DMEA 3669

DOCKET INDEX

ACTION DOCUMENTS

1. APPLICATION DATE RECEIVED 2-7-55

2. CONTRACT DATE 6-30-55

3. TERMINATION AGREEMENT: DATE

   a. Mutual (with/without repayment provision).
   b. Unilateral.
   c. Amendment with automatic termination clause and with/without repayment provision.

4. CERTIFICATION DATE

5. AUDIT REPORT DATE

6. AMENDMENTS - NUMBERS DATE

Docket copy RECEIVED

JUL 29 1955

(Ju[illegible]e 1954)

Docket No. DMEA - 3669

Commodity Uranium

Contract No. Idm-E 634

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

It is agreed this 30th day of June, 1955, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Globe Uranium, Inc., an Arizona corporation,

whose mailing address is 293 North Broad Street
Globe, Arizona,
hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and 2 maps.

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

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

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] owner of [5] the entire interest in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] —, [7] — recorded in Book —, page —, official records of said County; and

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

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows:

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

16—70618-1

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of uranium. The work to be performed is described in Exhibit "A." The Operator on or before August 15, 1955 shall commence the work, and on or before December 1, 1956 (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

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

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

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $49,285.00. The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $36,964.00 (rounded) *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 11. *Changes and added provisions.*—

Executed in sextuplicate the day and year first above written.

GLOBE URANIUM, INC.
(Operator)

By J. R. Heron

THE UNITED STATES OF AMERICA

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

Appd. Sol. Off.

I, CHUCK O. LEE, certify that I am the secretary of the corporation named as Operator herein; that J. R. HERON who signed this contract on behalf of the Operator, was then PRESIDENT of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Chuck O. Lee

[CORPORATE SEAL]

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

RECEIVED
JUL 2 0 1956

EXPLORATION PROJECT CONTRACT
GLOBE URANIUM, INC.
DOCKET NO. DMEA-3669

ANNEX I

The land referred to in Article 2 of the contract form is known as the Sue Mine and consists of twelve (12) unpatented lode mining claims, all owned by the Globe Uranium, Inc. The claims are located in the Sierra Ancha, Sections 24 and 25, Township 5 North, Range 14 East, and Sections 19 and 30, Township 5 North, Range 15 East, as is shown on the attached maps entitled "Figure 2 Claim Map - Sue Mine - Globe Uranium, Inc.," and "Figure - 3 - Sue Uranium Mine - Plan Showing Proposed Exploration," Gila and Salt River Base and Meridian, Gila County, Arizona.

The claims are recorded in the Gila County Recorder's Office, Globe, Arizona, as follows:

Claim		Docket	Page
Sue No. 9		6	113
Sue No. 10		6	114
Sue No. 11		6	115
Sue No. 12		6	116
Sue No. 13	Amended	7 10	61 467
Sue No. 15	Amended	7 10	265 469
Sue No. 16		6	117
Sue No. 17		6	118
Sue No. 18		6	119
Climax No. 1		15	81
Climax No. 2		15	82
Climax No. 3		15	83

EXPLORATION PROJECT CONTRACT
GLOBE URANIUM, INC.
DOCKET NO. DMEA-3669

RECEIVED
JUL 29 1955

EXHIBIT "A"

Description of the Work

The purpose of the work is to explore the upper member of the Dripping Springs quartzite formation of the Apache Group of pre-Cambrian Age, by drifting, crosscutting, and long-hole percussion drilling.

The work is divided into two stages. Stage I shall be started first, and shall be completed. The Operator shall also perform so much of Stage II work as is approved by the Government in writing in advance, performance to be done either after completion of Stage I or concurrently therewith as indicated by the Government.

Stage I

From the southwest face of Junction No. 1 adit, drift along the radioactive mineralized zone 500 feet in a southwesterly direction; and crosscut normal to the direction of the drift both easterly and westerly from the drift in the mineralized zone not to exceed 250 feet, at locations approved in writing in advance by the Government. From the drift and crosscuts under this stage, not more than 800 feet of long-hole percussion drill holes shall be drilled to explore the mineralized zone above the workings.

