PER A.E.C. CIRCULAR NO. 5 (Amended)

	POUNDS	PER LB.	DRY SHORT TONS	PER TON	VALUE	TOTAL VALUE
U308 Payment	747.38	3.50	128.46		2615.83	
Development Allowance	747.38	.50	128.46		373.69	
Excess 4 lbs. per ton Premium	233.54	.75	128.46		175.16	
Excess 10 lbs. per ton Premium						
Total U308 Payment						3164.68
V205 Payment	184.04	.31	128.46		57.05	
Total V205 Payment						57.05
Less High Lime Penalty over 6% CaCo3						
Base Penalty				1.00		
100% − 60% = 40% Penalty @ $ .03 per 1/10th			128.46	1.20		
TOTAL						282.61
F.O.B. Carloading depot						
Haulage Allowance ..... Miles ..... Wet Tons						
@ per wet ton mile						

Total U308, V205 and Haulage Payment: 2937.12

E866

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

RECEIVED
SEP 1 0 1956

224 New Customhouse
Denver 2, Colorado

September 17, 1956

Mr. Lloyd B. Sweet, Secretary-Treasurer
Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Royalty payments, Docket DMEA 3830 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Dear Mr. Sweet:

A review of your royalty file indicates load details were not included with settlemant sheets on Liquidation Nos. R-1454, R-1549, R-1556 and R-1572. We request you forward four (4) copies of the load details which were sent you with the mentioned Liquidations to this office. If the 4 copies we require are not available, please send your personal copies and we will duplicate the necessary number for our files.

For future ore shipments, the purchaser should be instructed to submit four copies of the load detail with four copies of the settlement sheets, when one settlement is made covering a series of individual shipments. The load detail sheet must show the dry weights and assay of each shipment, which in turn assures the Operator and the Government of accuracy and serves as a permanent record which may be subjected to inspection in the future.

The most recent information we have concerning your eligibility to receive AEC production bonus is contained in your letter dated April 7, 1956. Please advise this office of any further developments which have transpired subsequent to this date.

Yours very truly,

W. M. TRAVER

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

MHM/vj
cc: Royalty File E866
Corres. File E866
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Marshall
Chron.

3850

ACTION ON ~~INTERIM~~
OR FINAL FIELD TEAM REPORT
Date 9-17

Referred to:

1. ~~Mr. Mittendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chante~~
4. Docket Control Mails and Files
5. _____ Division
6. Docket Control Mails and Files

Note comments in report regarding:

1. looks sick!

2.

3.

4.

and take appropriate action.

- - - - - - - -

Action taken by Division:

Robert E. Adams

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

RECEIVED
SEP 17 1956

224 New Customhouse
Denver 2, Colorado

September 13, 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3830 (Uranium) Contract Idm-E866, Foothills Mining Company (Wright Lease) Jefferson County, Colorado - Interim Report

Enclosed are the original and three copies of an Interim Report, dated September 11, 1956, by Lawrence J. McGreevy, Geologist, U. S. Geological Survey, covering operations under the subject contract through September 7, 1956.

W. M. Traver

W. M. Traver

Enclosures

IN REPLY REFER TO:

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

DMEA
DEPARTMENT OF THE INTERIOR
SEP 12 1956
REGION III
DENVER, COLORADO

September 11, 1956

RECEIVED
SEP 17 1956
2111A

Memorandum

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

From: L. J. McGreevy

Subject: DMEA Docket 3830 (Uranium), Contract Idm-E866
Foothills Mining Company (Wright Lease)
Jefferson County, Colorado

INTERIM REPORT

The subject property was visited on September 7, 1956, to examine the project work completed under the contract.

The exploration work, as specified in Stages I and II of the contract, is essentially completed. The crosscut has been extended 66 feet to the intersection of the mineralized shear zone. Drifting to the northwest from the crosscut along the shear zone totals 239 feet. Drifting to the southeast from the crosscut along the same structure totals 51 feet. The most recent work is two diamond core holes, aggregating 292 feet, which have been drilled to explore the shear zone ahead of the southeast drift face.

The formations encountered in the 66 feet of crosscut are Precambrian biotite-schist, hornblende gneiss, and pegmatite. The schist is impregnated with pyrite, minor amounts of chalcopyrite, and glassy quartz. The hornblende gneiss has not been mineralized as strongly as the schist.

The northwest drift, which contains the only known commercial uranium ore bodies, has been driven along the footwall vein in a wide shear zone of altered gneiss, schist, and brecciated pegmatite. The gneissic structure strikes approximately N. 75° W. and dips 70 to 80° to the southwest, whereas the shear zone strikes N. 25 to 50° W. and dips 65 to 88° to the northeast. Large irregular seams and masses of brecciated pegmatite are encountered between 38 and 120 feet from the crosscut and apparently parallel the general attitude of the gneissic structure. The commercial grade uranium ore is associated with the brecciated pegmatite material. The strike and dip of the shear zone varies considerably within the brecciated pegmatite and economic ore shoots apparently occur where the vein turns to the right and the dip flattens. At present oxidized ore is being mined approximately 120 feet from the crosscut near the top of the one principal ore shoot. The stope now measures about 33 feet long, 6 to 8 feet wide, and 100 feet high. In the hanging wall, 75 feet from the crosscut, a vertical winze has been sunk to a depth of 65 feet. The vein was intersected at between 30 and 40 feet, and 8 to 10 tons of fair grade unoxidized ore were mined.

In the 51 feet of drift southeast of the crosscut the shear zone is well defined and contains disseminated pyrite and veinlets of calcite. The shear zone is tight and unoxidized with a strike of S. 40 to 65° E. and a dip of 76 to 80° northeast. The reddish hematite-limonite alteration, prominent in the brecciated pegmatite material in the productive northwest drift, is absent. Radioactivity

measurements are not above background count. Rather than continue the southeast drift, two diamond core holes, one horizontal and one at minus 60°, have been drilled to the southwest, from a station 110 feet northeast of the drift, to explore the shear zone ahead of this drift. The horizontal drill hole extends to 115 feet. The core was scanned with a counter and radioactivity did not measure above background. No core was recovered between 80 and 94 feet. However, the sludge was collected from this interval and checked for anomalous radioactivity, but was found to be negative. Later probing of the hole by the AEC showed the following results:

0' - 79' background

80' - 94' (non-core interval) average 3 times background

95' - 115' about 1-1/2 times background

It is probable that the shear zone was intersected in the non-core interval between 80-94 feet.

The minus 60° hole extends to 177 feet with good recovery throughout. As yet the hole has not been probed, but the core was scanned with a counter and no anomalous radioactivity was recorded. No textures indicative of the shear zone were observed in checking the core, and it may be that this drill hole came short of the target because of a possible southward turn in the shear zone and/or a steepening of its dip. Better information may be available after the hole is probed, but at present there is apparently no indications of commercial uranium ore in the ground immediately ahead of the southeast drift.

L. J. McGreevy

L. J. McGreevy

U. S. DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

RECEIVED
SEP 13 1956

224 New Customhouse
Denver 2, Colorado

Date: September 11, 1956

Memorandum

To: Chairman, Operating Committee, DMEA
From: Executive Officer, DMEA Field Team, Region III
Subject: Royalty payments, Docket DMEA 3830 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado
Period: August, 1956

Enclosed are settlement sheets for which royalty payments were received for ore or concentrates shipped from the subject property during the above month:

Date	Lot No.	Dry Tons	Royalty Due	Royalty Paid	Bonus Roy. Due	Bonus Roy. Pd.
1956						
8/10	R-1549	54.169	$121.27	$121.27		
8/22	R-1556	112.242	193.59	193.59		
Totals:		166.411	$314.86	$314.86		

Past Due Royalties Collected None

Total Dry Tons (Ore or Cons.) Shipped to Date 401.944

W. M. Traver

W. M. Traver

vj
cc: Royalty File E 866 w/settlement sheets
Monthly Royalty Payment File
J. F. Shaw (2) w/settlement sheets
Chron.

PROCED PER [illegible]

[illegible] Payment	[illegible]	[illegible]	54.17	[illegible]	
[illegible] Allowance	[illegible]	[illegible]	54.17	[illegible]	
Excess 6.5% per ton Premium	352.48	.175	54.17	[illegible]	
Excess 20 lbs. per ton Premium	20.46	.25	54.17	[illegible]	
Total U308 Payment					[illegible]
V205 Payment	86.67	.21	54.17	[illegible]	
Total V205 Payment					26.87
High Lime Penalty over 6% CaO/S					
[illegible] Penalty					
[illegible] Penalty @ 8.0¢ per 1/10th			54.17 1.00 2.22		
TOTAL					[illegible]
[illegible] Wet Ton					
[illegible] per wet ton mile					
Total U308, V205 and Haulage Payment					2465.31

I certify that I am the lawful owner or authorized Representative of the Lawful Owner, of the Ore described in this Settlement Sheet and have legal right to deliver the same to the Union Carbide Nuclear Company, a Division of Union Carbide and Carbon Corporation.

I certify that I hold the A.E.C. Source Material License numbered above.

I hereby transfer to the Union Carbide Nuclear Company, a division of Union Carbide and Carbon Corporation, effective as of the date of delivery of the ore, all my right, title and interest in and to said ore.

The amount set opposite "Total U308, V205 and Haulage Payment" shown above constitutes the entire amount payable to me in [illegible] of ore delivered described herein and is accepted by me in full payment thereof.

Voucher Number		Date	
Check Number	24941	Date	8-10-56
Approved for Payment	[illegible]		

Seller or Agent

[illegible]

6

E-866

2 M.

UNION CARBIDE NUCLEAR COMPANY
A Division of Union Carbide and Carbon Corporation

RECEIVED
SEP 13 1956

ORE SETTLEMENT

Receiving Station: Rifle Colorado — Rifle, Colorado, August 22, 1956
Liquidation No.: R-1556 — Lot No.: See load detail — Shippers Lot No.:
Bought of: Foothills Mining Co — A.E.C. License No.: P-2849
Address: 3240 - 6th St Boulder Colorado
Type of Ore: Carnotite — Date Received: 8-1-56 thru 8-15-56
Mining Claim: Wright Lease — Mining District: Morrison Jefferson Co, Colorado — Pile No.:

Lot No.	Net Weight Pounds	% H_2O	Dry Weight Pounds	SETTLEMENT ASSAYS U_3O_8	SETTLEMENT ASSAYS V_2O_5	SETTLEMENT ASSAYS $CaCO_3$	CONTENTS POUNDS U_3O_8	CONTENTS POUNDS V_2O_5	CONTENTS POUNDS $CaCO_3$
	232380	3.4	224484.84	0.42	0.08	11.6	937.50	181.33	26142.62

PRICED PER A.E.C. CIRCULAR NO. 5 (Revised)

	POUNDS	PER LB.	DRY SHORT TONS	PER TON	VALUE	TOTAL VALUE
U308 Payment	937.50	3.50	112.24		3281.25	
Development Allowance	937.50	.50	112.24		468.75	
Excess 4 lbs. per ton Premium	488.54	.75	112.24		366.41	
Excess 10 lbs. per ton Premium						
Total U308 Payment						4116.41
V205 Payment	181.33	.31	112.24		56.21	
Total V205 Payment						56.21
Less High Lime Penalty over 6% CaCo3						
Base Penalty				1.00		
11.6% - 6.0% = 5.6% Penalty @ $ .03 per 1/10th			112.24	1.68		
TOTAL						300.80
F.O.B. CAR LOADING DEPOT						
Haulage Allowance ..... Miles ..... Wet Tons						
@ per wet ton mile						
Total U308, V205 and Haulage Payment						3871.82

E866

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

RECEIVED
AUG 15 1956

224 New Customhouse
Denver 2, Colorado

August 13, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3830 (Uranium) Contract Idm-E866, Foothills Mining Company, Jefferson County, Colorado

Enclosed are the Government's, Division and Docket copies of Amendment No. 1 to Contract Idm-E866, which was forwarded by your letter of August 3, 1956 for signature by the Operator and this office.

Also enclosed are four copies of Project Work Approval issued by the DMEA Field Team, Region III in conjunction with the provisions of Amendment No. 1.

Copies of the Amendment and the Work Approval have been distributed to the Operator, Finance Office, Region III and others concerned.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
AUG 15 1956

224 New Customhouse
Denver 2, Colorado

AUG 13 1956

Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Docket DMEA 3830 (Uranium)
Contract Idm-2866
Foothills Mining Company
Jefferson County, Colorado

Gentlemen:

Consistent with provisions in the contract pertaining to work under Stage II, this constitutes the Government's approval for the performance of not to exceed 290 feet of diamond core drilling as provided by Amendment No. 1 to the contract.

The locations and attitude of the two holes to be drilled are shown on the map entitled, "Sketch of Proposed Drilling Wright Lease - D.M.E.A. Contract No. Idm-2866, H. L. Bird, Mining Geologist," which is attached hereto and made a part of this work approval.

Nothing in this work approval shall be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

attached to Amdt. #1

Very truly yours,

DMEA Field Team, Region III

W. H. Trever

E. H. Harshman

Enclosure

JWT:prl
cc: Chairman, Op. Comm. (4)
Finance Office, Reg. III
Amendment file
Harshman
Shaw (2)
Townsend
Corres. file
Chron.

700

FILE COPY
Surname:
Ching
Chambers
Martin

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

AUG - 3 1956

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

Re: Docket No. DMEA-3830 (Uranium)
Contract No. Ldm-2866
Foothills Mining Company
Wright Lease
Jefferson County, Colorado

Dear Mr. Traver:

In accordance with your memorandum of July 10 and our teletype of July 17, 1956, we are enclosing a proposed Amendment No. 1 to the subject contract, prepared for your signature in behalf of the Government.

If you and the Operator find the amendment in order please have it executed as indicated and make the usual distribution thereafter. If the amendment is not satisfactory and can not be amended within your delegated authority, please return all copies to this office together with the suggested changes.

Sincerely yours,

W. S. Martin
857
ACTING Chairman, Operating Committee

Enclosures

MChing/izm 7-30-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

APPROVED:

For Robert W. Kochel 657
Member, Bureau of Mines

N. E. Nelson 857
Member, Geological Survey

RCB.

Docket Surname Copy

700

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

July 30, 1956

Memorandum

To: The Files

From: Michael Ching, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Justification for Amendment No. 1
Docket No. DMEA-3830 (Uranium)
Contract No. Idm-E866
Foothills Mining Company
Wright Lease
Jefferson County, Colorado

The Operator has requested substitution of approximately 290 feet of diamond drilling in lieu of 50 feet of authorized drifting to the southeast.

The drifting to the southeast has been along the footwall of a steeply dipping shear zone and has not encountered ore. The proposed drilling would be from an adit crosscut and would consist of one horizontal hole and one 60° inclined hole which would explore the ground about 50 feet ahead of the present face of the southeast drift. The drilling would therefore accomplish the essential work of the remaining 50 feet of drift, and in addition, explore the ground below the drift level as well as the hanging wall of the shear zone. It is possible that ore may be found in the hanging wall of the shear zone.

The Executive Officer, Region III, presented figures showing total unexpended funds, including unused funds for drifting, timbering and analyses, and proposed that all such funds be allowed for the proposed drilling. The resultant unit cost would be $6.54 per foot of drilling. The Operator estimated the cost of drilling as $6.70 per foot. The Field Examiners (Harrer and Harshman) believe the Operator's estimated cost is high.

A direct substitution of 290 feet of diamond drilling for 50 feet of drifting at the authorized price for the latter of $32.25 per foot, would result in a drilling price of $5.56 per foot. This appears to be a reasonable price and would not require the use of unexpended funds authorized for timbering and analyses. The amendment was drawn accordingly.

Michael Ching

Michael Ching

700

FILE COPY
Surname: Ching
Ellis

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

July 19, 1956

Memorandum

To: Associate Solicitor, Division of Mineral Resources

From: Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metals Division

Subject: Proposed Amendment No. 1
Docket No. DMEA-3830 (Uranium)
Contract No. Idm-8866
Foothills Mining Company
Wright Lease
Jefferson County, Colorado

Will you kindly prepare an Amendment No. 1 to the subject contract in accordance with the attached draft. It should be prepared for the signature of W. M. Traver, Executive Officer, D A Field Team, Region III.

Ernest Wm. Ellis

Ernest Wm. Ellis

Attachment

MChing/izm 7-19-56
cc to: Docket
Code 700
Mr. Ching

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 Foothills Mining Company, parties to that certain Exploration Project Contract No. Idm-E866, Docket No. DMEA-3830, dated September 1, 1955, hereinafter called the "Contract," that effective as of its date, the Contract is amended as follows:

1. Under Article 3 substitute the date September 30, 1956 for the date July 31, 1956; and
2. Under Exhibit "A," Description of the Work, first sentence, after the word "by" insert the words "diamond core drilling";
3. Under Exhibit "A," Stage II, first sentence, substitute the figure "50" for the figure "100" and after the word "feet" immediately following, insert the words "and diamond core drill a maximum of 290 feet of AX (minimum size) hole"; and
4. Under Exhibit "A" Estimated Costs of the Project, Stage II, after the word "Either" substitute the figure "50" for the figure "100" and substitute the figure "$1612.50" for the figure $3225.00," and immediately thereafter, insert thewords "and 290 feet of diamond core drilling @ $5.56/ft. (rounded) $1612.50";

This agreement shall not be construed to increase the estimated total cost of the project nor the aggregate total amount which the Government may be required to contribute under the provisions of the contract.

In Witness Whereof, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By _____
W. M. Traver, Executive Officer

Foothills Mining Company

By _____ Title _____

700

Departu[illegible] of the Interior

DMEA
Rare & Misc. Metals Div.
14X4401(01) Revolving Fund,
Defense Production Act, Int. (Allocated
Working Fund to the Office of the Secy.)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25

Surname Copy

Ching
Ellis
Selfridge
Kjerman

TELETYPE

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

JUL 17 1956

REURMEM JULY 10 AND TELETYPE JULY 13 FOOTHILLS MINING COMPANY DOCKET 3830 WILL AMEND CONTRACT ALLOWING 290 FEET DIAMOND DRILLING AT $5.56 PER FOOT IN LIEU OF 50 FEET DRIFTING AND CROSS-CUTTING AT $32.25 PER FOOT. ALL OTHER WORK TO REMAIN UNCHANGED.

