DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

RECEIVED
JUN 29 1956

I have reviewed the Monthly Reports of:

Melvin C. Bowles and A. L. Helfin
D/B/A Bowles-Helfin Mining Company,
1200 Chester Street
Aurora, Colorado

pertaining to Exploration Project Contract No. Idm-2399, Docket No. DMEA-3655, including termination letter April 16, 1956, for the months of January to February, 1956, inclusive, covering a project for the exploration of Uranium on property known as J. V. Eaversen Lease, located in San Miguel County, Colorado.

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

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

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

(b) the Monthly Reports were supported by documentary proof of the costs incurred under the contract; and

(c) a major portion ($5,702.98) of the costs incurred covered work performed at unit rates under independent contract; and

(d) the balance ($1,531.52) of the costs incurred was under a contract provision for payment by the Government on the basis of fixed unit costs of work actually performed.

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

Total cost as billed by Contractor		$7,234.50
Exceptions:		
By DMEA Finance Officer	0	
Herewith	0	0
Total Accepted Cost		$7,234.50

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 Five thousand, four hundred twenty-five and 88/100ths Dollars

** $5,425.88 **

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.

Donald T. Finch

June 21, 1956

Donald T. Finch, Auditor

JUN 29 1956

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

Re: Docket No. DMEA-3655
Contract No. Idn-2899
Bowles-Heflin Mining Company

Dear Mr. Finch:

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

This Report of Review is acceptable and normal distribution of all other copies is authorized. It is suggested, however, that in future similar cases (where part of the costs are on a unit and part on an actual basis) the reason (b) be changed to read:

> "The Monthly Reports were supported by documentary proof of the costs incurred under contract provisions for contribution by the Government on the basis of actual costs incurred."

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

EDTalbert/ama
June 29, 1956

Copies to: Docket
Admr. Reading File
Mr. Chambers

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

RECEIVED
JUL 23 1956

224 New Customhouse
Denver 2, Colorado

July 20, 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3655 (Uranium) Contract Idm-E899, Bowles-Heflin Mining Company, San Miguel County, Colorado. FINAL PAYMENT

Enclosed are two copies of a memorandum to T. A. Christensen, dated July 6, 1956, relative to final payment under the terms of the subject contract.

for W. M. Traver

Enclosures

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

RECEIVED
JUL 23 1956

224 New Customhouse
Denver 2, Colorado

July 6, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3655 (Uranium) Contract Idm-E899, Bowles-Heflin Mining Company, San Miguel County, Colorado - FINAL PAYMENT

Reference is made to the memorandum from this office dated April 19, 1956 whereby we forwarded Form MF-104, Operator's Monthly Report and Voucher, for the month of February, 1956 and instructed you to withhold the amount of $100.00 from reimbursement to the Operator pending release of a Report of Review of contract expenditures by the Contract Administration and Audit Division.

The Operator's Narrative Report, included with Form MF-104 for the month of February, 1956, was accepted as the Operator's final report in compliance with Article 7 (c) of the contract.

We now recommend final payment to the Operator on the following basis which is in conformance with the Report of Review of contract expenditures by the Contract Administration and Audit Division, dated June 21, 1956, which was released to this office July 2, 1956.

Basis for Final Payment

Total Accepted Cost	$7,234.56
Government Participation at 75 Percent	5,425.88
Total Prior Payments	5,325.88
Balance due the Operator	$ 100.00

W. M. TRAVER

W. M. Traver

JWT:jy

cc: MF-104 File E899
Sec. Op. Comm. (2)
Shaw (2)
Townsend
Chron.

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
APR 25 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February, 1956 Docket No. DMEA 3655 Contract No. Idm-E899

Operator's Name Bowles-Heflin Mining Company Minerals Uranium

Address 1200 Chester Street, Aurora, Colorado

Contract Amount, $ 19,228.00 Government Participation: 75 % Amount, $ 14,421.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling (Core	2,473.38	1,760.85	4,234.23 ✓			
Drilling (Plug	315.00	918.75	1,233.75 ✓			
Bulldozing	75.00	100.00	175.00 ✓			
Moving Dozer on Prop.	30.00	30.00	60.00 ✓			
Chem. Analyses	None	20.00	20.00 ✓			
Incidental Allowance	727.62	783.90	1,511.52 ✓			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	3,621.00	3,613.50	7,234.50	3,621.00	3,613.50	7,234.50

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

Date March 22, 1956 *Payee Bowles-Heflin Mining Company

Per Melvin C. Bowles Title Partner

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2615.75

Signature RRC
(Authorized Certifying Officer)

Date 4-20-56 Vou. No. DMA-56-100

(See other side)

Note: Withhold 100.00

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-F899 in accordance with the terms of the contract.

Signature W. R. Salsbury Title Mining Engineer Date 3-28-56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE

Signature [illegible] Title Executive Officer Date APR 9 1956

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED
APR 25 1956

Month of February 1956 Docket No. DMEA 3655 Contract No. Idm-E899
Operator's Name Bowles-Heflin Mining Company Minerals Uranium
Address 1200 Chester Street, Aurora, Colorado

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
STAGE I								
Bulldozing	Hr.	75.00	6	175.00	14	12.50	24	12.50
Moving Dozer	Job	30.00	1	60.00	2	30.00	2	30.00
Plug-bit Drilling	Ft.	315.00	180	1,233.75	705	1.75	705	1.75
Core Drilling	Ft.	2,473.38	906	4,234.23	1,551	2.73	1,552	2.73
Incidental Allow.	Ft.	727.62	1,086	1,511.52	2,256	0.67	2,257	0.67
Analyses	Ea.	None	0	20.00	4	5.00	60	5.00
STAGE II								
Bulldozing	Hr.						48	12.50
Moving Dozer	Job						2	30.00
Plug-bit Drilling	Ft.						1,305	1.75
Core Drilling	Ft.						2,108	2.73
Incidental Allow.	Ft.						3,413	0.67
Core Analyses	Ea.						120	5.00
Total Distributed Costs		3,621.00		7,234.50				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		3,621.00		7,234.50				

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

Date March 22, 1956 Operator Bowles-Heflin Mining Co.

Per Melvin C. Bowles Title Partner

Remarks: Note the transfer of 35 feet of plug-bit drilling and 332 feet of core bit drilling from Stage II to Stage I as was authorized per letter dated February 20, 1956.

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 872894

Schedule No. 56-100

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

RECEIVED
APR 25 1956

Administrative Audit Difference Statement

Bowles - Heflin Mining Company
1200 Chester Street,
Aurora, Colorado

Date: April 20, 1956
Payee's Reference: February 1956

FINAL DISTRIBUTION MADE APR 23 1956

Gentlemen:

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

Amount Claimed $ 3,621.00

Difference $

Amount Approved* $ 3,621.00

The reason for the difference was due to:

* Withheld $100.00 pending release of the report of review of contract expenditures.

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

Very sincerely yours,

[illegible]
[illegible]
Audit Section
Randel H. Cooper,
Fiscal Officer

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

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

RECEIVED
APR 25 1956

224 New Customhouse
Denver 2, Colorado

April 19, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3655 (Uranium) Contract Idm-E899, Bowles-Heflin Mining Company (J. V. Eaverson lease) San Miguel County, Colorado - Operator's Monthly Progress Report for the month of February, 1956

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

It is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended for 75 percent of the amount as reported on Form MF-104, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations, except as follows.

The contract is considered to have been completed, therefore withhold an amount of $100.00 pending release of the Report of Review of contract expenditures by the Contract Administration and Audit Division, DMEA, and so advise the Operator by means of the Administrative Audit Difference Statement.

Remarks

Date of Report----------March 22, 1956
Date Received in Field Office---------- March 26, 1956
Date Received in Region Office----------April 11, 1956

W. M. TRAVER

W. M. Traver

Enclosures
JDC:jy
cc: MF-104 File E899
Sec. Op. Comm. (2) Cooper
Shaw (2) Chron.
Townsend w/copy engr's. report

DMEA
Date Rec'd.

APR 12 1956

BUREAU OF MINES
Denver, Colorado

RECEIVED
APR 2 5 1956
DMEA
Date Rec'd.
APR 2 1956
BUREAU OF MINES
Denver, Colorado

Region III

Building 20
Denver Federal Center
Denver 2, Colorado
March 30, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: M. H. Salsbury
Through: John F. Shaw

Subject: DMEA 3655 (Uranium), Contract Idm E-899, Bowles Heflin Mining Company, (J.V. Ravensen lease), San Miguel County, Colo.— Progress Report for February 1956.

The subject property was visited on March 7, 1956 in company with F. M. Byers of the Geological Survey. There was no one on the property. An attempt was made to contact the operator's representative in Dove Creek, Colorado, but he was not in town.

Stage I drilling had been completed on Feb. 25, 1956 and, all equipment had been removed.

Payment is claimed by the operator for the following items covering holes nos. E-3, E-5, E-7, E-8 and E-9:

Core drilling, 906 feet at $2.73/ft.	$2,473.38
Plug-bit drilling, 180 ft. at $1.75/ft. ...	315.00
Incidental allowance, 1086 ft. at 67¢/ft. ..	727.67
Bulldozing 6 hrs. at $12.50/hr.	75.00
Moving bulldozer off property	30.00
Total claimed in Feb. 1956	$3,621.05
Government participation at 75 percent	$2,715.79

All claims are in accordance with contract terms and within the maximums for Stage I as adjusted by an approval from the DMEA Field Team, Region III dated February 20, 1956, transferring 35 ft. of plug-bit drilling and 332 feet of core drilling from Stage II as provided in the contract. Actual cost items are supported by a signed invoice for drilling and bulldozing. The operator has claimed 3 feet less plug-bit drilling than charged for in the contractor's invoice, so as to keep the claimed footage within the adjusted contract maximum.

Hole No. E-7 had been completed at the time of the inspection of Feb. 10, 1956, and Hole No. E-3 was being drilled. During the Mar. 7 inspection, the sites of holes Nos. E-5, E-8, and E-9 were visited. All holes were found to be at approved locations. Following is a drilling summary:

Hole No. (E prefix omitted)	Plug depth drilled feet	Cored depth drilled feet	Total depth drilled feet	Footage of boxed core	Depths logged by DMEA	Mineralization by DMEA Barnsby Unit	Mineralization reported by operator
3	75	198	273	198	248	Barren	Barren
5	15	205	220	205	219	Barren	Barren
7	30	164	194	164	192	Barren	Barren
8	50	185	235	185	233	Barren	Barren
9	13	154	167	154	162	Barren	Barren
Totals drilled	183	906	1089	906			
" claimed	180	906	1086				
Prev. "	525	646	1170				
Claimed to date	705	1551	2256				
Permitted by contract-Stage I	670	1220	1990				
Authorized by work approval	35	332	367				
Total authorized	705	1552	2357				

The core from holes drilled in February 1956 was stored at the Slick Rock camp of the Geological Survey. It was checked for footage. Holes were logged by the DMEA logging unit and lithologic logs have been made by a Geological Survey geologist. All results check those reported by the operator.

It is noted that the operator does not consider Stage II drilling advisable and is not requesting further work. The DMEA representatives in Grand Junction, Colorado concur, and recommend termination of the contract without certification of discovery or development. The narrative report for February 1956 gives a complete summary of the project, and it is recommended that it be accepted as a final report, if the Operator will furnish the required number of additional copies.

The operator has submitted in quintuplicate for February 1956, a narrative report with map, lithologic logs, results of probing by the operator, MF-104 and MF-104A forms, and 1 copy of the contractor's invoice for drilling and bulldozing. Monthly and cumulative totals on the MF-104 and MF-104A forms are correct, and all material is satisfactory.

It is recommended that $2,715.79 or 75 percent of the amount claimed in February 1956, $3,621.05, be approved for payment.

Walter Hagen Jr
for M. H. Salsbury
Mining Engineer

cc 6
Idm-2899
Chron.

MHS/ea

Bowles-Heflin Mining Company
1200 Chester Street
Aurora 8, Colorado
March 22, 1956

RECEIVED
APR 2 5 1956

Mr. John F. Shaw
U.S. Bureau of Mines
Room 137, Building 20
Denver Federal Center
Denver 2, Colorado

Re: Docket DMEA 3655 (Uranium)
Contract Idm-E899

Narrative Report

Gentlemen:

We completed phase #1 of this project on February 28, 1956. Which consisted of nine (9) holes having a total of 705 feet of plug-bit drilling and 1,551 feet of core drilling.

Holes No. 1, 2, 4 and 6 were completed in the month of January with a total of 525 feet of plug-bit drilling and 645 feet of core drilling.

Holes No. 3, 5, 7, 8 and 9 were completed in the month of February with a total of 180 feet of plug-bit drilling and 906 feet of core drilling.

Early in February when it became evident that it would require additional footage to complete Stage I, we requested and received permission to transfer 35 feet of plug-bit drilling and 332 feet of core drilling from Stage 2 to Stage I, to enable completion of the nine (9) holes in Stage I.

The drilling contractor and all other personnel continued through to the completion of Stage I of this contract. A very poor rate of progress was made on this work due to a combination of circumstances. However, we feel that the work when performed was of good quality and performed with due care and consideration in all ways.

All the holes drilled were completely blank except for the number 1 hole in the northeast corner of the pattern which showed some mineralization. We have discussed this with our geologist Mr. Robert R. Ward and our engineer Mr. Russell Wood and do not feel that considering the formation encountered in this Stage I, drilling and all other factors that it is worthwhile to do additional drilling. Therefore we have decided not to make a request for any Stage II program at all.

In the event any additional information is desired please advise us. Thank you.

Sincerely yours,

BOWLES-HEFLIN MINING COMPANY

By Melvin C. Bowles
Melvin C. Bowles

MCB:cls
Enclosures

(c o p y)

THE FRITZ-ERICKSON MINING CO.