Stage II

From the southwest drift face completed under Stage I, drift along the radioactive mineralized zone in a southwesterly direction not to exceed 500 feet; and crosscut normal to the direction of the drift along the mineralized zone not to exceed 250 feet, at locations and in directions approved by the Government. From the drift and crosscuts under this stage, not more than 800 feet of long-hole percussion drill holes shall be drilled to explore the mineralized zone above the workings.

The work described in Stage I and Stage II is shown, in part, generally and tentatively, on the attached map, Figure 3.

General

All drill-hole diameters, locations, directions, and depths shall have the prior approval of the Government.

The Operator shall furnish the Government with such samples as it specifies, and the method of all sampling and of all sample analyses are subject to the approval of the Government. Not more than 155 samples shall be analysed for U_3O_8 and $CaCO_3$ for Stage I, and not more than 155 samples shall be analysed for Stage II.

All drifts and crosscuts shall be timbered as necessary and shall be not less than 5 feet by 7 feet in cross section in the clear of timber.

The project shall be directed for the Operator by an engineer approved by the Government, who shall devote at least thirteen days per month, or one-half of the time the project is operating, to the project work. Said engineer shall do the required surveying, mapping, sampling, and shall prepare all reports required under the contract.

Fixed Unit Costs

(The unit costs include all costs whatsoever necessary to complete the work.)

1500 feet of drifting and crosscutting @ $30.00/ft.	$45,000.00	
1600 feet of long-hole drilling @ $2.00/ft.	3,200.00	
310 sample analyses @ $3.50/sample	1,085.00	
Estimated Total Cost of Project		$49,285.00
Government Participation @ 75% rounded to		$36,964.00