George C. Selfridge

CHAIRMAN, OPERATING COMMITTEE

MChing/ai
7-17-56
cc to: Admr.'s Reading File
Docket
Operating Committee
Code 700
Mr. Ching
Messrs. JECrawford, Rm. 3643
THKiilsggard, Rm. 5224
JOHosted, Rm. 3210, GSA
DMEA Field Team, Region III - Confirmation

P.C.S.

Chairman, Operating Committee, DMEA

RECEIVED
JUL 16 1956

BUR MINES DN 235 7-13-56 4-15 PM

CHAIRMAN, OPERATING COMMITTEE, DMEA

RE DOCKET DMEA 3830, CONTRACT IDM-E866, FOTXXX FOOTHILLS MINING COMPANY, MATERIAL FORWARDED BY OUR MEMORANDUM OF JULY 10,1956. IF AN AMENDMENT WILL BE PREPARED PLEASE INCLUDE SIXTY-DAY EXTENSION OF COXXX COMPLETION DATE.

W M TRAVER

Denver, Colorado

7-13-56

U. S. DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

RECEIVED
JUL 12 1956

224 New Customhouse
Denver 2, Colorado

Date: July 10, 1956

Memorandum
To: Chairman, Operating Committee, DMEA
From: Executive Officer, DMEA Field Team, Region III
Subject: Royalty payments, Docket DMEA 3830 (Uranium), Contract Idm-E866, Foothills Mining Co. (Wright Lease), Jefferson County, Colorado

Period: June, 1956

During the above month the following royalty payments were received for ore or concentrates shipped from the subject property:

Date	Lot No.	Dry Tons	Royalty Due	Royalty Paid	Bonus Roy. Due	Bonus Roy. Pd.
1956						
3/1	45 - 2	66.693	$86.35	$86.35		
3/6	85 - 3	60.731	99.09	99.09		
6/7	R-1454	53.687	71.34	71.34		
Totals:		181.111	$256.78	$256.78		

Past Due Royalties Collected	None
Total Dry Tons (Ore or Cons.) Shipped to Date	235.533
Expiration Date of Royalty Repayment	Not determined
Amount of Government Participation	" "
Total Royalty Payments to Date	$342.31
Percent of Loan Repayment	-- --

W. M. Traver

vj

cc Royalty File E 866 w/Settlement Sheets
Monthly Royalty Payment File
J. F. Shaw (2) w/settlement sheets
Chron.

Form No. O-4 (Rev) 5M-1-56 W&Y

RECEIVED
JUL 12 1956

WESTERN URANIUM PROJECT

LUCIUS PITKIN, Inc.

Ore Purchasing Agent for United States Atomic Energy Commission

Receiving Station Off Plateau — Grand Junction, Colorado March 1 19 56

Liquidation No. 45 — Lot No. OP-7 — Shippers Lot No. 2

Bought of Foothills Mining Company — A.E.C. License No. F-2849

Address 635 Hawthorne; Boulder, Colorado

Type of Ore Hi-Lime — Contract No. AT(05-1)-666 — Date Received 2/6/56

Mining Claim Sec. 32 — Mining District Morrison — Pile No. VS # 16

Bag - 73604 - 72576

Lot No.	Wet Weight Pounds	H_2O	Dry Weight Pounds	SETTLEMENT ASSAYS U_3O_8	V_2O_5	$CaCO_3$	Cu	CONTENTS POUNDS U_3O_8	V_2O_5	$CaCO_3$	Cu
OP-7	~~140000~~ 141000	5.4	133386	0.33	—	15.5		440.17	—	20675.	

	Per Lb.	Per Ton	Short Tons	Total Value
0.33% - 6.6# at	3.30	23.10	66.6930	$1540.61
Development allowance 6.6# at	.30	3.30	"	220.09
Premium in excess of 4# per ton (6.6# - 4#) = 2.6# at	.75	1.95	"	130.05
TOTAL UNDS PAYMENT		28.35	66.6930	$1890.75
Haulage allowance 22 miles @ 6¢ per wet ton mile			70.5000	93.06
TOTAL				$1983.81
Less $CaCO_3$ Penalty $CaCO_3$ in excess of 6.% (15.5% - 6.%) = 9.5% 9.5% @ .30 per unit + $1.00 base =		3.85	66.6930	(-) 256.77
TOTAL GROSS PRICE				$1727.04
Deductions				—
NET PROCEEDS				$1727.04

Correct TGH
Checked WAT
Approved MER

Paid March 5, 1956
Voucher No. 3-8
Check No. ~~45~~ 160

Copy to Wright
Gross price $1727.04 less development allowance $220.09, less haulage allowance $93.06 equals $1413.89 — 212.08
15% Royalty of $1413.89 equals
DMEA 6% Royalty of Gross price $1727.04 equals — 96.35
Total Price less deductions — 1428.61

Ia

I certify that I am the lawful owner or authorized Representative of the Lawful Owner, of the Ore described in this Settlement Sheet and have legal right to deliver the same to the Commission.
I certify that I hold A. E. C. Source Material License numbered above.
I hereby transfer to the Commission, effective as of the date of delivery of the ore, all my right, title and interest in and to said ore.
I will accept the amount as shown above as "Total Gross Price" in full settlement for sums due to me on account of the ore deliveries described herein.

Buyers assays govern if Seller fails to submit his assays prior to acceptance of payment.

All rates paid are based on U. S. Atomic Energy Commission Published Schedules unless otherwise provided in contract applicable to ore delivery described herein.

Foothills Mining Company Seller or Agent
By Floyd P. Grant
Title Sec., Treas.

E-866

Form No. O-4 (Rev) 5M-1-56 W&Y

WESTERN URANIUM PROJECT

LUCIUS PITKIN, Inc.

Ore Purchasing Agent for United States Atomic Energy Commission

RECEIVED
JUL 12 1956

Receiving Station: Off Plateau — Grand Junction, Colorado: March 6, 1956

Liquidation No.: 85 — Lot No.: OP 10 — Shippers Lot No.: 3

Bought of: Foothills Mining Company — A.E.C. License No.: P-2849

Address: 3040 Broadway; Boulder, Colorado

Type of Ore: Hi-Lime — Contract No: AT(05-1)-666 — Date Received: 2-20-56

Mining Claim: Section 32 — Mining District: Off Plateau — Pile No.: 16

Car DRG 71957 to 73624

Lot No.	Wet Weight Pounds	H_2O	Dry Weight Pounds	SETTLEMENT ASSAYS U_3O_8	V_2O_5	$CaCO_3$	Cu	CONTENTS POUNDS U_3O_8	V_2O_5	$CaCO_3$	Cu
OP 10	128260	5.3	121462	0.40	-	15.2		485.85	-	18,462	

U308	Per Lb.	Per Ton	Short Tons	Total Value
0.40% = 8.0# at	3.50	28.00	60.7310	$1700.48
Development allowance 8.0# at	.50	4.00		242.92
Premium in excess of 4# per ton (8.0# - 4#) = 4.0# at	.75	3.00		182.19
TOTAL U308 PAYMENT		35.00	60.7310	$2125.59
Haulage allowance 22 miles @ 6¢ per wet ton mile			64.1300	84.65
TOTAL				$2210.24
V205				- - - -
TOTAL				$2210.24
Less CaCO3 Penalty				
CaCO3 in excess of 6% (15.2$ - 6%) = 9.2%				
9.2% @ .30 per unit + $1.00 base =		3.76	60.7310	(-) 228.35
TOTAL GROSS PRICE				$1981.89
Deductions:				- - - -
NET PROCEEDS				$1981.89

Paid March 9, 1956
Check No. 236
Vo. No. 3184

Correct: DPR
Checked: WSJ
Approved: HER

je

I certify that I am the lawful owner or authorized Representative of the Lawful Owner of the Ore described in this Settlement Sheet and have legal right to deliver the same to the Commission.
I certify that I hold A. E. C. Source Material License numbered above.
I hereby transfer to the Commission, effective as of the date of delivery of the ore, all my right, title and interest in and to said ore.
I will accept the amount as shown above as "Total Gross Price" in full settlement for sums due to me on account of the ore deliveries described herein.

Foothills Mining Company
Seller or Agent

By: [signature]

Title: [illegible]

Buyers assays govern if Seller fails to submit his assays prior to acceptance of payment.

All rates paid are based on U. S. Atomic Energy Commission Published Schedules unless otherwise provided in contract applicable to ore delivery described herein.

E-866

1 JW

UNION CARBIDE NUCLEAR COMPANY
A Division of Union Carbide and Carbon Corporation

ORE SETTLEMENT

Receiving Station: Rifle Colorado — Rifle, Colorado, June 7, 1956

Liquidation No.: R-1454 — Lot No.: See load detail — Shippers Lot No.:

Bought of: Foothills Mining Co — A.E.C. License No.: P-2849

Address: 635 Hawthorne Boulder Colorado

Type of Ore: Carnotite — Date Received: 5-16-56 thru 5-31-56

Mining Claim: Wright Lease — Mining District: Adlidale Jefferson Co Colorado — Pile No.:

Lot No.	Net Weight Pounds	% H_2O	Dry Weight Pounds	SETTLEMENT ASSAYS U_3O_8	SETTLEMENT ASSAYS V_2O_5	SETTLEMENT ASSAYS $CaCO_3$	CONTENTS POUNDS U_3O_8	CONTENTS POUNDS V_2O_5	CONTENTS POUNDS $CaCO_3$
	110580	2.9	107373.18	~~Approx~~ 0.34	~~Average~~ 0.09	13.6	365.06	96.64	14602.75

PRICED PER A.E.C. CIRCULAR NO. 5 (Revised)

	POUNDS	PER LB.	DRY SHORT TONS	PER TON	VALUE	TOTAL VALUE
U308 Payment	365.06	3.50	53.69		1277.71	
Development Allowance	365.06	.50	53.69		182.53	
Excess 4 lbs. per ton Premium	150.30	.75	53.69		112.73	
Excess 10 lbs. per ton Premium						
Total U308 Payment						1572.97
V205 Payment	96.64	.31	53.69		29.96	
Total V205 Payment						29.96
Less High Lime Penalty over 6% CaCo3						
Base Penalty				1.00		
13.6 % - 6.0 % = 7.6 % Penalty @ $ .03 per 1/10th			53.69	2.28		
TOTAL						176.10
FOB car loading depot						
Haulage Allowance ..... Miles ..... Wet Tons						
@ per wet ton mile						
Total U308, V205 and Haulage Payment						1426.83

E 866

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

RECEIVED
JUL 12 1956

224 New Customhouse
Denver 2, Colorado

July 10, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3830 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Enclosed is the following material pertaining to an amendment to the subject contract:

1. Original and one copy of the Operator's request, dated June 25, 1956.

2. Original and three copies of a joint memorandum, dated July 5, 1956, from C. M. Harrer, Mining Engineer, Bureau of Mines, and E. N. Harshman, Geologist, Geological Survey, and member of the DMEA Field Team, Region III.

The Operator requests that unexpended funds under the contract be made available for diamond core drilling two holes estimated to aggregate 290 feet. The field examiners recommend Government approval.

There follows an analysis of the status of the project funds.

Stage I

Item	Authorized by Contract		Work Completed and Funds Expended		Unexpended Balance	
	Work	Funds	Work	Funds	Work	Funds
Drift & X-Cut	360 ft.	$11,610.00	360 ft.	$11,610.00	0	$ 0.00
Timbering	50 ft.	200.00	12 ft.	48.00	38 ft.	152.00
Sample Analysis	30 ea.	90.00	27 ea.	81.00	3 ea.	9.00
			Unexpended Funds, Stage I			$161.00

RECEIVED
JUL 12 1956

Stage II

Item	Authorized by Contract Work	Authorized by Contract Funds	Work Completed and Funds Expended Work	Work Completed and Funds Expended Funds	Unexpended Balance Work	Unexpended Balance Funds
Drift & X-Cut	100 ft.	$3,225.00	50 ft.	$1,612.50	50 ft.	$1,612.50
Timbering	25 ft.	100.00	0	0.00	25 ft.	100.00
Sample Analysis	17 ea.	51.00	0	0.00	17 ea.	51.00

Unexpended Funds, Stage II $1,763.50

Total Unexpended Funds $1,924.50.

Because of the small amount of drilling and the resultant difficulties in obtaining bids from an independent contractor, we recommend that the Operator's estimate of drilling costs be accepted as within reason.

Preparation of an amendment of the nature required is not deemed within the authority delegated to this office. Therefore, the matter is forwarded for your consideration and appropriate action, with the recommendation that an amendment be prepared to change EXHIBIT "A" to correspond to the following estimate of costs.

Estimated Costs of the Project
Fixed Unit Costs 1/

Stage I		
360 feet of Crosscutting and drifting at $32.25/ft.	$11,610.00	
12 feet of Timbering at $4.00/ft.	48.00	
27 Chemical Sample Analysis for U_3O_8 at $3.00/sample	81.00	
		$11,739.00
Stage II		
50 feet of Drifting at $32.25/ft.	$ 1,612.50	
290 feet of Diamond Core Drilling, AX minimum size, at $6.584/ft. (Rounded)	1,909.50	
5 Chemical Sample Analysis for U_3O_8 at $3.00/sample	15.00	
		$ 3,537.00
Total Estimated Cost of Project		$15,276.00
Government Participation at 75%		$11,457.00.

After you have reviewed the matter, we will appreciate advice by teletype as to your decision.

W. M. Traver

W. M. Traver

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

RECEIVED
JUL 12 1956

DMEA
Date Rec'd.
JUL 6 1956
BUREAU OF MINES
Denver, Colorado

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
July 5, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: C. M. Harrer
E. N. Harshman

Subject: DMEA Docket 3830 (Uranium) Contract Idm-E866, Foothills Mining Company (Wright Lease) Jefferson County, Colorado

Your memorandum of July 2, 1956 forwarded a request by the operator to substitute diamond drilling for the last 50 feet of drifting not expended under the contract, and asked for recommendations relative to that request.

Exploration northwesterly southeast (mc from the main crosscut on a radioactive shear zone has found a modest amount of good grade ore; work to the southwest has not found ore and the shear zone along which ore may occur has weakened somewhat. Exploration by drifting has been limited to the footwall side of the shear zone where the ore seems to have been deposited; the hanging wall portion may contain ore.

In his letter of June 25, 1956 the operator requests that the shear zone be explored ahead of the southeast drift by diamond drilling rather than by extending the southeast drift along the footwall of the shear zone. Two holes are proposed, one horizontal and one at minus 60°; both are to be drilled from a station in the crosscut about 110 feet northeast of the drift. The location, bearing, and attitude of these holes are shown on a sketch accompanying the operator's request.

It is concluded that the exploration proposed by the operator is within the intent of the contract and that the drill holes will adequately explore the ground 50 feet southeast of the present face of the southeast drift.

The operator's request to substitute about 290 feet of diamond drilling for the remaining drift exploration under the contract is recommended for approval. Costs should be limited to the funds remaining to the contract -- $1,924.50, and should include core boxes and any necessary assaying for U_3O_8.

The operator estimates the cost of diamond drilling at $6.70 per foot for a total of $1,943.00. This is $19.00 in excess of remaining funds.

The operator's estimated cost appears high. He should submit formal bids for the underground drilling to verify his cost.

C. M. Harrer
C. M. Harrer
Mining Engineer

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

cc: 9
Idm-E866
ENHarshman
Chron

RECEIVED

JUL 12 1956

3240 - 6th Street
Boulder, Colorado
June 25, 1956

DMER
Date Rec'd.

JUN 28 1956

BUREAU OF MINES
Denver, Colorado

Mr. W. M. Traver
Executive Officer
D.M.E.A. Field Team, Region III
New Customs House
Denver, Colorado

Re: AMENDMENT TO D.M.E.A.
CONTRACT Idm-E866

Dear Mr. Traver:

After further consideration, the Foothills Mining Company has decided to ask for an amendment to the Contract that will allow the substitution of exploratory diamond drilling for the 50 feet of drifting not yet completed under Stage II.

Details of the proposed drilling are shown by the sketch accompanying this letter.

The reason for this proposed change in type of exploratory work is found in the fact that little ore was found in the first fifty feet of drifting to the southeast of the main crosscut, the initial work under Stage II, which suggests the possibility that the uranium mineralization may have been stronger on the hanging wall side of the zone in this area. To support this idea these facts may be cited:

1. Long Hole R-1 which is toward the hanging wall side of the zone penetrated ore grade material for several feet, judging by A.E.C. radiometric probing, and

2. The occurrence of highly radioactive water where the hanging wall fracture is exposed by the main cross-cut may indicate ore nearby in this fracture.

The proposed drill holes will test the whole zone, the first hole on the same level as the present workings and the second about 100 feet below this level.

Hole No. 1 is directed to cross the footwall fracture beyond the breast of the southeast drift to explore the vein at the point which would be reached by drifting another 50 feet.

Hole No. 2 will give some idea of the continuity of the zone in depth and a comparison of strength of mineralization between that on the present level and that existing at the depth reached by drilling.

Costs of this proposed drilling are summarized as follows:

Hole No. 1	120'	@ $ 6.70 per ft.	$ 804.00
Hole No. 2	170'	@ 6.70 per ft.	1,139.00
		Estimated Total Cost	$1,943.00
Cost to D.M.E.A. with 75% participation			$1.457.25

The balance of funds remaining in Stage II over this cost of $1,457.25 could be available for drilling should extra footage be required or could be cancelled if that is necessary. For details of the cost figure of $6.70 per foot reference is made to the estimate of drilling costs furnished in the company's application for supplemental funds dated May 24, 1956 now in your files.

This proposed work will complete Stage II of the contract and avoid the complication of tying in Stage II funds with any supplemental funds that may be granted in response to the company's request for such fund now under consideration by your office.

The company realizes that this change will take time and is willing to accept the delay. It is believed that the proposed drilling will require about thirty days for completion after the granting of this amendment, so an extension of the present limit of July 31, 1956 is also requested to give the necessary additional time.

In a separate letter a request for deferment of action on the company's application for supplemental funds is being sent to your office since revision of the application will be made necessary by this proposed change in the work.