Drilling Contractors

Box 365

Dove Creek, Colorado

RECEIVED
APR 2 5 1956

February 29, 1956

Bowles-Heflin Mining Co.
1200 Chester Street
Aurora, Colorado

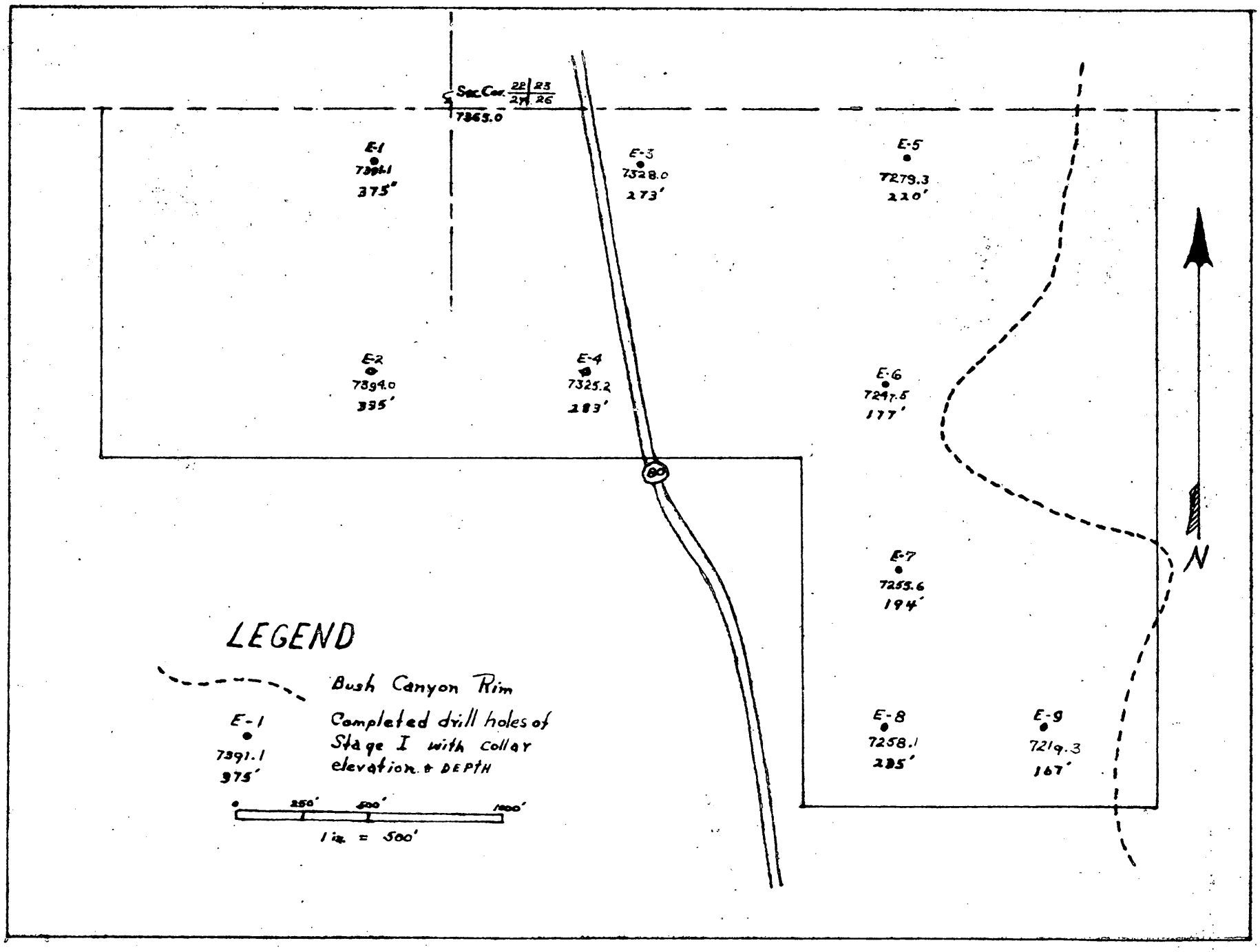
For Drilling on DMEA Project # 3655, Contract IDM-E899,
For Month of February, 1956

For Moving Bulldozer off of property		$30.00
Building Access Roads and Drill Sites	6 Hrs. @ $12.50	75.00
Plug Bit Drilling, 183' @ $1.75		320.00
For Core Drilling, 906' @ $2.73		2,473.38
	Total	$2,898.63

The Fritz-Erickson Mining Co.

By Clyde C. Fritz

(c o p y)



Map Showing Location of Completed Drill Holes on J.V. Eaverson Lease, San Miguel County, Colo.
D.M.E.A. Contract Idm E-899 Bowles - Heflin Mining Co.

RECEIVED
APR 25 1956

RECEIVED
APR 2 5 1956

Dates: Collected

126.3	-	1[illegible].7	Lt. to dk. buff, [illegible] ft, med, grnd. porous ss. showing moderate x-bedding.
132.7	-	133.0	Lt. green mudstone.
133.0	-	136.2	Dk. red mudstone, loco core, w/ a 4'' ss. streak at 1[illegible].0' and at 134.5'
			124.1 133.[illegible] [illegible] ft. of core.
136.2	-	138.9	Hard, Lt. buff, limey, dendritic ss. w/ minor x-bedding, and a 2'' seam of gray shale at 137.4'
138.9	-	139.7	Hard, red, limey, x-bedded ss.
139.7	-	140.9	Med. hard, dk. buff ss.
140.9	-	143.6	Soft, porous, lt. green shaley ss. Loss of 2' of core.
143.6	-	145.3	Hard, dense, gray ss. interbedded w/ thin layers of mudstone and w/ a few clay galls.
			133.3 - 144.2 8.0 ft of core.
146.3	-	149.6	Red and green mottled sandy shale, grading into dk. red mudstone.
149.6	-	15212	Interbedded lt. gray limey shale and dk. red mudstone.
			144.2 - 152.2 6.3 ft. of good core.
152.2	-	175.1	Soft red and gray mudstone w/ a limestone rib at 155.3' to 156.3'.
17[illegible].			
			152.2 - 163.2 9.8 ft. of core.
			163.2 - 174.2 10.6 ft. of good core.
175.1	-	176.4	Hard green, limey shale w/ thin red mudstone partings.
176.4	-	177.3	Red and green mudstone.
177.3	-	178.7	Med. hard, red and green mottled sandy shale.
178.7	-	183.6	Red and gray mottled mudstone. Lost 2.5' of core.
183.6	-	186.0	Med. hard red and gray sandy shale. Lost 1.1' of core.
			174.2 - 184.2 7.5 ft. of core.
186.0	-	187.1	Soft red mudstone.
187.1	-	188.1	Red and gray limey shale.
188.1	-	188.6	Red mudstone.
188.6	-	190.6	Dk. red, fine grnd., limey ss.
190.6	-	191.4	Red mudstone.
191.4	-	192.5	Dk. red, fine grnd. limey ss.
192.5	-	194.2	Red mudstone.
			184.2 - 195.1 3.7 ft. of core.
194.2	-	196.5	Hard, dense red sandy shale.
196.6	-	207.1	Red mudstone.
207.1	-	209.0	Hard, dense, fine grnd., lt. red, dendritic ss.
209.0	-	225.5	Med. soft, porous, red. grnd., x-bedded, lt. pink to buff ss. w/ green mudstone partings [illegible]
			204.0 - 227.5 [illegible] ft. of good core.

cont.

225.5	-	[illegible]9.3	Red, green, and gray mottled mudstone. 217.5 - 228.5 10.4' of good core.
239.3	-	239.6	Hard, gray-green limey shale member. 228.5 - 239.5 7.9' of poor core.
239.6	-	260.3	Red and gray mottled mudstone w/ an occasional 6" streak of green sandy shale. 239.5 - 249.0 7.0' of poor core. 249.0 - 259.5 4.6' of poor core.
260.3	-	272.3	Med. hard, porous, friable, med. grnd. buff ss. w/ minor x-bedding and red mudstone partings along the bedding planes
272.3	-	273.0	Soft, red, mudstone 259.5 - 273.0 11.3' of core.

Drill hole E-5 Contract Idm E-899 Bowles-Heflin Mining Co.
Dates: Collared 1/23/56 Finished 2/4/56
Location: 1000 feet East of drill hole E-3

0	-	4	Topsoil.
4	-	7	Topsoil and dk. red clay mixed.
7	-	8.5	Dk. red clay.
8.5	-	9	Gray shale.
9	-	13.5	Lt. and dk. red mudstone.
13.5	-	14.0	Dk. buff, med. grnd. ss.
14.0	-	15.0	Lt. buff, med. grnd. ss. w/ thin streaks of red and gray mudstone.
15.0	-		Started coring.
15.0	-	17.5	Lt. buff, med to fine grnd., fairly hard, compact ss.
17.5	-	18.7	No core recovery. Cuttings show the formation to be the same as 15.0 to 17.5'
18.7	-	29.0	Soft red mudstone. Very poor core recovery. 15.0 - 23.0 2.5 ft. of very poor core. 23.0 - 29.0 2.8 ft. of very poor core.
29.0	-	30.2	Red and green mudstone. Very poor core.
30.2	-	52.2	Lt. buff, med. grnd., fairly soft, porous, friable, massive ss. 29.0 - 31.0 0.9' badly broken core. 0.8' of good core. 31.0 - 44.0 12.7' of good core.
52.2	-	54.7	Dk. buff, soft, friable, med. grnd. ss. w/ lge. green shale inclusions. x-bedded.
54.7	-	55.0	A mixture of med. grnd., porous, buff ss. and green shale, indicating a shale member to follow. 44.0 - 55.0 10.9' of good core.
55.0	-	57.8	Soft, gray-green and red sandy shale. Lost 1 ft. of core.
57.8	-	58.5	Dk. buff, fine grnd., limey ss. Dendritic and containing thin, calcite filled cracks, and thin gray shale partings.
58.5	-	60.9	Soft red mudstone. 55.0 - 59.0 3 ft. of good core.
60.9	-	64.4	Dk. buff, fine grnd.,limey ss. Dendritic and w/ a calcite filled vrack running lengthwise through the core. 59.0 - 62.0 3.1 ft. of good core.
64.4	-	67.8	Med. soft red, sandy shale.
67.8	-	69.8	Mottled red sandy shale and dk. buff limey ss. and shale w/ red mudstone partings.
69.8	-	70.3	Hard, brown, fine grnd. limey ss.
70.3	-	75.8	Med hard. dk. to lt. red, med. grnd. porous friable ss. w/ red mudstone partings. 62.0 - 75.5 9.6 ft of fair core.
75.8	-	81.0	Lt. buff to white, med. grnd.,porous, friable ss., getting lighter in color, more porous, and containing more green clay w/ depth.

81.0	-	82.9	Dk. brown, limonitic, fine grnd., limey sandstone.
82.9	-	84.0	Dk. red mudstone.
84.0	-	84.8	Gray limey shale.
84.8	-	85.7	Red sandy shale.
85.7	-	94.0	Red mudstone. Loss of 4.7' of core. 75.5 - 85.0 10.7 ft. of good core.
94.0	-	95.4	Gray shale.
95.4	-	97.4	Red and gray mottled mudstone.
97.4	-	100.3	Red and gray mottled sandy shale.
100.3	-	105.8	Red and gray mudstone. 89.0 - 102.5 11.2 ft. of good core.
105.8	-	108.5	Hard, gray limey shale.
108.5	-	111.8	Soft red mudstone.
111.8	-	114.9	Hard, gray limey shale. 102.5 - 113.0 6.8 ft of poor core.
114.9	-	124.3	Med hard, red, limey shale w/ thin mudstone partings.
124.3	-	125.0	Very hard gray limestone.
125.0	-	132.0	Hard red limey shale. fair core. 113.0 - 125.0 9.1 ft of core.
132.0	-	134.0	Hard gray limestone. Very poor, badly shattered core. 125.0 - 134.0 6.7 ft. of fair core.
134.0	-	138.0	Hard red limey shale. Loss of 1.4 ft. of core.
138.0	-	141.0	Hard red and gray sandy shale. Badly shattered core.
141.0	-	144.5	No core recovery. Cuttings of soft red mudstone.
144.5	-	149.0	Soft, lt. red to buff mudstone cuttings. no core recovery. 134.0 - 148.5 5.1 ft of poor core.
149.0	-	164.0	Dk. gray, nearly black, soft, sandy shale. Poor core. 148.5 - 162.0 8.2 ft of good core.
164.0	-	166.7	Lt. buff, sandy shale.
166.7	-	169.0	Salmon pink sandy shale.
169.0	-	170.0	Dk. red mudstone. No core recovery.
170.0	-	173.1	Hard, dense, fine grnd., lt. gray to lt. buff, semi friable ss.
173.1	-	189.5	Soft, med. grnd. porous and friable, lt. buff to white ss. 162.0 - 175.5 7.2 ft. of poor core. 175.5 - 180.5 4.25 ft. of good core.
189.5	-	206.5	Soft dk. and lt. red mudstone. 180.5 - 194.0 12.6 ft. of good core. 194.0 - 196.0 1.8 ft. of good core.
206.5	-	209.0	Fairly hard, med. grnd, lt. pink to white friable quartz ss. Poor core. 196.0 - 209.0 7.6 ft. of poor core.
209.0	-	216.0	Hard, glassey, mod. grnd. pink to buff ss.
216.0	-	220.0	Lt. red sandy shale. 209.0 - 220.0 7.4 ft. of fair core.

Drill hole E-7 Contract Idm E-899 Bowles-Hecla Mining Co.
Dates: Collared 2/5/56 Finished 2/6/56
Location: 500 feet South of drill hole E-6

0	-	4	Topsoil.
4	-	6	Gray clay.
6	-	7	Gray sandy shale.
7	-	9	Soft, med. grnd., gray to buff ss.
9	-	10	Red mudstone.
10	-	11	Gray sandy shale.
11	-	13	Red mudstone.
13	-	13.5	Buff ss.
13.5	-	16	Red sandy shale.
16	-	17.5	Soft, med. grnd., lt. to dk. buff ss.
17.5	-	21.5	Red mudstone.
21.5	-	22.5	Hard, fine grnd., limey, buff colordd ss. w/ a streak of dk. buff ss. at 22'.
22.5	-	23	Red sandy shale.
23	-	27	Soft, friable red ss. getting harder and lighter in color w/ depth.
27	-	28	Soft red mudstone.
28	-	30	Soft, friable and porous, lt. buff ss.
30			Started coring.
30	-	50.5	Soft, friable, porous, lt. pink, med. grnd. ss. turning lighter to almost white at 35' Minor X-bedding near the bottom. 30.0 - 39.0 8.5 ft. of good core.
50.5	-	51.9	Red mudstone. Loss of 1' of core.
51.9	-	53.0	Lt. to dk. buff colored sandy shale. Med. hard. Good core. 39.0 - 52.5 12.1 ft. of good core.
53.0	-	64.9	Soft, lt. red mudstone. Very poor core recovery. Core badly shattered.
64.9	-	65.6	Hard red sandy shale.
65.6	-	66.0	Very hard, dense, semi friable, fine grnd. red ss. w/ red mudstone partings. 52.5 - 66.0 3.5' of poor core.
66.0	-	79.5	Continuation of 65.6 - 66.0., but ss. getting progressively lighter in color, softer and more friable with depth.
79.5	-	95.0	Continuation of 66.0 - 79.5 but returning to light pink color. Still soft and friable and more strongly x-bedded. 66.0 - 79.5 12.0 ft. of good core. 79.5 - 93.0 11.5 ft. of fair core.
95.0	-	98.0	No core recovery. Cuttings of soft dk. red mudstone.
98.0	-	98.7	Hard, dk. buff colored, fine grnd., limey sandstone.
98.7	-	105.5	Soft, porous, very friable, med. grnd. lt. pink ss.
105.5	-	106.5	Med. hard, semi friable, fine to med. grnd. white ss.
106.5	-	117.5	Med. soft, friable, porous, med. grnd. lt. pink to white ss. 93.0 - 106.5 9.1 ft. of poor core.

