UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 12 1958

224 New Customhouse
Denver 2, Colorado
June 9, 1958

6/12 C 220
" Jed 110
Murphy 700

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket No. DMEA 4791 (Uranium) Contract Idm-E1132, Caleb V. Haynes, Jr., (Black Knight and Billikin lodes) Jefferson County, Colorado - FINAL PAYMENT

Enclosed are two copies of a memorandum to T. A. Christensen, dated June 2, 1958, relative to final payment under the terms of the subject contract.

J. W. Townsend

J. W. Townsend

Enclosures

CODE

224 New Customhouse
Denver 2, Colorado
June 4, 1958

Memorandum

To: T. A. Christensen

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

Subject: Docket No. DMEA 4791 (Uranium) Contract Idm-21132, Caleb V. Haynes, Jr., (Black Knight and Billikin lodes) Jefferson County, Colorado - FINAL PAYMENT

Reference is made to our memorandums of March 26, 1958, and May 6, 1958, whereby we forwarded Form MF-164, Operator's Monthly Report and Voucher, for the months of February and March, 1958, and requested that you withhold a total amount of $515.00.

The Operator's final report has been received, therefore we recommend that final payment to the Operator be made on the following basis, which is in conformance with the Report of Review of reported project costs by the Contract Administration and Audit Division, dated May 19, 1958.

Basis for Final Payment:

Total accepted cost	$11,078.88
Government participation at 75 percent	8,309.16
Total prior payments	7,794.16
Balance due the Operator	$ 515.00

Original signed by
J. W. TOWNSEND
J. W. Townsend

JDC:kmh

cc: Chan. Op. Comm. (2)
Hawkinson
DMEA/DPC
Townsend
Corres. file, Reg. III
MF-164 file, Reg. III
Chron.

Paid 515.00
RRC
Randel R. Cooper
Authorized Certifying Officer
DMA-58-129

FINAL DISTRIBUTION

MADE MAY 15 1958

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

Administrative Audit Difference Statement

Mr. Caleb V. Haynes
Post Office Box 5
Golden, Colorado

Date: May 13, 1958
Payee's Reference: March 1958

DMEA-4791

Dear Mr. Haynes:

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

Amount Claimed $ 20.00

Difference $

Amount Approved $ 20.00

The reason for the difference was due to:

Withheld $15.00 -- the entire amount of Government contribution pending resolution of matters prerequisite to closing the account.

OFFICIAL FILE COPY
DMEA
RECEIVED 19 1958
JDE
5/19 C 220
Fed 110
~~Total 700~~

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

Very sincerely yours,

XXXXXXXXXXXXX
XXXXXXXXXXXXX

Randel R. Cooper
Fiscal Officer, Region III

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

224 New Customhouse
Denver 2, Colorado
May 6, 1958

Memorandum

To: T. A. Christensen

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

Subject: Docket No. DMEA 4791 (Uranium) Contract Idm-E1139, Caleb V. Haynes, Jr., (Black Knight and Billikin Lodes) Jefferson County, Colorado - Operator's Monthly Progress Report for the month of March, 1958

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

The work is being performed partly under independent subcontract, and partly at fixed unit costs. The drilling rates are as low or lower than the rates contained in the lowest and best bid submitted with the application. Under the circumstances, the rates for the work performed under independent subcontract are considered to be reasonable.

We consider that the Operator has complied with the intent of the contract and the work is acceptable to the Government. The contract was considered completed upon completion of the work provided for under Stage I, and the Operator was so notified by Certified letter dated April 8, 1958.

Withheld the entire amount of Government contribution pending resolution of matters prerequisite to closing the account. The total amount withheld to date is as follows:

Amount to be withheld from February 1958 Voucher----	$500.00
Amount to be withheld from March 1958 Voucher------	15.00
Total withheld----------	$515.00

Remarks:

Date of Report---------- April 25, 1958
Date Received in Field Office---------- May 2, 1958
Date Received in Region Office---------- May 6, 1958

Original signed by
E. N. HARSHMAN

E. N. Harshman

Enclosures

JDJ:hmh

cc: Chem. Op. Comm. (2)
DMRA/DPC
MF-104 file, Reg. III
Harshman)- w/copy of
Townsend) Engr's Report
Chron

DMEA
DEPARTMENT OF THE INTERIOR
MAY 6 1958
REGION III
DENVER, COLORADO

May 5, 1958

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado

Memorandum

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

From: W. W. Winkel

Subject: Docket DMEA 4791 (Uranium) Contract Idm-K1132
Caleb W. Haynes, Jr., (Black Knight and Billikin ledes)
Jefferson County, Colorado -- Progress report for March 1958.

The operator herewith submits the invoice for assays of mineralized core splits, as per recommendations contained in a joint memorandum by W. W. Winkel and F. B. Moore. These assays were contingent to termination of the contract without prosecution of Stage II work, as requested by the operator in a letter to the Executive Officer, dated March 14, 1958. These assays were considered to be an important part of the contract as a check on the accuracy of the radiometric logging of all Stage I drill holes.

The operator has submitted a letter of transmittal, forms MF-104 and 104A, and invoice from the assayer. Other documentation is not required by the contract.

The completion of contract work is pending the rendering of a final engineering and geologic report pertaining to the work completed under the contract.

It is recommended that the amount of $500.00, withheld by the Government, be retained pending resolution of matters prerequisite to closing the account.

Payment of $15.00 or 75 percent of the amount claimed $20.00 is recommended by the inspection engineer.

W. W. Winkel
W. W. Winkel
Mining Engineer

www/as
cc: 6/orig
sub
chron

VANCE HAYNES

GEOLOGICAL CONSULTANT

P. O. BOX 5, GOLDEN, COLORADO

April 30, 1958

DMEA
DEPARTMENT OF THE INTERIOR
MAY 1 - 1958
REGION III
DENVER, COLORADO

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Contract No. Idm-E1132

Dear Mr. Harshman:

Transmitted herewith are the monthly Forms 104 and 104A and supporting assay certificate.

Caleb V. Haynes Jr.
Caleb V. Haynes, Jr.
Operator

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED MAY 19 1958

Month of March 195 8 Docket No. DMEA 479 Contract No. 10m-E1132

Operator's Name Calob V. Haynes, Jr.

Address P. O. Box 5, Grotton, Colorado

Minerals Uranium

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising ~~Assaying~~	Each	20.00	6	20.00			20	5.00
Shafts								
Winzes								
Drilling: Core	Foot			2053.00	1646		1200	5.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails & Sites	Hour			310.50	40		40	15.00
~~Fixed Unit Costs~~	Foot			1695.30	1646		1200	1.03
TOTAL DISTRIBUTED COSTS		20.00		11,070.80				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		20.00		11,070.80				9050.40

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

Date April 25, 1958 Operator Calob V. Haynes Jr.

Per _____ Title Operator

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

(Instructions on reverse)

REMARKS:

W. W. Winkel

(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

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 MAY 19 1958 D.M.E.A.

Month of March, 1958 Docket No. DMEA 4791 Contract No. 10MC1132
Operator's Name Caleb V. Haynes, Jr. Minerals Uranium
Address P. O. Box 5, Golden, Colorado
Contract Amount, $ 9,050.40 Government Participation: 75 % Amount, $ 6,793.00

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		9,053.00	9,053.00			
Bulldozing		370.50	370.50			
Crosscutting						
Drifting						
Fixed Unit Cost		1,695.30	1,695.30			
(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	20.00		20.00			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS		11,068.80	11,068.80	20.00	11,068.80	11,068.80

DMEA
DEPARTMENT OF THE INTERIOR
APR 29 1958
REGION III
DENVER, COLORADO

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

Date April 25, 1958 *Payee Caleb V. Haynes, Jr.

Per _____ Title Operator

*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:

$ No payment

Signature RRC
(Authorized Certifying Officer)

Date _____ Vou. No. _____
(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. E-1132 in accordance with the terms of the contract.

Signature W. W. Winkel Title Mining Engineer Date May 5, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Checked for Engineering Allowability

Signature E. M. Hershman Title acting Executive Officer Date MAY 6 1958

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.

2114 CURTIS STREET

TELEPHONE MAin 3-1852

[redacted]

CHEMISTS • ASSAYERS • ENGINEERS

DENVER 5, COLORADO

Folio 7144

Date March 26, 1958.

Cotter Corporation,
Attention: Leo C. Kansey,
P. O. Box 751,
Canon City, Colorado.

We hereby Certify, that the samples assayed for you gave the following results:

DESCRIPTION	GOLD OUNCES PER TON	SILVER OUNCES PER TON	COPPER PER CENT (WET)	LEAD PER CENT (WET)	ZINC PER CENT	IRON PER CENT	INSOLUBLE PER CENT	VALUE PER TON
Samples by Vance Haynes:		Uranium oxide (U3O8)						
#1-E		0.011%						
#2-B		0.038%				20.43		
#3-C		0.121%						
#4-G		0.019%						

not authorized by DMEA contract
not accountable
CWH

DMEA
DEPARTMENT OF THE INTERIOR
MAY 1 - 1958
REGION III
DENVER, COLORADO

Gold at _____ per ounce Copper at _____ per unit

Silver at _____ per ounce Zinc at _____ per unit

Lead at _____ per unit _____

Charge $ 21.50
1.50
$20.00

CHARLES O. PARKER & CO.
CHEMISTS, ASSAYERS and ENGINEERS

FINAL DISTRIBUTION

MADE MAR 28 1958

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

Administrative Audit Difference Statement

[redacted]

Date: [redacted]
Payee's Reference: [redacted]

DMEA-4791

[redacted]

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

Amount Claimed $ [redacted]

Difference $

Amount Approved $ [redacted]

4/2 C 220
4 FG 710
4/3 [redacted] 700

The reason for the difference was due to:

[redacted]

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

Very sincerely yours,

N. E. Stokes
Audit Section

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

224 New Customhouse
Denver 2, Colorado
March 26, 1958

Memorandum

To: T. A. Christensen

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

Subject: Docket No. DMEA 4791 (Uranium) Contract Idm-E1132
Caleb V. Haynes, Jr., (Black Knight and Billikin Lodes,)
Jefferson County, Colorado - Operator's Monthly Progress
Report for the Month of February, 1958

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

The work is being performed partly under independent subcontract, and partly at fixed unit costs. The drilling rates are as low or lower than the rates contained in the lowest and best bid submitted with the application. Under the circumstances, the rates for the work performed under independent subcontract are considered to be reasonable.

We consider 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 reported on Form MF-104, for February 1958, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations, except for the following deduction:

<u>Withhold</u> an amount of $500.00 from reimbursement to the Operator, pending resolution of matters prerequisite to closing the account. Stage I work has been completed, and the Operator does not wish to undertake any of the work outlined under Stage II. It is anticipated that a supplemental voucher for analytical work will be submitted in the near future.

A total of 366 feet of core drilling footage and Incidental Allowance, together with applicable funds, have been transferred from Stage II to Stage I, in accordance with work approval dated December 18, 1957.

Remarks:

Date of Report----------March 14, 1958
Date Received in Field Office----------March 18, 1958
Date Received in Region Office----------March 25, 1958

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

Enclosures

JDC:hmh

cc: Chem. Op. Comm. (2)
DMRA/DFC
MF-104 file, Reg. III
Harshman } w/copy of
Townsend } Engr's report
Chron

REGION III

DMEA
DEPARTMENT OF THE INTERIOR

MAR 25 1958
REGION III
DENVER, COLORADO

Building 20
Denver Federal Center
Denver 2, Colorado
March 25, 1958

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: W. W. Winkel

Subject: Docket DMEA 4791 (Uranium) Contract Idm-E1132,
Caleb Haynes, Jr. (Black Knight and Billikin Lodes)
Jefferson County, Colorado -- Progress report for February 1958

The final inspection of progress, hole location, and a check of the recovered core was made by E. O. Kinyon, U. S. Bureau of Mines, and F. B. Moore of the Geological Survey.

DMEA drill hole "G" was completed at a depth of 291 feet. This completed the drilling authorized under Stage 1 of the contract. No favorable results were obtained during Stage 1 drilling. The work completed under this contract was partly independent subcontract, and partly at fixed unit costs.

The operator has submitted a narrative report in quintuplicate with maps showing access roads, DMEA drill sites, and surface geology. Forms MF-104 and 104A, lithologic log and radiometric log of drill hole "G" and invoice from drilling contractor. Other documentation to support this claim is not required by the contract.

The operator has complied with the intent of the contract, and payment of $1,425.17 or 75 percent of the amount claimed $1,900.23 is recommended by the inspecting engineer.

W. W. Winkel
W. W. Winkel
Mining Engineer

WWW/mw
cc: 6
Idm-E1132
chron

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

RECEIVED APR 2 1958 D.M.E.A.

FINAL REPORT

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of February 1958 Docket No. DMEA 4791 Contract No. Idm-E-1132

Operator's Name Caleb V. Haynes, Jr. Minerals Uranium

Address P.O.Box 5, Golden, 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
Drifting								
Crosscutting								
~~Assaying~~ Assaying	Each						20	5.00
Shafts								
Winzes								
Drilling: Core	Foot	1600.50	291	9053.00	1646		1280	5.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails & Sites	Hour			310.50	40		40	15.00
Fixed Unit Costs	Foot	299.73	291	1695.38	1646		1200	1.03
TOTAL DISTRIBUTED COSTS		1900.23		11,058.88				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		1900.23		11,058.88				9,058.40

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 14, 1958 Operator Caleb V. Haynes, Jr.