Hoping this will meet with your approval, I am

Yours sincerely,

H. L. Bird

H. L. Bird
Mining Geologist

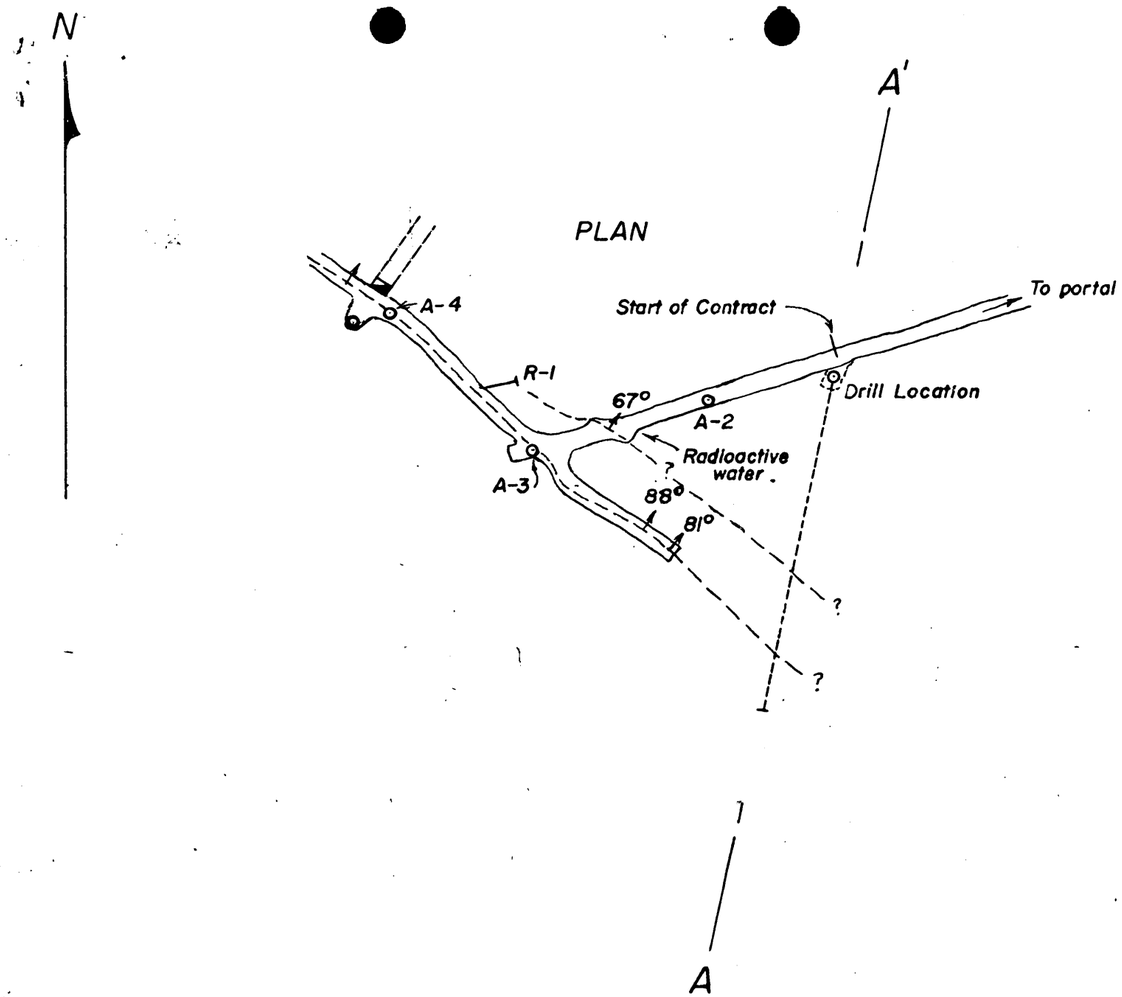
APPROVED:

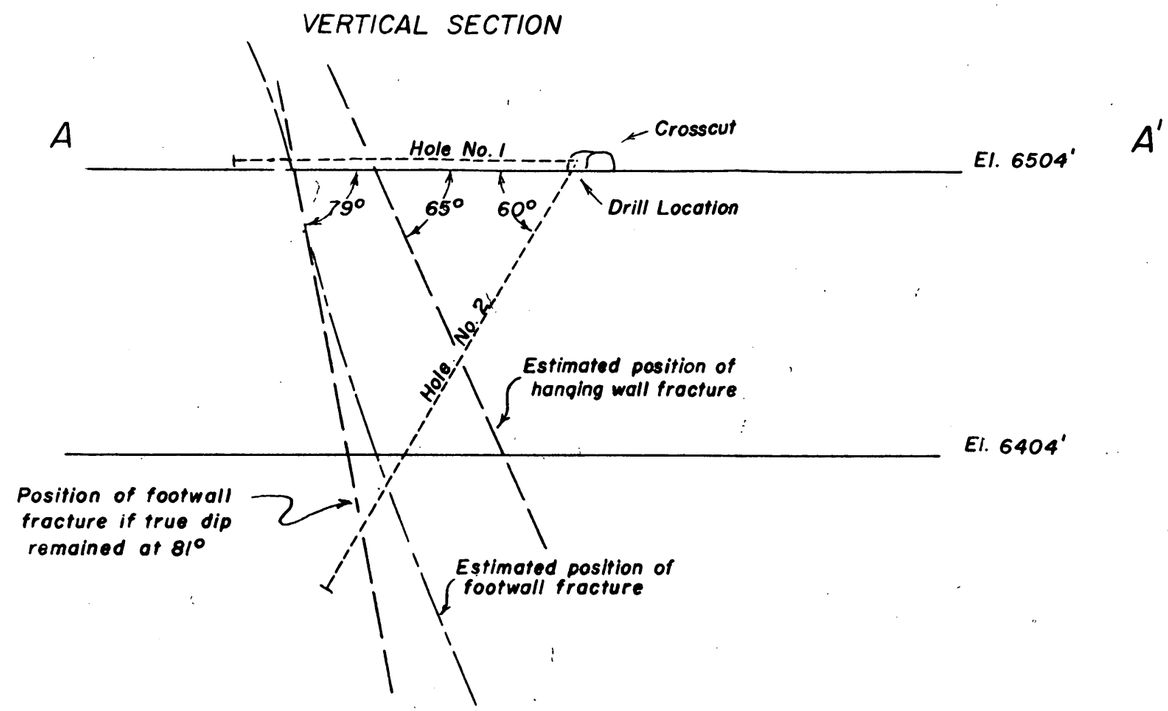
FOOTHILLS MINING COMPANY

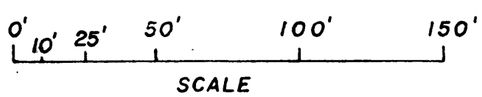
C. A. Wilcox

By:
C. A. WILCOX, PRESIDENT
FOOTHILLS MINING COMPANY

HLB:sk







SKETCH OF PROPOSED DRILLING

WRIGHT LEASE – D.M.E.A. CONTRACT NO. Idm–E866

H. L. BIRD, MINING GEOLOGIST

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

RECEIVED
JUL 5 - 1956

[illegible] New Customhouse
Denver 2, Colorado

July 2, 1956

Memorandum

To: R. H. Herchman - with enclosure
John F. Shea - " "

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 5830 (Uranium), Contract Ilm-2066, Foothills Mining Company,(Wright Lease), Jefferson County, Colorado

Enclosed is a copy of the Operator's letter of June 26, 1956, wherein it is requested that their request for supplemental funds forwarded you by our memorandum of May 28, 1956 be held in deferment pending resolution of the matter relative to expanding the balance of funds presently approved under the contract.

Also enclosed is a copy of the Operator's request of June 25, 1956 requesting the Government's approval to substitute diamond drilling for the 50 feet of drifting which has not been expended under the contract.

Please submit a memorandum report of your recommendations relative to the latter matter and return the enclosed material with your joint report.

W. M. TRAVER

W. M. Traver

Enclosures

JMT:yel

cc: Chairman, Oper. Comm. (2)
Treasurer
Contract. file
Chron.

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

RECEIVED
MAY 31 1956

[illegible] New Customhouse
Denver 2, Colorado

May 28, 1956

Memorandum

To: E. H. Harshman - w/enclosure
John F. Shaw " "

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

Subject: Docket DMEA 3830 (Uranium), Contract Ida-[illegible]66, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Enclosed is a copy of the Operator's letter of May 24, 1956, which constitutes a request for the Government's approval of additional work and funds under the subject contract.

The Operator's request is for approval of 150 feet of winze sinking, 100 feet of drifting, and 300 feet of diamond drilling, at a total estimated cost of $18,[illegible].00, less unexpended funds presently approved under the contract amounting to $1,612.50, leaving the balance of additional funds necessary in the amount of $16,657.50, which is 50 cents less than the amount indicated by the Operator in his analysis of the estimated project costs.

Please submit a joint report of your recommendations in the matter and return the enclosed material with your report.

J. W. Townsend

J. W. Townsend

Enclosure

JWT:pr1
cc: Chairman, Oper. Comm. (2)
Townsend
Corres. file
Chron.

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

RECEIVED
MAY 24 1956

224 New Customhouse
Denver 2, Colorado

May 22, 1956

Mr. Lloyd B. Sweet, Secretary-Treasurer
Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Royalty payments, Docket DMEA 3838 (Uranium)
Contract [illegible], Foothills Mining Company
(Wright Lease), Jefferson County, Colorado

Dear Mr. Sweet:

Enclosed is a photocopy of our letter of April 25, 1956, for which we have not received your reply.

Please give this matter your immediate attention.

Very truly yours,

J. W. Townsend

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

Enclosure

MHM/vj

cc: Royalty File E866
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Chron.

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

224 New Customhouse
Denver 2, Colorado

April 25, 1956

Lloyd B. Sweet, Secretary-Treasurer
Foothills Mining Company
3240 Sixth Street
Boulder, Colorado

Re: Royalty payments, Docket DMEA 3830 (Uranium)
Contract Idm-E866, Foothills Mining Company
(Wright lease), Jefferson County, Colorado

Dear Mr. Sweet:

Your company's check No. 1020 in the amount of $185.44 for payment of royalties due the Government on Lots 2 and 3 has been received; however, we would prefer receiving actual settlement sheets rather than the typed copies you submitted. If the four copies we require are not available to you, please send your copies and we will duplicate a sufficient number for our files. Your copies can then be returned to you if you so desire. Please request four additional copies of settlement sheets for all future shipments.

Also, if it is your intent to have your mailing address changed from that as listed in Contract Idm-E866, please furnish us with a separate formal request. An original and five copies of this request are required.

Yours very truly,

W. M. TRAVER

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

RDB/vj

cc: Royalty File E866
Sec. Opr. Comm. (2)
J. F. Shaw (2)
J. D. Cooper
Chron.

RECEIVED
APR 30 1956

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

RECEIVED
APR 23 1956

224 New Customhouse
Denver 2, Colorado

April 20, 1956

Mr. C. A. Wilcox, President
Foothills Mining Company
635 Hawthorne Avenue
Boulder, Colorado

Re: Docket DMEA-3830 (Uranium)
Contract Idm-E866
Wright lease
Jefferson County, Colorado

Dear Mr. Wilcox:

As all currently approved work under Contract Idm-E866 has been completed, we are withholding the entire amount of Government participation for work performed during the month of March, 1956.

If additional work is not approved by DMEA and performed by your company, the amount will continue to be held pending resolution of matters relative to closing the account, which includes the rendering of a Final Engineering and Geologic Report as stipulated under Article 6 (c) of the contract, and the release of a Report of Review of contract expenditures by the Contract Administration and Audit Division, DMEA.

Very truly yours,

W. M. TRAVER

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

JDC:jy
cc: Corresp. E866
Sec. Op. Comm. (2)
Shaw (2)
Townsend
Chron.

5-1-56

U. S. DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

RECEIVED
APR 30 1956

224 New Customhouse
Denver 2, Colorado

Date: April 18, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Royalty payments, DMEA Docket 3830 (Uranium), Contract Idm-E866, Foothills Mining Company - Colorado

Period: March, 1956

During the above month the following royalty payments were received for ore or concentrates shipped from the subject property:

Lot No.	Dry Tons	Royalty Due	Royalty Pd.

(NONE)

Totals:

Past Due Royalties Collected	None
Total Dry Tons (Ore or Cons.) Shipped to Date	54.422
Expiration Date of Royalty Repayment	Not determined
Amount of Government Participation	" "
Total Royalty Payments to Date	$85.53
Percent of Loan Repayment	-- --

W. M. Traver

vj
cc Royalty File E 866 w/Settlement Sheets
Monthly Royalty Payment File
~~T. A. Christensen~~
J. F. Shaw (2)
Chron.

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

RECEIVED
FEB 23 1956

224 New Customhouse
Denver 2, Colorado

February 20, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Royalty Payment - DMEA Docket 3830 (Uranium), Contract Idm-E866, Foothills Mining Company - Colorado

Enclosed is settlement sheet from Colorado Plateau Uranium Ore Project covering shipment of ore under Liquidation No. 9632.

Also enclosed is Foothills Mining Company check No. 380 in the amount of $73.58 in payment of DMEA royalty due on this shipment.

No payment has been made on the AEC Bonus royalty.

W. M. TRAVER

W. M. Traver

Enclosures

vj

cc: Royalty File E866
Sec. Opr. Comm. (2) w/settlement sheet
J. F. SHAW (2) w/settlement sheet
Royalty Report File
Chron.

Form No. [illegible] 8-54 25M

COLORADO PLATEAU URANIUM ORE PROJECT

American Smelting and Refining Company, Ore Purchasing Agent For
United States Atomic Energy Commission

Receiving Station [redacted]

Grand Junction, Colorado [redacted] 19[redacted]

Liquidation No. [redacted] 9632 Lot No. [redacted]

Shippers Lot No. [redacted]

Bought of [redacted]

A.E.C. License No. P-T

Address [redacted]

Type of Ore [redacted] Contract No. [redacted] Date Received [redacted]

Mining Claim [redacted] Mining District [redacted]

Pile No. [redacted]

Lot No.	Wet Weight Pounds	H_2O	Dry Weight Pounds	SETTLEMENT ASSAYS				CONTENTS POUNDS			
				U_3O_8	V_2O_5	$CaCO_3$		U_3O_8	V_2O_5	$CaCO_3$	
[redacted]	[redacted]	[redacted]	90000	[redacted]	-	[redacted]		[redacted]	-	[redacted]	
[redacted]				[redacted]		[redacted]		[redacted]			
[redacted]				[redacted]		[redacted]		[redacted]		[redacted]	
[redacted]				[redacted]		[redacted]		[redacted]		1291.61 [redacted]	
[redacted]				[redacted]		[redacted]		[redacted]		[redacted]	
[redacted]				[redacted]		[redacted]		-		[redacted]	
[redacted]				.73		[redacted]		-		184.52 [redacted]	
[redacted]						[redacted]				1617.89 [redacted]	
[redacted]						[redacted]		[redacted]		[redacted]	
[redacted]								[redacted]		[redacted]	
[redacted]										1680.06 [redacted]	
[redacted]						[redacted]		[redacted]		(-) [redacted]	
[redacted]										[redacted]	
[redacted]										[redacted]	
[redacted]										1471.69 [redacted]	

[redacted]

I certify that I am the lawful owner or authorized Representative of the Lawful Owner, of the Ore described in this Settlement Sheet and have legal right to deliver the same to the Commission.

I certify that I hold the A. E. C. Source Material License numbered above.

I hereby transfer to the Commission, effective as of the date of delivery of the ore, all my right, title and interest in and to said ore.

I will accept the amount as shown above as "Total Gross Price" in full settlement, except for final quarterly adjustment for average V_2O_5—U_3O_8 ratio, for sums due to me on account of the ore deliveries described herein. [redacted]

By [redacted] Seller or Agent

Buyers assays govern if Seller fails to submit his assays prior to acceptance of payment.
All rates paid are based on U. S. Atomic Energy Commission Published Schedules.

E 865

RECEIVED
FEB 23 1956

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

RECEIVED
FEB 15 1956

224 New Customhouse
Denver 2, Colorado

February 13, 1956

Mr. M. J. Kraft, Secretary-Treasurer
Foothills Mining Company
635 Hawthorne Avenue
Boulder, Colorado

Re: Royalty payments, DMEA Docket 3830, (Uranium), Contract Idm-E866, Foothills Mining Company, Wright Lease, Jefferson County, Colorado

Dear Mr. Kraft:

Please send us a copy of the settlement sheet for Liquidation No. 9632 which was shipped from the Wright Lease. We will duplicate the four copies which are required for our files after which your copy can be returned to you if you so request.

Yours very truly,

W. M. TRAVER

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

RDB/vj

cc: Royalty File E866
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Berkenkotter
Chron.

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

RECEIVED
FEB - 3 1956

224 New Customhouse
Denver 2, Colorado

February 1, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3830 (Uranium), Contract Idm-E866, Foothills Mining Company, Jefferson County, Colorado

Enclosed for your files are four copies of project work approval for performance under the subject contract as issued by the DMEA Field Team, Region III.

Also enclosed are four copies of the Operator's letter of January 26, 1956, requesting the Government's approval for the work under Stage II of the contract.

Additional data relative to the matter is contained in the joint engineering and geologic report forwarded to you by our memorandum of January 23, 1956, in conjunction with the DMEA Field Team, Region III, denial of the Operator's request of January 10, 1956, for Government approval of 50 feet of winze.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
FEB - 3 1956

224 New Customhouse
Denver 2, Colorado

January 30, 1956

Mr. C. A. Wilcox, President
Foothills Mining Company
635 Hawthorne Avenue
Boulder, Colorado

Re: Docket DMEA 3850 (Uranium),
Contract Idm-E866,
Foothills Mining Company,
Jefferson County, Colorado

Dear Mr. Wilcox:

In reference to your letter of January 26, 1956, and consistent with the provisions of Contract Idm-E866, relative to work under Stage II, this confirms verbal approval by the DMEA Field Team, Region III, of January 26, 1956, for you to drift not to exceed 50 feet Southeasterly from the crosscut which was driven under Stage I of the project work.

Nothing in this project work approval shall be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

Very truly yours,

DMEA Field Team, Region III

W. M. Traver

W. M. Traver

E. M. Harshman

E. M. Harshman

JWT:prl
cc: Chairman, Oper. Comm. (4)
Finance Office, Region III
Amend. file
Harshman
Shaw
Townsend
Corres. file
Chron.

DMEA
Date Rec'd.