117.5	-	118.7	Soft red mudstone cuttings. No core recovery.
118.7	-	128.2	Very soft, friable, med. grnd., lt. pink to buff ss. 106.5 - 120.0 12.8 ft of very good core.
128.2	-	129.5	Soft red mudstone cuttings. No core recovery.
129.5	-	129.8	Soft gray mudstone cuttings. No core.
129.8	-	130.5	Med hard, porous, med. grnd. buff ss. w/ red mudstone partings.
130.5	-	131.3	Soft red mudstone.
131.3	-	132.0	Hard, lt. green limey shale.
132.0	-	135.5	Soft red mudstone. 120.0 - 133.5 10.3 ft. of fair core.
135.5	-	141.1	Med hard red sandy shale w/ an occasional layer of soft red mudstone. Poor core. Loss of 3.4' of core.
141.1	-	142.6	Fairly hard, green and gray sandy shale.
142.6	-	146.2	Soft red mudstone.
146.2	-	149.8	Greenish gray hard limey shale. 133.5 - 147.0 10.1 ft. of fair core Loss was in the mudstone.
149.8	-	166.6	Med. hard, dk. red and gray mudstone w/ an occasional gray-green limey shale streak. Red mudstone predominant 147.0 - 160.5 10.3 ft. of good core. Poor recovery in the mudstone.
166.6	-	169.0	Hard, dense, fine grnd., gray limey ss
169.0	-	179.5	Med. hard, friable, med. grnd. lt. red ss. getting softer and lighter in color w/ depth. 160.5 - 174.0 9.1 ft. of fair core except in mudstone at top.
179.5	-	185.7	Med. hard, porous, friable, med. grnd. clean white quartz ss.
185.7	-	187.0	Lt. red mudstone cuttings. No core recovery.
187.0	-	187.5	Very hard, dk. red limestone. 174.0 - 187.5 12.1 ft. of very good core.
187.5	-	194.0	Soft, brick red, fine grnd. ss. interbedded w/ dk. red mudstone (Summerville 187.5 - 194.0 5.0 ft. of fair core.

Collared 2/20/56 Finished 2/22/56

Location: 600 feet [redacted]uth and 100 feet west of [redacted]ill hole E-7

0	-	5	Dark red topsoil.
5	-	15	Lt. gray clay and red topsoil mixed.
15	-	17	Gray clay.
17	-	19	Dk. red mudstone.
19	-	20	Gray sandy shale.
20	-	22.5	Dk. red mudstone.
22.5	-	24.5	Hard gray limestone.
24.5	-	26	Red sandy shale.
26	-	27.5	Gray limestone.
27.5	-	34	Red sandy shale.
34	-	35	Thinly laminated green shale.
35	-	41	Red shale.
41	-	42	Gray limestone.
42	-	43	Soft, red, thinly laminated mudstone.
43	-	44	Hard gray limestone.
44	-	48	Soft red mudstone.
48	-	48.5	Soft, lt. green mudstone.
48.5	-	50	Lt. buff, med. grnd. ss.
50			Started coring.
50	-	59.2	Lt. buff, med. to fine grnd., semi-friable, massive ss.
59.2	-	63.5	Lt. green sandy shale. Badly shattered core. 50.0 - 63.5 9.8' of good core.
63.5	-	68.2	Soft red mudstone cuttings. No core recovery.
68.2	-	73.5	Lt. red to buff, med grnd., friable, semi-porous ss. w/ minor x-bedding and a few thin red mudstone partings.
73.5	-	75.0	Dk. buff, fine grnd., massive ss. 63.5 - 74.0 6.3' of core.
75.0	-	96.0	Lt. buff, med. grnd., semi-friable ss. showing minor x-bedding near the top. 74.0 - 87.5 8.1' of good core. 87.5 - 96.0 8.0' of very good core.
96.0	-	110.0	Soft, thin bedded, red and gray mottled mudstone w/ several hard limey shale ribs. Very poor core recovery. 96.0 - 109.5 3.2' of very poor core.
110.0	-	119.5	Soft, friable, fine grnd. red ss. showing some x-bedding and interbedded with an occasional streak of red sandy shale.
119.5	-	122.0	Soft red sandy shale. 109.5 - 122.0 10.5' of good core.
122.0	-	127.0	Fine grnd., red ss. w/ strong x-bedding and w/ thin red shale partings along the bedding planes
127.0	-	140.7	Massive, red, med. grnd. ss. w/ a streak of dk. buff, limey ss. at 135 to 135.5! Getting lighter colored w/ depth. 122.0 - 135.5 11.6' of very good core.
140.7	-	150.0	Massive, med. to fine grnd., very friable, porous, buff colored ss. 135.5 - 148.0 11.3' of good core.
150.0	-	164.4	Lt. red, thin bedded, fine grnd., friable ss. 148.0 - 161.5 13.0' of very good core.

164.4	-	17[illegible]3	Med. grnd., massive, [illegible]riable, buff colored ss.
173.8	-	175.0	Hard, dense, lt. gray limestone. 161.5 - 175.0 10.1' of fair core.
175.0	[illegible]	182.7	Soft, red mudstone. Poor core recovery.
182.7	-	187.6	Red sandy shale.
187.6	-	188.5	Red and gray mottled sandy shale. 175.0 - 188.5 7.4' of poor core.
188.5	-	191.9	Soft. red and gray mudstone. Very poor core recovery.
191.9	-	198.5	Red and gray mottled sandy shale.
198.5	-	202.0	Red mudstone. 188.5 - 202.0 7.6' of very poor core.
202.0	-	215.5	Massive, lt. red, med. grnd., semi-porous ss. 202.0 - 215.5 9.3' of fair core.
215.5	-	231.0	Med. grnd., very porous and friable, lt. buff to white, clean quartz ss. w/ minor x-bedding. 215.5 - 229.0 12.5' of very good core.
231.0	-	235.0	Med. hard, thin bedded, brick red sandy shale. 229.0 - 235.0 4.1' of fair core.

Drill hole E-9, Contract Idm T-899 Bowles-Haslin Mining Co.
Dates: Collared [illegible]22/56 Finished 2/2[illegible]56
Location: 600 feet South and 500 feet East of drill hole E-7

0	-	3	Dk. red topsoil.
3	-	5	Sticky red clay.
5	-	8	Lt. red, med. grnd. ss.
8	-	9.5	Soft, thinly laminated green shale.
9.5	-	13	Soft, med. grnd. buff colored ss.
13			Started coring.
13	-	25.8	Lt. pink to lt. buff, med. grnd., porous, semi-friable, massive ss.
25.8	-	27.2	Lt. gray, fine grnd., very friable ss. w/ small carbon inclusions.
			13.0 - 24.5 9.8' of good core. Loss of core occured from 21.0 - 24.5' due to a crack in the formation that caused core to shatter.
27.2	-	29.6	Dk. buff, med. grnd., x-bedded, porous ss.
			24.5 - 29.0 3.7' of poor core.
29.6	-	38.6	Lt. buff, med. grnd., very porous and friable massive ss.
			29.0 - 38.0 8.0' of poor core.
38.6	-	41.0	Varicolored shale.
			38.0 - 41.0 2.0' of poor core.
41.0	-	41.8	Hard, med. grnd., dense gray limey ss.
41.8	-	42.5	Soft, gray and green mottled sandy shale.
42.5	-	56.0	Soft, thinly laminated red mudstone, w/ a 6" streak of gray limey shale at 54'.
			41.0 - 51.5 6.0' of very poor core.
56.0	-	65.0	Red and gray mottled mudstone cuttings. No core recovery.
			51.5 - 65.0 No core.
65.0	-	69.0	Soft gray mudstone. Very poor core.
69.0	-	70.5	Red and gray sandy shale.
70.5	-	77.0	Soft, dk. red mudstone. Very poor core.
			65.0 - 77.0 5.0' of poor core.
77.0	-	89.0	Red, med. grnd., shaley ss.
			77.0 - 85.0 6.7' of fair core.
89.0	-	91.5	Lt. buff, med. grnd., porous, massive ss.
91.5	-	93.0	Red, med. grnd., porous ss.
93.0	-	94.0	Red mudstone cuttings. No core.
94.0	-	96.0	Red, med. grnd., ss.
96.0	-	96.5	Soft red mudstone cuttings. No core.
96.5	-	98.0	Dk. red, hard, dense med. grnd., ss.
			85.0 - 98.0 10.5' of fair core.
98.0	-	109.8	Lt. buff to white, fine grnd., dense, massive, limey ss. Very poor core.
			98.0 - 108.5 8.3' of very poor core.
109.8	-	114.3	Soft red mudstone.
114.3	-	118.0	Red and gray mottled sandy shale.
118.0	-	121.7	Hard, lt. gray limey shale.
			108.5 - 120.5 4.0' of very poor core.
121.7	-	134.5	Soft, red and gray mottled mudstone. Very poor core.
			120.5 - 131.5' 5.0' of very poor core.

E-9 cont.

134.5	-	137.0	Green sandy shale.
137.0	-	145.0	Soft red mudstone. Very poor core.
			131.5 - 145.0 4.0' of very poor core.
145.0	-	147.3	Red and gray mottled sandy shale w/ thin interbedded layers of soft red mudstone.
147.3	-	149.1	Greenish-yellow shale.
149.1	-	153.5	Dk. red to buff, med. grnd., porous ss.
			145.0 - 153.5 3.3' of very poor core.
153.5	-	155.5	Lt. red, fine to med. grnd., semi-friable, ss. w/ minor x-bedding.
155.5	-	165.6	Massive, semi-friable, lt. buff to white ss.
165.6	-	167.0	Brick red hard sandy shale (Summerville).

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

Budget Bureau No. 42-R1036.5

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

RECEIVED
APR 13 1956

Month of January, 1956 Docket No. DMEA 3655 Contract No. Idm-E899
Operator's Name Bowles-Heflin Mining Company Minerals Uranium
Address 1200 Chester Street, Aurora, Colorado
Contract Amount, $ 19,228.00 Government Participation: 75 % Amount, $ 14,421.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts: Drilling (Core	1,760.85					
(Plug	918.75					
Bulldozing	100.00					
Moving Dozer on Prop.	30.00					
Crosscutting						
~~Drilling~~ Chem. Analyses	20.00					
Incidental Allowance	783.90					
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	3,613.50			3,613.50		3,613.50

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

Date Feb. 6, 1956 *Payee Bowles-Heflin Mining Company

Per Melvin C. Bowles Title Partner

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$2710.13

Signature [illegible]
(Authorized Certifying Officer)

Date 4/5/56 Vou. No. DMA 56-90

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm.E899 in accordance with the terms of the contract.

Signature Mac Salabury #2710.13 Title Mining Engineer Date 3-20-56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Sawyer Title Executive Officer Date APR 4 1956

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

RECEIVED
APR 13 1956

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 1956 Docket No. DMEA 3655 Contract No. Idm-E899
Operator's Name Bowles-Heflin Mining Company Minerals Uranium
Address 1200 Chester Street, Aurora, Colorado

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
STAGE I								
~~Drifting~~ Bulldozing	Hr.	100.00	8	100.00	8	12.50	24	12.50
~~Crosscutting~~ Moving Dozer	Job	30.00	1	30.00	1	30.00	2	30.00
~~Raising~~ Plug-bit Drilling	ft.	918.75	525	918.75	525	1.75	670	1.75
~~Shafts~~ Core Drilling	ft.	1,760.85	645	1,760.85	645	2.73	1,220	2.73
~~Winzes~~ Incidental Allow.	ft.	783.90	1,170	783.90	1,170	0.67	1,890	0.67
~~Drilling: Core~~ Analyses	ea.	20.00	4	20.00	4	5.00	60	5.00
STAGE II								
~~Churn~~ Bulldozing	Hr.						48	12.50
~~Auger~~ Moving Dozer	Job						2	30.00
~~Stripping~~ Plug-bit Drilling	ft.						1,340	1.75
~~Trenching~~ Core Drilling	ft.						2,440	2.73
~~Test Pits~~ Incidental								
~~Roads and Trails~~ Allow.	ft.						3,780	0.67
Chem. Analyses	ea.						120	5.00
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		3,613.50						

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

Date Feb. 6, 1956 Operator Bowles-Heflin Mining Co.

Per Melvin C. Bowles Title Partner

M. H. Fehlberg
REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

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

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

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

GPO 872894

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

RECEIVED
APR 13 1956
FINAL DISTRIBUTION
MADE APR 11 1956

224 New Customhouse
Denver 2, Colorado

April 4, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3655 (Uranium) Contract Idm-E899, Bowles-Heflin Mining Company, San Miguel County, Colorado. Operator's Monthly Progress Report, for the month of January, 1956

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

Work has been accomplished as authorized in the contract and payment is recommended for 75 percent of the amount as reported on Form MF-104, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Remarks

Date of Report----------February 6, 1956
Date Received in Field Office----------March 19, 1956
Date Received in Region Office---------- March 26, 1956

W. M. TRAVER

W. M. Traver

Enclosures
JWT:jy
cc: MF-104 File E899
Sec. Op. Comm. (2)
Shaw (2)
Chron.

DMEA
Date Rec'd.