Per _____ Title Operator

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

(Instructions on reverse)

REMARKS:
Project completed.
No favorable results
from program.

W. W. Winkel

(For Government use only)

DMEA
DEPARTMENT OF THE INTERIOR
MAR 17 1958
REGION III
DENVER, COLORADO

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

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 2 1958

Final Report.

Month of February 195 8 Docket No. DMEA Contract No. Idm-E-1132
Operator's Name Caleb V. Haynes, Jr. Minerals Uranium
Address P.O.Box 5, Golden, Colorado
Contract Amount, $ 9,058.40 Government Participation: 75 % Amount, $ 6,793.80

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	1600.50	7452.50	9053.00			
Bulldozing		310.50	310.50			
Crosscutting						
Drifting						
Fixed Unit Cost	299.73	1395.65	1695.38			
(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	1900.23	9158.65	11058.88	1900.23	9158.65	11,058.88

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

Date March 14, 1958 *Payee Caleb V. Haynes, Jr. Caleb V. Haynes Jr.

Per Title Operator

*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:

$ 925.17

Signature (Authorized Certifying Officer)

Date 3/27/58 Vou. No. DMA 58-104

(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. E-1132 in accordance with the terms of the contract.

Signature W. W. Winkel Title Mining Engr. Date Mar. 24, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature E. M. Hornbrook Checked for Engineering Allowability Title acting Executive Officer Date MAR 26 1958

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.

Progress Report on DMEA Contract No. Idm-E1132

for the period 1 February to 19 February, 1958.

Drilling operation

Hole G was inclined at 60 degrees in a direction of approximately N 70 W. It was drilled NX size to 15 ft and cased BX size. BX size drilling for AX casing was carried to 40 ft. AX size drilling progressed to a depth of 80 ft whereupon the hole was reamed and cased BX to prevent loss of water at approximately 60 ft. AX drilling continued to a total depth of 291 ft on February 17, 1958.

Serious caving of the hole was encountered between 220 and 230 ft. To prevent sticking of the drilling tools the hole was cemented from 205 to 250 ft and then drilled over.

Core recovery

Seven feet of NX core were recovered for 15 ft of drilling for a recovery of 46.7 %. Twenty three feet of BX core waserecovered for 25 ft of drilling for a recovery of 92.0 %. The AX core recovery was 79.1 % or 198.5 ft of core for 251 ft of drilling. The total core recovery for Hole G was 78.5 %.

Geology

A description of the core for Hole G is given in the attached core log.

Between 258 and 279 ft what is believed to be the Billikin fault zone was encountered. It is characterized by brecciation and silicification. No uranium mineralization and no anomalous radioactivity was encountered in Hole G. It is apparent that the dip of the Billikin fault is probably between 45 and 50 degrees.

Conclusion

The Billikin fault as revealed by drilling shows conditions that should have been favorable for uranium deposition had uranium-bearing solutions been available. No uranium mineralization occurs in the zones penetrated by the drill. Surface exposures of the Billikin fault show uranium to be present as secondary minerals only and then usually with copper minerals. It appears likely that the Billikin fault is post uranium mineralization (Black Knight fault). It is unlikely, therefore, that the intersection of the two structures would be any more mineralized than favorable zones within the Black Knight fault alone.

Caleb V. Haynes, Jr.

Caleb V. Haynes, Jr.
Geologist

Core log, Hole G, DMEA Contract No. Idm-E1132

0 to 15 ft	7 ft of NX core. Granite gneiss.
15-to 40 ft	23 ft of BX core. Granite gneiss and biotite schist.
40 to 52 ft	10 ft of AX core. Granite gneiss.
52 to 74 ft	12 ft of AX core. Granite gneiss with some epidote veins.
74 to 87 ft	12 ft of AX core. Same as above.
87 to 99 ft	12 ft of AX core. Granite gneiss.
99 to 116 ft	12 ft of AX core. Granite gneiss, quartz-biotite-schist, and migmatite of pegmatite and biotite.
116 to 130 ft	12 ft of AX core. Granite gneiss.
130 to 143 ft	12 ft of AX core. Granite gneiss and quartz-biotite-feldspar schist.
143 to 157 ft	12 ft of AX core. Granite gneiss.
157 to 168 ft	Granite gneiss and quartz-biotite-feldspar-schist. 11 ft of AX core.
168 to 180 ft	12 ft of AX core. Same as above.
180 to 192 ft	12 ft of AX core. Same as above.
192 to 207 ft	12 ft of AX core. Granite gneiss with foliation more pronounced than that described above.
207 to 225 ft	12 ft of AX core. Quartz-biotite-feldspar gneiss.
225 to 245 ft	11 ft of AX core. Quartz-biotite-feldspar gneiss and pegmatite-biotite migmatite.
245 to 258 ft	11 ft of AX core. Granite gneiss and quartz-biotite-feldspar schist.
258 to 279 ft	11.5 ft of AX core. Fractured, brecciated, and silicified quartz-biotite-feldspar gneiss and schist. No radioactivity. This is probably the Billikin fault. Lower 2 ft is quartz-biotite gneiss with a small amount of magnetite.
279 to 291ft	12 ft of AX core. Quartz-biotite-feldspar schist and pegmatite-biotite migmatite.

Caleb V. Haynes Jr.

Caleb V. Haynes, Jr.
Geologist

FINAL DISTRIBUTION

MADE MAR 17 1958

224 New Customhouse
Denver 2, Colorado
March 11, 1958

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4791 (Uranium) Contract Idm-E1132, Caleb V. Haynes, Jr., (Black Knight and Billikin lodes), Jefferson County, Colorado - Operator's Monthly Progress Report for the month of January, 1958

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

The work is being performed partly under independent subcontract, and partly at fixed unit costs. The drilling rates are as low or lower than the rates contained in the lowest and best bid submitted with the application. Under the circumstances, the rates for the work performed under independent subcontract are considered to be reasonable.

We consider 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 reported on Form MF-104 for January 1958, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Remarks:

Date of Report----------February 26, 1958
Date Received in Field Office-----February 28, 1958
Date Received in Region Office----March 6, 1958
Reason for delay: Processing deferred pending receipt of additional data from the Operator.

Enclosures

Original signed by
W. H. KING
W. H. King

JDC:hmh
cc: Chmn. Op. Comm. (2)
DMEA/DFC
MF-104 file, Reg. III
Harshman - w/copy of Engr's report
Chron

DMEA
DEPARTMENT OF THE INTERIOR
MAR 6 - 1958
REGION III
DENVER, COLORADO

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
March 5, 1958

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. O. Binyon

Subject: Docket DMEA 4791 (Uranium) Contract Idm-E1132, Caleb V. Haynes, Jr., (Black Knight and Billikin lodes) Jefferson County, Colorado -- Progress report for January 1958

An inspection of the work completed during the period was made March 4, 1958 in company with James D. Cooper, Bureau of Mines and Frank B. Moore of the Geological Survey.

Hole F, the only hole completed in January, was drilled to a depth of 376 feet as reported and located as stipulated in the contract. No anomalous radioactivity was noted in the hole. The hole was drilled in conformance with the contract and as permitted by the work approval dated December 18, 1957. The MF-104 and 104A were checked and found to be correct. Documentation of the drilling footage and the amount claimed for drilling accompany the operator's report.

It is recommended that payment of $1841.46 or the Government's share at 75 percent of $2455.28 be made upon receipt of the radiometric log and map which are to be submitted by the operator.

E O Binyon
E. O. Binyon
Mining Engineer

EOB/mw
cc: 6
Idm-E1132
chron

J[illegible]F-104A
(1952)

Budget Bureau No. 42-R1151.2

RECEIVED MAR 19 1958 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 195 8 Docket No. DMEA 4791 Contract No. Idm-E-1132
Operator's Name Caleb V. Haynes, Jr. Minerals Uranium
Address P. O. Box 5, Golden, 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
Drifting								
Crosscutting								
~~Raising~~ Assaying	Each						20 Ea.	5.00
Shafts								
Winzes								
Drilling: Core	Foot	2068.00	376	7452.50	1355		1280 ft.	5.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails & Sites	Hour			310.50	40		40 hrs.	15.00
Fixed Unit Costs	Foot	387.28	376	1395.65	1355		1280 ft.	1.03
TOTAL DISTRIBUTED COSTS		2455.28		9158.65				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		2455.28		9158.65				9058.40

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. 26, 1958 Operator Caleb V. Haynes, Jr. (signature)

Per _____ Title Operator

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

REMARKS:

(Instructions on reverse)

E P Bingon

(For Government use only)

DMEA
DEPARTMENT OF THE INTERIOR
FEB 27 1958
REGION III
DENVER, COLORADO

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

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED MAR 19 1958 D.M.E.A.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January, 1958 Docket No. DMEA 4791 Contract No. Idm-E-1132
Operator's Name Caleb V. Haynes, Jr. Minerals Uranium
Address P. O. Box 5, Golden, Colorado
Contract Amount, $9,058.40 Government Participation: 75 % Amount, $6,793.80

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	2,068.00	5384.50	7452.50			
Bulldozing		310.50	310.50			
Crosscutting						
Drifting						
Fixed Unit Cost	387.28	1008.37	1395.65			
(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	2455.28	6703.37	9158.65	2455.28	6,703.37	9,158.65

I certify that the above bill is correct and just and that payment therefor has not been received.
Date Feb 26, 1958 *Payee Caleb V. Haynes, Jr.
Per Caleb V. Haynes, Jr. Title Operator

*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:
$ 1841.46
Signature (Authorized Certifying Officer)
Date 3/14/58 Vou. No. DMA 58-97
(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. FdM E1132 in accordance with the terms of the contract.

Signature E. O. Bryson ($ 1841.46) Title Mining Engineer Date March 5, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Checked for Engineering Allowability

Signature W. H. King Title Executive Officer Date MAR 1 1 1958

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.

Progress Report on DMEA Contract No. Idm-E1132

for the period 1 January to 1 February, 1958.

Drilling operation

Hole F was drilled NX size to 20 ft and cased BX. It was drilled BX size to 30 ft and cased AX. The hole was drilled AX size to a bottom depth of 376 ft on January 23, 1958. Circulation was lost at 168 ft and could not be recovered.

Core recovery

No attempt was made to recover core from the first 20 ft. Size BX coring from 20 to 30 ft produced 7.5 ft of BX core which constitutes a recovery of 75 %. For the AX drilling approximately 250.5 ft of core was recovered for 346 ft of AX drilling giving a core recovery of 72.4 %. Total recovery for 366 ft of coring was 70.5 %.

Water

Water in the shaft was expended by the end of January. It is being obtained from local wells with the kind permission of the landowners.

Geology

A description of the core for Hole F is given in the attached log.

At approximately 109 ft a foot of limonite-stained gouge was encountered. A dip of approximately 55° is indicated. This seemed a bit shallow to be the Black Knight fault and no magnetite-garnet gneiss had been encountered. It was decided to drill deeper.

Between 339 ft and 353 ft a silicified and partially lime-cemented breccia was encountered. Hydrothermal orthoclase is also present. No ore mineralization occurs in the core, but the recovery was poor (8 ft for 17 ft). The dip appears to be 50°.

Conclusions

From the nature of the deeper fault it appears to be a breccia "reef" and is probably the Billikin Fault. If this is true the dip is considerably less than that indicated in surface exposures. The Billikin fault zone will probably be encountered at a shallower depth than presupposed in drilling Hole G. If the deeper fault is the Billikin then the fault encountered at 109 ft must be the Black Knight . It is of interest to note that no magnetite-garnet gneiss was encountered in this hole. This may explain the abscence of any anomalous radioactivity or uranium mineralization.

Caleb V. Haynes Jr.

Caleb V. Haynes, Jr.
Geologist

Core log, Hole F, DMEA Contract No. Idm-Ell[illegible]

0 to 20 ft	No core recovery attempted.
20 to 30 ft	7.5 ft of BX core. Quartz-feldspar-hornblende-biotite gneiss and schist.
30 to 54 ft	9 ft of AX core. Quartz-feldspar-hornblende-biotite gneiss and schist and granite gneiss.
54 to 64 ft	10 ft of AX core. Granite gneiss, quartz-feldspar-hornblende-biotite gneiss and schist, and hornblende-epidote gneiss.
64 to 72 ft	3.5 ft of AX core. Quartz-biotite-gneiss and schist.
72 to 83 ft	6 ft of AX core. Quartz-biotite-feldspar gneiss and schist, and pegmatite.
83 to 93 ft	9.5 ft of AX core. Quartz-biotite-schist and granite gneiss.
93 to 99 ft.	4.5 ft of AX core. Pegmatite and quartz-biotite-pyroxene gneiss and schist.
99 to 110 ft	10 ft of AX core. 2 ft pegmatite, 7 ft quartz-feldspar-biotite-pyroxene gneiss and schist, and 1 ft of limonite gouge and fault material; dips approximately 55°.
110 to 116 ft	5 ft of AX core. Quartz-epidote-biotite-feldspar gneiss.
116 to 126 ft	7 ft of AX core. Quartz-feldspar-biotite gneiss and schist.
126 to 136 ft	2 ft of AX core. Quartz-feldspar-biotite-gneiss and schist.
136 to 146 ft	5 ft of AX core. Granite-gneiss and quartz-feldspar-biotite-chlorite gneiss and schist.
146 to 156 ft	7 ft of AX core. Granite-gneiss and quartz-biotite schist.
156 to 281 ft	108.5 ft of AX core. Biotite-granite-gneiss.
281 to 296 ft	6 ft of AX core. Granite gneiss and quartz-biotite feldspar schist.