JAN 27 1956

BUREAU OF MINES
Denver, Colorado

635 Hawthorn Ave,
Boulder, Colorado,

January 26, 1956

Mr. W. M. Traver,

Executive Officer,

D. M. E. A. Field Team,

New Customs House,

Denver, Colorado.

Dear Mr. Traver:

Since we have only fifteen feet remaining on Stage I of of our contract No Idm-E866 we would like to secure D.M.E.A. permission to commence work under Stage II.

It is our desire to begin drifting on the footwall vein to the southeast of the crosscut as the initial work under Stage II and to extend this drift at least fifty feet in that direction.

Hoping that you will find this proposal satisfactory, we are

Yours Sincerely,

FOOTHILLS MINING COMPANY

By C. A. Wilcox, President
C A Wilcox

After discussing with John Shaw, verbal approval was given on January 26, 1956 to proceed with Stage II work as requested.

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

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

RECEIVED
JAN 26 1956

224 New Customhouse
Denver 2, Colorado

January 23, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3830 (Uranium) Contract Idm-E866
Foothills Mining Company, Jefferson County, Colorado

Enclosed are four copies of a letter dated January 20, 1956 from the DMEA Field Team, Region III, which constitutes denial of the Operator's request to sink 50 feet of winze under Stage II of the contract. Also enclosed are four sets of data relative to the matter.

W. M. Traver

W. M. Traver

Encls.

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

RECEIVED
JAN 26 1956

224 New Customhouse
Denver 2, Colorado

January 20, 1956

Mr. H. L. Bird, Vice-President
Foothills Mining Company
495 Northgate Avenue
Boulder, Colorado

Re: Contract DMEA 3836 (Uranium), Contract Ilm-3866
Foothills Mining Company, Jefferson County, Colo.

Dear Mr. Bird:

Reference is made to your letter of January 10, 1956 wherein you request the Government's approval for 30 feet of winze to be performed in lieu of 180 feet of drifting under Stage II of the contract.

A review of data on file in this office indicates that sufficient information is already available from outcrops to establish the continuity of the radioactive breccia zone to depths of about 95 feet below the adit level and for about 1,000 feet along the surface. Therefore, the proposed 30 feet of winze would add little useful additional information except for a limited exposure of breccia one below the drift level.

For the reasons stated above your request for the Government's approval of 30 feet of winze to be performed under Stage II of the present contract is hereby denied.

Very truly yours,

DMEA Field Team, Region III

W. M. Tanner

W. M. Tanner

E. E. Hardman

E. E. Hardman

JMT:bh
cc-Chair. Op. Comm. (4)
Assoc. File, Region III
Hardman
Shaw
Townsend
Carroll. File E-366
Chron.

IN REPLY REFER TO:
Date Rec'd.

JAN 19 1956

BUREAU OF MINES
Denver, Colorado
RECEIVED
JAN 26 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

January 18, 1956

Memorandum

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

From: R. U. King
C. M. Harrer

Subject: Docket DMEA 3830 (Uranium) Contract Idm-E 866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado - Recommendations on applicant's alternative proposal for Stage II exploration.

The applicant proposes to winze 50 feet at a location 75 feet northwest of the crosscut adit (fig. 1). In a letter of January 10, 1956, the applicant states the reasons why he believes winzing is desirable. Reasons 1, 2, and 4 are based on observations made along the strike of the breccia reef for 170 feet and down the dip for about 7 feet. The examining team concludes that the above interpretations are based on insufficient data.

Sufficient information is already available from outcrops establishing the continuity of the radioactive breccia reef to depths of 55 feet below the adit level and for about 1,000 feet along the surface and the applicants proposed 50-foot winze is expected to add little useful information except limited exposure of known ore below the drift level.

The face of the northwesterly drift, 172 feet in from the crosscut on January 1, 1956, is about 200 feet below the surface and appears to be below the water table and zone of oxidation. The lower limit of the zone of oxidation is probably irregular and as it is close to the back of the drift it is expected that oxidized material will be encountered from time to time.

The favorability of the radioactive breccia reef as a host for uranium is enhanced by the discovery of two significant uranium ore bodies along the drift northwest of the crosscut adit. In as much as similar conditions probably exist along the breccia reef both northwest and southeast of the crosscut, and there still remains a considerable strike distance suitable for exploration, it is concluded that further exploration by drifting along the structure is more desirable than winzing at this time.

The examining team recommends the following program as shown on figure 1.

1) Any footage remaining to Stage I shall be expended in continuing the northwest drift.

2) Stage II shall consist of 100 feet of drift and/or crosscut. Fifty feet of this amount shall be applied to drifting from the crosscut southeasterly along the radioactive breccia reef. The remaining 50 feet shall be applied to extend the northwest drift or southeast drift or to drive a crosscut across the reef at a

point about 200 feet northwest of the existing crosscut adit. The purpose of the crosscut is to explore the entire width of the radioactive breccia reef.

R U King

R. U. King
Geologist

C. M. Harrer

C. M. Harrer
Mining Engineer

RUKing:mp

U.S. Dept of The Interior

Prepared for the Defense Minerals Exploration Administration

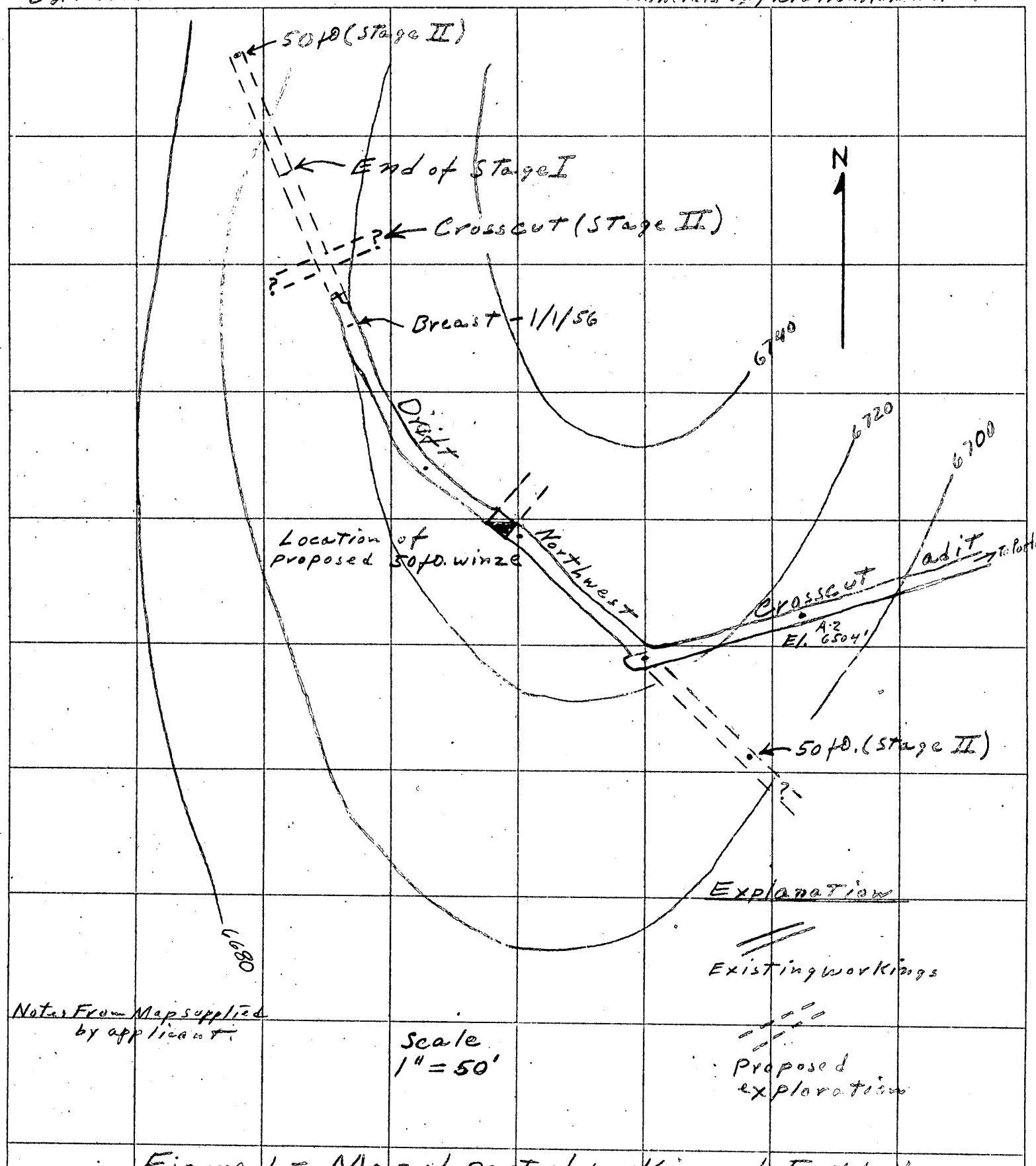


Figure 1.- Map of part of workings of Foothills Mining Company, DMEA 3830, Contract Idaho - E866, Jefferson County, Colorado.

CM Harrer - RUKING Jan 1956

"ALBANENE" NO. 185M K&E CO., N.Y. REG. U.S. PAT. OFF

RECEIVED
JAN 2 6 1956

635 Hawthorn Avenue
Boulder, Colorado
January 10, 1956

Mr. W. M. Traver
Executive Officer,
D. M. E. A.
224 New Custom House
Denver, Colorado

RECEIVED
JAN 26 1956

Dear Mr. Traver:

Since the work on the Wright Lease under Contract No. Idm-866 is nearing the end of Stage I, we are herewith submitting a proposal for work under Stage II for your consideration and approval.

We prefer the alternative of 50 feet of winzing and on the accompanying maps have indicated our choice of winze location with center at 75 feet from the mark established by Mr. Harrer for drift measurement.

This proposed location was selected for the following reasons, briefly stated as follows:

1. Occurrence of ore showing an increase in width and grade in the lower portion of the drift in this area;

2. Steeper dips than average are present here and may have influenced ore deposition favorably;

3. Rock firm enough to permit excavation of an opening for installation of hoist and headframe without expensive timbering is present here.

4. We believe that much less oxidation and leaching will be found below the water level.

If you decide that further discussion and consideration of this proposal is necessary, we will be glad to arrange an interview with members of your field team at their convenience.

Hoping you will find this plan satisfactory and thanking you again for your fine cooperation with us in this venture, we are

Yours truly,

FOOTHILLS MINING COMPANY

By H. L. Bird

H. L. Bird, Vice President

HLB:mw

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

RECEIVED
DEC 23 1955

224 New Customhouse
Denver 2, Colorado

December 20, 1955

Memorandum

To: T. A. Christensen

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

Subject: Royalty Payment - DMEA Docket 3830 (Uranium), Contract Idm-E866, Foothills Mining Company - Colorado

Enclosed is settlement sheet from Union Carbide Nuclear Company covering shipment of ore under Liquidation No. R-1199.

Also enclosed is Union Carbide Nuclear Company check No. 562 in the the amount of $11.95 in payment of DMEA production royalty due on this shipment of ore.

No payment has been made on the AEC Bonus royalty.

E. N. Hershman

E. N. Hershman

Enclosures

vj

cc: Royalty File E866
Sec. Opr. Comm. (2) w/settlement sheet
J. F. Shaw (2) w/settlement sheet
Royalty Report File
Chron.

1/95

UNION CARBIDE NUCLEAR COMPANY
A Division of Union Carbide and Carbon Corporation

RECEIVED
DEC 23 1955

ORE SETTLEMENT

Receiving Station: Rifle Colorado — Rifle, Colorado, December 7, 1955

Liquidation No.: R-1199 — Lot No.: R-36769 — Shippers Lot No.:

Bought of: Foot Hills Mining Co — A.E.C. License No.: Applied for

Address: 635 Hawthorne, Boulder Colo

Type of Ore: Carnotite — Date Received: 11-10-55

Mining Claim: The wright lease — Mining District: Idledale Jefferson Co Colorado — Pile No.:

Lot No.	Net Weight Pounds	% H_2O	Dry Weight Pounds	SETTLEMENT ASSAYS			CONTENTS POUNDS		
				U_3O_8	V_2O_5	$CaCO_3$	U_3O_8	V_2O_5	$CaCO_3$
	19580	3.8	18835.96	0.26	0.16	12.4	48.97	30.14	2335.66

PRICED PER A.E.C. CIRCULAR NO. 51 (Revised)

	POUNDS	PER LB.	DRY SHORT TONS	PER TON	VALUE	TOTAL VALUE
U308 Payment	48.97	3.50	9.42		171.40	
Development Allowance	48.97	.50	9.42		24.49	
Excess 4 lbs. per ton Premium	11.29	.75	9.42		8.47	
Excess 10 lbs. per ton Premium						
Total U308 Payment						204.36
V205 Payment	30.14	.31	9.42		9.34	
Total V205 Payment						9.34
Less High Lime Penalty over 6% CaCo3						
Base Penalty				1.00		
12.4 % — 6.0 % = 6.4 % Penalty @ $ .04 per 1/10th			9.42	2.56		
TOTAL						33.54
Haulage Allowance 100 Miles 9.79 Wet Tons @ .06 per wet ton mile						58.74
Total U308, V205 and Haulage Payment						238.90

E 866

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

RECEIVED
DEC 19 1955

224 New Customhouse
Denver 2, Colorado

December 14, 1955

Mr. M. J. Kraft, Secretary-Treasurer
Foothills Mining Company
635 Hawthorne Avenue
Boulder, Colorado

Re: Royalty payments, DMEA Docket 3830 (Uranium), Contract Idm-E866, Foothills Mining Company, Wright Lease, Jefferson County, Colorado

Dear Mr. Kraft:

We have received settlement sheets and royalty payment for an ore shipment (Liquidation No. R-1199) to the Union Carbide Nuclear Company at Rifle, Colorado.

Please advise this office whether or not your company has made application for the Atomic Energy Production Bonus for shipments from this property. If not, we advise that this be done as it will substantially increase your returns on the first 10,000 pounds of contained U_3O_8 shipped and will also increase royalty payments to the DMEA. As these bonus checks are received you should send your check for 5.0 percent of the total payment to the Executive Officer, DMEA Region III, Room 224 New Customhouse, Denver 2, Colorado. All Government royalty checks are to be made payable to the Defense Minerals Exploration Administration.

Yours very truly,

R. N. Harshman
Acting Executive Officer
DMEA Field Team, Reg.III

By J. W. Townsend
J. W. Townsend

RDB/vj
cc: Royalty File E866
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Berkenkotter
Chron.

DMEA
Date Rec'd.
SEP 19 1955
BUREAU OF MINES
Denver, Colorado

Region III

Building 20
Denver Federal Center
Denver 2, Colorado
September 16, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shea
Supervising Mining Engineer

From: C. M. Harrer

Subject: DMEA 3830, Contract Ldm-2866 (Uranium) Foothills Mining Company, Jefferson County, Colorado - Start of contract.

Messrs. Verne Wilcox and F. H. Gapter were contacted at the property on the afternoon of September 15, 1955, and the start of subject contract was established. A survey spad was driven into the center of the portal set of timber and another at 270.0 feet in is the measuring point to the present breast and start of the contract.

The start of the contract was established as 353.5 feet in from the center of the portal set or 83.5 feet beyond the second survey spad.

The drift is about 6 x 7-feet cross-section and is driven on a course of S. 75° W., in schist containing quartz and pyrite. Indications of radioactivity are reported in parts of the drift.

The aforementioned principals state that crosscutting may start on the night of September 15, 1955.

C. M. Harrer
C. M. Harrer
Mining Engineer

cc: 9
Hillerahman
2866
Chron

CMH/cm

Secretary (4)

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

RECEIVED
SEP 1 3 1955

September 12, 1955

CERTIFIED MAIL

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman of the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3830 (Uranium), Contract Idm-E866, Foothills Mining Company (Wright Lease), Jefferson County, Colorado

Enclosed are the Government's, Division, and Docket copies of Contract Idm-E866, properly executed by the Contractor. The contract was transmitted to this office by your letter of September 1, 1955.

Copies of the contract have been furnished this Operator, the Region III Finance Officer, distributed to the field offices concerned, and a copy retained in our files.

W. M. Traver

Enclosures

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

RECEIVED
SEP 15 1955

September 12, 1955

224 New Customhouse
Denver 2, Colorado

Mr. M. J. Kraft, Secretary-Treasurer
Foothills Mining Company
635 Hawthorn Avenue
Boulder, Colorado

Re: Docket DMEA 3830 (Uranium),
Contract Idm-2066, Foothills
Mining Company (Wright Lease),
Jefferson County, Colorado

Dear Mr. Kraft:

Enclosed herewith is the Operator's copy of Short-Form Exploration Project Contract No. Idm-2066, Docket DMEA-3830.

Also enclosed are six copies of form MF-104, "Operator's Monthly Report and Voucher" and six copies of Form MF-104A, "Operator's Unit Cost and Progress Report." At the completion of the first calendar month of operation and monthly thereafter you are required to submit five copies of the form to Mr. John F. Shaw, U. S. Bureau of Mines, Room 137, Building 20, Denver Federal Center, Denver 2, Colorado. The sixth form is for your records.

Please note that the monthly report requires a narrative report which should be accompanied by maps or sketches. The narrative report must be signed by the Operator. The monthly report will not be processed for payment unless accompanied by a narrative report. Additional copies of Forms MF-104 and MF-104A will be forwarded to you as required.

For your information and in reply to many questions that have been asked, after Forms MF-104 and MF-104A are received an engineer will check progress and approve your accounts, after which it will be sent to the Regional Office, Region III, U. S. Bureau of Mines, 224 New Customhouse, Denver 2, Colorado, for auditing and vouchering. If the report is in order, a check will be issued by the Treasury Department for the Government's portion of the costs. If you have any difficulty in completing these forms and the reports, please call on Mr. Shaw or this office for assistance.

Your attention is directed to the provision that Stage II work is contingent on the results obtained from Stage I and performance of the work under Stage II is subject to the prior approval of the Government.

When Stage I has been completed you should request approval from this office of the work you propose to perform under the next stage. Your request for the work approval must be in sextuplet, complete with a map

showing the work performed under Stage I, the work proposed under Stage II and the results of the work performed under Stage I, including assay returns and any other pertinent data which will be of value to the Government in evaluating the work performed under Stage I. You should anticipate a suspension of operations between stages of work to enable the Government geologist and engineer to evaluate the results of the work performed and make their recommendations to this office relative to the additional work you propose.