RECEIVED MAR 26 1956

APR 13 1956 BUREAU OF MINES
Denver, Colorado

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
March 23, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: N. H. Salsbury

Subject: DMEA 3655, Contract IAm-2899 (Uranium) Revlon-Heflin Mining Company, San Miguel County, Colorado - Checking revised MF-104 forms for January, 1956.

The operator under the subject contract has furnished corrected MF-104 and MF-104A forms in quintuplicate to replace those originally submitted with claim for January, 1956 operations.

They are satisfactory and monthly and cumulative totals appear to be correct.

It is recommended that payment be approved on the basis shown in the progress report for January, 1956.

N. H. Salsbury
Mining Engineer

NHS/mr
cc 6
IAm-2899
Chron

DMEA
Date Rec'd.

MAR 26 1956

APR 13 1956

Region III

Building 20
Denver Federal Center
Denver 2, Colorado
February 20, 1956

DMEA
Date Rec'd.

FEB 21 1956

BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shea
Supervising Mining Engineer

From: M. H. Salsbury

Subject: DMEA 3655 (Uranium) Contract Idn B-899, Bowles-Naflin Mining Co., San Miguel County, Colo.-Progress report for January 1956.

Operations under the subject contract were visited on Jan. 5, 1956, and inspected on February 10, 1956 in company with F. M. Byers of the Geological Survey. Vernon Bowles, representing the operator, was present.

Payment is claimed in January 1956 for the following items:

Moving Bulldozer on property	$ 30.00
8 hrs. bulldozing for access roads and drill sites at $12.50 per hr.	100.00
Plug-bit drilling 525 ft. at $1.75/ft.	918.75
Core drilling 645 ft. at $2.73/ft.	1760.85
Incidental allowance on 1170 ft. of drilling at $0.67 per ft.	783.90
4 chemical analyses for U_3O_8 and V_2O_5 at $5.00 each	20.00
Total claimed in January 1956	$3613.50
Government participation at 75 percent	$2710.13

All claims are in accordance with contract terms and within contract maximums and are supported by contractor's invoices and a certified certificate for chemical analyses. A breakdown of incurred expenses, not required, was furnished with the operator's narrative report. Items of expense in this statement which the incidental allowance covers appear to have been adjusted to equal the incidental allowance of $783.90.

At the time of the inspection, holes nos. 1, 2, 4, 5, 6, and 7, as shown on figure 2 with the contract had been drilled, all at specified locations. Hole No. 3 was being drilled. The operator drilled in January 1956 holes no. 1, 2, 4 and 6 (prefixed Z on the map with the narrative report). Holes were probed by the operator and by the DMEA Barnaby unit.

Hole No. (Z-prefix omitted)	Plug Cored Depth Claimed (feet)	Plug Cored Depth Claimed (feet)	Total Depth Claimed (feet)	Footage of Boxed Core	Depth logged by DMEA Barnaby unit (ft.)	Mineralization by DMEA Barnaby unit	Mineralization reported by operator
1	180	195	375	195	374	.037% U_3O_8 from 240.2 to 241.1 feet	Negligible
2	195	140	335	140	335	Barren	Barren
4	135	148	283	148	283	<0.010	Barren
6	15	162	177	162.5	172	<0.010	Barren
Totals	525	645	1170				

Examination of the core, which has been stored at the Slick Rock camp of the Geological Survey, checks radiometric results and verifies the footage of coring claimed. Core corresponding to slight mineralization detected at four points in hole no. 1 was split and analyzed chemically for U_3O_8 and V_2O_5 as follows:

Sample No. 1	From (ft.)	To (ft.)	CONTENT Percent U_3O_8	CONTENT Percent V_2O_5	DMEA Probing result percent eU_3O_8
1	187.2	188.1	0.013	Trace	
2	237.5	238.5	0.017	Trace	
3	238.5	239.5	0.023	Trace	
4	239.5	240.5	0.010	Trace	0.037(240.2-241.1)

The drill holes encountered sandstone thicknesses in excess of the estimated amounts and, for that reason, coring footages have exceeded the 139 feet minimum depth stipulated in the contract. It is possible that some Brushy Basin sandstone has been cored, but it is difficult to differentiate between Brushy Basin and Salt Wash sandstone in this vicinity according to the Geological Survey project chief at Slick Rock.

Not enough footage remains in Stage I to drill holes 8 and 9, and the operator has requested authorization from the DMEA Field Team to transfer footage from Stage II as provided in the contract terms. This has been recommended by the DMEA inspecting team.

The operator has submitted in quintuplicate for January 1956, a narrative report with map, lithologic logs, geologists report of results including probing, MF-104 and MF-104A forms, and 1 copy each of contractor's invoice and certified certificate of chemical analyses.

They are satisfactory except that costs are itemized on an accompanying statement instead of on the MF-104 forms. The breakdown is reproduced in this inspection report. It is recommended that the operator be advised to correct subsequent MF-104 forms.

It is recommended that $2,710.13, or 75 percent of the amount claimed in January 1956, $3,613.50 be approved for payment.

for John F. Shaw
M. H. Salsbury
Mining Engineer

cc 6
Idm R-899
Chron.
MHSalsbury

MHS/ch

BOWLES-HEFLIN MINING COMPANY
1200 Chester Street
Aurora 8, Colorado

DMEA
Date Rec'd.
MAR 26 1956

RECEIVED
APR 13 1956
BUREAU OF MINES

February 6, 1956

Mr. John F. Shaw
N. S. Bureau of Mines
Room 137, Building 20
Denver Federal Center
Denver 2, Colorado

Re: Docket DMEA 3655 (Uranium)
Contract IDM-E899

Narrative Report

Gentlemen:

We started on this project January 3, 1956. We engaged the services of the Fritz-Erickson Mining Co. to do the drilling on a contract basis. The best rate we were able to get on this work was the maximum allowable under Exhibit A of the contract. The drilling contractor moved and has the following equipment on this job: Two (2) Mayhew 1000 rotary drill rigs, Two (2) 500 C.F.M. Air Compressors, both truck mounted, Two (2) Ford Water trucks, One (1) International crawler type tractor with dozer, one (1) Dodge flat-bed service truck, One (1) Ford pickup and one (1) jeep pickup. He is therefore, fully equipped to do this work and do the drilling, either wet or dry, as the individual hole requires.

We engaged the services of Mr. Russell Wood, Mining Engineer and Mr. Robert Ward, Geological Engineer, both of Dove Creek, Colorado, to take care of and do all logging and mapping of the drill holes, engineering, sampling, probing, etc.

We made arrangements with my brother Mr. Vernon Bowles, also of Dove Creek, Colorado to be on the job at all times as our representative and as supervisor of the project.

I was over the first of January for several days while we were getting started, then again for a couple of days the middle of the month and again most recently the last couple of days of January and the first of February, besides being in contact by telephone with my brother every few days.

Progress on this project during the month of January was very poor due to a combination of circumstances beyond our control, including bad weather, formations encountered, loss of circulation, both air and water, and mechanical failures of

the equipment. It is presently expected that it will not take too much longer to complete State I of this project.

As of February 1, 1956 we had completed only four (4) holes, with two (2) more being drilled at this time. Of the four (4) holes completed only the #1 showed any mineralization. (See attached report by Mr. Robert Ward - Geological Engineer for complete geological and radiometric logs of the drill holes). We had chemical analyses run on four (4) sections of core from the most radioactive zone by Charles O. Parker and Company and a copy of his assay report is included.

Sincerely yours,

BOWLES-HEFLIN MINING CO.

Melvin C. Bowles

By Melvin C. Bowles, Partner

MCB:cls
Enclosure

THE FRITZ-ERICKSON MINING CO.
Drilling Contractors
Box 365
Dove Creek, Colorado

RECEIVED
APR 13 1956

February 1, 1956

For Drilling on DMEA Project #3655, Contract IDM-E899, month of January 1956.

1.	Moving Bulldozer on to property	$30.00
1-A.	Building access roads & drill sites 8 hours @ $12.50	$100.00
2.	Plug Bit Drilling 525 feet @ $1.75	$918.75
3.	Core Drilling 645 feet @ $2.73	$1,760.85
	Total	$2,809.60

(copy of original)

BOWLES - HEFLIN MINING COMPANY
1200 Chester Street
Aurora, Colorado

RECEIVED
APR 13 1956

February 1, 1956

For Drilling on DMEA Project #3655, Contract IDM-E899, during month of January, 1956.

Fixed Unit Costs:

4.	Allowance for 1,170 feet @ $0.67 per foot	783.90
5.	4 Chemical analysis @ $5.00 per sample	20.00
		$803.90

DRILL HOLE LOGS OF HOLES COMPLETED

on

CONTRACT Idm E-899

with

The BOWLES-HEFLIN MINING CO.

January 31, 1956

Drill holes
E-1
E-2
E-4
E-6

R.R. Ward Geol. Engineer

RECEIVED
APR 18 1956

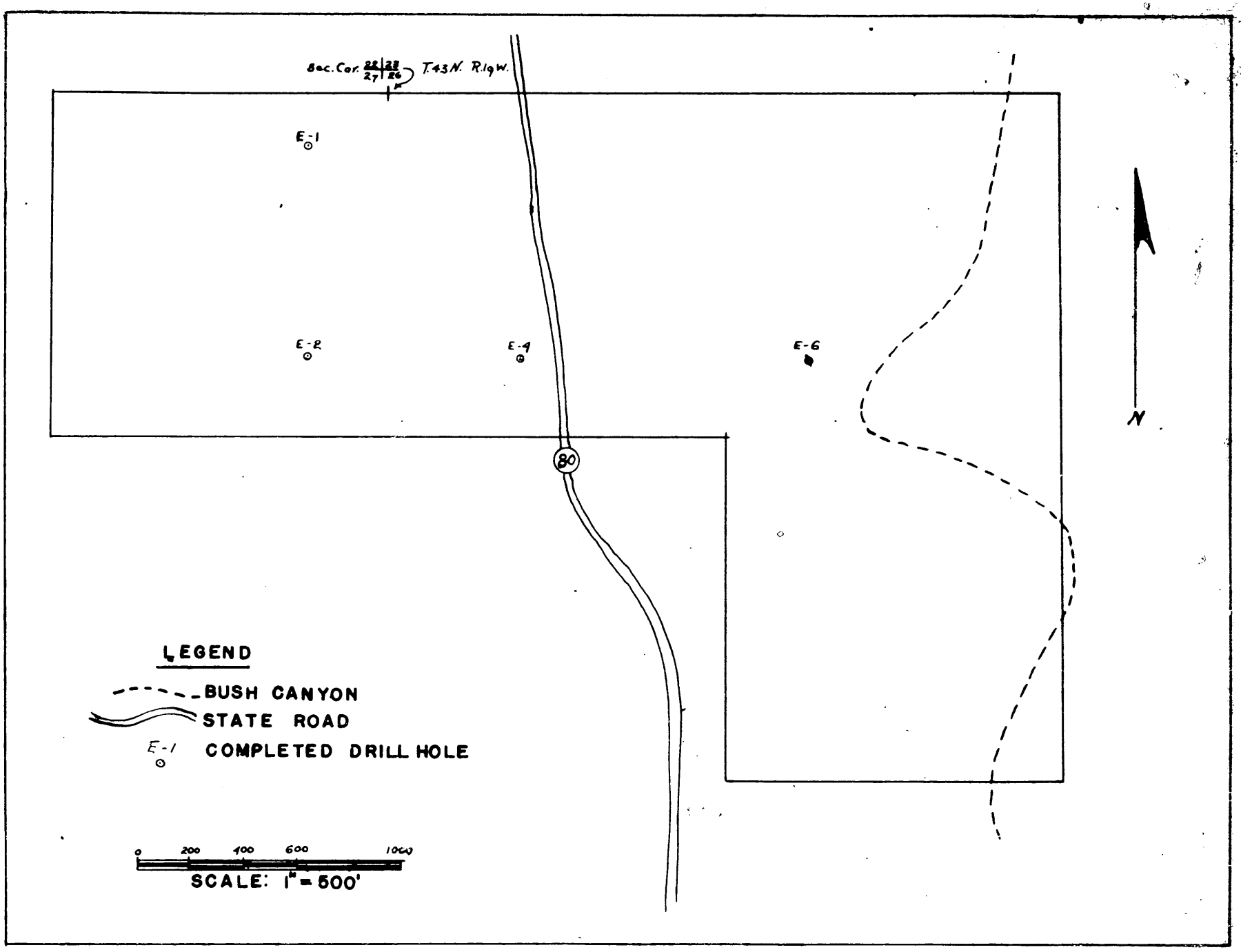
Progress report for January, 1956 on Contract Idm E-899

Of the nine drill holes, totaling 1890 feet, specified in Contract Idm E-899 to be drilled on the J.V. Eaverson lease in San Miguel County, Colorado by the Bowles-Heflin Mining Co., four have been completed having a total depth of 1170 feet. Inclement weather has slowed the drilling operation somewhat, but two of the remaining five holes are nearing completion. Of the 1170 feet drilled in the four completed holes, 525 feet was done in plugging down to the Brushy Basin-Salt Wash contact with a Mayhew 1000 rotary drill. The remaining 645 feet was used in coring through the top four sandstone horizons of the Salt Wash member of the Morrison formation. The same drill was used for coring and delivered a 2-inch core. Core recovery was very satisfactory from all holes.

Due to the amount of topsoil covering the surface of the area it was difficult to determine the exact amount of regional dip of the formations on the property, and therefore some error was encountered in detecting the exact contact between the Brushy Basin and the Salt Wash members. In drill hole E-1, the top sandstone horizon encountered was well above the point at which it was calculated to be, with the result that it was not cored. Since nearly all production in the Morrison in this area comes from the 3rd. and 4th rims it was decided that it was unnecessary to core the top or 5th rim. The hole was probed with a Babbel counter equipped with a 1000-foot probe before hole E-2 was collared and the 5th rim showed no sign of radioactivity.

The error in judging the depth of the Brushy Basin-Salt Wash contact will also have an effect on the total footage of the nine holes specified in Phase I of the contract. With the completion of the two holes being drilled, a total of approximately 1620 feet of the 1890 feet specified will have been used, leaving 450 feet for the three holes yet to be drilled. Since the remaining holes have a total estimated depth of 410 feet, this would ordinarily be enough to complete them. However, the two holes that have been drilled in the lower part of the property near the rim are running approximately one-third deeper than their estimated depths. If this holds true on the remaining three holes, then it will take at least another 100 feet of drilling to complete the nine drill holes in phase I.