Core Log, Hole F (cont'd)

296 to 306 ft	10 ft of AX core. Quartz-hornblende-biotite-gneiss and schist, and pegmatite zones.
306 to 316 ft	6 ft of AX core. Quartz-biotite -schist and granite gneiss migmatite.
316 to 326 ft	9.5 ft of AX core. Quartz-feldspar-hornblende-biotite-gneiss and schist.
326 to 339 ft	4 ft of AX core. Same as above.
339 to 346 ft	2 ft of AX core. /Fractured and somewhat altered granite gneiss with silica and lime coated fractures.
346 to 356 ft	6 ft of AX core. First 2 ft silicified breccia containing some carbonate and in silicified quartz-feldspar-granite gneiss. Rest is quartz-biotite-feldspar schist and pegmatite granite-gneiss with 2-inch silicified breccia zone at 353 ft.
356 to 366 ft	10 ft of AX core. Quartz-feldspar-biotite-schist and granite gneiss.
366 to 376 ft	10 ft of AX core. Quartz-feldspar-biotite schist.

Caleb V. Haynes, Jr.
Geologist

Radioactivity Log fo[illegible]DMEA Contract No. Idm-E11[illegible]

(BG indicates background taken as 0.03 to 0.09 mr/hr)

Hole E		Hole B6		Hole C		Hole C cont'd.		Hole D		Hole D cont'd.		Hole F		Hole F cont'd.	
ft	R/A	ft	R/A	ft	R/A	ft	R/A	ft	R/A	ft	R/A	ft	R/A	ft	R/A
0	BG	0	BG	0	BG	249	10.0	0	BG	255	BG	0	BG	255	BG
5	BG	5	BG	5	BG	250	1.0	5	BG	260	BG	5	BG	260	BG
10	BG	10	BG	10	BG	255	0.1	10	BG	265	BG	10	BG	265	BG
15	BG	15	BG	15	BG	260	BG	15	BG	270	BG	15	BG	270	BG
20	BG	20	BG	20	BG	265	0.1	20	BG	275	BG	20	BG	275	BG
25	BG	25	BG	25	BG	269	BG	25	BG	280	BG	25	BG	280	BG
30	BG	30	BG	30	BG			30	BG	285	BG	30	BG	285	BG
35	BG	35	BG	35	BG			35	BG	290	BG	35	BG	290	BG
40	BG	40	BG	40	BG			40	BG	295	BG	40	BG	295	BG
45	BG	45	BG	45	BG			45	BG			45	BG	300	BG
50	BG	50	BG	50	BG			50	BG			50	BG	305	BG
55	BG	55	BG	55	BG			55	BG			55	BG	310	BG
60	BG	60	BG	60	BG			60	BG			60	BG	315	BG
65	BG	65	BG	65	BG			65	BG			65	BG	320	BG
70	BG	70	BG	70	BG			70	BG			70	BG	325	BG
75	BG	75	BG	75	BG			75	BG			75	BG	330	BG
80	BG	80	BG	80	BG			80	BG			80	BG	335	BG
85	BG	85	BG	85	BG			85	BG			85	BG	340	BG
90	BG	90	BG	90	BG			90	BG			90	BG	345	BG
95	BG	95	BG	95	BG			95	BG			95	BG	350	BG
100	BG	100	BG	100	BG			100	BG			100	BG	355	BG
105	BG	105	BG	105	BG			105	BG			105	BG	360	BG
110	BG	110	BG	110	BG			110	BG			110	BG	365	BG
115	BG	115	BG	115	BG			115	BG			115	BG	370	BG
120	BG	120	BG	120	BG			120	BG			120	BG	375	BG
125	BG	125	BG	125	BG			125	BG			125	BG	376	BG
130	BG	130	BG	130	BG			130	BG			130	BG		
135	BG	135	BG	135	BG			135	BG			135	BG		
140	BG	140	BG	140	BG			140	BG			140	BG		
145	BG	145	BG	145	BG			145	BG			145	BG		
150	BG	150	BG	150	BG			150	BG			150	BG		
155	BG	155	BG	155	BG			155	BG			155	BG		
160	BG	160	BG	160	BG			160	BG			160	BG		
165	BG	165	BG	165	BG			165	BG			165	BG		
170	BG	170	BG	167	0.50			170	BG			170	BG		
175	BG	172	0.15	170	BG			175	BG			175	BG		
180	BG	175	BG	175	BG			180	BG			180	BG		
185	BG	180	BG	180	BG			185	BG			185	BG		
190	BG	185	BG	185	BG			190	BG			190	BG		
195	BG	190	BG	190	BG			195	BG			195	BG		
200	BG	195	BG	195	BG			200	BG			200	BG		
205	BG	200	BG	200	BG			205	BG			205	BG		
210	BG	202	BG	205	BG			210	BG			210	BG		
213	BG			210	BG			215	BG			215	BG		
				215	BG			220	BG			220	BG		
				220	BG			225	BG			225	BG		
				225	BG			230	BG			230	BG		
				230	BG			235	BG			235	BG		
				235	BG			240	BG			240	BG		
				240	BG			245	BG			245	BG		
				245	0.15			250	BG			250	BG		

Radioactivity L[illegible] (cont'd.)

Hole G	
ft	R/A
0	BG
5	BG
10	BG
15	BG
20	BG
25	BG
30	BG
35	BG
40	BG
45	BG
50	BG
55	BG
60	BG
65	BG
70	BG
75	BG
80	BG
85	BG
90	BG
95	BG
100	BG
105	BG
110	BG
115	BG
120	BG
125	BG
130	BG
135	BG
140	BG
145	BG
150	BG
155	BG
160	BG
165	BG
170	BG
175	BG
180	BG
185	BG
190	BG
200	BG
205	BG
210	BG
215	BG
220	BG
225	BG
230	BG
240	BG
245	BG
250	BG

Hole G cont'd.	
255	BG
260	BG
265	BG
270	BG
275	BG
280	BG
285	BG
290	BG
291	BG

FINAL DISTRIBUTION
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DMEA
MADE MAR 17 1958
RECEIVED MAR 19 1958

DATE	INITIALS	CODE
3/19	C	220
1		110
3/20		700

224 New Customhouse
Denver 2, Colorado
March 11, 1958

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4791 (Uranium) Contract Idm-E1132, Caleb V. Haynes, Jr., (Black Knight and Billikin lodes) Jefferson County, Colorado - Operator's Monthly Progress Report for the month of December, 1957

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

The work is being performed partly under independent subcontract, and partly at fixed unit costs. The drilling rates are as low or lower than the rates contained in the lowest and best bid submitted with the application. Under the circumstances, the rates for the work performed under independent subcontract are considered to be reasonable.

We consider 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 reported on Form MF-104 for December 1957, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Remarks:

Date of Report----------January 31, 1958
Date Received in Field Office---------February 3, 1958
Date Received in Region Office--------March 6, 1958
Reason for Delay: Processing deferred due to illness of inspecting engineer and also pending receipt of additional data from Operator.

Enclosures
JDC:hmh
cc: Chmn. Op. Comm (2)
DMEA/DFC
MF-104 file, Reg.III
Harshman - w/copy Engr's report
Chron

Original signed by
W. H. KING

W. H. King

REGION III

DMEA
DEPARTMENT OF THE INTERIOR

MAR 6 - 1958
REGION III
DENVER, COLORADO

Building 20
Denver Federal Center
Denver 2, Colorado
March 5, 1958

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. O. Binyon

Subject: Docket DMEA 4791 (Uranium) Contract Idm-E1132, Caleb V. Haynes, Jr. (Black Knight and Billikin lodes) Jefferson County, Colorado -- Progress report for December 1957

An inspection of the work completed during the period was made on March 4, 1957 in company with James D. Cooper, Bureau of Mines, and Frank B. Moore of the Geological Survey.

Two holes, C and D, were drilled 269 and 295 feet respectively, or a total of 564 feet as reported. The holes were found to be located as shown on the map submitted with the October report and as specified in the contract.

No radioactivity was noted in hole D. In hole C the operator reported that AEC probe results indicated a 2 feet thickness from 249 to 251 of ore grade material containing 0.5 to 0.6 percent eU_3O_8. No core was recovered from this section of the hole and the operator is of the opinion that a small veinlet not over 1 inch thick is responsible for the probe results.

The MF-104 and 104A were checked and were found to be correct. Documentation of the drilling footage and the amount claimed for drilling is submitted by the operator.

It is recommended that the operator be paid $2762.19 or the Government's share at 75 percent of $3682.92 the total amount claimed. The payment should be withheld pending receipt of radiometric logs and map.

E O Binyon
E. O. Binyon
Mining Engineer

EOB/mw
cc: 6
Idm-E1132
chron

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED APR 19 1958 D.M.E.A.

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of December 195 7 Docket No. DMEA 4791 Contract No. 1dm-E-1132
Operator's Name Caleb V. Haynes, Jr. Minerals Uranium
Address P.O.Box 5, Golden, 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
Drifting								
Crosscutting								
~~Raising~~ Assaying	Each						20 Ea.	5.00
Shafts								
Winzes								
Drilling: Core	Foot	3102.00	564	5384.50	979		1280 ft.	5.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails & Sites-Hour				310.50	40		40 hrs.	15.00
Fixed Unit Costs	Per Ft	580.92	564	1008.37	979		1280 ft.	1.03
TOTAL DISTRIBUTED COSTS		3682.92		6703.37				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		3682.92		6703.37				9058.40

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

Date Jan. 28, 1958 Operator Caleb V. Haynes, Jr.

Per Caleb V. Haynes Jr. Title Operator

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

REMARKS:

(Instructions on reverse)

(For Government use only)

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

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

Form MF-134 (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 MAR 19 1958 DMEA

Month of December, 1957 Docket No. DMEA 4791 Contract No. Idm-E-1132
Operator's Name Caleb V. Haynes, Jr. Minerals Uranium
Address Box 5, Golden, Colorado
Contract Amount, $9,058.40 Government Participation: 75 % Amount, $6,793.80

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	3102.00	2282.50	5384.50			
Bulldozing		310.50	310.50			
Crosscutting						
Drifting						
Fixed Unit Cost	580.92	427.45	1008.37			
(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	3682.92	3020.45	6703.37	3682.92	3020.45	6703.37

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 28 Jan. 1958 *Payee Caleb V. Haynes, Jr.
Caleb V. Haynes Jr.
Per _____ Title Operator

*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:

$2762.19

Signature _____ (Authorized Certifying Officer)
Date 3/14/58 Vou. No. DMA 58-97

(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. Wm E 1132 in accordance with the terms of the contract.

Signature E D Meyer ($2762.19) Title Mining Engineer Date March 5, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Checked for Engineering Allowability

Signature W H King Title Executive Officer Date MAR 11 1958

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.

Progress Report on DMEA Contract No. Idm-E1132

for the period 1 December to 1 January, 1957-58

Drilling operations

Hole C was drilled BX size to 10 feet and cased AX. AX drilling proceded to 232 feet. Between 200 feet and 210 feet serious caving of the hole made drilling very difficult. Rather than ream the entire length of the hole to set AX casing it was decided (with DMEA approval) to case the hole with EX pipe and drill further with EX size core bit. The EX drilling proceded to a bottom depth of 269 feet on December 10, 1957.

Setting up and collaring in at Site D was completed on December 13, 1957. Hole D was drilled NX size to 30 feet and cased BX size to 29 feet. The hole was drilled BX size to 50 feet and AX size to a bottom depth of 295 feet on December 26, 1957.

The remainder of December was spent setting up on Site F.

Core recovery

Total core recovery for Hole C was 67.2 percent. Twenty percent of the BX core was recovered, 72.2 percent of the AX core and 50.0 percent of the EX core.

For Hole D the total core recovery was 79.7 percent. 77.5 percent of the BX core and 79.0 percent of the AX core was recovered.

Water

By the end of December the water level in the shaft had dropped to within a foot or two of the level workings. Permission has been obtained from local landowners to use water from private wells if necessary.

Geology

Descriptions of the cores from Hole C and D are given in the attached logs.

Hole C

Two feet of intensely altered and limonite stained rock and some limonite gouge were encountered between 10 and 20 feet. This is a small fault but because 6 feet of core

were not recovered its thickness can not be determined. The dip is 65° but its relation to the foliation can not be determined. This fault may be one that is subparallel to the Black Knight fault and higher. It may be the same one encountered in Hole B and that outcrops at Site 23.

Between 167 and 168 feet a 2-mm fracture filling of calcite contains a fine coating of pitchblende. The rock here is a nonfoliated migmatite of biotite and granite gneiss. There is no evidence of strong faulting. The pitchblende-bearing fracture dips 15°.

The magnetite-garnet-biotite-quartz gneiss zone was encountered at 215 feet and persisted to 263 feet. At 224 feet the foliation of the magnetite gneiss dips at 45°.

Fracturing and weak calcite and pyrite mineralization plus poor core recovery and soft gouge zones encountered between 200 and 250 feet indicate that this is the Black Knight fault. Within the magnetite gneiss zone at approximately 249 feet anomalous radioactivity was encountered and appeared to be limited to a 6-inch zone. Because no core was recovered in this zone, Mr. Schlottman of the U. S. Atomic Energy Commission was asked to confirm the anomaly. He determined that the radioactivity indicated a 2-foot zone containing 0.50 percent to 0.60 percent U_3O_8. Experience with surface exposures on the Black Knight fault leads me to believe that this is a small (probably not more than one inch) veinlet of pitchblende.