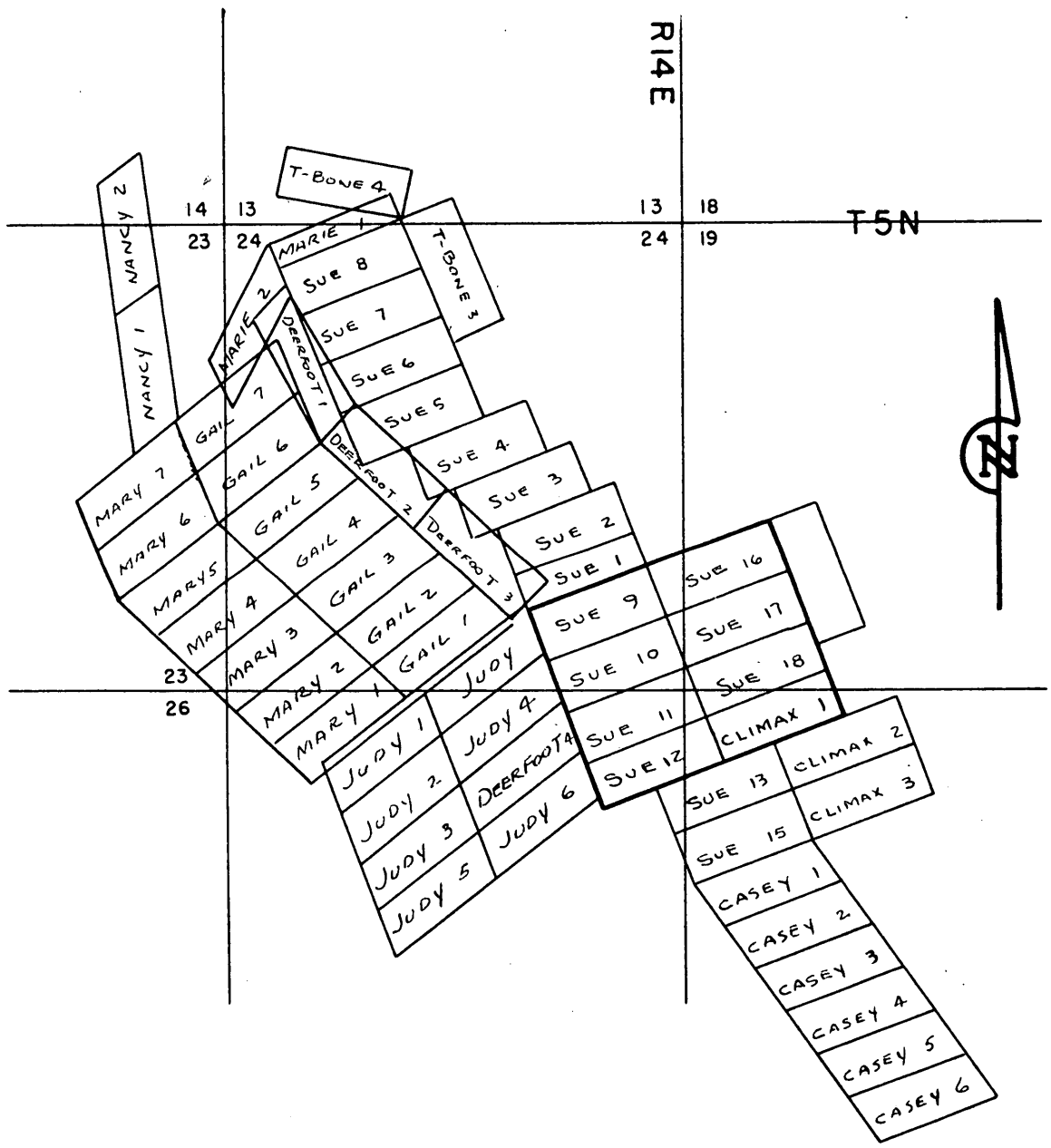

FIGURE 2 CLAIM MAP - SUE MINE - GLOBE URANIUM INC.

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

RECEIVED
JUL 2 0 1955

Customhouse
Denver, Colorado

July 26, 1955

Certified Mail

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3669 (Uranium), Contract Idm-E834, Globe Uranium, Inc. (Sue Mine), Gila County, Arizona

Enclosed are the Government, Division and Docket copies of the subject contract which was forwarded by your letter of June 30, 1955 for signature of the Operator.

The Operator's copy is being forwarded to him, a copy submitted to the Region III Finance Officer, copies distributed to the field offices and a copy retained in our files.

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

Enclosures

DMEA Form 7
(12-56)

Referred to my office april 25, 1957
Chambers

OFFICIAL FILE COPY

Date	Surname	Code
2/13	Knouse	700
2-13	Ellis	700
4-25	Chambers	800
5/15	Jeffrey	120
"	Duncan	110
"	Mittendorf	100

5/16

220
225

MAY 16 1957

Mr. J. R. Heron, President
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Docket No. DMEA-3669 (Uranium)
Contract No. Idm-R834
Sue Mine
Gila County, Arizona

Dear Mr. Heron:

Reference is made to your exploration contract with the Government.

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

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

Sincerely yours,

C. O. Mittendorf (for)

Administrator

FIKnouse/gla
2-13-57
cc to: Admr.'s Reading File
Code 700
Mr. Knouse
DMEA Field Team, Region III (2)
Contract Adm. & Audit Division

DMEA

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DMEA
RECEIVED MAY 6 1957

DATE	INITIALS	CODE
5/6	C	220
		225

DN 235 BUR MINES 5-3-47 XX 5-3-57 4-20

CHAIRMAN OPERRATING OCOMMITTEE DMEA

RE YOUR LETTER DATED 5-1-57, DOCKET DMEA-3669, ARIZONA GLOBE URANIUM, INC., CONTRACT IDM-834, FROM COPIES OF SETTLEMENT SHEETS RECEIVED AT THIS OFFICE, ALL RYXX ROYALTIES DUE FRMXX FROM THE SUBJECT PROPERTY HAVE BEEN PAID.

E N HARSHMAN ACTING EXECUTIVE OFFICER

Denver, Colorado

MAY 6 7 54 AM '57

BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.