Of the four holes completed, only E-1 showed any sign of radioactivity. The showing on a Babbel counter was so low as to be almost negligible. Chemical assays made on half of the core that showed any "count" proved that the rock is not ore. The other holes proved to be blank on the Babbel counter and probe as well as on the Barnaby II probe and recorder used by the U.S.G.S. in this area.



SKETCH MAP SHOWING LOCATION OF COMPLETED DRILL HOLES

J.V. EAVERSON LEASE, BOWLES-HEFLIN MINING CO.

SAN MIGUEL COUNTY, COLO.

Drill hole E-1 Contract Ldm-E899 (Bowles-Heflin Mining Co.)
Dates: Collared 1/3/56 Completed 1/13/56
Location: 300 ft. West and 200 ft. South of Sec. Cor. 28 | 33 / 27 | 34 T.43 N. R.19W

0	-	2	Topsoil
2	-	6	Lt. pink to buff colored mudstone
6	-	14	Dk. to Lt. buff, fine grnd. ss.
14	-	18	Lt. pink to red mudstone.
18	-	26	Dk. buff, fine grnd. ss.
26	-	29.5	Soft, wet, multicolored shale.
29.5	-	31	Dk. buff, fine grnd. ss.
31	-	33	Lt. gray to buff sandy shale.
33	-	37	Lt. gray, rubbery shale.
37	-	39	Lt. buff, fine grnd. ss., containing sm. clay
39	-	43	Lt. gray sandy shale.
43	-	45	Lt. gray to buff, fine grnd. ss. w/ sm. clay.
45	-	47	Lt. gray shale.
47	-	50.5	Alternating layers of Dk. buff ss. and Lt. gray shale.
50.5	-	52	Buff to lt. pink sandy shale.
52	-	55.5	Lt to dk. buff, fine grnd. ss.
55.5	-	56.5	Lt. pink mudstone.
56.5	-	78	Lt. pink to buff, fine grnd. ss. w/ a streak of brown ss. from 69.5 to 70.
78	-	81	Lt. gray sandy shale.
81	-	83	Lt. gray to red, rubbery damp shale.
83	-	93	Lt. gray sandy shale.
93	-	96	Med. hard, gray limey shale.
96	-	99	Dk. buff to brown, fine grnd,,ss. mixed w/ gray limey ss.
99	-	104	Red, gray, and green mudstone.
104	-	105	Lt. gray, fine grnd. ss.
105	-	117	Lt. pink to white, fine grnd. ss.
117	-	120.5	Dk. red-gray mudstone.
120.5	-	122	Lt. pink to gray sandy shale.
122	-	125	Dk. red mudstone.
125	-	125.5	Hard, lt. red to buff, limey ss.
125.5	-	129	Lt. pink to white, fine grnd., quartz ss. w/ a streak of red shale at 127.
129	-	131.5	Soft, pale green, sandy shale.
131.5	-	134	Red sandy shale.
134	-	137	Lt. pink to buff, fine grnd. quartz ss. w/ some hard limey, buff colored ss. lenses.
137	-	138.5	Soft, buff colored sandy shale.
138.5	-	139	Dk. buff to brown sandy shale and mudstone.
139	-	152	Red sandy shale and mudstone w/ hard limey ss. lenses from 150 to 152.
152	-	153.5	Hard, buff colored, fine grnd.ss.
153.5	-	160.5	Soft red sandy shale and mudstone.
160.5	-	163	Lt. red, fine grnd. ss.
163	-	165.5	Dk red sandy shale and Mudstone.
165.5	-	168.5	Lt. red fine grnd. ss., grading to buff ss.
168.5	-	171	Dk. red mudstone.

171	-	172.5	Lt. red to buff, fine grnd. ss.
172.5	-	173	Dk. red sandy shale and mudstone.
173	-	180	Lt. buff, fine grnd. quartz ss.
180			Started coring.
180	-	182.7	Lt. buff, fine grnd., well cemented, quartz ss
182.7	-	183.2	Lt. gray, dense, fine grnd. ss. w/ a thin layer of green shale at the top. Poor core.
183.2	-	185.4	Green shale grading into red sandy shale w/ thin mudstone partings. Good core.
185.4	-	187.2	Gray green fine grnd. glauconitic ss.
187.2	-	188.1	Dk. gray, dense. fine grnd. ss.
188.1	-	191	Lt gray, hard limey ss. w/ shale inclusions. 180 - 191 10.8 ft. of core.
191	-	193	Hard, gray limey ss. cuttings. No core recover
193	-	193.7	Hard gray-green glauconitic ss.
193.7	-	194.1	Green shale.
194.1	-	208	Red sandy shale w/ thick lenses of red and green mudstone 193 - 208 14.5 ft. of core.
208	-	212	Dk buff, med. grnd., friable ss. w/ a thin green shale layer at 210.2 ft.
212	-	234	White to buff, soft, friable, med. grnd. ss. w/ green shale inclusions. Dendritic. Thin layers of red and green clay at 226' 208 - 212 4 ft of core. 212 - 226 14 ft. of core. 226 - 234 8 ft. of core.
234	-	234.5	Blue-gray clay. No core.
234.5	-	237	Buff, med. grnd., friable ss.
237	-	237.6	Buff to green, friable, arenaceous ss.
237.6	-	238.9	Dk. buff, med. grnd. ss. w/ thin layers and inclusions of carbonaceous material.
238.9	-	240.3	Dk. gray, hard quartzose ss. w/ some carbon.
240.3	-	240.7	Dk buff, med. grnd., friable ss. w/ sm. carbon
240.7	-	242.4	Multicolored shale. (green, yellow, brown)
242.4	-	248	Red and gray mottled shale. Thinly laminated, but very good core. 234 - 248 13.8 ft. of core.
248	-	251.5	Hard, gray, fine grnd. limey ss.
251.5	-	255	Red sandy shale grading into soft red mudstone
255	-	258.5	V. hard gray limeston w/ an occassional thin layer of red sandy shale.
258.5	-	258.8	Red mudstone 248-260 10.2 ft. of core.
258.8	-	259.3	Gray sandy shale.
259.3	-	260	Red and gray sandy shale.
260	-	261.4	Hard gray limestone.
261.4	-	263.4	Red mudstone.
263.4		266.6	Reddish-gray and green mottled sandy shale.
266.6	-	269.4	Red mudstone.
269.4	-	270.2	Red and gray mottled sandy shale.
270.2	-	271.6	Hard, greenish-gray limey shale.
271.6	-	272.1	Red mudstone.
272.1	-	272.6	Gray sandy shale.
272.6	-	274.6	Red mudstone. 260 - 274.6 14.6 ft. of core.
274.6	-	277.2	Red and gray mottled ss.

277.2	-	280.6	Red mudstone.
280.6	-	281.7	Hard, red and gray limestone.
281.7	-	282.7	Red and gray mudstone.
282.7	-	285.7	Hard, red and gray, dense limey ss.
285.7	-	289	Red mudstone w/ streaks of red, fine grnd. ss.
289	-	304.2	Hard, red, fine grnd., quartz ss. X-bedded. Thin mudstone partings. 274.6 - 289 14.5 ft. of core. 289 - 304 15 ft. of core.
304.2	-	305	Thin alternating bands of red and gray mudstone.
305	-	308.7	Lt. red, med. to fine grnd., friable ss.
308.7	-	313.2	Dk. red mudstone (Loss of .3' of core)
313.2	-	313.8	Gray sandy shale.
313.8	-	314.6	Dk. red mudstone. (loss of .3' of core.
314.6	-	315	Dk. red and gray mottled mudstone.
315	-	316.8	Gray sandy shale.
316.8	-	317.5	Red mudstone. Poor core.
317.5	-	339.6	Gray and red mottled shale 304 - 318 13.6 ft of core. 318 - 332 13.5 ft of core.
339.6	-	344.5	Lt red, fine grnd,, x-bedded, friable ss. w/ a few thin mudstone partings.
344.5	-	345.8	Lt. red, nearly white, med. grnd. quartz ss. Hard. No bedding planes. Porous. 332 - 346 13.9 ft of core.
345.8	-	350.5	Lt red to buff, fine grnd. quartz ss. More compactly cemented. x-bedded.
350.5	-	353.5	Very dense, white to lt. buff, med, grnd. quartz ss. Well cemented 346 - 358 7.3 ft of core. 358 - 365 11.0 ft of core.
353.5	-	357.1	Red and gray mottled mudstone.
357.1	-	357.9	Hard, dense gray limestone.
357.9	-	375.0	Red and gray mudstone w/ an occaissonal streak of gray limestone. 365 - 375 9.2 ft of core.

Radiometric log of drill hole E-1

Ftge.	MR/HR	Scale	Approx. °/₀ U_3O_8
240.0	8	5	0
239.5	9	5	0
239.0	9	5	0
238.5	10	5	0.007
238.0	28	5	0.017
237.5	36	5	0.023
237.0	30	5	0.020
236.5	14	5	0.010
236.0	8	5	0
235.5	8	5	0
189.5	8	5	0
189.0	9	5	0
188.5	10	5	0.007
188.3	26	5	0.016
188.0	14	5	0.010
187.5	9	5	0
187.0	8	5	0

Drill hole E-2 Contract Idm-E899 (Bowles-Heflin Mining Co.)
Dates: Collared 1/13/56 Completed 1/20/56
Location: 1000 ft. South and 300 ft. West of Sec Cor. 28 | 25 / 27 | 26 T.43 N. R.19W.

0	-	2	Topsoil
2	-	12	Lt. to dk. buff sandy shale.
12	-	12.5	Red shale.
12.5	-	13.5	Lt. buff sandy shale.
13.5	-	15	Gray shale. Large damp cuttings.
15	-	20	Buff colored sandy shale.
20	-	25	Lt. pink sandy shale.
25	-	26	Lt. pink, fine grnd., med. hard ss.
26	-	27	Lt. buff sandy shale.
27	-	35	Lt. gray shale. Lge damp cuttings.
35	-	35.5	Lt. red shale.
35.5	-	40	Lt. buff, fine grnd. ss. w/ thin shale partings. Harder and lighter in color and containing less shale with depth.
40	-	43.5	Same hard, fine grnd. quartz ss. w/ a pinkish caste.
43.5	-	44	Dk. red sandy shale.
44	-	68	Lt. to dk. buff, fine grnd, ss. w/ a dk. red shale streak at 66'.
68	-	70	Dk. pink, fine grnd. ss.
70	-	83	Lt. to dk. buff, fine grnd. ss.
83	-	93	Soft gray shale.
93	-	95	Med. hard, lt. buff, fine grnd. ss. w/ some shale mixed.
95	-	96	White, fine grnd. ss. No shale.
96	-	103	Lt. to dk. buff colored ss.
103	-	105	Lt. buff, med. grnd., med. hard ss.
105	-	112	Gray sandy shale.
112	-	115	Hard gray limey shale.
115	-	117	Buff colored limey ss. and gray limey shale.
117	-	119	Dk. reddish gray limey shale and mudstone.
119	-	124	Lt, and dk. gray, hard limey shale.
124	-	126	Lt. green to dk. gray, hard limey shale.
126	-	127	Lt. buff, fine grnd. friable ss.
127	-	131.5	Lt. green sandy shale w/ streaks of hard gray limestone.
131.5	-	134	Lt. buff, very hard , very fine grnd. limey ss.
134	-	135	Pale green sandy shale and mudstone w/ streaks of med. hard gray limey shale.
135	-	137	Soft gray sandy shale.
137	-	139	Red shale and mudstone turning to buff shale.
139	-	141	Dk. to lt. buff, fine grnd. ss.
141	-	146	Dk. brown, med. to fine grnd., damp ss., turning to a lt. red color at 144'.
146	-	154	Lt. red to buff, fine grnd. ss.
154.	-	155	Dk. red mudstone.
155	-	159	Very hard, reddish gray to red, limey shale.
159	-	172	Med. hard, dk. red sandy shale.
172	-	175	Hard gray limey shale.

175	-	176.5	Very hard, gray to buff, limey ss.
176.5	-	178	Soft, red to gray mudstone.
178	-	180	Dk. gray sandy shale.
180	-	188.5	Alternating thin beds of red ss., shale, mudstone, and sandy shale
188.5	-	189	Buff colored sandy shale.
189	-	194	Med. hard, fine grnd. buff colored ss.
194	-	195	Soft, very light pink, fine grnd. ss.
195			Started coring.
195	-	201.1	Lt. pink to lt. buff, med hard, med. grnd. friable ss.
201.1	-	202.1	Dk. red mudstone (Loss of 0.5' of core.)
202.1	-	205.6	Very hard, lt. pink to white, limey ss. w/ small green shale inclusions. 195 - 205 9.5 ft. of core.
205.6	-	206.6	Red and green mudstone.
206.6	-	210.5	Hard, fine grnd. lt. gray limey ss.
210.5	-	215.5	Soft, friable, med. grnd. lt. pink ss. w/ numerous clay galls.
215.5	-	219.8	Hard, dense, lt. gray limey ss.
219.8	-	226.0	Red mudstone. Very soft. Poor recovery.
226.0	-	232.0	Soft, friable, med. grnd. buff colored ss. Core badly shattered. 218.5 - 232.0 4 ft. of core.
232.0	-	248.0	Med. hard, friable, buff colored ss. w/ thin, gray shale partings and clay galls. 232.0 - 245.5 12.5 ft. of core.
248.0	-	249.0	Soft, gray to brown, thinly laminated mudstone. Very poor core. 245.5 - 249.5 1.8 ft. of core.
249.0	-	255.3	Soft dk. red mudstone.
255.3	-	257.0	Hard, dk. gray limestone. 249.5 - 255.0 1.5 ft. of core.
257.0	-	260.7	Dk. red, med hard, limey shale grading into mottled dk. red and green sandy shale.
260.7	-	261.8	Very hard, dense gray limestone.
261.8	-	266.8	Thinly laminated, mottled, red and green mudstone.
266.8	-	268.5	Red and green mottled sandy shale w/ red mudstone partings. 255.0 - 268.5 13.2 ft. of good core.
268.5	-	270.0	Soft red mudstone. Poor core. Loss of 1'.
270.0	-	271.9	Hard, dk. gray sandy shale.
271.9	-	272.9	Dk. gray shale w/ red mudstone partings.
272.9	-	278.3	Red and green mudstone. Loss if 1' of core.
278.3	-	279.1	Very hard, dense gray limey shale.
279.1	-	282.0	Red and green mottled sandy shale.
282.0	-	287.9	Soft, red mudstone. Poor core. Loss of 1.3' of core.
287.9	-	288.7	Dk. green, hard, limey shale grading to a very hard gray limestone and back to green limey shale.
288.7	-	294.1	Dk. red mudstone getting sandy w/ depth.
294.1	-	295.8	Very hard, gray, limey shale w/ an occasional mudstone parting. 282.0 - 295.5 11.7 ft. of core.