Hole D

Quartz-biotite-garnet and magnetite gneiss was encountered between 80 and 94 feet in Hole D. This zone contains numerous fractures, some of which contain calcite and pyrite. Some of the biotite is altered to chlorite. This zone probably represents the Black Knight fault, however, no anomalous radioactivity was encountered.

The foliation of the magnetite gneiss in this zone was measured as 61° in core from 81 feet. A calcite veinlet dips 52° and parallels the foliation in strike.

Conclusion

The anomalous radioactivity at 249 feet in Hole C is the first indication of ore grade material found in core drilling. While it is strictly a show it is a favorable indication especially when one consideres the conditions of the rock where the radioactivity was detected. The core recovery was poor, caving of the hole was severe, and the drilling fluid was lost to this zone. All are good indications of favorable structure in the magnetite zone. This is a target worthy of additional exploration.

Caleb V. Haynes Jr.

Caleb V. Haynes, Jr.
Geologist

Core log, Hole C, DMEA Contract No. Idm-E1132

0 to 10 ft.	2 ft of BX core. Granite gniess and biotite schist, some coarse grained hornblende granite gneiss.
10 to 20 ft	4 ft of AX core. 2 ft of quartz biotite schist, 2 ft limonite gouge and intensely altered unidentifiable rock. Gouge zone dips 65°.
20 to 26 ft	2 ft of AX core. Limonite gouge, 6-inch zone at top. 1½ feet of granite gneiss.
26 to 34 ft	5 ft of AX core. Granite gneiss, biotite gneiss, pyrite stringers, altered biotite gneiss, and altered granite gneiss.
34 to 41 ft	6 ft of AX core. Granite gneiss, quartz-biotite gneiss, altered quartz-giotite gneiss and 3-inch breccia zone silicified near bottom of core. A few 1-mm calcite stringers.
41 to 46 ft	5 ft of AX core. Quartz-biotite gneiss and schist with a few 1-mm calcite stringers.
46 to 56 ft	3 ft of AX core. Quartz-biotite gneiss and schist with a few 1-mm calcite stringers.
56 to 66 ft	10 ft of AX core. Granite gneiss.
66 to 79 ft	10½ ft of AX core. Granite gneiss.
79 to 94 ft	12 ft of AX core. Granite gneiss, quartz-biotite gneiss and schist, and pegmatitic granite gneiss with scattered pyrite.
94 to 104 ft	8 ft of AX core. Quartz-biotite gneiss and schist.
104 to 111 ft	6 ft of AX core. Quartz-biotite schist with 3-inch pegmatite zone.
111 to 116 ft	5 ft of AX core. Quartz-biotite schist.
116 to 126 ft	9 ft of AX core. Quartz-biotite schist with pegmatite zones.
126 to 136 ft	10 ft of AX core. 2 ft of pegmatite and 8 ft of pegmatite and quartz-biotite schist and gneiss.
136 to 146 ft	9 ft of AX core. Quartz-biotite gneiss and schist.

Core log, Hole C (cont'd)

146 to 156 ft	5 ft of AX core. Quartz-biotite gneiss and schist.
156 to 166 ft	10 ft of AX core. Quartz-biotite gneiss and schist.
166 to 176 ft	9 ft of AX core. 1 ft of quartz-chlorite gneiss with 1-mm calcite stringers. 167-168 is a non-foliate migmatite containing a 2-mm stringer of calcite, and a fine coating of pitchblende. 168-171 is a pegmatite and coarse grained granite gneiss. 171-176 is altered quartz-biotite schist and gneiss with a 6-inch quartz zone.
176 to 186 ft	10 ft of AX core. Quartz-biotite gneiss, migmatite, and granite gneiss. Pyrite in the biotite zone of migmatite.
186 to 196 ft	2½ ft of AX core. Granite gneiss.
196 to 206 ft	2 ft of AX core. Highly altered quartz-biotite schist and 2-inch zone of slickensided surface coating with blue-gray molyebdenite.
206 to 216 ft	5½ ft of AX core. Somewhat altered garnet-biotite gneiss and schist and quartz-biotite gneiss. Last 6 inches is quartz-garnet-magnetite gneiss with pyrite.
216 to 220 ft	2 ft of AX core. Top 6 inches is gouge and clay. Rest is quartz-biotite-garnet-magnetite gneiss.
220 to 230 ft	7½ ft of AX core. Garnet-biotite-magnetite-gneiss, quartz-feldspar-biotite gneiss, and garnet-magnetite gneiss. Foliation at 224 ft dips 45°.
230 to 232 ft	2 ft of AX core. Quartz-biotite-garnet-magnetite gneiss.
232 to 238 ft	1½ ft of EX core. Quartz-biotite-garnet-magnetite gneiss.
238 to 246 ft	1½ ft of EX core. Quartz-biotite-garnet-magnetite gneiss and granite gneiss.

Weekly report. 12-19-54

Core log, Hole C (cont'd)

246 to 256 ft	3 ft of EX core. Quartz-biotite-garnet-magnetite gneiss and granite gneiss.
256 to 260 ft	3½ ft of EX core. Quartz-biotite-garnet-magnetite gneiss. Pyrite and calcite coated fractures, one of which dips 70°.
260 to 265 ft	5 ft of EX core. 3 feet quartz-biotite-garnet-magnetite gneiss. 2 ft of quartz-feldspar-biotite gneiss.
265 to 269 ft	4 ft of EX core. Quartz-feldspar-biotite gneiss and granite gneiss.

Caleb V. Haynes, Jr.
Geologist

Radiometric records w/Jan '58 Vonalem

Core log, Hole D, DMEA Contract No. Idm-E1132

0 to 30 ft	No core recovered.
30 to 47½ ft	13 ft of BX core. Quartz-biotite granite gneiss with some migmatite and some limonite-coated fractures. Some general alteration due to proximity to surface.
47½ to 50 ft	2½ ft of BX core. Quartz-biotite granite gniess with migmatite.
50 to 58 ft	8 ft of AX core. Quartz-biotite granite gneiss with some fracturing parallel to foliation, and shattered local zones showing signs of near-surface alteration. Grades into biotite-chlorite schist gneiss with some migmatite.
58 to 68 ft	10 ft of AX core. Biotite-chlorite schist gneiss with some soapy chlorite coated fractures. Also some calcite coating. The foregoing between 58 and 62½ feet, then grading into quartz-biotite granite gneiss with traces of pyrite.
68 to 78 ft	10 ft of AX core. Coarse-grained granite gneiss containing two fractures parallel to foliation carrying blebs of pyrite. Grades into biotite-chlorite schist gneiss with occasional fracturing. Grades into quartz-biotite granite gneiss with some pyrite filled fractures.
78 to 88 ft	10 ft of AX core. Quartz-biotite granite gneiss with occasional fractures calcite coated. Grades into a biotite-garnet-magnetite gneiss that is fractured between 80-88 ft. No pyrite or radioactivity in the core or hole.
88 to 96 ft	8 ft of AX core. Fault zone which commenced at 80 feet, continues to 94 feet. Highly altered biotite-chlorite, with magnetite and garnet and fractures mostly parallel to the foliation. Some disseminated pyrite and some evidence of slight movement. No radio-activity. Grades into biotite-chlorite schist gneiss and then into quartz-biotite-chlorite granite gneiss.
96 to 106 ft	10 ft of AX core. Quartz-biotite-chlorite granite gneiss with some disseminated pyrite and some chlorite-gouge coated fractures together with calcite.

Core log, Hole D (cont'd)

106 to 116 ft	10 ft of AX core. Quartz-biotite granite gneiss with occasional fractures coated with chloritic gouge and with traces of disseminated pyrite. One pyrite stringer, small and thin.
116 to 126 ft	9½ ft of AX core. Quartz-biotite granite with pegmatitic granite gneiss near mid-core.
126 to 136 ft	10 ft of AX core. Quartz-biotite granite gneiss with occasional, calcite-coated fractures. Traces of garnet.
136 to 149 ft	9 ft of AX core. Granite gneiss with occasional fractures, grading into biotite-chlorite shhist gneiss in mid-core, with fractures; grades into bull quartz, and back to granite gneiss.
149 to 162 ft	9½ ft of AX core. Coarse granite gneiss grading to aplite, with occasional, calcite-coated fractures. Most fractured zone between 149-156 ft. Some chloritic gouge in fractures some of which cut foliation at tight angles. Occasional garnet; no pyrite, magnetite, or radioactivity.
162 to 172 ft	10 ft of AX core. Quartz-biotite granite gneiss grading into biotite-chlorite migmatite, and then into a fine-grained biotite schist gneiss with aplite bands carrying disseminated pyrite. Grades into granite gneiss. No fractures of significance.
172 to 182 ft	Biotite-granite gneiss with migmatite, occasional fractures, and some garnet.
182 to 192 ft	10 ft of AX core. Same as above.
192 to 205 ft	9 ft of AX core. Biotite-granite gneiss with some tight, calcite-coated fractures at 198 ft. One cross-foliation stringer of pyrite about 1/8" thick and 1-inch long. Traces of pyrite continue for another foot, and then again at 202 ft.
205 to 216 ft	10 ft of AX core. Biotite-chlorite schist gneiss, granite gneiss and some migmatite. Some calcite-coated fractures.

Core log, Hole D (cont'd)

216 to 230 ft	13 ft of AX core. Biotite-chlorite migmatite for first 3 feet, then biotite-chlorite schist gneiss and some granite gneiss with garnet (6-ft), grading into better defined granite with some calcite-coated fractures.
230 to 243 ft	12½ ft of AX core. Fine-grained biotite granite gneiss with 3½ ft of fracturing silica coated. Followed by about 1½ ft of fractured biotite-chlorite migmatite, grading into granite gneiss, aplite, and back to migmatite. Last 1½ ft, fine-grained biotite-chlorite schist gneiss with occasional fractures.
243 to 257 ft	13 ft of AX core. Biotite-chlorite schist gneiss with migmatite and occasional fractures.
257 to 271 ft	13 ft of AX core. Upper two feet altered biotite schist gneiss with some calcite-coated fractures. Next 4 ft same but with migmatite. Then highly-fractured biotite gneiss with silica-coated fractures. Followed by granite gneiss with some garnet, grading into biotite-chlorite schist gneiss with migmatite.
271 to 275 ft	9 ft of AX core. Migmatite 271-272½. Altered biotite, some garnet, no pyrite or magnetite. Calcite-coated fractures in quartz-biotite schist gneiss. Grades into granite gneiss followed by quartz-biotite-chlorite schist gneiss with fracturing and some show of slight movement. Then, granite gneiss with calcitic and silicious cracks. Short fault zone in migmatite and granite gneiss (273-275) with silica and calcite-coated cracks, chloritization, some garnet and pyrite at 273 in biotite-chlorite schist gneiss.
275 to 285 ft	3½ ft of AX core. Short zone of fracturing begins at 278 in quartz-biotite gneiss with chloritization, traces of garnet, and calcite and silica coated cracks showing some indication of movement. No pyrite or magnetite. Followed by biotite-chlorite migmatite with traces of garnet, grading into biotite-chlorite schist gneiss with some fracturing. Solid granite gneiss at bottom.
285 to 295 ft	10 ft of AX core. Granitegneiss with some migmatite and occasional calcite-lined hair fractures. Last two feet biotite-chlorite schist gneiss. No magnetite, garnet, pyrite, or radioactivity discernible.

Caleb V. Haynes, Jr.
Geologist

FINAL DISTRIBUTION
MADE MAR 14 1958

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

Administrative Audit Difference Statement

[redacted]

Date: [redacted]
Payee's Reference: [redacted]

DMEA-4791

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 17 1958

DATE	INITIALS	CODE
3/17	C	220
"	FRJ	110
3/17	[illegible]	700

[redacted]

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

Amount Claimed $ [redacted]

Difference [redacted] $ [redacted]

Amount Approved $ [redacted]

The reason for the difference was due to:

[redacted]

[redacted]

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

Very sincerely yours,

N. E. Stokes
Audit Section

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

224 New Customhouse
Denver 2, Colorado
March 10, 1958

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4791 (Uranium) Contract Idm-E1132, Caleb V. Haynes, Jr., (Black Knight and Billikin lodes) Jefferson County, Colorado - Operator's Monthly Progress Report for the month of November, 1957

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

The work is being performed partly under independent subcontract, and partly at fixed unit costs. The drilling rates are as low or lower than the lowest and best bid submitted with the application. Bids were not submitted for bulldozer work; however, the bulldozing rates are in line with the standard rates prevailing in the project locality for the size and make of bulldozer used on the project. Under the circumstances, the rates for the work performed under independent subcontract are considered to be reasonable.

We consider 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 on the following basis, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

<u>Reinstatement, Bulldozing</u>

Amendment No. 2, provides for the use of International Harvester TD-9 and TD-14 tractors with dozers in lieu of the Caterpillar D-8 tractor with dozer or equivalent unit of another make, originally specified in the contract. Bulldozing costs which were disallowed in processing the October 1957 voucher, are to be reinstated as follows:

Reinstate:

1. TD-9, 8½ hours at $9.00 per hour----------$76.50
2. TD-14, 19½ hours at $12.00 per hour---------234.00
   Total amount to be reinstated----------$310.50

Reconciliation With Amount Reported by the Operator on Form MF-104 for November, 1957

Amount reported on November, 1957 voucher----------$1319.06
Amount to be reinstated---------- 310.50
Acceptable cost----------$1629.56

Government participation at 75 percent----------$1222.17

Remarks:

Date of Report----------December 21, 1957
Date Received in Field Office---------January 10, 1958
Date Received in Region Office--------February 5, 1958
Reason for delay: Processing deferred due to illness of inspecting engineer and also pending receipt of additional data from Operator.