DOCKET COPY

Project Summary Report

By: F. L. Knouse February 13, 1957

1. Docket No. DMEA-3669 (Uranium)
Contract No. Idm-E834

Operator: Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Property: Sue Mine - consists of 12 contiguous unpatented lode mining claims: Sue Nos. 9 through 13, 15, 16, 17, and 18, and Climax Nos. 1, 2, and 3, in secs. 24 and 25, T. 5 N., R. 14 E., and secs. 19 and 30, T. 5 N., R. 15 E., G. & S. R. M. & B., Gila County, Arizona.

Property Rights - Owner.

2. Contract dated June 30, 1955.

The project work was started on August 1, 1955, and was terminated in June, 1956, after Stage I work was completed.

Work Authorized -

A 2-stage drifting, crosscutting and long-hole drill program to explore the Dripping Springs quartzite formation, Apache group of pre-Cambrian Age, for uranium-bearing ore.

Stage I consisted of 500 feet of drifting from the existing face of the Junction No. 1 adit, 250 feet of crosscutting both sides of the drift, and 800 feet of long-hole drilling to explore the ore horizon in the quartzite.

Stage II consisted of 500 feet of drifting (extension of the Junction No. 1 adit), 250 feet of crosscutting both sides of the drift, and 800 feet of long-hole drilling to explore the mineralized quartzite, provided findings in Stage I justified a part or all of the work and, also, if approved by the Government. Only Stage I work was allowed by the Government.

Estimated and completed cost of the project work

Work Allowed	Est.Cost.	Work completed	
		Feet	Cost
1500 feet of drifting and crosscutting @ $30.00/ft.	$45,000.00	750	$22,500.00
1600 ft. of long-hole drilling @ $2.00/ft.	3,200.00	800	1,600.00

Estimated and completed cost of the project work
(continued)

Work Allowed	Est. Cost.	Work completed Feet	Work completed Cost
310 sample analyses @ $3.50/sample	$ 1,085.00	6	$ 21.00
Total	$49,285.00		$24,121.00
Government participation @ 75%	$36,964.00		$18,090.75

Amendments - None

Operator's final report, dated Oct. 26, 1956, recd. Nov. 7, 1956.

3. Audit Report of Review, dated October 16, 1956,

Total cost as billed by Contractor		$24,121.00
Exceptions:		
By DMEA Finance Officer	$0.00	
Herewith	0.00	0.00
Total Accepted Cost		$24,121.00
Government participation @ 75%		$18,090.75

Inasmuch as the work was done on a unit cost basis, no equipment was purchased in which the Government had an equity.

4. Certification:

The Field Team reports that the completed exploration work discovered or developed a few small, discontinuous scattered ore bodies from which about 265 tons of low-grade ore were shipped and royalties paid to the Government. A small quantity of ore remains in the mine in small, scattered ore bodies (possibly 200 tons), but these reserves are not considered minable in the present or foreseeable economic conditions. Therefore, certification of the project as a discovery is not recommended.

Mr. John E. Crawford, USBM, December 5, 1956, agrees that no certification of discovery should be issued.

Mr. W. P. Williams, USGS, December 13, 1956, writes: "About 265 tons of ore were shipped from the DMEA project area. Royalty payments were made to the Government from sales of the ore. Slightly over 185 tons of ore were shipped before the DMEA work took place; and that ore is exempt from Government royalty. - - - The possibility and feasibility of the ore being mined, however, will always be present. - - - In view of the foregoing I suggest that serious consideration be given to certifying the subject project as a discovery."

264.674 tons of ore containing 0.14 percent to 0.37 percent U_3O_8 were shipped from the DMEA project.

About 185 tons of ore containing from 0.10 percent to 0.24 percent U_3O_8 were shipped from the property before the DMEA project.

A review of the available information indicates that the royalties on future production from the property would not equal the cost of policing the project if it is certified as a discovery. Therefore, the project should not be certified.

Comments: Final Field Team report (by John N. Faick, Geologist, USGS, and T. M. Romslo, Engineer, USBM, dated November 14, 1956) received November 29, 1956.

The Operator submitted an acceptable final engineer and geological report. The Field Team reports that during the first few months the operations were inefficiently conducted largely because of an inexperienced foreman, inadequate equipment, and living accommodations for the workmen. During December, 1955, and afterward the work was conducted in an efficient manner.