E-2 cont.

APR 13 1956

295.8	-	299.4	Soft red mudstone. Very poor core. Just 0.3 ft recovered from 3.6 ft. run.
299.4	-	301.3	Very hard, dark red limey ss. Has hardness and texture of quartzite.
301.3	-	305.1	Hard, dk. red sandy shale w/ thin mudstone partings.
305.1	-	313.0	Med. hard, fine grnd, red ss. Getting softer and lighter of color w/ depth. 295.5 - 308.0 9.2 ft. of core.
313.0	-	315.5	Lt. pink to buff colored, med. grnd. fairly soft, friabless. w/ clay galls.
315.5	-	324.1	Dk. red, fine grnd. ss. 308.0 - 321.5 13.3 ft. of core.
324.1	-	326.5	Lt. red to buff, softer, more friable, med. grnd. ss.
326.5	-	334.5	Soft, dk. red mudstone w/ a shale streak at 330'.
334.5	-	335.0	Hard limey shale. Red and gray. 321.5 - 335.0 12 ft. of core.

Drill hole E-4 Contract Idm-899 (Bowles-Heflin Mining Co.)
Dates: Collared 1/16/56 Completed 1/20/56
Location: 500 ft. East and 1000 ft. South of Sec Cor. 22|23 / 27|26 T.43 N. R.19W.

0	-	7	Topsoil and soft, gray green clay
7	-	16.5	Lt. to dk. buff colored, med. grnd., soft, friable sandstone.
16.5	-	18	Multicolored shale. (Green, gray and buff)
18	-	20	Buff colored ss.
20	-	21	Lt. gray shale.
21	-	21.5	Red shale.
21.5	-	22	Pale pink to buff colored shale.
22	-	25	Lt. buff, sandy shale grading into med.hard, lt. buff ss. w/ thin buff colored limestone partings.
25	-	28	Lt. red shale.
28	-	28.5	Gray shale.
28.5	-	33.5	It red shale.
33.5	-	36	Lt.green to buff sandy shale w/ some hard limey shale ribs.
36	-	37	Pale pink, fine grnd.ss. w/ thin limestone partings.
37	-	41	Lt. buff, fine grnd., limey ss.
41	-	45	Dk. red shale.
45	-	52	Dk. buff, fine grnd. ss.
52	-	54	Lt. buff, med. grnd., friable ss. w/ thin shale partings.
54	-	56	Gray-green shale.
56	-	60	Red shale.
60	-	61	Gray shale.
61	-	65	Red shale.
65	-	81	Mottled red and gray shale w/ a hard limestone rib at 79'.
81	-	83	Dk. red shale.
83	-	84.5	Gray, fine grnd. ss. w/ gray shale partings.
84.5	-	86.5	Very hard gray limestone.
86.5	-	87.5	Red shale.
87.5	-	88	Gray shale.
88	-	90	Red and gray mottled sandy shale.
90	-	94	Gray sandy shale.
94	-	102	Red and gray mottled sandy shale w/ an occasional streak of gray ss.
102	-	104.8	Red shale.
104.8	-	105.5	Hard, gray limestone.
105.5	-	106.5	Dk. red shale.
106.5	-	112	Hard, gray , limey ss. turning to buff colored limey ss. at 108' and w/ occasional streak of red sandy shale.
112	-	116	Alternate layers of gray limey, fine grnd. ss. and lt. red ss.
116	-	~~120~~	Pale pink, fine grained ss. grading into lt. buff, very hard, fine grnd. limey ss. Very near a true limestone.
120	-	126.5	Dk. red shale.

E-4 cont.

126.5	-	129	Multicolored sandy shale.
129	-	135	Dk. buff, fine grnd., soft, friable ss. getting lighter in color and harder w/ depth. Started coring.
135.0			
135.0	-	155.4	Hard, fine grnd.. light buff to white ss., showing minor x-bedding. 135.0 - 146.6 11.6 ft. of good core.
155.4	-	157.5	Dk. buff, med. grnd., friable, fairly soft ss. 146.6 - 158.0 9.8 ft of fair core. Loss of core was in last 3' of run.
157.5	-	162.1	Dk. gray mudstone. Very soft. Lost 4' of core.
162.1	-	167.3	Lt. to dk. buff, med. grnd. fairly soft, friable ss.
167.3	-	169.6	Lt. buff to white, hard, fine grnd. ss. 158.0 - 169.6 9.3 ft. of core.
169.6	-	192.7	Hard, light gray, limey shale, grading into soft, dk. red shale. 169.6 - 181.1 11.5 ft of good core.
192.7	-	194.7	Very hard, red limey shale.
194.7	-	196.3	Dk. red sandy shale 181.1 - 195.0 7.9ft. of core.
196.3	-	204.9	Hard, red, fine grnd., x-bedded, limey quartz ss
204.9	-	206.3	Hard red, sandy shale.
206.3	-	212.5	Med. soft red, thinly laminated mudstone.
212.5	-	213.8	Hard gray, limey shale.
213.8	-	218.2	Soft red mudstone. Loss of 1.5' of core. 204.0 - 215.6 10 ft. of core.
218.2	-	223.7	Hard, lt. red, fine grnd. quartz ss. w/ thin red sandy shale partings.
223.7	-	227.2	Soft, friable, med. grnd., white ss. 215.6 - 227.2 9.5 ft. of fair core.
227.2	-	228.9	Soft, friable, porous, fine grnd. ss.
228.9	-	234.2	Soft, red mudstone w/ a 9'' layer of brown limestone at 229'. Loss of 2.7 ft. of core.
234.2	-	237.0	Red sandy shale.
237.0	-	238.6	Gray limey shale. 227.2 - 238.8 9 ft. of core.
238.6	-	241.2	Red and gray mottled shale.
241.2	-	243.7	Red mudstone Loss of 0.5 ft. of core.
243.7	-	247.0	Red and gray sandy shale.
247.0	-	250.6	Red mudstone. Loss of 1.0 ft of core. 238.8 - 250.4 9.5 ft. of core.
250.6	-	257.15	Red and gray mottled sandy shale.
257.15	-	258.15	Gray limey shale.
258.15	-	260.2	Red mudstone. 250.4 - 260.2 9.5 ft of core.
260.2	-	278.8	Lt. pink to lt. buff (nearly white), hard, med. grnd. quartz ss. 260.2 - 271.6 11.3 ft of core.
278.8	-	283.0	Red mudstone 271.6 - 283 10.7 ft. of core.

Drill hole E-6 Contract Idm-899 (Bowles-Heflin Mining Co.)
Dates: Collared 1/23/56 Completed 1/28/56
Location: 1100 ft. East of drill hole E-4

0	-	5	Topsoil.
5	-	7.5	Red and gray clay mixed with topsoil.
7.5	-	8.5	Sandstone and quartz pebbles (wash)
8.5	-	14	Dk. buff, med. grnd., soft, friable ss. w/ a streak of blue shale at 12.5'.
14	-	15	Lt. buff, med. grnd., soft, friable ss. Started coring.
15	-	21.3	Soft, lt. buff (nearly white), friable ss. Minor x-bedding. Good core.
21.3	-	25.1	Very soft, dk. buff, strongly x-bedded, friable, porous ss. w/ green clay galls and considerable carbonaceous material. Fair core.
25.1	-	26.2	White, porous, friable ss. w/ thin shale partings along bedding planes. X-bedded.
26.2	-	27.2	Lt. gray, friable ss. w/ thin shale partings.
27.2	-	28.5	Soft, red and white mottled ss. Very friable Shattered core. Loss of 1' of core. 15.0 - 28.5 12.6 ft. of core.
28.5	-	38.5	Lt pink to white, med. grnd. very porous, friable ss. w/ thin shale partings and green clay galls
38.5	-	40.5	No core recovery, but cuttings indicate a continuation of 28.5 to 38.5.
40.5	-	42.0	Soft green mudstone cuttings. No core recovered. 28.5 - 42.0 10 ft. of fair core.
42.0	-	49.5	Dk. gray, green, and red mudstone. 42.0 - 49.5 2.8 ft. of very poor core.
49.5	-	50.0	No core recovered. Cuttings show it to be a continuation of 42.0 - 49.5.
50.0	-	53.5	Hard, dense gray limestone. 49.5 - 53.5 3.5 ft of good core.
53.5	-	54.5	Hard, fine grnd., gray limey ss.
54.5	-	58.0	soft red mudstone. Poor core.
58.0	-	59.0	Hard gray limey ss. 53.5 - 59.0 2 ft. of very poor core.
59.0	-	73.5	Soft red mudstone 59.0 - 67.0 4.5 ft. of core.
73.5	-	79.3	Hard, dense, gray limey shale w/ interbedded layers of red mudstone 67.0 - 74.0 4.5 ft. of poor core.
79.3	-	84.8	Red and gray mottled mudstone. Loss of 1.7' of core
84.8	-	86.0	Hard red sandy shale.
86.0	-	87.5	Hard graylimey shale, Good core. 74.0 - 87.5 11.6 ft. of fair core.
87.5	-	90.1	No core recovery. Red mudstone cuttings.
90.1	-	93.1	Dk. red, very hard, med. grnd. qtz. ss. w/ lge. inclusions of red mudstone. Sandstone resembles red quartzite in hardness and texture.
93.1	-	101.0	Interbedded layers of hard gray and red limey shale w/ an occasional streak of red mudstone. 87.5 - 101.0 10.9 ft. of good core.
101.0	-	106.0	Med. soft red mudstone. Poor core. Loss of 2.8' of core.
106.0	-	108.0	Hard, red, med. grnd. quartz ss.

E-6 cont.

108	-	109.3	Med. hard red mudstone.
109.3	-	111.3	Hard, red, fine grnd. quartz ss. Almost a sandy shale
111.3	-	114.3	Lt. red to buff, hard med. grnd. quartz ss.
114.3	-	115.2	Hard, dk. red sandy shale.
			101.0 - 114.5 10.2 ft. of fair core.
115.2	-	116.0	Very hard, dense gray limestone.
116.0	-	117.0	Soft red and gray mudstone. Poor core
117.0	-	120.3	Hard, red, very fine grnd. ss.
120.0	-	128.0	Soft red and gray mottled mudstone. Loss of 1.9 ft. of core.
			113.5 - 128.0 11.1 ft of core.
128.0	-	128.8	Dk. gray, thin bedded, sandy shale.
128.8	-	130.9	Red and gray-green mudstone.
130.9	-	134.0	Hard, dense gray limestone w/ thin gray-green shale partings.
134.0	-	136.5	Soft, gray-green, thinly laminated mudstone. very poor core. Loss of 1' of core.
136.5	-	140.0	Very hard, dense, limey, fine grnd. ss. Dk. and lt. red mottled w/ a lt. green sandy shale streak at 138.7 ft.
140.0	-	141.3	Lt red, med. grnd. ss., getting lighter in color more porous and more friable with depth.
			128.0 - 141.5 12.5 ft. of core.
141.3	-	144.5	Pink to buff, med. soft, porous, friable, x-bedded ss. Interbedded w/ thin layers of green mudstone.
			141.3 - 144.5 2.5 ft of good core.
144.5	-	150.5	No core recovery. Cuttings were dk. red mudstone.
150.5	-	152.6	Lt. buff colored ss. Soft, friableand porous. Medium grained. Minor x-bedding
			144.5 - 150.5 No core.
152.6	-	154.6	Dk. buff ss. Harder and more compact, and showing strong x-bedding.
154.6	-	155.0	Lt. buff (nearly white) fine grained, dense, shaley ss.
155.0	-	155.9	Lt.to dk. buff, med. grnd., soft, porous ss. Minor x-bedding.
155.9	-	156.6	Lt. buff to white, fine grnd., dense, limey ss.
156.6	-	158.3	Coarse grnd., dk. buff, porous, friable ss. Poor core. Strong x-bedding.
158.3	-	159.6	LT. buff, fine grnd., dense limey ss.
159.6	-	161.3	Dk. buff, porous, friable med. grnd. ss.
			150.5 - 164.0 13.4 ft of core.
161.3	-	164.0	Dk. red, med. grnd., fairly porous, strongly x-bedded ss.
164.0	-	174.0	Lt. to dk. buff, coarse grnd., porous, friable, x-bedded, qtz. ss. w/ dk. brown streaks along the bedding planes.
174.0	-	177.0	Soft red mudstone.
			164.0 - 177.0 13.5 ft. of good core.

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

Melvin C. Deeles and A. LeMaflin, partners
d/b/a Deeles-Maflin Mining Company
1200 Chester Street
Aurora, Colorado

Re: Docket No. DMEA-365 (Uranium)
Contract No. [illegible]
J. V. Ravenson Lease
San Miguel County, Colorado

Gentlemen:

Reference is made to your exploration contract with the Government.

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

Your interest in the DMEA exploration program and participation therein are fully appreciated.

Sincerely yours,

Frank E. Johnson

Acting Administrator

cc to: John Griffin, Dove Creek, Colorado
S. M. Sisk, Dove Creek, Colorado
J. V. Ravenson, Almont, Colorado

FEMurphy/glm
11-6-56
cc to: Docket
Admr.'s Reading File
Contract Adm. & Audit Division
DMEA Field Team, Region III (2)
Code 700
Mr. Murphy

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

[illegible] Rev Centenniaal
Denver 2, Colorado

CERTIFIED MAIL

April 16, 1956

Messrs. Melvin C. Benlee
and A. L. Ruffin, Partners,
d.b.a. Benlee-Ruffin Mining Company
1600 Chester Street
Aurora, Colorado

Re: Docket DMEA 3675 (Uranium)
Contract [illegible]

Gentlemen:

Because of the unfavorable results of the work performed under Stage I, the Government's approval for performance of the work under Stage II will not be forthcoming. Therefore, the Contract work can be considered as having been completed as of the completion of the work under Stage I on or about February 23, 1956.