Original signed by
W. H. KING

W. H. King

Enclosures

JDC:hmh

cc: Chmn. Op. Comm. (2)
DMEA/DFC
MF-104 file, Reg. III
Harshman) w/copy of
Townsend) Engr's report
Chron

DMEA
DEPARTMENT OF THE INTERIOR

REGION III

MAR 5 - 1958
REGION III
DENVER, COLORADO

Building 20
Denver Federal Center
Denver 2, Colorado
March 5, 1958

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. O. Binyon

Subject: Docket DMEA 4791 (Idm-E1132 - Uranium)
Caleb V. Haynes, Jr., Black Knight and Billikin lodes,
Jefferson County, Colorado -- Progress report for November 1957

An inspection of the work completed during the period was made March 4, 1957 in company with James B. Cooper, Bureau of Mines, and Frank B. Moore, Geological Survey.

The location and depth of Hole B were found to be as shown on the map accompanying the operator's report for October and as reported by the operator for this period. The access roads to this drill site as well as the sites to the other holes to be drilled were completed in October. The amount claimed however, was disallowed pending an amendment to the contract to permit the use of the dozers used on the job and at the rates per hour as claimed by the operator.

The MF-104 and 104A forms were checked and found to be correct. Documentation of the amount claimed for drilling accompanies the report.

The operator mentions a slight anomalous area in the hole at approximately 173 feet but has failed to submit a radiometric log of the hole. No map was submitted with the report.

It is recommended that pending receipt of the radiometric log and map the operator be paid $989.30 or the Government's share at 75 percent of $1319.06 the total amount claimed by the operator.

E. O. Binyon
Mining Engineer

EOB/sw
cc: 6
Idm-E1132
chron

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED
MAR 17 1958
D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1957 Docket No. DMEA 6701 Contract No. 2[illegible]-2 1130
Operator's Name Caleb V. Haynes, Jr. Minerals Uranium
Address P. O. Box U, Golden, 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
Drifting								
Crosscutting								
Raising Advance	Inch						30 00	0.00
Shafts								
Winzes								
Drilling: Core	Foot	1111.00	302	2222.00	610		1200 ft.	0.52
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails	Silicon hour			310.50			60 hrs	10.00
Fixed Unit Costs for Ex.		200.65	302	427.65	610		1200 ft.	1.00
TOTAL DISTRIBUTED COSTS		1510.06		3020.40				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		1510.06		3020.40				[illegible]

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 12/31/57 Operator Caleb V. Haynes Jr.
Caleb V. Haynes, Jr.

Per Title Operator

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

REMARKS:

(Instructions on reverse)

E O Bruyn

(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

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED MAR 17 1958 D.M.E.A.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 1957 Docket No. DMEA 4701 Contract No. Idn-E 1132
Operator's Name Caleb V. Haynes, Jr. Minerals Uranium
Address P. O. Box 5, Golden, Colorado
Contract Amount, $ 9,068.40 Government Participation: 75 % Amount, $ 6,793.00

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:	1111.00	1171.80	2282.80			
Drilling		310.50	310.50			
Bulldozing						
Crosscutting						
Drifting						
Fixed Unit Cost	208.06	219.39	427.45			
(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	1319.06	1701.39	3020.45	1319.06	1701.39	3020.45
				~~310.50~~	D 310.50	D 310.50
				1390.89	2709.95	
					310.50	
					3020.45	

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

Date 12/31/57 *Payee Caleb V. Haynes, Jr.
Caleb V. Haynes, Jr.
Operator
Per Title

*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:

$1332.17

Signature (Authorized Certifying Officer)

Date 3/12/58 Vou. No. DMA 58-95

(See other side)

1 Previous
2 Previous disallowances
3 Previous disallowances reinstated

(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. Tem E 1132 in accordance with the terms of the contract.

Signature E. O. Bunyon (# 98930) Title Mining Engineer Date March 5, 1958

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Checked for Engineering Allowability

Signature W. S. King Title Executive Officer Date MAR 10 1958

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.

DMEA
DEPARTMENT OF THE INTERIOR
JAN 9 - 1958
REGION III
DENVER, COLORADO

Progress Report on DMEA Contract No. Idm-E1132

for the period 1 November to 1 December, 1957

Drilling operations

Setting up at Site B and collering in was completed on 4 November. The hole was drilled BX size to 19 ft and cased with BX casing. The hole was then cased with AX casing to 20 ft after which AX core drilling proceeded to a total depth of 202 ft on 14 November.

Setting up and collaring in at Site C was completed on 22 November after a 5-day delay due to illness (influenza) of the drilling crew. Core drilling at Site C began on 23 November and after some difficulty was still in progress at the end of the month. Because this hole will be completed in December it will be reported upon in greater detail in the December progress report.

Core recovery

From Hole B approximately 181 ft of core was obtained for 202 ft of hole. This constitutes a recovery of 89.6 %. 7½ ft of the core is BX size for 19 ft of BX drilling representing a recovery of 39.5 %. 173.5 ft of AX size core for 183 ft of drilling constitutes a 94.8 % recovery for the AX drilling.

Water

The water level in the shaft at Site 3 droped another 5 ft as the water was used in drilling at Site B. The circulation of water for drilling at Site C has been more successful and a minimum has been used. It is hoped that the water remaining in the underground workings will be sufficient to complete at least the drilling of Stage I.

Geology

A description of the core from Hole B is covered in the accompanying log. Generally the rock units are the same as those reported for the core from Hole E.

Faulting is in evidence in the Hole B core between 96 ft and 106 ft. The only mineralization apparent is limonite and no anomalous radioactivity was detected in this zone. It is not the Black Knight fault proper but may be somewhat parallel and higher one. It is not a strong fault.

Magnetite gneiss layers were encountered from 130 ft to 197 ft giving an apparent thickness of 67 ft. Many fractures occur in this zone and a foot of gouge was encountered at approximately 171 ft. This is probably the Black Knight fault. Moderate to strong alteration is apparent and mineralization in the form of calcite, pyrite, and silica fills fractures averaging 1 mm in thickness. Two such fractures at approximately 173 ft are radioactive and apparently contain a fine film of pitchblende.

Geology (cont'd.)

The only anomalous radioactivity encountered in the hole was a reading of approximately twice background between 171 ft and 173 ft.

Conclusions

No commercial zone of uranium mineralization was encountered in Hole B, however approximately 2 ft of the core including the radioactive fractures will be halved and assayed chemically for U_3O_8.

Caleb V. Haynes, Jr.
Operator and Geologist
6 December 1957

Core log, Hole B, DMEA Contract No. Idm-E1132

Drill-run 1 0 to 10 ft	No core recovered. Zone of surface weathering and soil mantle.
Drill-run 2 10 to 15 ft	4 ft of BX core. Granite gneiss in places pegmatitic.
Drill-run 3 15 to 19 ft	3½ ft of BX core. Quartz-biotite schist with pegmatitic stringers.
Drill-run 4 19 to 26 ft	7 ft of AX core. Quartz-biotite schist with some pegmatite containing coarse magnetite and pyrite.
Drill-run 5 26 to 36 ft	10 ft of AX core. Quartz-biotite schist and gneiss with pyrite and calcite(?) coating fracture surfaces paralleling foliation. Some biotite altered to chlorite(?) and some disseminated pyrite. Bottom 2 ft is coarse grained granite gneiss with silicified fractures.
Drill-run 6 36 to 38 ft	1½ ft of AX core. Coarse to medium grained granite gneiss.
Drill-run 7 38 to 48 ft	10 ft of AX core. 3/4-ft of coarse grained granite gneiss at the top. Rest is quarts-biotite schist and gneiss.
Drill-run 8 48 to 56 ft	9 ft of AX core. Upper half is quarts-biotite schist and gneiss. Lower half is corse grained granite gneiss.
Drill-run 9 56 to 66 ft	10 ft of AX core. Upper 6 ft is quartz-biotite schist and gneiss. Rest is granite gneiss.
Drill-run 10 66 to 76 ft	10 ft of AX core. Quartz-biotite-feldspar gneiss and pegmatite zones.
Drill-run 11 76 to 86 ft	10 ft of AX core. Same as drill-run 10 plus calcite(?) filling fractures paralleling foliation.
Drill-run 12 86 to 96 ft	8 ft AX core. Quartz-biotite schist and gneiss somewhat chloritized.
Drill-run 13 96 to 106 ft	8½ ft of AX core. Same as run 12 plus many fractures filled with limonite and possibly calcite. A 2-in. zone is somewhat brecciated.
Drill-run 14 106 to 116 ft	10 ft of AX core. Granite gneiss and biotite gneiss..
Drill-run 15 116 to 126 ft	10 ft of AX core. Quartz-biotite gneiss and schist.

Drill-run 16 126 to 136 ft	10 ft of AX core. Granite pegmatite and biotite-chloritite schist migmatite for 4 ft. Rest is magnetite-garnet gneiss.
Drill-run 17 136 to 146 ft	10 ft of AX core. Quartz-biotite gneiss with some magnetite-garnet gneiss.
Drill-run 18 146 to 156 ft	10 ft of AX core. Magnetite-garnet gneiss with some portions strongly pyritized.
Drill-run 19 156 to 166 ft	6 ft of AX core. Magnetite-garnet gneiss and altered biotite gneiss with fractures filled with calcite(?).
Drill-run 20 166 to 169 ft	3 ft of AX core. Highly altered quartz-biotite schist and pegmatitic migmatite. Calcite fills fractures and lines tabular vugs in veinlets. Some gouge and pyrite
Drill-run 21 169 to 172 ft	3 ft of AX core. Magnetite-garnet gneiss with some chloritization and pyrite.
Drill-run 22 172 to 182 ft	8 ft. of AX core. Magnetite-garnet-biotite gneiss with many pyrite and calcite filled fractures. Two fractures at approximately 173 ft are radioactive and apparently are coated with a thin seam of pitchblende.
Drill-run 23 182 to 192 ft	9 ft of AX core. Magnetite-garnet gneiss and biotite-pegmatite migmatite. Some pyrite and calcite filled fractures.
Drill-run 24 192 to 202 ft	10 ft of AX core. 5 ft of magnetite-garnet-biotite gneiss and schist. Lower 5 ft is coarse grained granite gneiss and biotite migmatite. Some scattered pyrite.

Caleb V. Haynes, Jr.

Caleb V. Haynes, Jr.
Geologist
15 November 1957

58-74

FINAL DISTRIBUTION

MADE DEC 23 1957

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

Administrative Audit Difference Statement

Caleb V. Haynes, Jr.
P. O. Box 5
Golden, Colorado

Date: December 20, 1957
Payee's Reference: October 1957

Gentlemen:

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

Amount Claimed	$	1,701.39
Difference	$	310.50
Amount Approved	$	1,390.89

The reason for the difference was due to:

Maintenance,
TD-9, 8½ hrs. Bulldozing @ 9.00 per hr. $76.50
TD-14, 19½ hrs. " @ 12.00 per hr. $234.00
$310.50

OFFICIAL FILE COPY
DMEA
RECEIVED DEC 26 1957

DATE	INITIALS	CODE
12/26	gb	220
		~~110~~
12/27	~~EL~~	200

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

Very sincerely yours,

RKC
for N. E. Stokes
Audit Section

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

224 New Customhouse
Denver 2, Colorado

December 17, 1957

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4791 (Uranium) Contract Idm-E1132, Caleb Haynes, Jr. (Black Knight and Billikin lodes) Jefferson County, Colorado - Operator's Monthly Progress Report for the month of October 1957

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

The work is being performed partly under independent subcontract and partly at fixed unit costs. The drilling rates are as low or lower than the rates contained in the lowest and best bid submitted with the application. Bulldozing was performed by International Harvester Model TD-9 and TD-14 tractors, both of which are smaller than the Model D-8 Caterpillar, or equivalent size unit, required by the contract.

Except as otherwise indicated below, we consider 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 on the following basis, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Disallowance, Bulldozing Costs

The contract stipulates that all dozing shall be performed with a Model D-8 Caterpillar tractor with dozer, or equivalent size unit of another make. The dozer work to date has been performed by International Harvester dozers, size TD-9 and TD-14, neither of which is equivalent to the Caterpillar D-8 tractor. The reported bulldozing costs are to be disallowed subject to possible reinstatement at a later date if the contract is subsequently amended to provide for smaller units at lower hourly rates.

Bulldozing costs to be disallowed

TD-9, 8½ hours at $9.00 per hour	$ 76.50
TD-14, 19½ hours at $12.00 per hour	234.00
Total to be disallowed	$310.50

Reconciliation with Amount Reported on Form MF-104 for the month of October 1957

Amount reported on Form MF-104 for October 1957	$1,701.39
Amount to be disallowed	310.50
Acceptable cost for October 1957	$1,390.89
Government participation at 75 percent	$1,043.17

REMARKS:

Date of Report	November 13, 1957
Date Received in Field Office	November 21, 1957
Date Received in Region Office	December 16, 1957

Original signed by
W. H. KING

W. H. King

Enclosures

JDC:jy

cc: Chm. Op. Comm. (2)
DMEA,DFC
MF-104 file, Reg. III
Harshman)
Townsend) w/copy of Engr's. rpt.
Chron.