To eliminate as much delay as possible, if that is of serious consideration, you should expedite forwarding of the results of the work completed and your request for the Government's approval of the additional work you propose.

Field representatives of the Government are not authorized to approve any changes in the work program or contract provisions. Such approval can only be given by the Washington office, DMEA or the DMEA Field Team, Region III, which is comprised of E. N. Harshman, U. S. Geological Survey member, and W. M. Traver, U. S. Bureau of Mines member.

No oral statement of any person shall modify or otherwise affect the terms or conditions of this contract.

It is a regulation that reimbursement for the cost of work accomplished prior to the date of the contract will not be allowed. We have entered October 1, 1955, as the date on or before which work shall commence in Article 3 of all copies of the contract.

It is also a requirement and imperative that you notify this office in writing the date work actually commences under the contract, with a copy of your letter to Mr. Shaw. Exhibit "A" Stage I requires the establishment of a starting point for crosscutting operations and you are accordingly required to make arrangements with Mr. Shaw to assign an engineer to accompany you to the property to make measurements and set the point from which Government reimbursement for work performed will be made.

Very truly yours,

W. M. Traver

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

Enclosures

WMT:ab
cc: Corresp. M866
Chron.
Accord. M866
Chair. Oper. Comm. (2)
Shaw (2)
Harshman
Townsend

Docket 700

Ching
Ellis
Talbot
Selfridge

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

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

SEP - 1 1955

Re: Docket No. DMEA-3830 (Uranium)
Foothills Mining Company
Wright Lease
Jefferson County, Colorado

Dear Mr. Traver:

Enclosed are the original and five copies of a proposed short form contract between the Government and Foothills Mining Company signed by the Administrator.

If you find the contract in order, it is ready for forwarding to the Operator for signature, subject to the insertion of a suitable final starting date under Article 3.

You will note that the estimated overall cost of $24,389.00 proposed by the Field Team has been reduced to $15,276.00 and that the latter amount can be reduced an additional $3,376.00 by the simple expedient of not approving Stage II if the work thereunder is not justified. Most of the reduction was made possible by the fact that the Operator has been advancing the crosscut for his own account and less footage will be required to reach the objective.

The unit cost for drifting and crosscutting as proposed by the examiners has been modified somewhat by making a separate item of the timbering, and basing the costs of labor, supervision, equipment rental, and payroll taxes on an average advance of 3 1/3 feet per shift instead of 3 feet. This is the same rate of advance used in the Revis and Revis contract (Docket No. 3678). A small deduction in cost was also made on account of salvage values.

The proposed unit cost for a winze was reduced from $70.63 to $66.50 per foot because of a smaller cross section.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JB)

Enclosures

APPROVED:

P. F. Yopes (JB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JB)
Member, Geological Survey

P. S. Please note first paragraph Stage I, page 1, Exhibit "A" of contract.

Code 700
Mr. Ching

Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5222
J. O. Hosted, Rm. 3210, GSA

Admr. Reading File
Operating Committee
Docket

MChing:am
8-29-55
cc to:

R.C.S.

(Docket Copy) 700

Ching
Ellis

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

August 29, 1955

Memorandum

To: The Files

From: Michael Ching, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Project Costs
Docket No. DMEA-3830 (Uranium)
Foothills Mining Company
Wright Lease
Jefferson County, Colorado

Unit costs under the proposed contract are based upon the field examiners' estimates shown in the Field Team Report. The drifting and crosscutting costs were modified by making a separate item of the timbering and basing the costs of labor, supervision, equipment rental, and payroll taxes on an average advance of 3 1/3 feet per shift instead of 3 feet. This is the same rate of advance used in the Revis and Revis contract (Docket No. 3678). Some further modification was made on account of salvage values.

Because a smaller cross section would be adequate for a winze the proposed unit cost was reduced from $70.63 to $66.50.

Details of crosscutting and drifting costs, originally based on 660 feet of advance, are as follows:

	Total	Per Foot
Labor and supervision	$9,266.40	$14.04
Explosives	2,383.92	3.61
Pipe and fittings	455.00	0.69
Vent pipe	259.00	0.39
Track	700.00	1.06
Fuel and lubricants	1,342.00	2.03
Drill steel and bits	858.00	1.30
Equipment rental	5,080.00	7.70
Repairs	330.00	0.50
Payroll taxes	926.64	1.40
Miscellaneous	116.00	0.18
	$21,716.96	$32.90
Less salvage	424.20	.64
Net cost	$21,292.76	$32.26

Michael Ching
Michael Ching

Rubin

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

AUG 29 1955

Memorandum

To: The Administrator, DMEA
Attention: Mr. E. W. Ellis

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-3830, Foothills Mining Company (Uranium)

As requested in Mr. Ching's memorandum dated August 15, we have prepared the attached contract.

We did not prepare the Consent to Lien required in this case prior to execution because the Field Team has already been requested by the Operating Committee to obtain one. See teletype dated August 12.

J. L. Hofflund
Acting Assistant Solicitor
Defense Minerals

Attachments

HCRubin/end
Copy to: DMEA Docket
Solicitor's Docket
E. W. Ellis (2)
J. L. Hofflund
H. C. Rubin
chron.

8/24/55-gla

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

August 23, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of examination, DMEA Docket 3830, Foothills Mining Company, Wright Lease, Jefferson County, Colorado

I have reviewed the report of examination, Foothills Mining Company, DMEA Docket 3830; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The Field Team joint report of examination recommends an exploration program for $24,389.00 to explore uranium occurrences on subject property with about 460 feet of crosscut and about 200 feet of drift along a radioactive shear zone. They also recommend that any unspent funds, which will result because the applicant is already engaged in driving the crosscut proposed in the application at his own expense, be applied to any additional exploration approved by the Field Team at a later date.

The field examiners base their justification of the project mainly on two samples taken from one of four holes drilled through the vein. The primary type material assayed 0.326 percent U_3O_8 for a width of 3.38 feet. The assay was a weighted average for both samples.

I suggest that some consideration be given to the possibility of exploration by core drilling rather than underground work. The cost of several holes through the vein would be considerably less than that for the proposed crosscutting and drifting. It is entirely possible, of course, that the friable nature of the vein material would preclude the practicability of drilling. The Field Team, however, has not indicated that drilling cannot accomplish the same purpose as the underground exploration. The fact that the applicant was already engaged in driving the crosscut may have had some bearing on the Field Team's decision. I do not agree that any unspent funds resulting from the applicant's initiation of the project prior to DMEA approval be applied to additional exploration approved by the Field Team at a later date.

Mr. Hosted, after studying the Field Team report, recommends crosscutting the shear zone and up to 200 feet of drifting on the zone.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

John E. Crawford

John E. Crawford

8/23/55 gla

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

August 18, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3830, (Uranium), Wright Lease, Foot Hills Mining Company, Jefferson County, Colorado.

Enclosed are the original and five copies of Form MF203, Owner's Consent to Lien signed by Marcus G. Wright. Also enclosed are four copies of a Certificate signed by M. J. Kraft stating that he has no overriding royalty.

W. M. Traver

Enclosures

RECEIVED
AUG 2 1955

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

August 15, 1955

TO WHOM IT MAY CONCERN:

This is to certify that I assigned the Wright lease to the Foothills Mining Company without any overriding royalty.

M. J. Kraft

M. J. Kraft

STATE OF COLORADO)
) SS.
COUNTY OF BOULDER)

The foregoing instrument was acknowledged before me this 15th day of August, 1955, by M. J. Kraft.

My commission expires August 5, 1957. Witness my hand and official seal.

Keith H. Zook
Notary Public

Docket

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

Ching
Ellis
Selfridge
Mattendorf

DEPARTMENT OF THE INTERIOR

DMEA

AUG 1 8 1955

14X4401(01)Revolving Fund,
Defense Production Act (Interior)
(Allocated Working Fund to the Office
of the Secretary)

T E L E T Y P E

W. M. TRAVER
EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
22h NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

REURTT AUGUST 12 FOOTHILLS MINING COMPANY DOCKET 3830

SUBORDINATION AGREEMENT BY MELVIN KRAFT UNNECESSARY.

George C. Selfridge

George C. Selfridge, (GWB)
Chairman, Operating Committee

MChing:am
8-16-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5222
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching
Confirmation DMEA Field Team, Region III (1)

IN REPLY REFER TO:

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

August 15, 1955

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of Field Examination Report, DMEA Docket No. 3830 (uranium), Foothills Mining Company, Wright Lease, Jefferson County, Colorado.

The examining team recommends approval of the applicant's exploration proposals which would consist of 460 feet of crosscut and 200 feet of drift, at a total estimated cost of $24,389.

The especial difficulty with 'vein' uranium deposits is that they frequently contain "hot spots" or high grade pods of a few hundred pounds in size but not enough tonnage can be developed to permit economic mining.

From an objective viewpoint, and without benefit of field examination, the information in the field report leads me to conclude that the proposals for underground crosscutting and drifting are premature for the following reasons:

1) The breccia zone thins down, on surface, to a fracture zone only about 6 inches wide. If thinning continues at depth, as it well might in places, chances for developing substantial ore tonnages are lessened.

2) Only one of five existing drill holes on the property penetrated ore. In uranium exploration it is considered poor practice to initiate underground work on the basis of one ore hole.

3) Because uranium salts are extremely soluble, many times, through efflorescence or other mechanisms, the outcrop is much richer than deeper rock unexposed to air. The examining team theorizes that the surface is leached and that ore grade will increase with depth.

RECEIVED
AUG 16 1955

From the information at hand I am inclined to suggest that a better approach might have been to carefully drill six or eight more diamond drill holes through the shear zone at a cost of $7,500 to $10,000. Lack of encouraging results in the drilling would probably indicate that underground work is not warranted. However the cost differential is lessened between the two methods because the applicant has completed part of the adit.

W P Williams

W. P. Williams

Surname Copy

Ching
Ellis

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

August 15, 1955

Memorandum

To: Acting Assistant Solicitor, DMEA

From: Michael Ching, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Docket No. DMEA-3830 (Uranium)
Foothills Mining Company
Wright Lease
Jefferson County, Colorado

Will you kindly prepare a short form contract between the Government and Foothills Mining Company in accordance with the attached draft.

We have requested the Field Team to secure a Consent to Lien executed by Marcus G. Wright.

Michael Ching

Attachment

MChing:ai
cc to: Docket
Code 700
Mr. Ching

MF-200A
(Revised June 1954)

Docket No. DMEA 3830

Commodity Uranium

Contract No. Idm-E

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

It is agreed 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 [2] Foothills Mining Company, whose mailing address is 202 Mercantile Bank Building, Boulder, Colorado, 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 Map - Figure 2

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 Colorado, County of Jefferson, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] Lease, [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 by Marcus C. Wright

[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 Uranium The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before July 31, 1956 (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

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

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

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $15,276.00 The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $11,457.00: *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

.....
(Operator)

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]

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

EXPLORATION PROJECT CONTRACT

FOOTHILLS MINING COMPANY

Docket No. DMEA-3830

ANNEX I

The land referred to in Article 2 of the contract consists of the NE ¼ of the NW ¼ of Sec. 32, T. 4 S., R. 70 W., Jefferson County, Colorado, excepting a 100-foot right-of-way for Colorado State Highway No. 74 and a 40-foot right-of-way for the access road to Little Park. The land is shown on the attached map entitled, "Figure 2 - Map of Wright Lease ....."

EXPLORATION PROJECT CONTRACT

FOOTHILLS MINING COMPANY

Docket No. DMEA-3830

EXHIBIT "A"

Description of the Work

The work consists of exploration by crosscutting and drifting, and possibly raising or sinking, to test a radioactive shear zone at a depth below the zone of oxidation and leaching. The work is tentatively indicated on the attached map entitled, "Figure 2 - Map of Wright Lease....." Representative samples shall be taken in the radioactive zone as the work progresses and such samples shall be analyzed chemically for uranium. The crosscut and drift shall be timbered as necessary and have a minimum cross section of 5 feet by 7 feet in the clear of timbers. Any raise or winze shall have a minimum cross section of 4 feet by 6 feet inside the timbers.

The work shall be divided into two stages. If, in the opinion of the Government, the results of the first stage warrant further work, the Operator shall perform as much of the second stage as the Government approves in writing in advance.

The location, inclination, direction and extent of all project work are subject to the approval of the Government.

STAGE I

The Operator has started the proposed crosscut indicated on Figure 2 for his own account and the exact position of the face shall be determined by a Government engineer immediately prior to the start of work under this contract.

The crosscut shall be continued in a southwesterly direction as indicated on the map, until the radioactive shear zone or vein is encountered. Thereafter drift along the vein in a northwesterly direction for approximately 200 feet as indicated on the map. If the estimated figure of 360 feet for Stage I crosscuttingand drifting is insufficient to reach the target indicated on the map, the deficient footage may be transferred and deducted from Stage II footage.

STAGE II

If justified by the results of Stage I work, drift, crosscut or raise a maximum of 100 feet. As an alternative to such drifting, crosscutting, or raising, a maximum of 50 feet of sinking may be done. The location, inclination, direction, and extent of Stage II work shall be determined after completion of Stage I work.

Estimated Costs of the Project

FIXED UNIT COSTS

Stage I		
360 ft. crosscutting and drifting @ $32.25/ft.	$11,610.00	
50 ft. timbering @ $4.00/ft.	200.00	
30 chemical sample analyses @ $3.00/sample	90.00	$11,900.00
Stage II		
*100 ft. drifting, crosscutting or raising @ $32.25/ft.	$3,225.00	
*25 ft. timbering @ $4.00/ft.	100.00	
17 chemical sample analyses @ $3.00/sample	51.00	3,376.00

Estimated total cost of the project	$15,276.00
Government participation @ 75%	$11,457.00

* 50 feet of fully timbered winze @ $66.50 per foot may be substituted for these two items

W. S. Martin — Room 3538

Docket 3830

DN 235 BUR MINES 8-12-55 4-23 PM

W S MARTIN, ACTING CHAIRMAN, OPERATING COMMITTEE, DMEA

REURTT FOOTHILLS MINING COMPANY, DOCKET 3830. WE HAVE FORWARDED CONSENT TO LIEN FOR SIGNATURE. WE QUESTION IF MF-201 SHOULD NOT BE PREPARED FOR SIGNATURE OF MELVIN KRAFT COVERING LEASE ASSIGNMENT TO APPLICANT.

W M TRAVER

Denver, Colo.

AUG 15 7 50 AM '55

BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.

Surname copy

Depar[illegible] of the Interior

DMEA

11X1101(01) Revolving Fund, Defense Production Act, Interior (Allocated Working Fund to the Office of the Secy.)

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

Ching
Ellis
Kiilsgaard
Geehan
Martin
Hoffman
Mittendorf

T E L E T Y P E

AUG 12 1955 (Uranium)

W. M. TRAVER, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

RE FOOTHILLS MINING COMPANY DOCKET 3330 HAVE YOU SECURED CONSENT TO LIEN BY MARCUS G. WRIGHT.

W. S. Martin
ACTING CHAIRMAN, OPERATING COMMITTEE

MChing/gla
8-12-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Ching
Confirmation to DMEA Field Team, Region III

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

RECEIVED
AUG - 8 1955

224 New Customhouse
Denver 2, Colorado

August 2, 1955

ON-SITE EXAM.

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA-3830 (Uranium), Foothills Mining Company, Wright Lease, Jefferson County, Colorado - Joint Report of Examination

Enclosed are the original and three copies of the report pertaining to the above application.

We concur in the recommendation of the field examiners that an exploration program consisting of about 460 feet of crosscutting and 200 feet of drifting at an estimated cost of $24,389.00 is warranted.

DMEA Field Team, Region III

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
8-12-55
(date)

DMEA
Date Rec'd.
JUL 28 1955
RECEIVED
AUG - 8 1955
BUREAU OF MINES
Denver, Colorado

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
July 27, 1955

Region III

TRANSMITTED
AUG - 2 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: Docket No. DMEA 3830, Wright Lease, (Uranium) Foothills Mining Company, Jefferson County, Colorado

Enclosed are the original and 10 copies of a Joint Summary, Conclusions, and Recommendations and the original and 10 copies of the Joint Geological and Engineering report prepared by D. R. McLaren, Geologist and C. M. Harrer, Mining Engineer covering Docket No. DMEA 3830.

The Foothills Mining Company applied for Defense Minerals Exploration Administration assistance in the amount of $26,909.64 to explore the NE¼ of the NW¼, Section 32, T. 4 S., R. 70 W. The company was formerly known as the W. H. B. F. Mining and Engineering Company and their application for exploration assistance, DMEA Docket No. 3606, was denied without prejudice.

The company subsequently explored the property by a shallow shaft, two shallow adits and trenches, and five diamond drill holes. In addition, a crosscut was started during June, 1955 and had been driven about 140 feet at the time of the examination. On the basis of the additional information, the examining team concluded that an exploration program consisting of approximately 460 feet of crosscutting and 200 feet of drifting at an estimate cost of $24,389.00 is warranted.

It is recommended that a contract be prepared to authorize the above work.

John F. Shaw
John F. Shaw
Supervising Mining Engineer

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

Enclosures

JFS:jw

cc: 10 ✓
DMEA 3830, Chron

Reviewed by
DMEA OPERATING COMMITTEE
8-12-55
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

RECEIVED
AUG - 8 1955

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3830, Wright Lease

Foothills Mining Co.

Jefferson County, Colorado

Uranium

D. R. MacLaren
Geologist
Geological Survey

C. M. Harrer
Mining Engineer
Bureau of Mines

July 20, 1955

Reviewed by
DMEA OPERATING COMMITTEE
8-12-55
(date)

DMEA 3830
WRIGHT LEASE
FOOTHILLS MINING CO.
JEFFERSON COUNTY, COLORADO

RECEIVED
AUG - 8 1955

Joint Summary, Conclusions, and Recommendations

By

D. R. MacLaren
Geologist
Geological Survey

C. M. Harrer
Mining Engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
8-12-55
(date)

TRANSMITTED
AUG - 2 1955
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AUG - 8 1955

DMEA 3830
WRIGHT LEASE
FOOTHILLS MINING CO.
JEFFERSON COUNTY, COLORADO

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS
By D. R. MacLaren and C. M. Harrer

The Foothills Mining Company of 202 Mercantile Bank Bldg., Boulder, Colorado has applied for Defense Minerals Exploration Administration assistance in the amount of $26,909.64 to explore for uranium on the NE$\frac{1}{4}$ NW$\frac{1}{4}$ Section 32, T. 4 S., R. 70 W., Jefferson County, Colorado, which they hold under a 5 year lease from the owner, M. G. Wright of 1300 South Bannock Street, Denver, Colorado. On June 23, they submitted an amended request for exploration assistance.