The project was established to explore a uranium-bearing zone 1,000-1,200 feet long,about 300 feet wide, in nearly horizontal quartzite from 1 to 8 feet thick. The zone is an extension of a uranium-bearing quartzite bed explored by outcrop stripping and several hundred feet of underground workings from which 185 tonsof uranium ore were produced, and also was estimated to contain 2,500 tons of low-grade uranium-bearing material. A total of 500 feet of drifting, 250 feet of crosscut, and 800 feet of long-hole drilling were completed under the terms of the contract. The drift was driven from the face of Junction No. 1 adit drift S. 12° W., and three crosscuts were driven normal to the direction of the drift: No. 1 - 125 feet westerly, No. 2 - 50 feet westerly, and No. 3 - 50 feet easterly. Also, a total of 17 almost horizontal percussion drill holes totaling 800 feet were completed. In addition, the Operator drilled (at his expense) many 6-foot-long stoper drill holes to explore the overlying member. Each of the percussion drill holes were probed with a DG-9 Geiger counter equipped with a 9-inch probe and 100 feet of cable.

Small amounts of low-grade uranium ore is localized in nearby horizontal thin-bedded, shaley, flaggy sandstones. The uraniferous beds range from 1 to 8 feet thick, and the principal uranium concentrations are along or near the northern or easterly trending joints in the favorable beds. However, with increasing depth the host rocks become more massive-bedded, porosity decreases, and the fractures become tighter and less numerous. Stage I work resulted in the discovery of a few small bodies of low-grade ore (one contained about 200 tons and another about 40 tons) from which 265 tons of low-grade ore were shipped.

Probably not over 200 tons of ore remaining in the mine in small, discontinuous, scattered ore bodies.

The project was terminated after completion of Stage I work because of unfavorable findings.

Since there is no geological reason to expect to discover more numerous and larger ore bodies than has been found, additional exploration is not recommended. Sufficient ore was not discovered in the course of the contract work to justify certifying that a discovery or development had been made.

F. L. Knouse

F. L. Knouse

OFFICIAL FILE COPY

Date	Surname	Code
4-29	Ellis	700
4-30	Chambers	800
5/1	Selfridge	130
"	Johnson	116
"	Butterworth	100
		700
		700
5/2	C	220

MAY - 1 1957

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

Re: Docket No. DMEA-3669 (Uranium)
Contract No. Idm-1834
Arizona Globe Uranium, Inc.
Sue Mine
Gila County, Arizona

Dear Mr. Harshman:

Our records show that all royalties due from the subject project have been paid. However, before sending out our closing letter to the Operator next week (six months following receipt of the Operator's final report), we would like you to verify whether or not such is the case.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

Frank D. Lamb
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

EWEllis/gla/dlm
4-29-57
cc to: Admr.'s Reading File
Operating Committee
THKiillsgaard, 5224
Code 700

8623

OFFICIAL FILE COPY

Date	Surname	Code
3-7	Chambers	801
3-8	C	228

MAR - 8 1957

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

Re: First Report of Royalty Review
Idm-E834, DMEA-3669
Arizona Globe Uranium, Inc.

Dear Mr. Finch:

The recently submitted First Report of Royalty Review, covering the referenced project, is acceptable and normal distribution is authorized.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb
March 7, 1947

Copy ty: Docket
Admr. Reading File
Mr. Chambers

8623

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

IN REPLY REFER TO:

RECEIVED DEC 18 1956 D.M.E.A.

December 13, 1956

Memorandum

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of Final Report, DMEA 3669, Contract No. Idm-E834, Globe Uranium, Inc., Sue Mine, Gila County, Arizona. (Uranium)

The Field Team report that the Operator completed the work under Stage I of the subject contract. No further work in Stage II was authorized by field personnel because results in Stage I were discouraging.

The field examiners find that only a few small, discontinuous, scattered ore bodies were discovered by the project. They estimate that ore reserves now existing in the Sue Mine "probably do not exceed a couple hundred tons and probably are less." About 265 tons of ore were shipped from the DMEA project area. Royalty payments were made to the Government from sales of the ore. Slightly over 185 tons of ore were shipped before the DMEA work took place; and that ore is exempt from Government royalty.