DMEA
DEPARTMENT OF THE INTERIOR
DEC 16 1957
REGION III
DENVER, COLORADO

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
Dec. 16, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: W. W. Winkel

Subject: Docket DMEA 4791 (Uranium) Contract Idm-E1132,
Caleb Haynes, Jr. (Black Knight and Billikin Lodes)
Jefferson County, Colorado -- Progress report for October 1957

Progress under the subject contract was inspected December 5, 1957. The inspecting engineer was accompanied by Caleb Haynes, Jr., the operator, and Frank Moore, geologist with the U. S. Geological Survey, DMEA section.

On the day of inspection drill hole "E" was considered to have reached its objective at a depth of 213 feet. It was necessary to continue this hole beyond the estimated approximate depth of 170 feet to reach the probable objective, the Billikin breccia zone. The core recovery at depth was good, however, the breccia zone was poorly defined and a definite marker lacking, pending a study of core recovered from subsequent drilling.

Bulldozing operations, during the report period, consisted of construction of drill sites and one-way access roads to these sites.

Actual drilling on drill hole "E" was started on October 21, 1957. The first 30 feet of hole was a soft weathered material that could not be cored. The core from 30 feet on down to the bottom of the hole was recovered. The overall core recovery, including the first 30 feet of hole, was 70 percent. The actual recovery from 30 feet to 213 feet was 82 percent.

The operator has submitted a narrative report in quintuplicate with maps showing access roads, drill sites, and surface geology, forms MF-104 and 104A, lithologic log of drill hole "E", invoices from bulldozer and drilling contractors. Other documentation to support this claim is not required by the contract.

Unit costs are correctly listed on form MF-104 except those shown under column "Unit Costs to Date." The costs listed on form MF-104 under Supervision and under Misc. Supplies are not allowable items of cost under terms of the contract, and were voided by the operator.

Payment of $1,276.04 or 75 percent of the amount claimed $1,701.39 is recommended by the inspecting engineer.

W. W. Winkel

W. W. Winkel
Mining Engineer

WWW/mw
cc: 6
Idm-E1132
chron

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 195 7 Docket No. DMEA 4791 Contract No. IDM E 1132
Operator's Name Caleb V. Haynes, Jr. Minerals Uranium
Address P.O. Box 5, Golden, 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
Drifting								
Crosscutting								
~~Raising~~ Assaying	Each						20 ea.	5.00
Shafts								
Winzes								
Drilling: Core	Foot	1171.50	213	1171.50	213	1171.50	1280 ft.	5.50
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails & Sites	Hour	310.50	28	310.50	28	310.50	40 hrs.	15.00
Fixed Unit Costs	per Ft.	219.39	213	219.39	213	219.39	1280 ft.	1.03
TOTAL DISTRIBUTED COSTS		1701.39		1701.39		1701.39		TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		1701.39		1701.39				9058.40

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 11/13/57 Operator Caleb V. Haynes, Jr. Caleb V. Haynes Jr.

Per Title Operator

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

(Instructions on reverse)

REMARKS: Drill Hole E was drilled to 213 ft. because the estimated 170 ft. did not sufficiently test the hole.

W. W. Winkel

(For Government use only)

DMEA
DEPARTMENT OF THE INTERIOR
NOV 19 1957
REGION III
DENVER, COLORADO

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

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

Budget Bureau No. 42-R1036.5

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

Month of October, 1957 Docket No. DMEA 4791 Contract No. IDM-E1132
Operator's Name Caleb V. Haynes, Jr. Minerals Uranium
Address P.O. Box 5, Golden, Colorado
Contract Amount, $9,058.40 Government Participation: 75% Amount, $6,793.80

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	1171.50		1171.50			
Bulldozing	310.50		310.50			
Crosscutting						
Drifting						
Fixed unite costs	219.39		219.39			
(2) Labor and Supervision:						
Labor						
Supervision	~~263.64~~		~~263.64~~			
Technical Services	CVH		CVH			
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
Misc. Supplies	~~58.82~~		~~58.82~~			
	CVH		CVH			
(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):						
	CVH		CVH			
	1701.39		1701.39			
TOTALS	~~1804.46~~		~~1804.46~~	1,390.89	—	1,390.89

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

Date 11/13/57 *Payee Caleb V. Haynes, Jr. Caleb V. Haynes Jr.

Per _____ Title Operator

*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:

$ 1,043.17

Signature RRC
(Authorized Certifying Officer)

Date 12/20/57 Vou. No. DMA-58-74

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-1132 in accordance with the terms of the contract.

Signature W. W. Winkel Title Mining Engr. Date Dec. 13, 1957

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W H King Title ~~Executive Officer~~ Date DEC 17 1957

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.

Progress Report on DMEA Contract No. Idm-E1132

for the period 15 October to 1 November, 1957

Drill site preparation

Bulldozing operations on the Black Knight and Billikin uranium prospects commenced on 15 October, 1957. Sites for the six proposed Stage I drill holes and one-way access roads were completed on 21 October. These changes have been added to Figure 1a, attached; a revision of the original Figure 1 of the application report, Docket No. DMEA 4791.

Bulldozing operations were performed by S. F. Renaud of 6598 Morrison Road, Denver 14, Colorado.

Drilling operations

Boyles Brother's Drilling Company of Salt Lake City, Utah has been contracted for the diamond core drilling. On 16 October Mr. Richard F. Durfee, Denver district manager, suprovised the moving of the drilling equipment on Site E. This site was selected as the initial hole because of its location off the access roads and it was the easiest site to prepare. This allowed drilling operations and bulldozing to proceed concurrently.

The drilling setup was completed on 21 October and drilling commenced the same day. The first 15 ft were soft and weathered and were spudded with a cone-and-roller bit to accomodate 15 ft of NX casing. The hole was drilled to 40 ft with a BX diamond core barrel. Only in the lower 10 ft was core obtained. 40 ft of BX casing was set after which drilling with AX rod and diamond core barrel proceeded to a total depth of 213 ft where drilling hole E was terminated.

Core recovery

Approximately 150 ft of core was obtained. If the first 30 ft are neglected this would constitute a recovery of approximately 82%. On the basis of the total depth of 213 ft the recovery would be 70%. After drilling from 134 to 139 ft the core slipped from the barrel and had to be drilled over resulting in a loss of practically all of the core, however the cutting from this run were recovered and carefully inspected. Most of the drilling runs below 114 ft recovered 100% core.

Drilling fluid

The drilling fluid used was water from the inclined shaft at Site 3 (Fig. 1a). Circulation was lost intermittently and addition of bran to the drilling fluid failed to prevent lost circulation. It is estimated that approximately 9,000 gal of water were lost to the hole. If this rate of consumption is representative of what is to be expected in the other holes the supply of water in the shaft will not likely be adequate. There is no indication that the water level in the shaft will

stabalized before it is pumped dry. In the event it is pumped dry it is planned to haul water from Mr. Kuehster's well (with his permission) approximately 1 mi to the north by road. At the present time the water is pumped from the shaft to a 300-gal tank on a Jeep truck. It is then hauled to the drill site and emptied into a stock tank.

Geology

The 150 ft of diamond drill core has been described in the accompanying log. It is made up of medium grained granite-gneiss (quartz, microcline, plagioclase feldspar, and biotite), quartz-biotite schist and gneiss, magnetite-quartz-garnet gneiss, and narrow granite pegmatite zones. The core did not reveal any uranium mineralization or anamalous radioactivity. The entire length of the hole was tested for radioactivity with a long-hole probe in conjunction with a "Babbel" counter. No anamalous radioactivity was detected.

Intersection of the Black Knight fault by the drill hole is not apparent in the core, and only minor, non-uraniferous, mineralization was observed. After approximately 160 ft depth the biotite shows increasing degrees of alteration to chlorite down to about 200 ft. Scattered grains of pyrite also increase in occurrence with depth in this range, and from 182 ft to 192 ft pyrite also occurres as fracture fillings a millimeter or less thick. Some fractures from 182 ft to 208 ft are filled with calcite. The magnetite gneiss zone that outcrops from Site 1 to Site 4 was encountered at 178 ft in Drill-hole E and persisted intermittently to 208 ft. It is the magnetite gneiss zone that has revealed the strongest uranium mineralization at Site 3.

There is no indication that the drill hole is not essentially vertical. Assuming that it is vertical the dip of the foliation ranges from 15° to 65°. Dips from 45° to 60° are the most common. Fractures in the rock commonly parallel the foliation, and the cores usually break along foliation planes.

Bulldozing the access road to Site D uncovered evidence of a fault zone in the form of a strongly limonite-stained and fractured granite-gneiss and biotite schist. This exposure has been labeled Site 23 on Figure 1a. A 1-in. zone of gouge with slickensided walls strikes approximately N 70° W and dips 47° NE. If these are representative data this fault evidently parallels the Black Knight and is probably sympathetic with it. If this second fault was penetrated by hole E it must have been in the first 30 ft where no core was recovered. Thiss assumption would help account for the bad ground encountered in that portion of the hole. A scintillometer on the most sensitive scale can detect a slight increase in radioactivity over background at Site 23.

Another but lesser indication of faulting, labeled Site 24 on Figure 1a, was uncovered by the bulldozing. It is a zone of fracturing trending N 40° W and dipping 85° NE.

A number of dip and strike readings have been taken over the mapped area and are approximately located on Figure 1a. This shows a marked NW-SE trend with a moderate dip to the NE.

Conclusions

The thin pyrite- and calcite-coated fracture surfaces along with chloritization in the magnetite gneiss zone between 182 ft and 192 ft may be the only expression of the Black Knight fault in the drill hole at Site E. If this is a correct assumption the tightness and lack of space prevented the deposition of uranium in the area immediately around the hole. The alternative possibility is that the trend of the Black Knight changes radically from that revealed at Site 2 such that intersection by the drill hole is impossible or would be deeper than 213 ft. The additional drilling as proposed should clear up the question. Drilling at Site B is presently underway.

Caleb V. Haynes Jr.
Caleb V. Haynes Jr.
Applicant & Geologist
4 November 1957

Radiometric Probe Results

From	To	Results
0	213	Background

Core log, Drill-holeEE, DMEA Contract No. Idm-E1132

Drill-run 1 0 to 30 ft.	No core recovered. Weathered, unconsolidated ground.
Drill-run 2 30 to 35 ft	3 ft of BX core recovered. Medium-grained granite-gneiss and granite pegmatite. Limonite-coated fractures in upper 2 ft parallel foliation and dip approximately 45°.
Drill-run 3 35 to 40 ft	2½ ft of BX core recovered. Quartz-biotite gneiss and granite pegmatite with accessory epidote(?). Some limonite coated fracture surfaces in mid-portion of core.
Drill-run 4 40 to 45 ft	2 ft of AX core recovered. Medium-grained granite-gneiss, pegmatite, and quartz-biotite schist.
Drill-run 5 45 to 48 ft	½ ft of core. Quartz-biotite schist.
Drill-run 6 48 to 53 ft	3 ft of core. Quartz-biotite schist with 4 in. of pegmatite in lower ft.
Drill-run 7 53 to 55 ft	2 ft of core. Granite-gneiss and medium-grained alaskite. Core breaks along foliation with limonite staining on fracture surface.
Drill-run 8 55 to 60 ft	2 ft of core. Medium-grained granite-gneiss with limonite-coated fracture surfaces, and soft, altered iron-stained quartz-biotite schist.
Drill-run 9 60 to 65 ft	4 ft of core. Granite-gneiss with limonite-coated fracture surfaces parallel to foliation.
Drill-run 10 65 to 70 ft	3½ ft of core. Same as run 9.
Drill-run 11 70 to 75 ft	4 ft of core. Pegmatite with limonite-coated fracture surfaces and migmatite of biotite schist and granite pegmatite.
Drill-run 12 75 to 80 ft	5 ft of core. Migmatite of biotite schist and granite pegmatite, and granite-gneiss with limonite-coated fractures paralleling foliation.
Drill-run 13 80 to 85 ft	4 ft of core. Granite-gneiss with limonite-coated fractures.

Core log, Drill-hole E (cont'd.)

Drill-run 14 85 to 90 ft	4 ft of core. Same as run 13.
Drill-run 15 90 to 95 ft	3 ft of core. Same as run 13.
Drill-run 16 95 to 98 ft	2 3/4 ft of core. Granite-gneiss with limonite-coated fractures and quartz-biotite schist with limonite-coated fractures, some non-parallel to foliation.
Drill-run 17 98 to 101 ft	1 3/4 ft of core. Quartz-biotite schist with a few limonite- and silica-coated fractures. 6 in. granite-gneiss at bottom of core.
Drill-run 18 101 to 104 ft	2 ft of core. Quartz-biotite schist and granite pegmatite with biotite altered to chlorite. A few fractures are cemented with silica.
Drill-run 19 104 to 109 ft	4 ft of core. Quartz-biotite gneiss and granite pegmatite.
Drill-run 20 109 to 114 ft	3½ ft of core. Quartz-biotite gneiss with pegmatitic zones.
Drill-run 21 114 to 119 ft	5 ft of core. Slightly chloritized quartz-biotite gneiss with traces of pyrite.
Drill-run 22 119 to 124 ft	5 ft of core. Slightly chloritized and chloritized quartz-biotite gneiss with traces of pyrite, and 3 in. pegmatite zone.
Drill-run 23 124 to 129 ft	5 ft of core. Chloritized and silicified quartz-biotite gneiss and granite gneiss.
Drill-run 24 129 to 134 ft	5 ft of core. Alternating 1-ft pegmatite zones and quartz-biotite gneiss and schist. No apparent chloritization.
Drill-run 25 134 to 140 ft	1¼ ft of core. Most of core lost. Quartz-biotite gneiss. Sludge indicates quartz-biotite gneiss.
Drill-run 26 140 to 145 ft	5 ft of core. Granite-gneiss - pegmatitic in parts.
Drill-run 27 145 to 150 ft	5 ft of core. Alternating, gradational, 1-ft zones of pegmatite and quartz-biotite gneiss.
Drill-run 28 150 to 155 ft	4 ft of core. Same as run 27.