The company was formerly known as the W. H. B. F. Mining and Engineering Company, and their application for exploration assistance under that name, DMEA docket number 3606, was denied without prejudice.

The applicant, Foothills Mining Company, has submitted the results of additional and more favorable exploration and a supplemental examination was made of the property on July 11, 1955.

Rocks in the area are pre-cambrian granite, pegmatite, schist, and gneiss. A zone of brecciation and shearing that strikes S 40° - 60° E and dips 45°-65° NE has been traced for about 800 feet on the surface. Uranium occurs in small amounts throughout the length of this structure. Assays of samples taken at the surface are in disequilibrium and mostly well below ore grade, due to leaching but two samples from a drill hole at a depth below the oxidized zone average 0.326% U_3O_8 over an indicated vein width of 3.38 feet.

The chance of making a significant discovery of uranium ore is good.

An exploration program for $24,389.00 to explore the uranium occurrences on the Foothills Mining Company lease with 460 feet of crosscut and about 200 feet of drift along a radioactive shear zone is recommended for approval. Government participation of 75 percent would be $18,291.75.

Since the applicant is already engaged in driving the crosscut at his own expense, a part of the project will be completed before a contract could be negotiated. It is further recommended that the resulting unspent funds be applied to any additional exploration approved by the DMEA Field Team at a later date.

DMEA 3830
WRIGHT LEASE
FOOTHILLS MINING CO.
JEFFERSON COUNTY, COLORADO

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AUG - 8 1955

Joint Geologic and Engineering Report

By

D. R. MacLaren
Geologist
Geologic Survey

C. M. Harrer
Mining Engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
8-12-55

DMEA 3830

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WRIGHT LEASE
FOOTHILLS MINING CO.
JEFFERSON COUNTY, COLORADO

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ILLUSTRATIONS

Figure — Follows Page

1. Location map, Foothills Mining Company Lease (Uranium), Jefferson County, Colorado 1
2. Map of Wright lease showing principal structural features, existing workings and proposed exploration, Foothills Mining Company, Jefferson County, Colorado 1

~~in map folder~~ attached to Contract

RECEIVED
AUG - 8 1955

DMEA 3830
WRIGHT LEASE
FOOTHILLS MINING CO.
JEFFERSON COUNTY, COLORADO

Joint Geologic and Engineering Report
By D. R. MacLaren and C. M. Harrer

INTRODUCTION

Foothills Mining Company of 202 Mercantile Building, Boulder, Colorado has applied for Defense Minerals Exploration Administration assistance in the amount of $26,909.64 to explore for uranium on land (figs. 1 and 2) which they hold under lease in Jefferson County, Colorado.

The property has been examined by various members of the Atomic Energy Commission and Geological Survey during 1954 and 1955.

Foothills Mining Company, was formerly known as the W. H. B. F. Mining and Engineering Company, and applied for DMEA assistance under that name (docket DMEA 3606). This application was denied without prejudice.

The applicant has now submitted the results of additional and more favorable exploration and has reapplied for DMEA exploration assistance.

On June 23, 1955 the applicant submitted a revised exploration program based on a necessary change of portal site. The new program consists of 460 feet of crosscut and 200 feet of drift at $36.40 per foot and 50 feet of winze at $82.11 per foot. Over all cost of the exploration program including $500.00 for chemical analyses for U_3O_8 was estimated at $28,629.50. Foothills Mining Company started work on their adit during the middle of June. On July 11, 1955 the adit had been driven 140 feet.

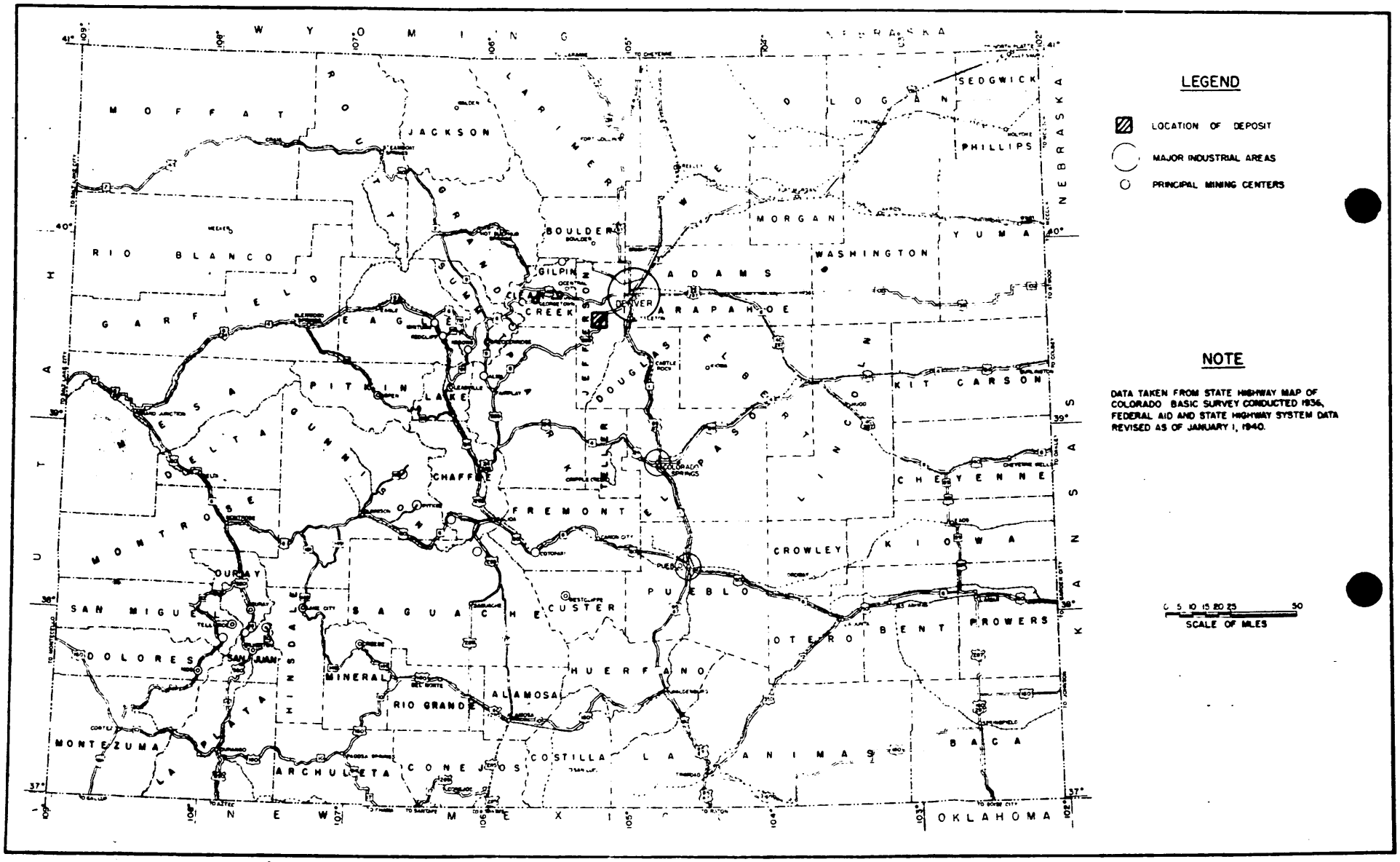


FIGURE 1 – LOCATION MAP OF FOOTHILLS MINING COMPANY LEASE (URANIUM), JEFFERSON COUNTY, COLO. DMEA 3830

ACKNOWLEDGMENTS

RECEIVED
AUG - 8 1955

Mess'rs. H. L. Bird, M. J. Kraft and C. A. Wilcox, officers of the Foothills Mining Company, cooperated fully with all information at their disposal. The Denver Exploration Branch of the Atomic Energy Commission made the results of their investigations of the property available to the examining team.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Foothills Mining Company lease, also known as the "Wright lease" after the owner of the property, is in the northeast quarter of the northwest quarter of Section 32, T. 4 S., R. 70 W., 6th P. M., Jefferson County, Colorado (figs. 1 and 2) at altitudes ranging between 6,400 and 6,800 feet above sea-level. The property is in rugged mountain terrain which is about 0.1 mile from Idle Dale, four miles west of Morrison, 15 miles southeast of Denver, and is readily accessible by paved State Highway no. 74. Water is available from nearby springs, wells and Bear Creek. Power is readily available in the nearby community of Idle Dale. The nearest railroad transportation is at Denver. The portal of exploration crosscut adit is 0.1 mile west of Idle Dale and about 100 yards north of paved Colorado State Highway 74.

HISTORY AND PRODUCTION

There is no record of prior mineral production of any kind. The land has been valuable only for grazing. The property is owned by

Marcus G. Wright who granted a 5-year mining lease to Melvin J. Kraft. Mr. Kraft assigned his lease to the Foothills Mining Company, with the consent of the owner, on May 16, 1955. The lease is active to September 27, 1959.

Foothills Mining Company started a crosscut adit during June and on July 11, 1955 had progressed 140 feet.

OWNERSHIP AND EXTENT

The owner of the subject property (fig. 2) is Marcus G. Wright who resides at Idle Dale and whose place of business is the Wright Engineering and Supply Company of 1300 South Bannock Street, Denver.

Marcus G. Wright granted a 5-year lease, on the NE$\frac{1}{4}$, NW$\frac{1}{4}$ Section 32, T. 4 S., R. 70 W., dated September 27, 1954, to Melvin J. Kraft. Mr. Kraft was a member of a partnership in the process of incorporation. This partnership was known as the W. H. B. F. Mining and Engineering Company. It consisted of the following officers and members:

C. A. Wilcox, president	3040 Broadway, Boulder, Colorado
Verne Wilcox, secretary	3040 Broadway, Boulder, Colorado
M. J. Kraft, treasurer	635 Hawthorne Ave., Boulder, Colorado
Duane Kraft	
Dr. W. J. Huls, vice pres.	2490 Iris, Boulder, Colorado
Cody Bish	2490 Iris, Boulder, Colorado
Earl Lambeth	2925 Moorehead Ave., Boulder, Colorado
Clarence Swaeby, director	Rt. 1, Box 124, Lafayette, Colorado
H. L. Bird, director	P. O. Box 383, Berthoud, Colorado
Leo Jonick	809 Beulah Ave., Pueblo, Colorado

In the process of incorporation, the name was changed to Foothills Mining Company and Melvin J. Kraft assigned his lease to the company on May 16, 1955. This transaction was agreed to by the owner, M. G. Wright.

The 5-year lease is now the property of the applicant company, Foothills Mining Company which is incorporated under the laws of Colorado. The lease terminates on September 27, 1959 unless renewed. The lease is for all minerals and fissionable material, with no provision for renewal. Foothills Mining Company agrees to pay a 15 percent royalty on all payments received from ore buying stations or mills for all ores and minerals, including fissionable minerals. The royalty shall be after deductions for assaying, milling and railroad charges. It shall not include any development allowances by the Government, but will include any other premiums or bonuses.

The southeast portion of the ground (fig. 2) under lease includes a 100-foot right-of-way for Colorado State Highway no. 74 and a 40-foot right-of-way for an access road to the Starbuck Ranch Heights and Little Park which are in the vicinity of part of the proposed exploration program.

GEOLOGY

The rocks of the area are pre-Cambrian granite, pegmatite, schist, and gneiss. On the Wright lease the schist and gneiss have a general strike to the southeast and steep dips to the southwest. A wide breccia reef that enters the property from the northwest in the vicinity of the northwest corner, and crosses the lease, has a strike of S 80° E. and a dip of about 50° N. (fig. 2). A second breccia zone that strikes S 47°-56° E. and dips 44°-50° NE can be traced from the lower adit to a point about 150 feet northwest of Highway 74. A bulldozed trench about 200 feet northwest of the last exposure of the second breccia zone cuts across the projected strike of the breccia. No breccia is

exposed in the trench but at its projected position is a strong shear zone about 12 inches wide that strikes S 60° E., and dips 68° NE. A second trench about 290 feet northwest of the first one also exposes a shear zone that strikes S 55° E. and dips 65° NE. Along the access road northwest of the second trench at least 4 shears ranging in strike from S 35° E. to S 60° E. and in dip from 45° NE to 80° SW, are in a zone about 100 feet wide. A radiometric traverse was made from a 10-foot deep shaft along the access road to the lower adit. At each crossing of the shear-breccia zone there was a marked increase over background of radioactivity.

Within the shear zone along the access road the applicant put down 8 drill holes to a depth of 8 feet. The holes were logged radiometrically by the A. E. C. The highest value in each hole is:

Hole no.	MR/hr.	Depth in feet of highest value
1	0.25	2 (hole caved below 2 feet)
2	0.40	8
3	0.20	2 (hole caved below 2 feet)
4	0.78	4 (last reading at 6 feet)
5	0.82	1 (last reading at 7 feet)
6	0.36	1
7	0.50	6 (last reading at 6 feet)
8	0.38	4 (hole caved below 4 feet)

A grab sample taken by R. U. King near these holes assayed 0.023 percent eU and 0.020 percent U.

The applicant took a selected sample of a 2-3 inch seam in the shaft along the access road that assayed 0.047 percent U (no determination was made for eU). From the lower adit, geologists for the A. E. C. took seven samples and R. U. King took one. Assays of these eight samples are:

Sampled by	Description of sample	percent eU	percent U
AEC	20-inch channel, altered iron stained shear zone	0.061	0.014
AEC	selected grab sample	0.160	0.023
AEC	12-inch channel, oxidized iron stained shear zone	0.089	0.027
AEC	selected from most radioactive 3-inch portion of shear zone	0.260	0.095
AEC	selected over 8 inches, same as above	0.078	0.020
AEC	selected from bottom of adit, iron stained shear	0.042	0.008
AEC (or applicant)	12-inch channel	N.A.	0.085
R.U. King	6-inch channel, iron stained, radioactive shear	0.065	0.005

The ratio of the radioactivity to the uranium content of these eight samples, taken within a small area, ranges from 3 to 12. In order to find the cause of the disequilibrium between eU and U, radio-chemical determinations were made. These indicate that the disequilibrium is caused by the presence of radioactive disintegration products of uranium and not by the presence of thorium minerals. Therefore, the low content of uranium in the surface material sampled may well be the result of near surface leaching.

There are 5 diamond drill holes that have been drilled to depths ranging from 175 to 250 feet below the surface. These holes were logged radiometrically by representatives of the Atomic Energy Commission and the results indicate a zone of radiometric highs in each hole. When the position of each hole is projected to fall on a plane roughly normal to the strike of the shear-breccia zone as traced on the surface (section A - A', Fig. 2) the respective zones of radiometric highs are found to fall almost in a straight line that closely coincides with the projected dip of the shear-breccia zone. Core recovery was poor and only 2 samples were taken, both from hole No. 3. One sample assayed 0.588% U_3O_8

and the other, 0.221% U_3O_8. The radiomatric logs of those portions of the holes that showed radiation at the rate of 5 times background or better are:

Hole No.	Depth in feet	MR/hr.	Depth in feet	MR/hr.	
	0 (background)	0.055	41	0.55	
	27	0.35	42	0.50	
	28	0.35	43	0.50	
1	30	0.60			
	31	0.82	46	0.83	
	32	0.45	47	0.75	
	35	0.32	49	0.55	
	40	0.40	50	0.65	
	0 (background)	0.20	101	1.50	
	71	1.70	103	2.00	
	79	1.00	105	3.00	
	81	1.10	107	3.00	
	83	1.70	109	1.50	
2	85	1.50	111	1.40	
	87	2.50	113	1.40	
	89	1.70	115	1.30	
	91	2.50	117	2.30	
	93	2.00	119	2.30	
	95	1.70	123	1.10	
	97	1.70	125	1.40	
	99	1.40			
	0 (background)	0.11	223	2.50	0.588% U_3O_8
	211	0.68	225	2.20	
3	212	2.50	226	2.50	
	213	2.00	228	2.00	
	220	0.80	230	2.40	0.221% U_3O_8
	221	0.90	231	2.30	
	0 (background)	0.02	155	0.17	
	145	0.20	157	0.15	
4	147	0.40	165	0.20	
	149	0.20	167	0.12	
	151	0.20	169	0.20	
	153	0.30	171	0.13	
5	0 (background)	0.08			
	174	0.40	180	1.30	
	176	0.40	182	0.60	

Hole No. 3 is the only one that cut the shear-breccia zone below the zone of oxidation, which extends to a depth of about 200 feet. The weighted average of the two samples taken from hole 3 indicates a grade of 0.326% U_3O_8 over a diagonal distance through the zone of 8 feet, or over a zone width of 3.38 feet. Although 2 samples hardly furnish enough data upon which to estimate the grade of a possible ore body, at least they indicate that in the sulfide zone there is material of ore grade containing 3 times as much uranium as was indicated by the best samples taken from the surface.

About one-half mile northwest of the Wright lease is the Malachite mine, and about one-half mile further northwest is the FMD Mine. Although the shear-breccia zone has not been traced between them in the field, on the map all three properties appear to be on structures that line up and have the same general strike. No uranium has been found on the Malachite property, but some copper has been produced from there. Samples from the FMD mine have assayed as much as 0.21 percent eU.

MINABLE ORE RESERVES

Data is not available on which to base an estimate of any type of ore reserves.

PRESENT STATUS

Exploration and Development

During 1954, a steep access road, completed over part of the property, exposed a radioactive zone. This was explored by eight jack-

hammer drill holes about 8 feet deep which were probed by the Atomic Energy Commission. The radioactive zone had also been explored by a shallow shaft, two shallow adits and two shallow trenches. During 1955, five holes were diamond drilled on the property to depths of 129, 130, 175, 218 and 250 feet (fig. 2). In addition, a crosscut (fig. 2) was started during June 1955. On July 11, 1955 this adit was driven in 140 feet with a 6 x 7-foot cross-section.