Under the circumstances, the narrative report and other data forwarded by you with form DE-104, "Operator's Progress Report and Voucher," for the month of February, 1956, are considered adequate as your final report and satisfies the requirement under Article 7(a) of the contract form pertaining to same.

Very truly yours,

DMEA Field Team, Region III

W. M. Weaver

W. M. Weaver

E. M. Hardman

E. M. Hardman

JWT:grl
cc: Chairman, Oper. Comm. (4)
Finance Office, Region III
Amendment file
Hardman
Shaw (2)
Hasler
Townsend
Carres. file
Curon.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA
Date Rec'd.
APR 3 1956
BUREAU OF MINES
Denver, Colorado

P. O. Box 350
Grand Junction, Colorado

March 29, 1956

RECEIVED
APR 10 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
E. N. Harshman

From: J. W. Hasler
M. H. Salsbury

Subject: DMEA 3559 (Uranium), Bowles-Heflin Mining Company, (J. V. Laverson lease), San Miguel County, Colorado. Recommendations on contract termination

Stage I of the subject contract has been completed with completely negative results. The operator does not consider further exploration justified and is not requesting any stage II work. We concur in this decision.

The operator's narrative report for February 1956 gives a complete summary of project work and is suitable for his final report. If he will submit the required number of copies for this purpose, we recommend that it be accepted as such.

It is further recommended that contract Idm-E 899 be terminated without certification of discovery or development.

M. H. Salsbury
M. H. Salsbury
U. S. Bureau of Mines

J. William Hasler
J. William Hasler
Geological Survey

MHS/mlr

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

RECEIVED
FEB 24 1956

224 New Customhouse
Denver 2, Colorado

February 20, 1956

Messrs. Melvin C. Bowles
and A. L. Heflin, Partners
d/b/a/ Bowles-Heflin Mining Company
1200 Chester Street
Aurora, Colorado

Re: Docket DMEA 3655 (Uranium)
Contract I4m-8899

Gentlemen:

Consistent with the provisions of the Contract, this constitutes confirmation of verbal approval of February 16, 1956, by the DMEA Field Team, Region III, for you to transfer 35 feet of plug-bit (non-core) drilling and 330 feet of core drilling from Stage II to Stage I, to enable completion of the two remaining holes under Stage I of the Contract.

Nothing in this 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, the fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "Maximum."

Very truly yours,

DMEA Field Team, Region III

W. M. Traver

W. M. Traver

E. H. Harshman

E. H. Harshman

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

DMEA
Date Rec'd.

FEB 20 1956

BUREAU OF MINES
Denver, Colorado

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
February 17, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

RECEIVED
FEB 21 1956

From: John F. Shaw

Subject: Request for transfer of drilling footage Contract Idm-2899
Bowles-Heflin Mining Company

Enclosed are the original and 4 copies of a request dated February 14, 1956, from the Bowles-Heflin Mining Company requesting that footage for plug-bit and core drilling be transferred from Stage II to Stage I in order to complete the two holes remaining to be drilled under Stage I.

This transfer of footage has the approval of the field engineer and geologist in Grand Junction, and oral approval was given to Mr. Bowles, February 16th, 1956 to permit drilling the two remaining holes under Stage I.

Please prepare a written authorization for this work as required by the contract.

JOHN F. SHAW

John F. Shaw
Supervising Mining Engineer

JFS/mw
Idm-2899
Chron.

MINERAL DEPOSITS
DMEA
RECEIVED
FEB 20 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

DMEA
Date Rec'd.
FEB 21 1956
BUREAU OF MINES
Denver, Colorado

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. BOX 360
GRAND JUNCTION, COLORADO

February 14, 1956

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FEB 27 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman EMH
John F. Shaw JFS

From: M. H. Salsbury
J. William Hasler

Subject: DMEA 3655, contract Idm-E 899, Bowles-Heflin Mining Company, San Miguel County, Colorado. Recommendations on transferral of drilling footage from stage II to stage I.

Operations under the subject contract were inspected on February 10, 1956, by a DMEA examining team. Hole Nos. 1, 2, 4, 5, 6, and 7 had been completed (see contract map figure 2) and hole No. 3 was being drilled.

The contract calls for 670 feet of plug bit and 1220 feet of core drilling for a maximum of 1890 feet in stage I. The drilling done to date totals 645 feet of plug drilling and 1194 feet of core drilling (balance of hole No. 3 estimated) for a total of 1839 feet, 51 feet less than the maximum allowed.

The reason for the discrepancy between estimated and actual footage is a sandstone thickness averaging 170 feet encountered as compared with the allowed average coring distance of 135 feet. Average plugging distance in 7 holes has been 92 feet compared to the allowed average of 74 feet.

The drill cores on 7 holes were examined by the DMEA geologist and the sandstone thickness verified. The Geological Survey project chief in the Slick Rock district was consulted and recommended that 150 feet of coring be permitted in each of the two remaining holes in stage I.

While drilling to date has not disclosed anything significant except very slight mineralization in hole No. 1, it is believed that the drilling pattern in stage I should be completed in order to test every possibility of ore occurrence on the property.

It is, therefore, recommended that transferral of a maximum of 300 feet of core drilling and 100 feet of plug drilling from stage II to stage I be authorized to permit drilling of holes Nos. 8 and 9 as shown on figure 2 in the contract.

This memorandum confirms the recommendation made to E. N. Harshman by phone on February 13, 1956.

M. H. Salsbury
M. H. Salsbury
U. S. Bureau of Mines

J. William Hasler
J. William Hasler
U. S. Geological Survey

MHS/mlr

BOWLES-HEFLIN MINING COMPANY
1200 Chester Street
Aurora 8, Colorado

DMEA
Date Rec'd.
FEB 20 1956
BUREAU OF MINES
Denver, Colorado

February 14, 1956

Mr. John F. Shaw
U. S. Bureau of Mines
Room 137, Building 20
Denver Federal Center
Denver 2, Colorado

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Re: Docket DMEA 3655 (Uranium)
Project Contract IDM-E899

Gentlemen:

We have completed seven (7) of the nine (9) drill holes authorized for Stage I of the drilling project on our J. V. Eavenson lease. We have used up six-hundred and fourty-five feet (645') of the six-hundred and seventy feet (670') of plug-bit (non-core) drilling authorized, and one thousand and two hundred and twelve feet (1,212') of the core drilling authorized.

This leaves us with two (2) more holes to be drilled for the Stage I part of the exploration project, but only twenty-five feet (25') of plug-bit (non-core) drilling and only eight feet (8') of core drilling in the footage authorized for Stage I.

It is presently estimated that it will require, not to exceed an additional thirty-five feet (35') of plug-bit (non-core) drilling, and three-hundred and thirty-two feet (332') of core drilling to complete these two remaining holes in Stage I.

Attached please find sketch map showing location of drill holes completed today, depths and location and estimated depths of two remaining holes to be drilled. All holes completed to-date except number one have proven to be completely blank, number one having a show of mineralization as shown in our January progress report.

We would very much appreciate a reply advising us as early as possible, if this additional footage can be allowed. The drilling contractor is presently standing by until we can find out, providing it does not take too long.

Sincerely yours,

Melvin C. Bowles

By Melvin C. Bowles, Partner
Bowles-Heflin Mining Company

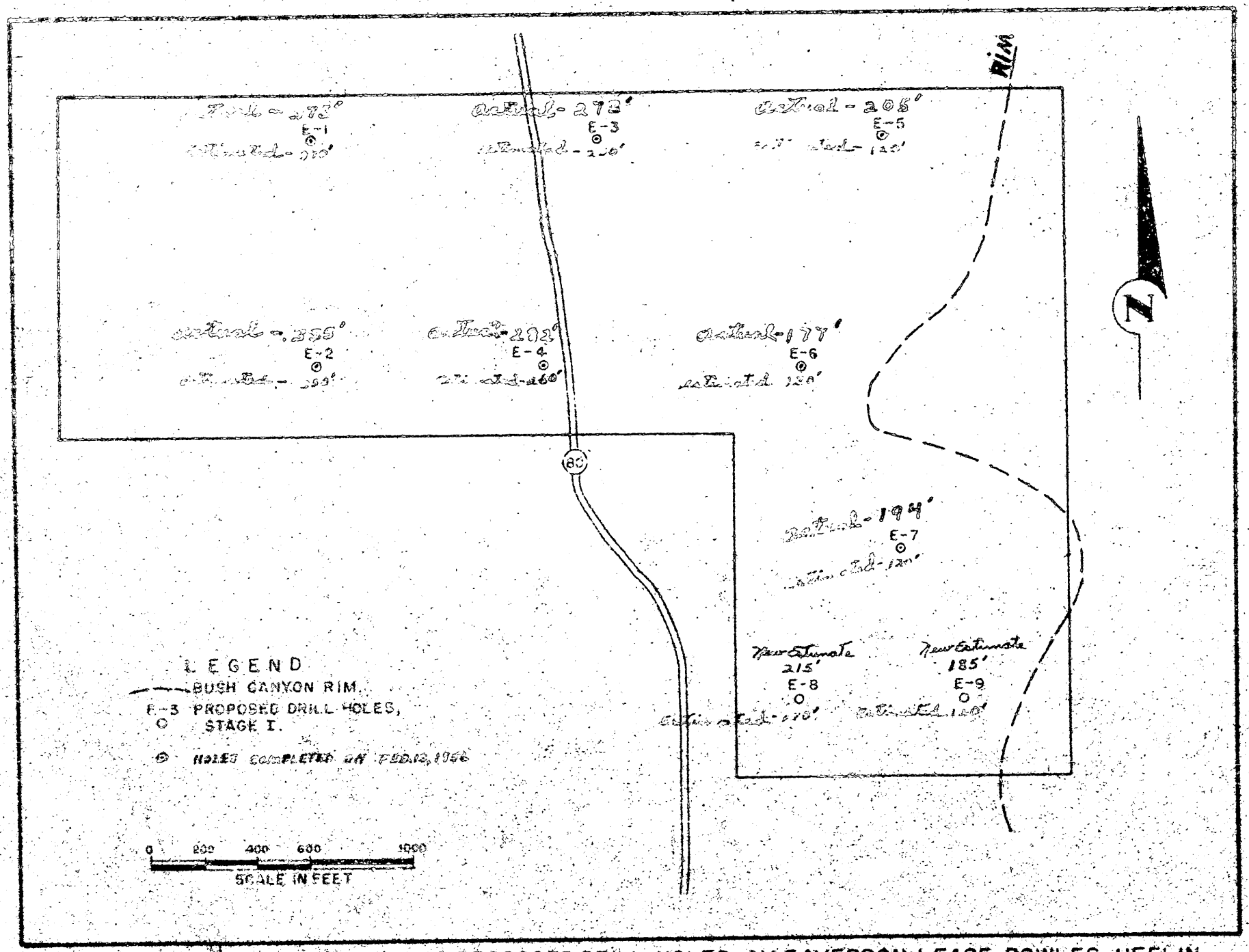
MCB:cls
Enclosure

Docket DMEA 3655 (Uranium) Project Contract IDM-E899

Status of Drilling on February 14, 1956

Drill Hole Number	Original Estimate	Total Drilled	Footage Plugged	Footage Cored	
1.	370'	375'	180'	195'	
2.	350'	335'	195'	140'	
3.	250'	273'	75'	198'	
4.	260'	283'	135'	148'	
5.	120'	220'	15'	205'	
6.	130'	177'	15'	162'	
7.	120'	194'	30'	164'	
8.	170'	Present Estimated	45'	170'	
9.	120'	Present Estimated	15'	170'	
Totals	1,890'	—	670'	1,220'	Original Estimated Footage
"	—	1,857'	645'	1,212'	Used first (7) Holes
"			60'	340'	Estimated for next (2) Holes
"			705'	1,552'	New Estimated Totals
"			35'	332'	Estimated additional needed

RECEIVED
FEB 27 1956



[redacted] - SKETCH MAP SHOWING PROPOSED DRILL HOLES, J.V. EAVERSON LEASE, BOWLES-HEFLIN MINING COMPANY, SAN MIGUEL COUNTY, COLO. DMEA 3655

Contract No. Idm-E 099

Docket No. DMEA 3655

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Date of Contract	Region	State	Commodity
November 28, 1955	III	Colorado	Uranium

Name and Address of Operator:

Melvin O. Bailey and A. L. Hoflin, partners
dba Bailey-Hoflin Mining Company
1200 Chester Street
Aurora, Colorado

	Reserve	Obligation
Prior Amount		$14,421.00
Increase		
Decrease		8,995.12
Revised Amount		$ 5,425.88

Remarks:

Robert E. Adams, Chief
(Name)

Operations Control and Statistics Division
(Title)

Date Delivered to Bureau of Mines, Washington 1/10/56

98963

Government's copy

RECEIVED
DEC 15 1955

MF-200
(Revised June 1954)

Docket No. DMEA 3655

Commodity Uranium

Contract No. Im-E 899

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

EXPLORATION PROJECT CONTRACT[1]

It is agreed this NOV 28 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] Melvin C. Bowles and A. L. Heflin, partners, doing business as Bowles-Heflin Mining Company, whose mailing address is 1200 Chester Street Aurora, 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-200), the attached Exhibit "A," Annex I, and map entitled 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 San Miguel, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee of [5] 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 223, page 102, official records of said County; and assigned to Bowles-Heflin Mng Co. on January 3, 1955.

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: see (c)

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

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

of the land (lessor, seller, optionor, etc.), are attached, as follows: Owner's Consent to Lien, Subordination Agreement of Sub-Lessees

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Uranium The work to be performed is described in Exhibit "A." The Operator on or before January 10, 1956, shall commence the work, and on or before May 1, 1956 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall either have completed the work or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A.", **except as provided in Exhibit "A" with respect to Stage II.**

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

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

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

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $ 19,228.00 The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $ 14,421.00 : *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

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

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

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

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

CATEGORY (2)—PERSONAL SERVICES.

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

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

Subcategory (c)—Labor.