Core log, Drill-hole E (cont'd.)

Drill-run 29 155 to 158 ft	3 ft of core. Biotie-granite-gneiss - poorly foliated.
Drill-run 30 158 to 161 ft	2½ ft of core. Granite-gneiss, quartz-biotite gneiss, chloritized biotite schist, and pegmatite.
Drill-run 31 161 to 166 ft	4½ ft of core. Chloritized biotite schist and gneiss with a few pegmatite stringers. A few flecks of pyrite.
Drill-run 32 166 to 171 ft	5 ft of core. Same as run 31 but with a portion of the core is serpentinized(?) (Pyroxenes and amphiboles occur in the area).
Drill-run 33 171 to 177 ft	5 ft of core. Alaskite pegmatite, granite-gneiss, and biotite gneiss, chloritized, and with scattered pyrite.
Drill-run 34 177 to 182 ft	5 ft of core. Granite pegmatite gradational to granite-gneiss - magnetite-quartz-garnet gneiss with chloritized biotite and scattered pyrite. Several flecks of molybdenite were noticed.
Drill-run 35 182 to 187 ft	5 ft of core. Magnetite-quartz-garnet gneiss chlorite. Pyrite occurs as scattered grains and as fracture fillings less than 1 mm thick. A fracture 2 mm thick contains calcite and an open space lined with calcite crystals.
Drill-run 36 187 to 192 ft	Same as run 35 but with a pegmatite zone in middle of core. Alsi more pyrite as fracture fillings. 4 ft of core.
Drill-run 37 192 to 198 ft	5 ft of core. Same as run 36.
Drill-run 38 198 to 203 ft	5 ft of core. Quartz-biotite gneiss with some chlorite. 1 ft is pegmatitic with a gray-green mineral (pyroxene of calcic feldspar).
Drill-run 39 203 to 208 ft	Magnetite-quartz-garnet gneiss and pegmatitic zone with pyroxene and serpentine (?). Some scattered pyrite and some calcite fracture filling. 5 ft. core.
Drill-run 40 208 to 213 ft	5 ft of core. Granite-gneiss with some biotite gneiss. No pyrite and no chlorite. Bottom of hole.

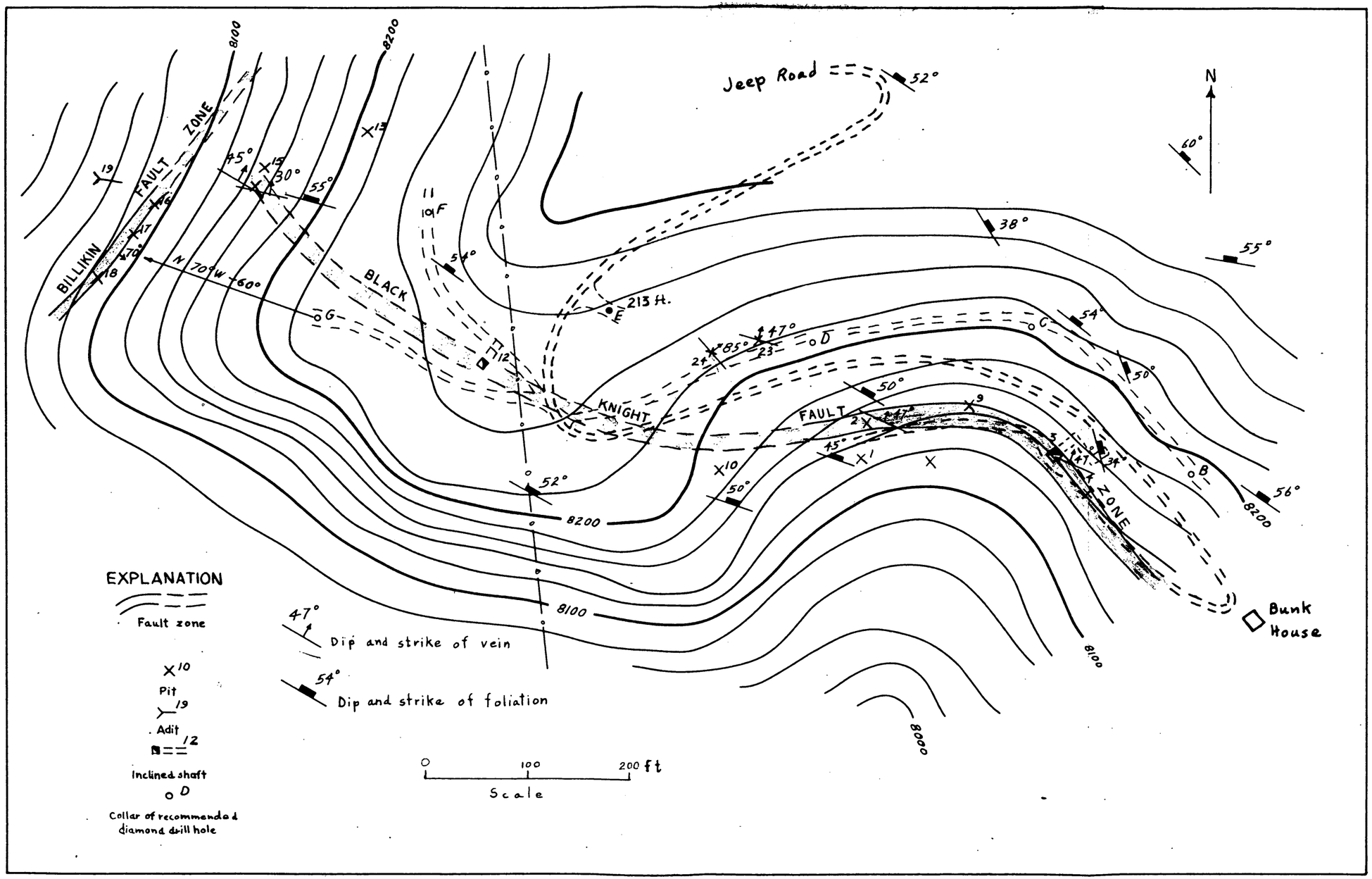
Jeep Road
52°
N
60°
55°
38°
54°
50°
56°
8100
8200
8000
BILLIKIN
FAULT
ZONE
N 70° W
60°
BLACK
KNIGHT
FAULT
ZONE
213 ft.
45°
30°
55°
47°
85°
50°
45°
52°
EXPLANATION
Fault zone
Pit
Adit
Inclined shaft
Collar of recommended diamond drill hole
Dip and strike of vein
Dip and strike of foliation
0
100
200 ft
Scale
Bunk House

Figure 1a.

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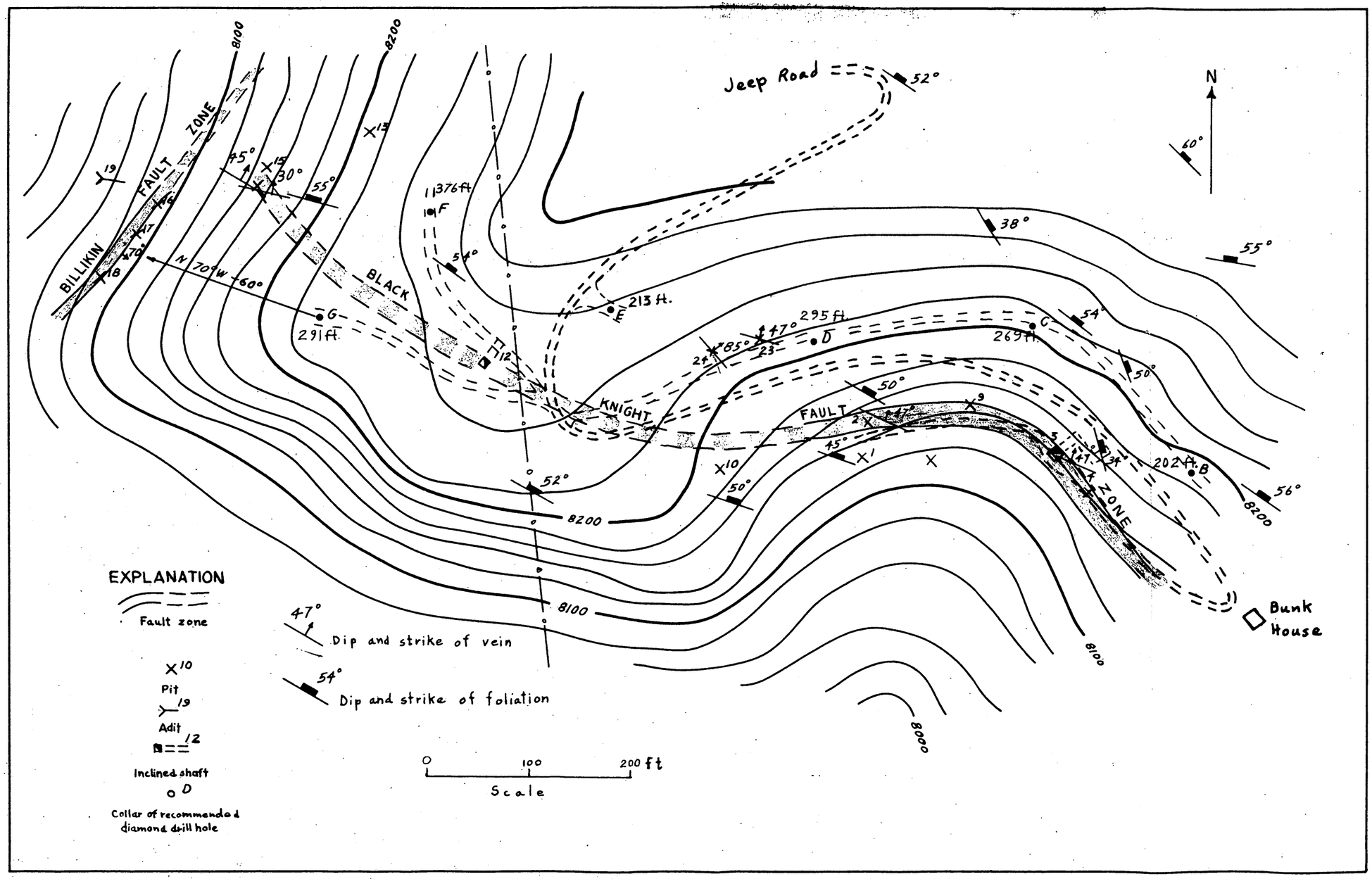

Figure 1. (revised)

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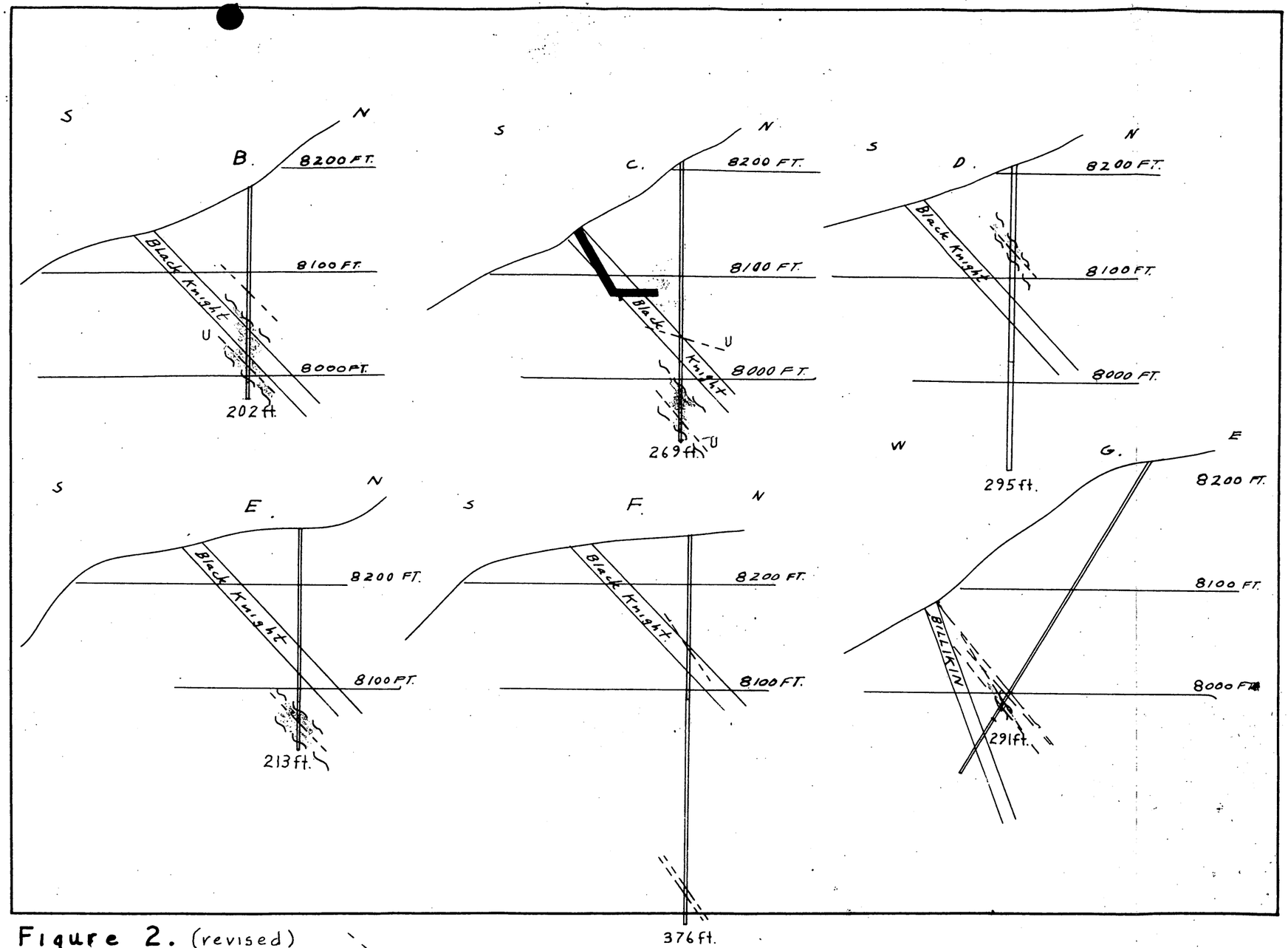

Figure 2. (revised)

Fault with apparent dip as indicated in drill core.