Mining and milling equipment and other facilities

Foothills Mining Company is operating with a mining plant which they have rented. The plant consists of:

1 - Ingersoll-Rand 210 cfm at 7000 feet altitude, Turbo-flow diesel driven, portable air compressor rented from Colorado Builders Supply Company of Denver at $400 per month.

1 - Ingersoll-Rand Jackhammer and Jack leg drifter rented from Colorado Builders Supply Company, at $70.00 per month.

2 - Used 1-ton mine cars rented at $10.00 per month.

1 - Eimco 12-B mucking machine rented at $150 per month.

1 - 6-inch Coppus blower rented at $5.00 per month.

About 200 feet of 20-pound mine track has been laid on the dump and in the adit.

About 100 feet of 2-inch air line is laid in the adit.

A small tool and change shack is located at the adit portal.

There are no milling facilities and ore would be sorted and trucked to the nearest purchasing depot at which it is acceptable, probably Vitro Chemical Company, of Salt Lake City, Utah. Electric power would be readily available for mining operations. Foothills Mining Company's

adit portal is about 100 yards north of paved Colorado State Highway 74, and about 15 miles from Denver.

PROJECT PROPOSALS AND COSTS

Foothills Mining Company had originally proposed to explore further the uranium indications on their lease with 500 feet of drift at an over all cost of $18,198.66 and 100 feet of winze at an over all cost of $8,210.97. The estimated cost per foot for drifting was $36.40 and the estimated cost of winzing was $82.11 per foot. In addition, $500 was estimated for chemical analyses for U_3O_8. Total cost of the project was estimated at $26,909.64.

Since this first application the location of the adit portal was changed because of insufficient dump room and prohibitive transportation costs for waste rock.

The applicant now proposes driving about 460 feet of crosscut to a target area and drifting thereon for about 200 feet. In addition, he proposes to sink 50 feet of winze. In his amendment, dated June 21, 1955, the applicant has submitted partial costs of the project, based on his original estimate. His total costs are based on those mentioned above; i. e., $36.40 per foot for drifting and $82.11 per foot for winzing. The estimated costs for the project would be $24,024.00 for drifting, $4,105.50 for winzing and $500.00 for chemical analyses; all totaling $28,629.50.

Revised and Recommended Exploration Program and Costs

Foothills Mining Company's exploration program (fig. 2) which

consists of driving about 460 feet of 5 x 7-foot crosscut to intersect a radioactive shear zone and then drifting about 200 feet northwesterly along it to and beyond the target area in the vicinity of their drill hole no. 3 is essentially sound and is recommended for approval.

The company is presently engaged in driving the crosscut. Advance as of July 11, 1955 was 140 feet. The adit site is the only one suitable at this lowest elevation and affords ample dump room.

The applicant's proposal to sink 50 feet of winze cannot be evaluated until the target area has been explored by drifting and examined; therefore, it is recommended that the applicant's request for 50 feet of winze as such, be denied. However, the full crosscut and drift footages requested should be allowed and all funds remaining unexpended because of the applicant's progress prior to the signing of a contract be made available for possible winzing raising or further drifting, as later authorized by the DMEA Field Team.

An average advance in drifting or crosscutting is estimated at 3 feet per shift and includes tracklaying, piping and all delays. Crosscutting and drifting total 660 feet and would require 220 shifts or about 9 months to complete, on a single shift basis. Costs are estimated as follows:

Items	Unit Costs	Total Costs
Labor, Supervision and Consultants		
2 - Miners at $1.80 per hour 8 hours per day	$6,336.00	
1 - Foreman, 8 hours per day at $2.25 per hour	3,960.00	
Geological services	500.00	
Total		$10,796.00

Operating Materials and Supplies

Timber estimated at 10-5 foot sets completely lagged at $15.70 per set	157.00	
Dynamite, estimated at 1 box per four foot round - 165 boxes at $12.25	2,021.25	
Fuse estimated as 20 holes per round, 6-foot long at $0.0144 per foot.	285.12	
Blasting caps - 3300 at $0.0235 each.	77.55	
2-inch air line and fittings 700 feet at 50¢ per foot	350.00	
½ inch water line and fittings 700 feet at 15¢ per foot	105.00	
6-inch vent pipe-metal, 700 feet at 37¢ per foot	259.00	
20-pound track, 700 feet at $1.00 per foot complete	700.00	
Diesel Fuel for compressor - 35 gals. per day at 15¢ per gal.	1,155.00	
Lubricants at 85¢ per day. All types, including filters.	187.00	
Timken tungsten carbite bits. 1 per round at $15.20 each plus 4 sharpenings at 10¢ each -- total $1.00 per foot of advance	660.00	
Drill steel estimated at 30¢ per foot of advance	198.00	
Carbide at 30¢ per shift	66.00	
Miscellaneous small tools	50.00	
Total		$ 6,270.92

Operating Equipment

Rental Ingersoll-Rand Turboflow 210 cfm at 7000 ft. alt., air compressor from Colo. Builders Supply Co. of Denver at $400 per month for 9 months	$3,600.00	

1 - Ingersoll-Rand Jackleg drifter complete at $70 per month for 9 months.	$ 630.00	
1 - Eimco 12B mucking machine rental $150 per month for 9 months.	1,350.00	
2 - 1 ton mine cars. Rental $5.00 per month each for 9 months	90.00	
1 - 6 inch Coppus ventilation blower. Rental 9 months at $5.00 per month	45.00	
Total		$ 5,715.00

Miscellaneous		
Repairs to equipment	$ 330.00	
40 U_3O_8 analyses	200.00	
Payroll Taxes 10% of $10,796.00 (State and Federal)	1,079.60	
Total		$ 1,609.60
Total cost of the project is estimated at		$24,391.52

Total cost of cross cutting and drifting 660 feet has been estimated at $24,191.52 which gives a cost per foot of $36.65. This figure is used in the following estimates of cost. In addition, $200 is allowed for chemical analysis of 40 samples for U_3O_8.

Recommended Project Costs

Items	Approved Costs
460 feet of crosscut at $36.65 per foot	$16,859.00
200 feet of drift at $36.65 per foot	7,330.00
40 chemical analyses for U_3O_8 at $5.00 each	200.00
Total	$24,389.00

Costs are based on current prices and operations at the property.

Costs of sinking a winze are estimated as follows:

Estimated cost of 50 feet of winze (4 x 8-feet in the clear)

Items	Unit Costs	Total Costs
Labor, Supervision and Consultants		
2 - Miners at $1.80 per hour, 8 hours per day for 33 shifts	$950.40	
1 - Foreman, 8 hours per day at $2.25 per hour for 33 shifts.	594.00	
Total		$1,544.40
Operating Materials and Supplies		
Timber, 9 sets (3 stulls, 1 wall plate) Red spruce or Douglas fir. Based on Frank Lumber Co. prices	35.10	
Planking to divide compartments	20.00	
Skids (2 x 6 and 2 x 4) 150 bd. ft. at $80 per M	12.00	
Ladders - 100 ft. of 2x6 for $7.80 70 ft. of 2x4 for $6.45 Spikes and nails $7.00	21.25	
Winze headworks	100.00	
Dynamite, estimated at 1 box per round for 16 rounds. $12.25 per box	196.00	
Electric blasting caps - 20 per round at 17¢ each	54.40	
Blasting wire	10.00	
25 ft. 2-inch airline at 50¢	12.50	
25 ft. ½-inch water line at 15¢	3.75	
25 ft. 6-inch metal vent pipe at 37¢	9.25	
Diesel fuel for compressor - 35 gals. per day at 15¢ per gal. 33 shifts	173.25	
Lubricants (all types, including filter) at 85¢ per day for 33 days	28.05	
Timken tungsten carbide bits, 1 per round at $15.20 each, plus 4 sharpenings at 10¢ each. Total $1.00 per foot of advance.	50.00	
Drill steel estimated at 30¢ per foot of advance.	15.00	

Carbide at 30¢ per	$ 9.90	
Miscellaneous small tools, cable, cord, etc.	200.00	$ 950.45 Total
Operating Equipment		
Rental-Ingersoll-Rand Turbo flow 210 cfm compressor at 7000 ft. alt., 1½ months at $400 per month.	600.00	
1 - Tugger hoist at $80 per month	120.00	
2 - Jackhammers at $70.00 per month	105.00	
2 - 1-ton mine cars, bucket, etc.	50.00	
1 - 6-inch cappus blower at	7.50	
Total		$ 882.50
Miscellaneous		
Payroll taxes (Federal and state) 10% of $1,544.40		$ 154.44
Total cost of winzing 50 feet		$3,531.79

Average cost of winzing is estimated at $70.63 per foot and does not include a pumping plant or chemical analyses for U_3O_8.

CONCLUSIONS

1. A shear-breccia zone that may be traced for 800 feet across the Wright lease contains small amounts of uranium oxide at the surface. Assays of surface samples show that the eU and cU values are in disequilibrium due to leaching. Two samples taken from a diamond drill hole at a depth 20-30 feet below the zone of oxidation contain 0.221% U_3O_8 and 0.588% U_3O_8 and indicate an average grade, at that location of 0.326% U_3O_8 over a zone width of 3.38 feet. Therefore, it is concluded that the chance of making a significant discovery of uranium ore is good.

2. While a shaft driven within the radioactive shear zone would explore its downward extension to the drift horizon, about 225 feet below the surface, the applicants proposal to crosscut to the radioactive shear zone is preferred for the following reasons.

(a) Oxidation and leaching known to exist in the upper part of the shear zone is expected to continue for a considerable depth and its exploration probably would add little to present knowledge.

(b) The cost of shaft sinking under the most favorable conditions would be about the same as crosscutting and would exceed it if bad ground and water were encountered.

(c) The applicants are already engaged in driving the crosscut at their own expense and it is in a sheltered location with ample dump room and about 100 yards from paved Colorado State Highway 74. This location is the only suitable one from which the mineralized structure can be cut below the zone of oxidation and leaching.

3. Winzing as such should not be allowed at this time, However, since the applicant is already driving his crosscut adit, funds remaining unexpended because of the applicant's progress prior to the signing of a contract should be made available for possible winzing, raising or further drifting, as later authorized by the DMEA Field Team.

4. Crosscutting and drifting are estimated at $36.65 per foot and winzing is estimated at $70.63 per foot; not including chemical analyses for U_3O_8.

5. Total cost of the project is estimated at $24,389.00 and Government participation of 75 percent would be $18,291.75.

RECOMMENDATIONS

An exploration program for $24,389.00 to explore the uranium occurrences on the Foothills Mining Company lease with about 460 feet of crosscut and about 200 feet of drift along a radioactive shear zone is recommended for approval. Government participation or 75 percent would be $18,291.75.

Since the applicant is already engaged in driving the crosscut at his own expense, a part of the recommended footage will be completed before a contract can be negotiated. It is recommended that the resulting unspent funds may be applied to any additional exploration approved by the DMEA Field Team at a later date.

CMH:jw

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

RECEIVED
JUL - 5 1955

224 New Customhouse
Denver 2, Colorado

June 30, 1955

Memorandum

To: Secretary of the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3830, Foothills Uranium, Foothills Mining Company, Jefferson County, Colorado

Enclosed are two copies of an assay certificate furnished this office by the applicant.

W. M. Traver

Enclosures

Form 214
N.C.H.

ESTABLISHED 1878

GAYLE F. FARNHAM

DMEA
Date Rec'd
JUN 30 1955

BUREAU OF MINES
Denver, Colorado

RECEIVED
JUL - 5 1955

DMEA-3830

Certificate of Assay

THE HENRY E. WOOD ASSAYING COMPANY

TELEPHONE KEYSTONE 4-4816

DENVER 4, COLORADO

733 W. COLFAX AVE.

May 21, 1955

We hereby certify that the samples assayed for Foot Hills Mining Company
gave the following results per ton of 2000 lbs. M.J. Kraft

MARKED	GOLD OZS.	SILVER OZS.	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	IRON PER CENT	INSOL. PER CENT	SULPHUR PER CENT	PER CENT	VALUE
									Uranium U_3O_8	
# 3									0.221	

Gold at $_____ per ounce
Silver at _____ per ounce
Lead at _____ per lb.
Copper at _____ per lb.
Zinc at _____ per lb.

Charges
$ Paid

The Henry E. Wood Assaying Co.

By mw W F.

6/27/55 rgla

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

224 New Customhouse
Denver 2, Colorado

June 23, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Proposed Amendment to application, DMEA Docket-3830, (Uranium), Foothills Mining Company, Wright Lease, Jefferson County, Colorado

Enclosed are two copies of a proposed request for amendment to the subject DMEA application which was submitted for consideration by the applicant.

Enclosures

W. M. Traver

MAP IN MAP FOLDER

FOOTHILLS MINING COMPANY
Room 202
Mercantile Bank Building
Boulder, Colorado

June 21, 1955

DMEA
Date Rec'd.
JUN 22 1955
BUREAU OF
Denver, Colo.

Mr. F. M. Traver
Executive Officer
D.M.E.A. Field Team
Region 3, 224 New Customs House
Denver, Colorado

Dear Mr. Traver:

Herewith is submitted an amendment to the application of Foothills Mining Company for a Defense Minerals loan, Docket No. 3830, now under consideration in your Denver offices.

This amendment concerns a change in location and direction of the opening required to explore the occurrence of uranium ore described in the application mentioned above.

At the time of preparation of our application in which we advocated driving an opening at point "A" shown on accompanying sketch we were counting on making satisfactory arrangements to dump waste rock in a large borrow pit existing near this point, but although the first connections we had with the highway department were encouraging, it later became evident that certain restrictions and requirements, although necessary and proper, would make site "A" a poor choice and when a visiting engineer suggested the possibility of using site "B", a survey was made which indicated its superiority. Work at this point is now in progress.

In our opinion there are several reasons why this change is advisable and these are outlined as follows:

(1) The problem of disposing of waste rock at sites near the highway is a difficult one and cannot be solved without entailing a serious item of expense, estimated at a minimum of $20.00 per day for extra labor and trucking expense.

(2) Placing the possible sites for an adit high enough to allow sufficient room for a dump below the portal without encroaching on the state highway-right-of-way, reduces the depth of exploration gained and makes necessary the sinking of a deeper winze to explore the vein below the level of the possible adit locations.

(3) Since oxidation and leaching extend to considerable depth due to the position of the vein in the hill and the presence of abundant pyrite in the mineralized zone, the decomposition of which could be expected to provide sufficient acid to cause leaching of the primary uranium minerals present in the vein, it is believed to be important to explore the vein at as low an elevation as possible. This necessary depth can best be gained without working too close to the highway by driving at the new location.

Sinking a shaft on the vein as a means of exploration was given study but in view of the small possible saving in cost when the expense of necessary drifting from the shaft is considered and the constant extra expense of hoisting rock and pumping water plus the disadvantage of the exposed position of the surface plant on top of the hill and poor access road conditions to be expected part of the year, it is believed that exploration by cross cut and drifting on the vein is more practical.

A sketch showing the essential facts relating to this change is included with this amendment to show clearly the distances involved and elevation of important points.

For purposes of comparison the cost of the work by both original and new locations is estimated on a cost-per foot basis, using the costs stated in our application, Docket No. 3830, as follows:

Estimated Cost at Site "A"

500 feet drifting	$28.30 per ft.	$14,147.35
100 feet sinking	$62.95 per ft.	6,295.19
Total direct cost at Site "A"		$20,442.54

Cost at Site "B"

460 feet crosscuting	@ $28.30 per ft.	$13,018.00
200 feet drifting	@ $28.30 per ft.	5,660.00
50 feet sinking	@ $62.95 per ft.	3,147.50
Total direct cost at Site "B"		$21,825.50

Cost at site "B" may be slightly less in view of expected firmer ground.

In case you wish to discuss this ammendment with us feel free to write or call us at any time at the addresses and phones listed below.

F. J. Kraft
635 Hawthorn
Boulder, Colorado
Phone Hillcrest 3-1836

C. A. Wilcox
Wilcox Skelly Service
3040 Broadway
Boulder, Colorado
Phone Hillcrest 2-9479

Sincerely yours,

FOOTHILLS MINING COMPANY

N. L. Bird

Vice President

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

224 New Customhouse
Denver 2, Colorado

June 9, 1955

Memorandum

RECEIVED
JUN 13 1955

To: J. F. Shaw W/Brochure
E. N. Harshman

From: DMEA Field Team, Region III

Subject: DMEA-3830 (Uranium), Foothills Mining Company, (Wright Lease), Jefferson County, Colorado

Enclosed are copies of the subject loan application for $26,909.64, its referral by the Chairman of the Operating Committee and memoranda to E. W. Ellis from John E. Crawford, USBM, and R. W. Trace, USGS, members of the Uranium Commodity Committee.

You are referred to Docket DMEA-3606, W H B F, Mining and Engineering Company. Copies of that application are available in the Region III files if required.

A reappraisal of the property by field examination is requested in the light of additional work completed by the applicant since your first investigation. Suitable covering reports are in order after the usual recheck with the Denver Federal Center office of the AEC. This office will arrange for Owner's Consent to Lien if you recommend a project.

DMEA Field Team, Region III

WMT:sr

W. M. Traver

W. M. Traver

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

E. N. Harshman

E. N. Harshman

Enclosures

Surname 700

Ching
Ellis
Selfridge
Hyman

6-6-55
AM

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

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

JUN - 6 1955

Re: Docket No. DMEA-3830 (Uranium)
Foothills Mining Company
Wright Lease
Jefferson County, Colorado

Dear Mr. Traver:

The subject application is being referred to you for investigation, a field examination if warranted and recommendation. A copy of the application was forwarded to you on May 24.

Enclosed are two copies each of comments and recommendations dated May 27, 1955, by R. D. Trace and John E. Crawford of the Uranium Commodity Committee.

You will note that this application covers the same property (Wright Lease) as that under Docket No. DMEA-3606, W.H.B.F. Mining and Engineering Company. The latter application was denied without prejudice on May 3, 1955. The Applicant has done additional work with favorable results which he believes justifies further exploration with Government participation.

In the event a contract is recommended, the usual Consent to Lien should be obtained from Marcus G. Wright.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

J. H. Hedges (JHH)
Member, Bureau of Mines

Thor H. Kiilsgaard (THK)
Member, Geological Survey

MChing:am
6-1-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching

R.C.J.