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

CATEGORY (4)—OPERATING EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 13. *Changes and added provisions.*—
Categories (2) through (7) of Article 6(a) are deleted.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

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

MELVIN C. BOWLES and
A. L. HEFLIN

d/b/a BOWLES-HEFLIN MINING COMPANY
(Operator)

By Melvin C. Bowles (Partner)

By A. L. Heflin (Partner)

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—70617-1

RECEIVED
DEC 15 1955

EXPLORATION PROJECT CONTRACT
MELVIN C. BOWLES and A. L. HEFLIN, d/b/a
BOWLES-HEFLIN MINING COMPANY

DOCKET NO. DMEA-3655

ANNEX I

The land referred to in Article 2 of the contract is situated as follows:

North half of Northwest quarter ($N\frac{1}{2}$ $NW\frac{1}{4}$) and the Southeast quarter of the Northwest quarter ($SE\frac{1}{4}$ $NW\frac{1}{4}$) of Section 26, and the Northeast quarter of the Northeast quarter ($NE\frac{1}{4}$ $NE\frac{1}{4}$) of section 27, all in Township 43 North, Range 19 West, New Mexico Principal Meridian and Base Line, San Miguel County, Colorado

RECEIVED
DEC 15 1956

EXPLORATION PROJECT CONTRACT
MELVIN C. BOWLES and A. L. HEFLIN
d/b/a BOWLES-HEFLIN MINING COMPANY

DOCKET NO. DMEA-3655

EXHIBIT "A"

Description of the Work

The object of this project is to discover uranium ore deposits that might occur in the upper sandstone lens of the Salt Wash member of the Morrison formation which underlie the property described in Annex I. The method of exploration shall consist of core and plug drilling. To penetrate the ore-bearing sandstone lens will require drill holes ranging from 120 feet to 370 feet in depth.

The work shall be performed in two successive stages. The Operator shall perform all the work under Stage I and, if in the opinion of the Government the results of the completed work under Stage I warrants further work, shall perform so much of the Stage II as is approved in advance in writing by the Government.

Stage I

The Operator shall bulldoze access roads and prepare nine (9) drill sites. The approximate locations of the drill sites are indicated on the attached map entitled "Figure 2. Map showing proposed hole locations on J. V. Eaverson lease ....". One (1) hole shall be drilled from each drill site. The total footage allowed for drilling under Stage I shall not exceed 1890 feet, provided, however, that if the footage allowed under Stage I of this contract is not sufficient to complete the nine (9) holes authorized for Stage I, the Operator may, if he first obtains written Government approval, use such part of the footage authorized for Stage II as may be necessary to complete the Stage I drilling.

Not more than 60 chemical analyses shall be made to determine the U_3O_8 and V_2O_5 content of samples procured during Stage I drilling.

Stage II

Stage II shall consist of bulldozing access roads and preparing not in excess of eighteeen (18) drill sites in the vicinity of favorable and/or mineralized holes drilled during Stage I. One hole shall be drilled from each of these sites. In this Stage II those

holes drilled as offsets to Stage I holes in the [illegible]lf of the northwest quarter of section 26 shall not be closer t[illegible]eet to any other drill hole, [illegible] however [illegible] the offset holes drilled in the northwest quarter of the northwest quarter of section 26 and in the northeast quarter of the northeast quarter of section 27 shall not be drilled closer than 100 feet to any other drill hole. The total footage allowed for drilling under Stage II shall not exceed 3780 feet, provided that if any footage allowed under Stage II is used for Stage I drilling, such footage shall be deducted from the footage allowed for Stage II.

Not in excess of one hundred and twenty (120) chemical analyses shall be made to determine the U_3O_8 and V_2O_5 content of samples procured during Stage II drilling.

General Provisions.

1. No hole drilled in either Stage I or Stage II shall be closer than 100 feet to the outer boundaries of the land described in Annex I of this contract.

2. A supervising geologist or mining engineer and one helper shall be employed full time while work is in progress under this contract.

3. The location of access roads and drill holes, the method of drilling and probing drill holes, and the method of taking and storing samples shall be subject to Government approval.

4. The Government shall not reimburse the Operator for the cost of any uncompleted hole, or any hole that bottoms with less than AX size core.

5. All holes shall be plug drilled to the inferred Brushy Basin-Salt Wash contact, from which horizon the holes shall be cored for a minimum depth of 120 feet, or until they penetrate into the underlying red mudstone which indicates the lower contact of the upper ore-bearing sandstone lens of the Salt Wash member of the Morrison formation.

6. All holes shall be logged geologically and probed for radioactivity. Records of such logging and probing, together with assay certificates shall be submitted to the Government with the Operator's monthly progress report.

7. Mineralized portions of the core shall be split, the Operator using one-half for assay purposes. The other half shall be stored for Government use with the rest of core in boxes properly labeled as to drill hole number. Markers shall be placed at proper places in the sections of core to indicate the depth represented. If feasible, the length of core used for an individual sample should not exceed 12 inches.

8. In Stage II no hole shall be started unless there is sufficient footage remaining in this contract to complete the hole to the above-mentioned target horizon, or unless the Operator agrees in writing to complete such a hole at his own expense.

Estimated Costs of the Project

Stage I

Actual Costs: 1/

Category (1) Independent Contracts

1)	Access roads and drill sites, D-6 bulldozer or equivalent 24 hours work @ $12.50/hr. 2/	$ 300.00
	Moving bulldozer on and off property - $30.00 each way	60.00
2)	Plug-bit (non-core) drilling 670 feet @ $1.75/ft.	1,172.50
3)	Core drilling, AX size or larger, 1220 feet @ $2.73/ft.	3,330.60

Fixed Unit Costs:

4)	Incidental allowance for each foot of drilling completed 1890 feet @ $0.67/ft. 3/	1,266.30
5)	60 Chemical analyses for U_3O_8 and V_2O_5 content of samples @ $5.00/sample	300.00
		$6,429.40

Stage II

Actual Costs: 1/

Cagegory (1) Independent Contracts

1)	Access roads and drill sites, D-6 bulldozer or equivalent 48 hours work @ $12.50/hr. 2/	$ 600.00

	Moving bulldozer on and off property - $30.00 each way	$ 60.00
2)	Plug-bit (non-core) drilling 1340 feet @ $1.75/ft.	2,345.00
3)	Core drilling, AX size or larger, 2440 feet @ $2.73/ft.	6,661.20

Fixed Unit Costs:

4)	Incidental allowance for each foot of drilling completed 3780 feet @ $0.67/ft. 3/	2,532.60	
5)	120 Chemical analyses for U_3O_8 and V_2O_5 content of samples @ $5.00/sample	600.00	
			$12,798.80

SUMMARY

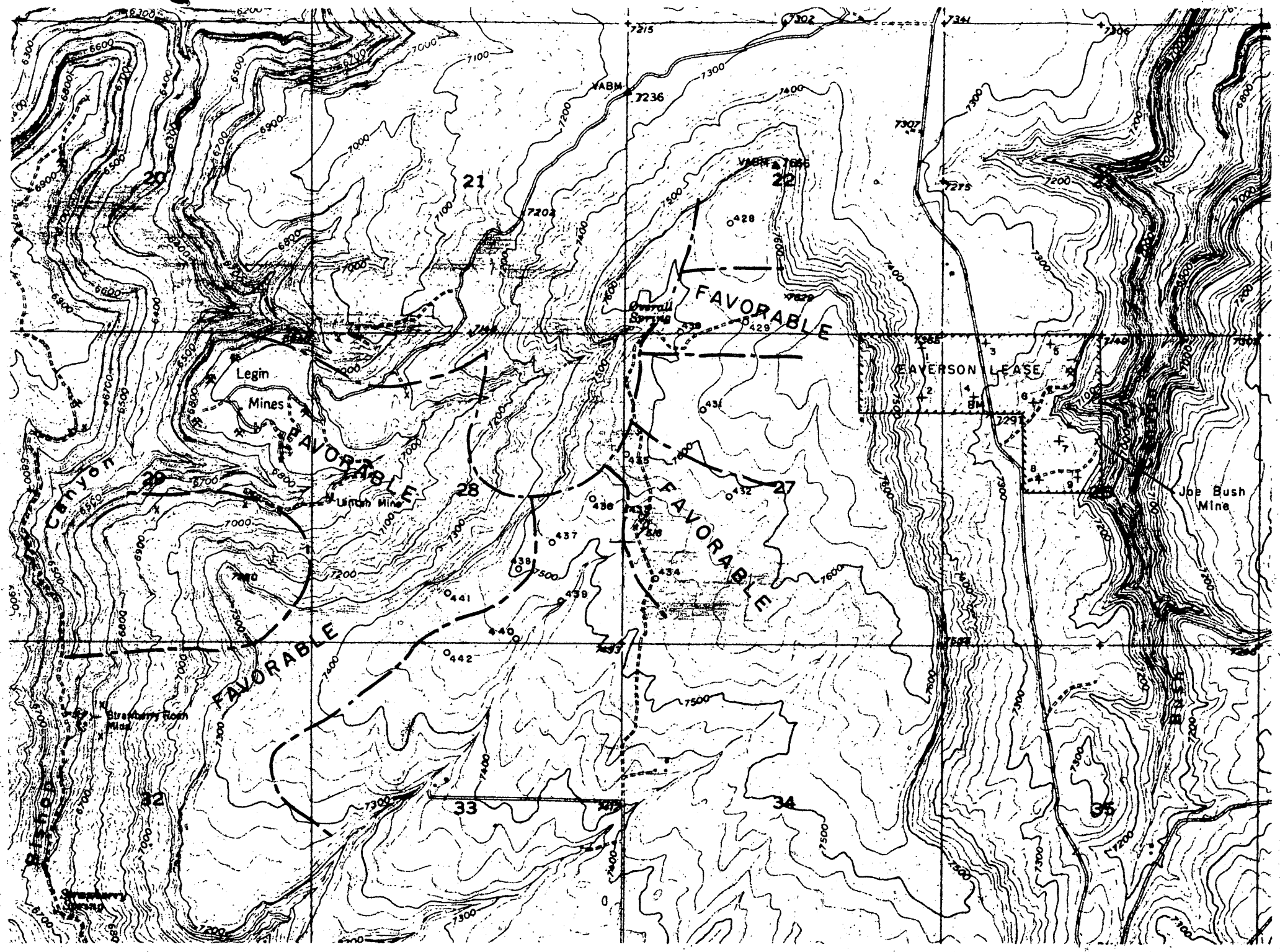
Total Estimated Cost Stage I	$ 6,429.40
Total Estimated Cost Stage II	12,798.80
Total Estimated Cost of the Project (rounded)	$19,228.00
Government Participation at 75 percent	$14,421.00

Stages I and II

1/ Categories (2) through (7) of Article 6(a) of the contract form do not apply to this contract.

2/ Includes all costs whatsoever applicable to construction of access roads and drill sites.

3/ Includes all costs whatsoever that are not included in the estimates for access roads, drill site preparation, drilling, and the fixed unit cost for analyses, and includes such items as supervision, engineering, sampling, probing drill holes, equipment rental, materials, supplies, etc.



EXPLANATION

OUTLINE OF KNOWN FAVORABLE AREA

BOUNDARY OF EAVERSON LEASE

MINE OR PROSPECT

DIAMOND-DRILL HOLE, U.S. GEOLOGICAL SURVEY

PROPOSED DIAMOND-DRILL HOLE

N

1000 0 2000 FEET

CONTOUR INTERVAL
20 FEET

DATUM IS MEAN SEA LEVEL

T. 43 N., R. 19 W.
S.L.M.

Note: BASE FROM U.S. GEOLOGICAL SURVEY QUADRANGLE MAP, EGNAR

Figure 2. MAP SHOWING PROPOSED HOLE LOCATIONS ON J. V. EAVERSON LEASE AND TRENDS OF FAVORABLE GROUND IN VICINITY, BOWLES-HEFLIN MINING CO. SAN MIGUEL COUNTY, COLORADO

RECEIVED
OCT 31 1955

MF-201
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator_____
Docket No. DMEA-_____
Contract No. Idm-E_____
Contract Date_____

SUBORDINATION AGREEMENT

To the United States of America:

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

North one-half of Northwest one-ffourth and Southeast one-fourth of the Northwest one-fourth of Section 26, and the Northeast one-fourth of the Northeast one-fourth of Section 27, all in Township 43 North, Range 19 West, New Mexico P. M.

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. Subordinates whatever right, claim, lien or encumbrance the undersigned may have in or against the land to whatever interests, equities, and rights the Government may acquire under the contract (a) with respect to purchased property in or upon the land to the cost of which it has contributed, including the right to dismantle, sever, and remove it from the land; and (b) with respect to a percentage royalty on production from the land and a lien to secure the payment thereof; and

2. Undertakes and agrees (a) neither to commit any act nor assert any claim in conflict with the provisions of this Subordination Agreement; and (b) to give advance notice of this Subordination Agreement to any transferee of the right, claim, lien, or encumbrance hereby subordinated; and

3. Consents to all amendments and assignments of the contract without notice thereof, and agrees that this Subordination Agreement shall extend and apply thereto.

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.

(OVER)

X Dated this 30th day of August, 1955.

X John Griffith [Seal]

X S. M. Lisk [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]

MF-203
Revised March 24, 1955

RECEIVED
OCT 31 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator _____
Docket No. DMEA- _____
Contract No. Idm-E _____
Contract Date _____

CONSENT TO LIEN

To the United States of America:

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

North one-half of Northwest one-fourth and Southeast one-fourth of the Northwest one-fourth of Section 26, and the Northeast one-fourth of the Northeast one-fourth of Section 27, all in township 42 North, Range 19 West, New Mexico P. M.

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/

None

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

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

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

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

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

5. Added provision: None

Dated this 25th day of October, 1955.

John Griffin [Seal]

W E Swenson [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]

Docket No. 3655

Commodity Uranium

DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

STRATEGIC AND CRITICAL MINERALS EXPLORATION PROGRAM

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

Please enter on the records of the Defense Minerals Exploration Administration under the Strategic and Critical Minerals Exploration Program, the following contract, or amendment to contract.

Contract No. Idm-E 899

Date of Contract ~~Amendment~~: November 28, 1955

Name and Address of Operator:

Melvin C. Bowles and A. L. Heflin, partners
d/b/a Bowles-Heflin Mining Company
1200 Chester Street
Aurora, Colorado

Amount of Government participation $ 14,421.00

Percent of Government participation 75 %

Region: III State: Colorado

(Name)

for J. L. Chambers, Chief
Contract Administration and
Audit Division

(Title)

Date Delivered to Bureau of Mines, Washington. 11/28/55

54458