U Fault with evidence of uranium mineralization.

Magnetite-garnet gneiss zone indicated dip and thickness.

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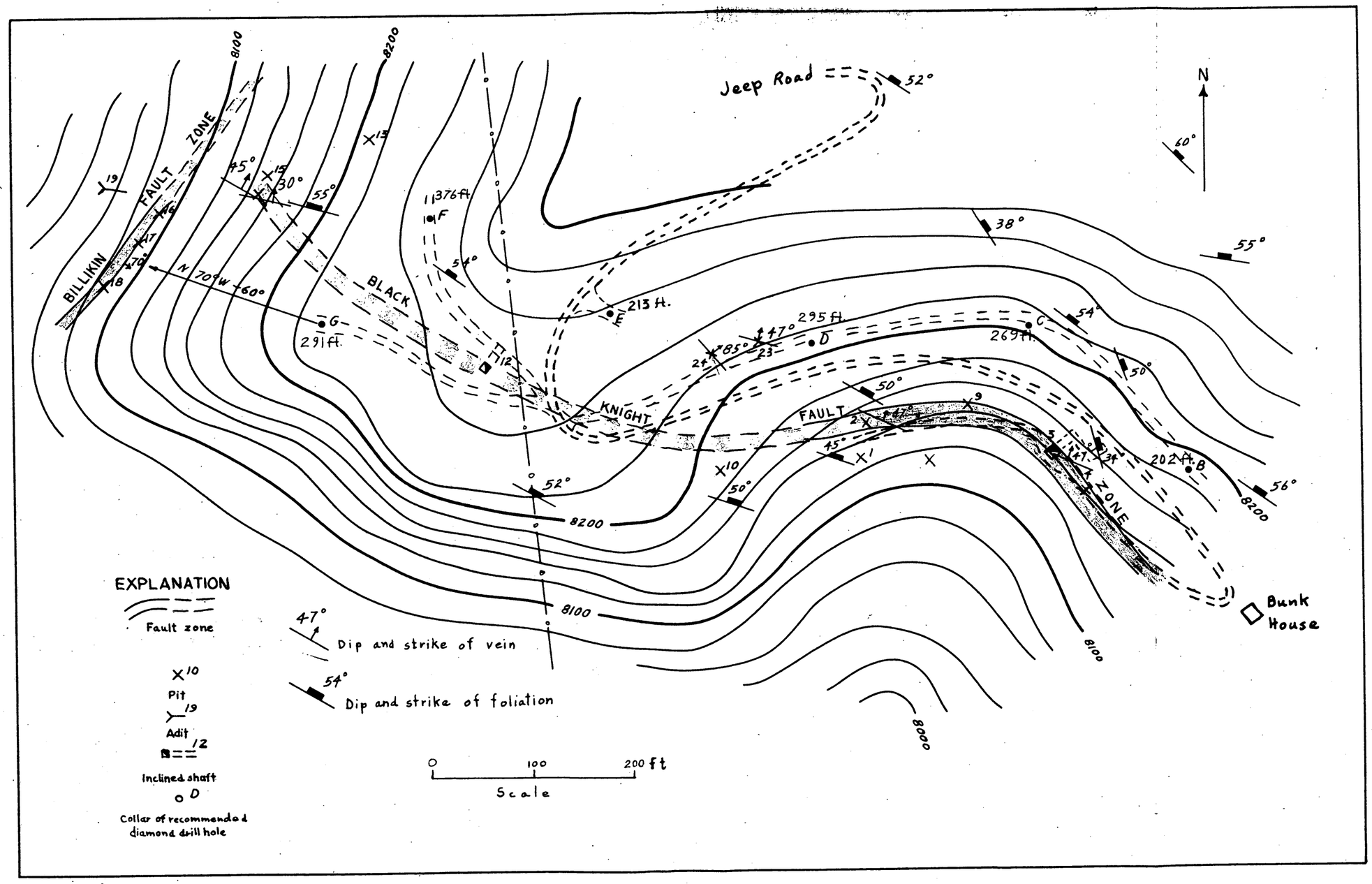

Figure 1. (revised)

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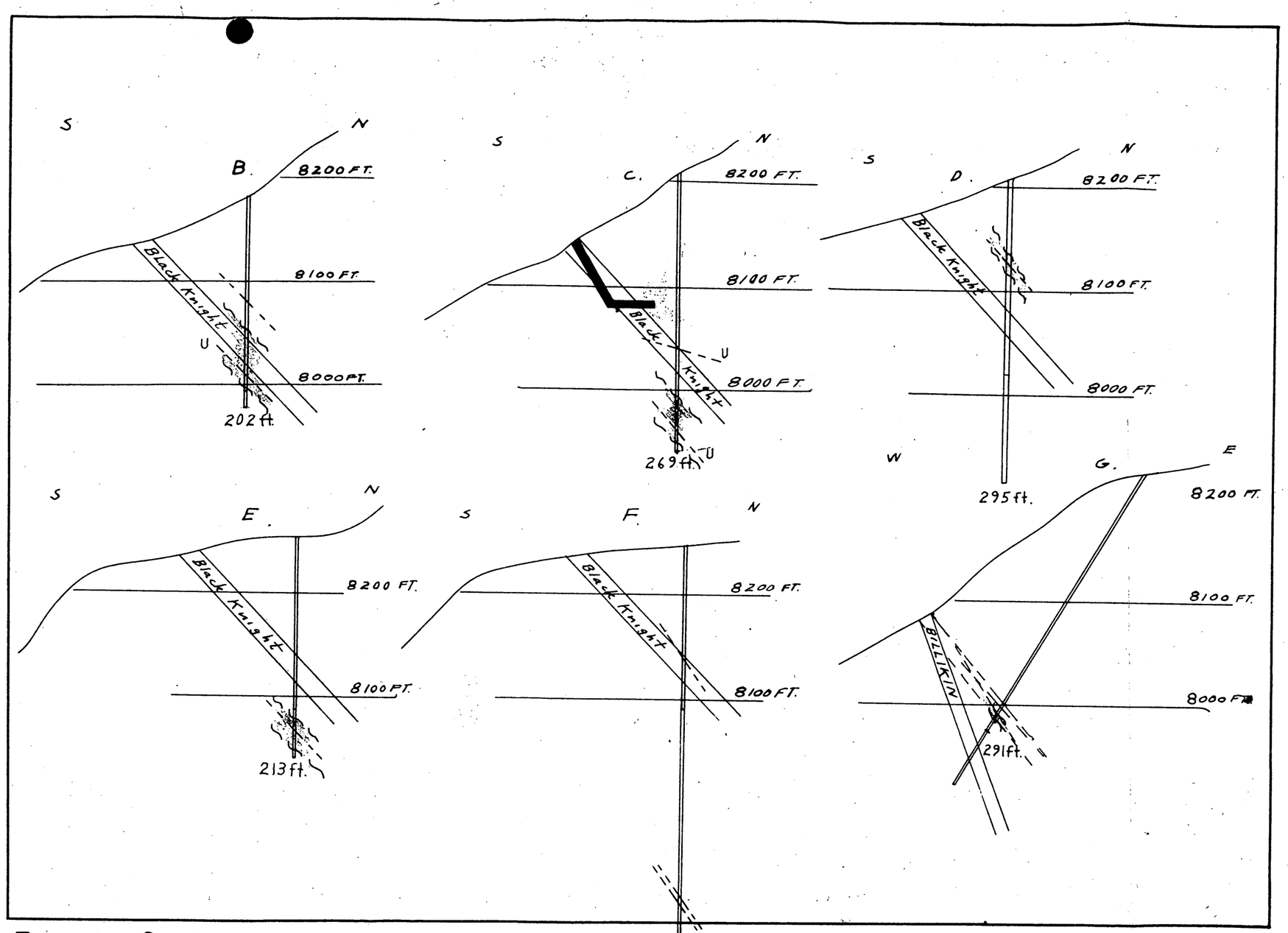

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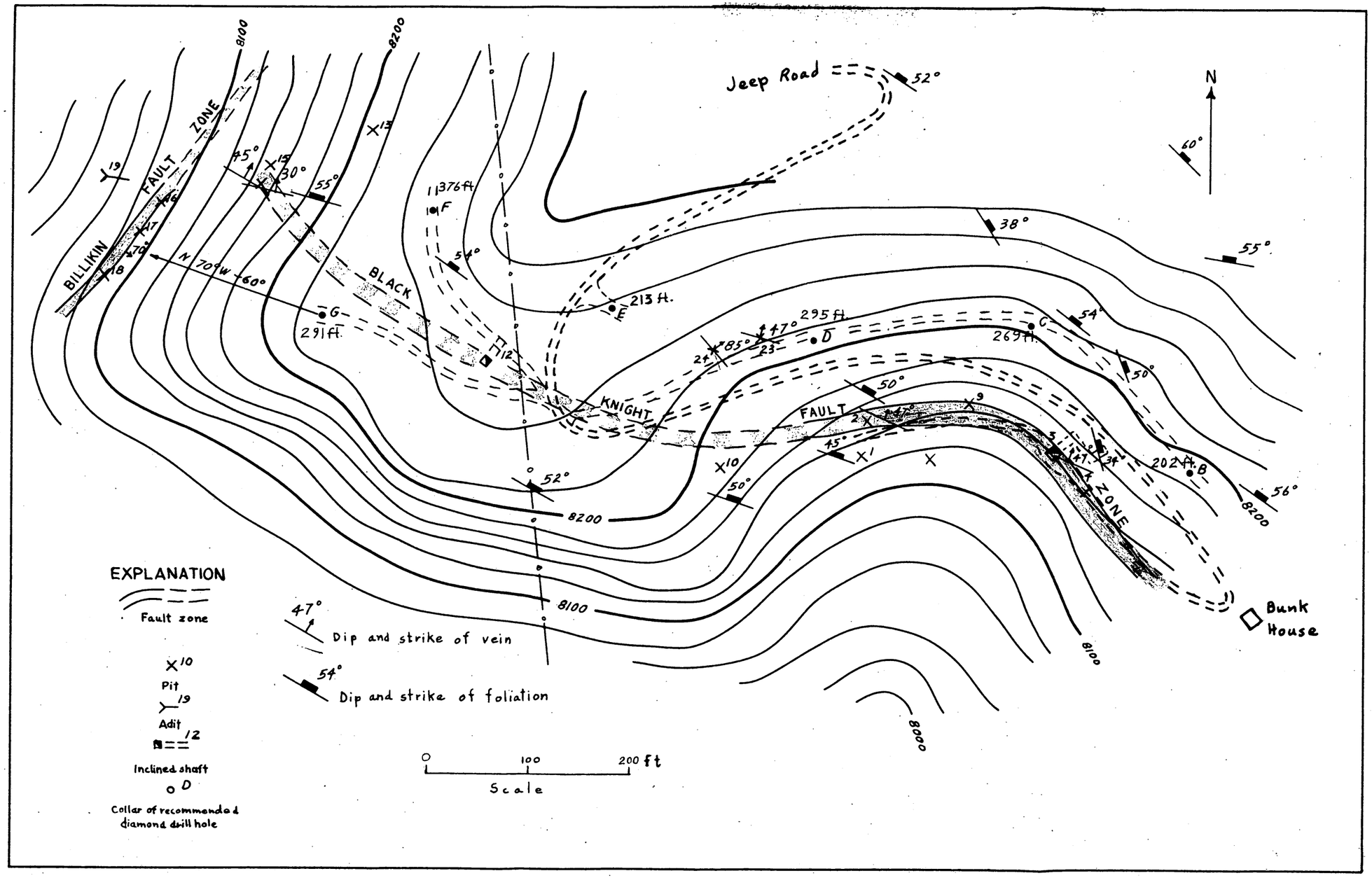

Figure 1. (revised)

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