Surname 700

6-6-55 Ching
Ellis
Kiilsgaard
Hedges
Selfridge
Hellman

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

JUN - 6 1955

Mr. H. L. Bird, Vice President
Foothills Mining Company
202 Mercantile Bank Building
Boulder, Colorado

Re: Docket No. DMEA-3630 (Uranium)
Wright Lease
Jefferson County, Colorado

Dear Mr. Bird:

The application for assistance in exploring the subject property in Jefferson County, Colorado, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to the Executive Officer of Region III at the following address:

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

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

C. O. Mittendorf

Administrator

MChing:am
6-1-55
cc to: Admr. Reading File
Docket
Code 700
Mr. Ching
DMEA Field Team, Region III(2)

R.C.B.

5/31/55 gla

IN REPLY REFER TO:

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

May 27, 1955

Re: DMEA-3830
Foothills Mining Co.
Wright Lease
Jefferson Co., Colo.
$26,909.64 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: R. D. Trace, U. S. Geological Survey

Subject: Review of application

The subject application is concerned with a project for the same ground that was denied without prejudice under DMEA-3606.

Four holes have been drilled since the denial, and, although the results of the drilling do not cause the proposed project to "scintillate", they are sufficiently encouraging to warrant asking the Field Team to reevaluate the area and submit a report on the subject application.

R. D. Trace

R. D. Trace

5/27/55 gla

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

Defense Minerals Administration
RECEIVED
MAY 27 1955

May 27, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Application for assistance, DMEA Docket 3830, Foothills Mining Company, Wright Lease, Jefferson County, Colorado

I have reviewed the attached application for assistance, Foothills Mining Company, DMEA Docket 3830, Wright Lease, Jefferson County, Colorado; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

We suggest that the application be referred to the Field Team for examination and report, and that the Field Team be requested to discuss the application with C. C. Towle, Atomic Energy Commission, Denver, Colorado.

John E. Crawford
John E. Crawford

Attachment

May 24, 1955

Foothills Mining Company
202 Mercantile Bank Building
Boulder, Colorado

Subject: DMEA 3830
Re: Exploration Assistance
Wright Lease

Gentlemen:

The receipt of your application dated May 20, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3830 and referred to the Rare and Miscellaneous 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

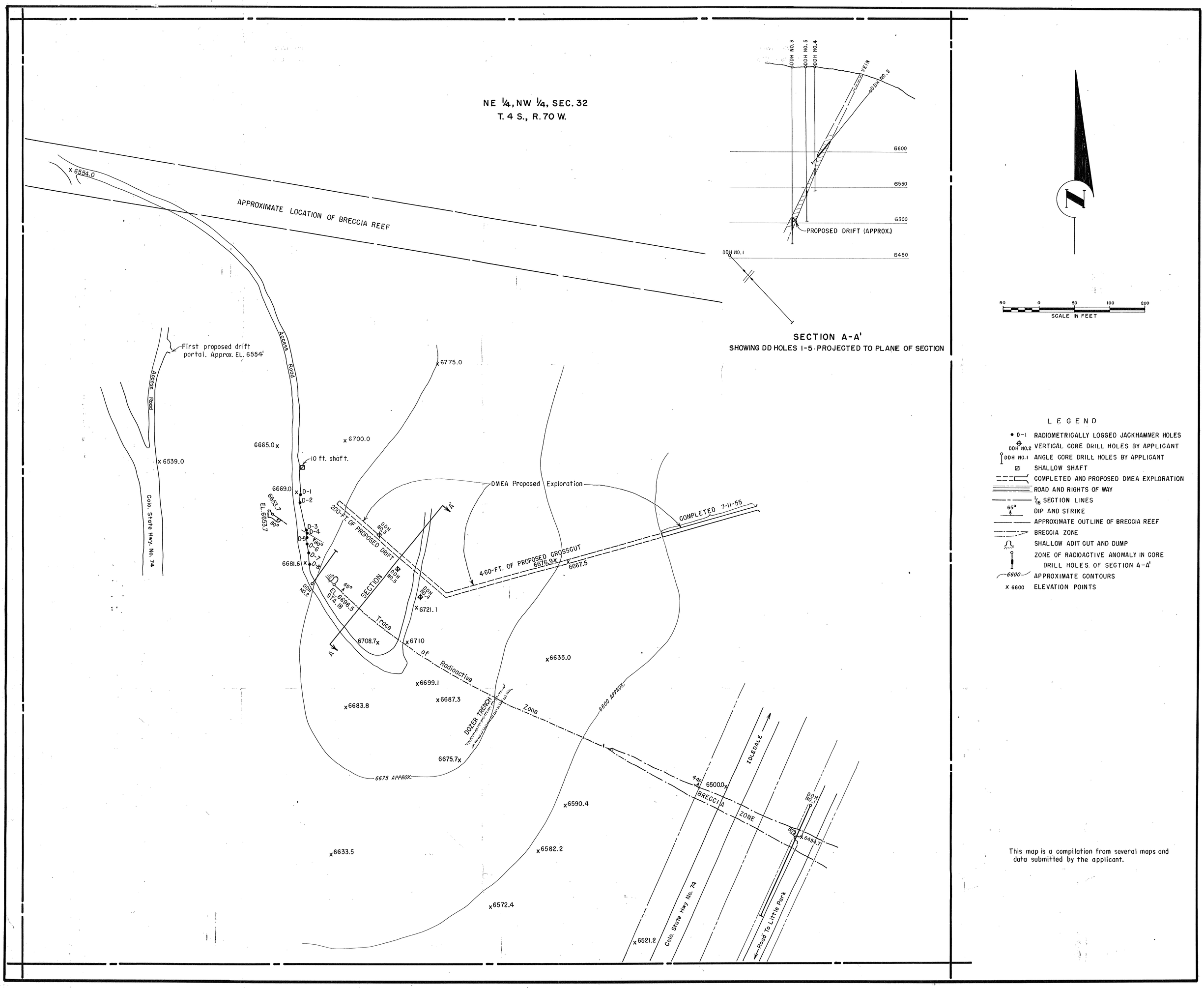
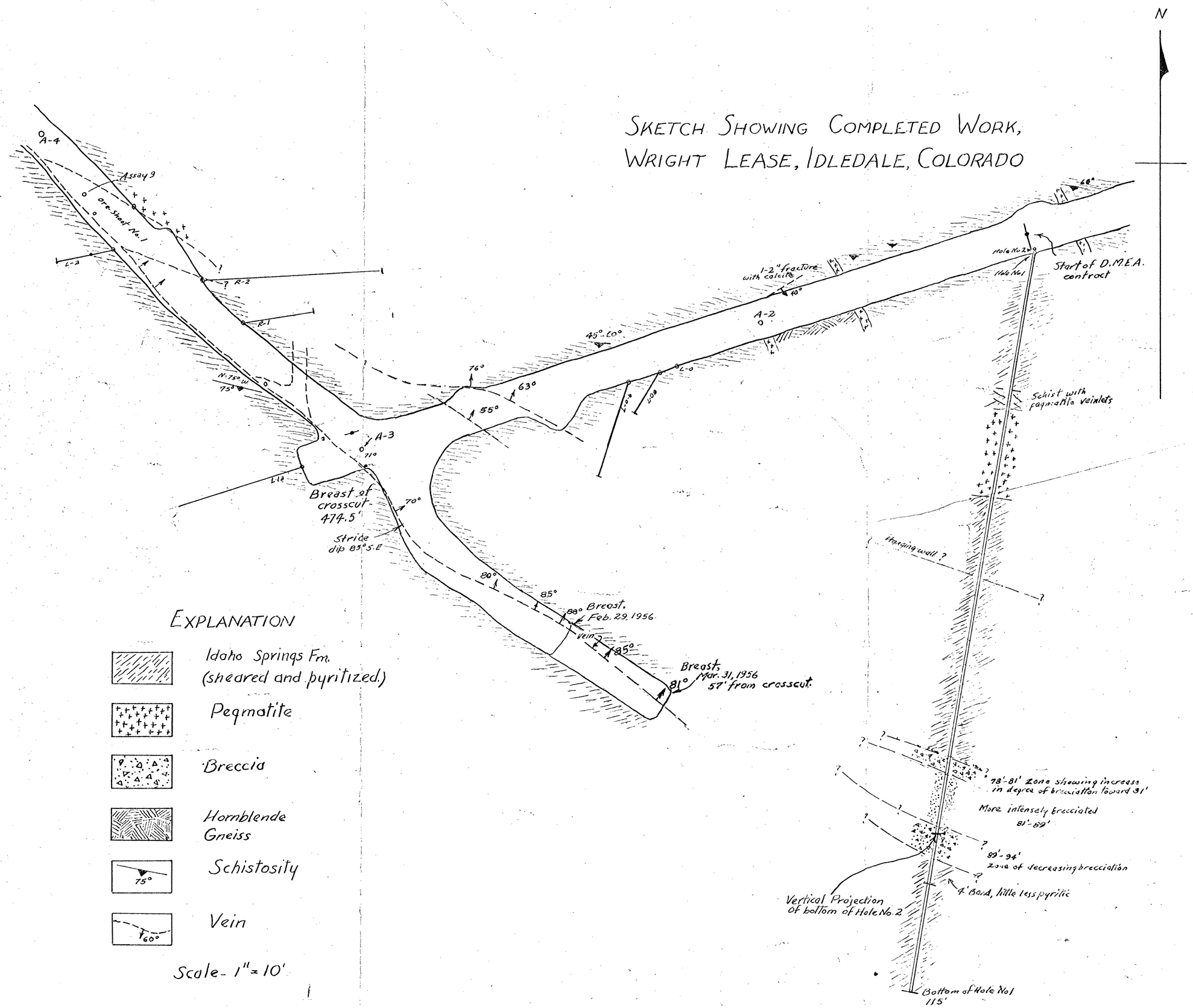


FIGURE 2 - MAP OF WRIGHT LEASE SHOWING PRINCIPAL STRUCTURAL FEATURES, EXISTING WORKINGS, AND PROPOSED EXPLORATION, FOOTHILLS MINING COMPANY, JEFFERSON COUNTY, COLO. DMEA 3830

SKETCH SHOWING COMPLETED WORK, WRIGHT LEASE, IDLEDALE, COLORADO



EXPLANATION

- Idaho Springs Fm. (sheared and pyritized.)
- Pegmatite
- Breccia
- Hornblende Gneiss
- Schistosity (75°)
- Vein (60°)

Scale - 1" = 10'

Foothills Mining Co.
by H.L. Bird

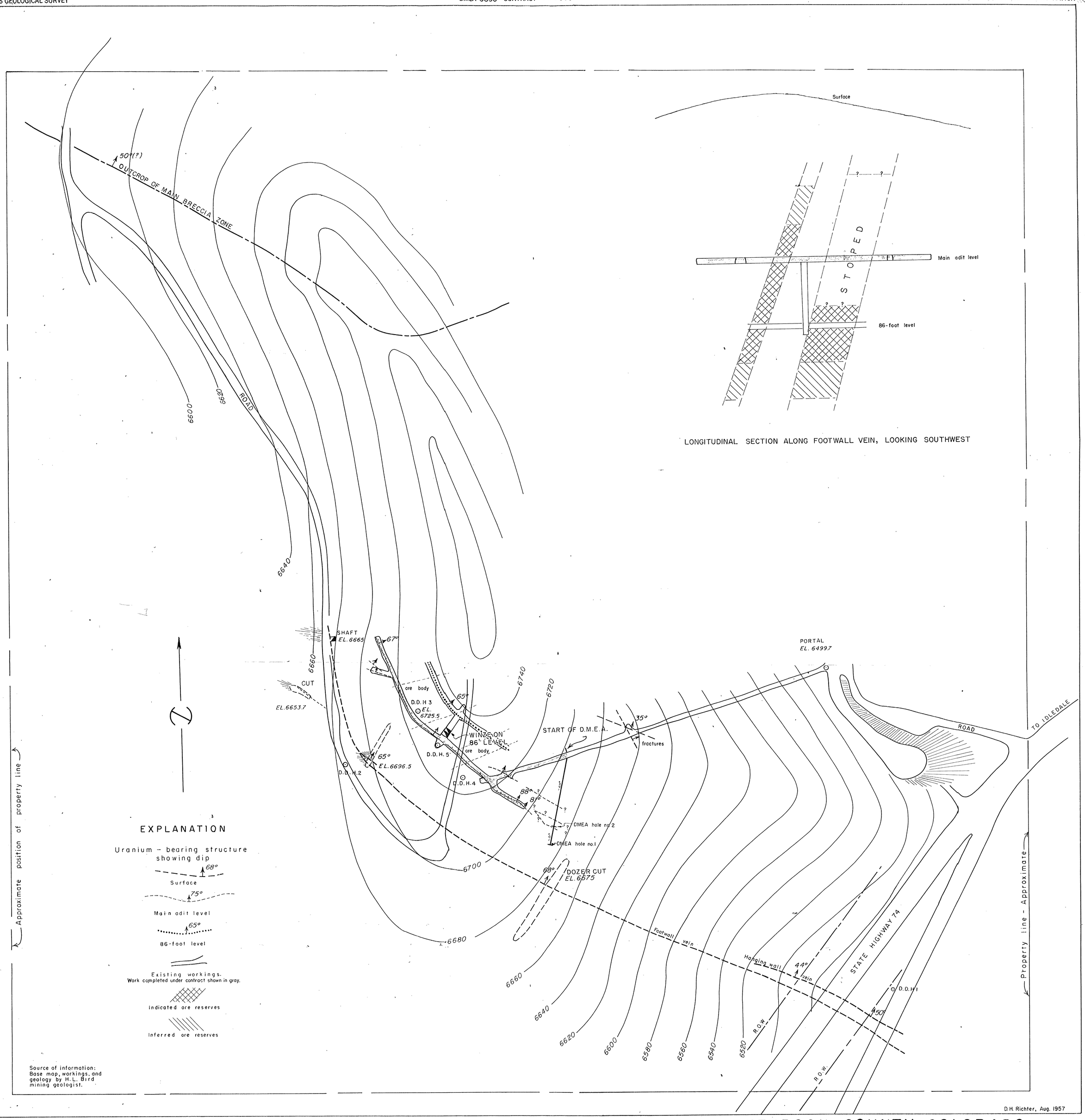


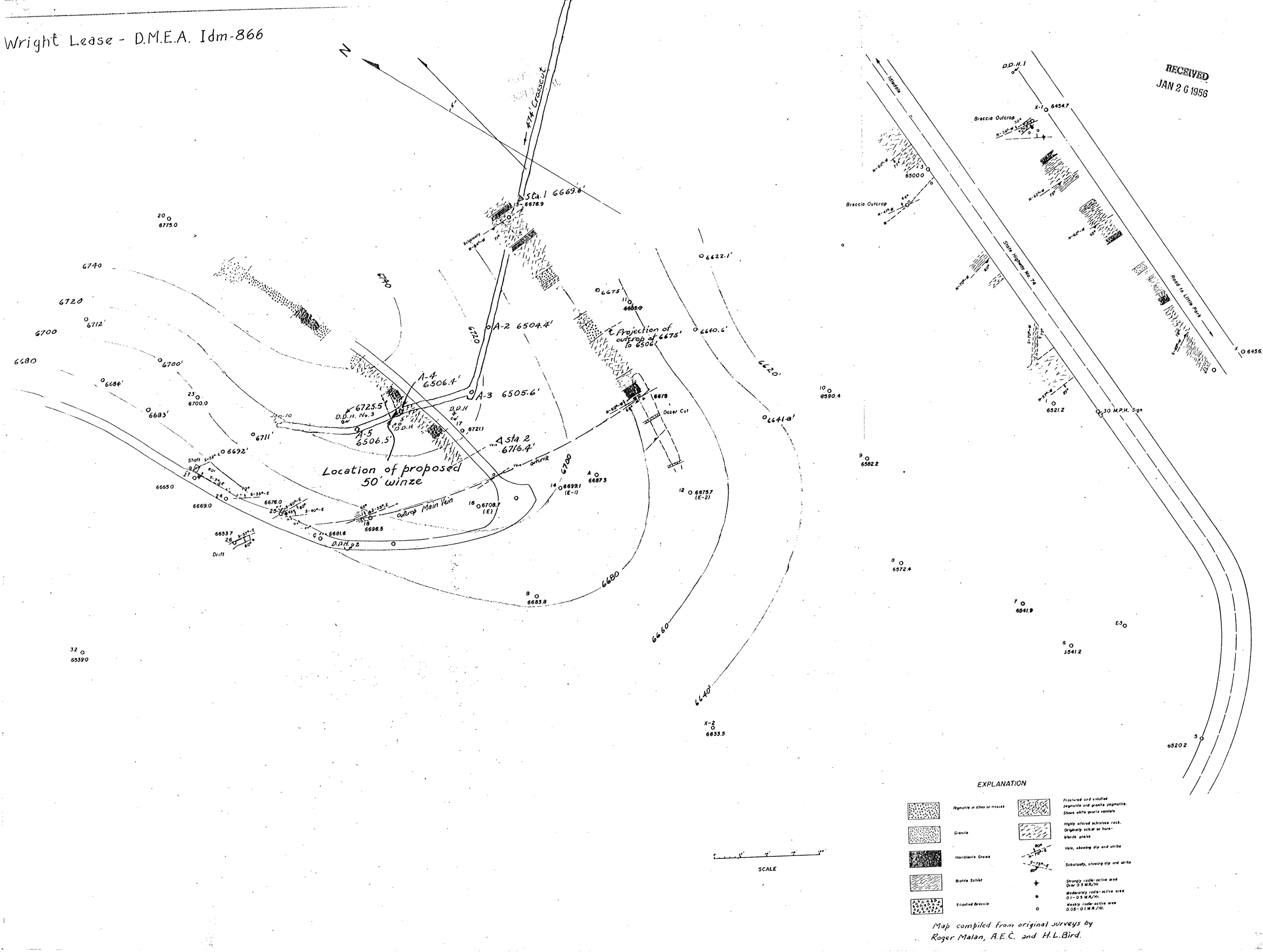
FIGURE 2. MAP OF WRIGHT LEASE, FOOTHILLS MINING COMPANY, JEFFERSON COUNTY, COLORADO

Scale
0 50 100 150 feet

Contour interval 20 feet

Wright Lease - D.M.E.A. Idm-866

RECEIVED
JAN 26 1956



Map compiled from original surveys by Roger Malan, A.E.C. and H.L. Bird.