Because uranium minerals are found in the Dripping Springs quartzite in discrete, fractured, flaggy, relatively thin beds in the upper member it seems unlikely that large-sized ore bodies will ever be developed on the Operator's property. The examining team's assertion that the small amount of ore discovered probably will never be mined seems to be correct. The possibility and feasibility of the ore being mined, however, will always be present. That possibility plus the fact that ore has been shipped and royalties paid to the Government gives the impression that the project should be certified as a discovery in order to protect the Government's interest.

In view of the foregoing I suggest that serious consideration be given to certifying the subject project as a discovery.

W. P. Williams

W. P. Williams

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

RECEIVED DEC 6 1956 D.M.E.A.

Date December 5, 1956

DMEA Docket No. 3669
DMEA Contract No. Idm-E834
Commodity Uranium
Name of applicant Arizona Glove Uranium, Inc.
Name of property Sue mine
Location of property Gila County, Arizona
Estimated cost of project $24,121.00

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Review of Final Report
(Application, Field Team Report, etc.)

1. Date of subject document: 11/20/56. 2. Date received by reviewer: 12/4/56.

3. Prior reports on this property known to reviewer: Yes ☐ No ☐

4. Prior reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked yes above:

8. Factors needing special consideration:
   a. Location ☐
   b. Ownership ☐
   c. Evidence of mineralization ☐
   d. Geology ☐
   e. Proposed exploration method ☐
   f. Alternate exploration method ☐
   g. Costs ☐
   h. _____ ☐

9. Action advised:
   a. Obtain information from applicant ☐
   b. Refer to Field Team ☐
   c. Denial ☐
   d. Agree with Field Team ☒
      i. Consult with Mr. _____ at _____ AEC office.
   e. Disagree with Field Team ☐
   f. Suggest alternate plan ☐
   g. Request another examination ☐
   h. Approval ☐

10. Remarks: (Use back of page if necessary) Mr. J. O. Hosted, Washington representative of the Atomic Energy Commission, assisted in the review. Certification of project as discovery or development is not recommended.

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT
Date 12-4

Referred to:

1. ~~Mr. Hittendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. ~~Docket Control Mails and Files~~
5. ~~Plans & Appr. Mail Division~~
6. Docket Control Mails and Files

Note comments in report regarding:

1. Question re certification
2.
3.
4.

and take appropriate action.

- - - - - - - -

Action taken by Division 2-12-57

A review of all available info. indicates that royalties on future production from the property would not pay the cost to obtain the patent of certificate. Therefore no certification is recommended.

Robert F. Adams

FJK.

12-10-56

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

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

224 New Customhouse
Denver 2, Colorado

November 20, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket No. DMEA 3669 (Uranium), Contract No. Idm-E834, Arizona Globe Uranium, Inc. (Sue mine), Gila County, Arizona - FINAL REPORT.

Enclosed are the original and three copies of a joint final engineering and geologic report, dated November 14, 1956, from John N. Faick, Geologist, Geological Survey, and T. M. Romslo, Mining Engineer, Bureau of Mines, and transmittal thereof from John N. Faick and T. M. Romslo, dated November 14, 1956.

The original and one copy of the Operator's final report were forwarded to you by memorandum of November 11, 1956.

Project work under the contract was deemed to be completed upon completion of the work authorized for Stage I, as results of the work completed did not warrant the Government's participation in further work under the contract and the Operator was so notified by the DMEA Field Team, Region III, by letter of July 10, 1956.

Final payment to the Operator was processed by this office November 5, 1956, in conformance with the Report of Review of reported project costs by the Contract Administration and Audit Division, dated October 16, 1956.

The exploration work completed consisted of 500 feet of drifting, 250 feet of crosscutting, and 800 feet of longhole percussion drilling, at a total accepted cost of $24,121.00, toward which the Government contributed 75%, or an amount of $18,090.75.

The exploration work completed under Stage I resulted in the discovery or development of a few small discontinuous

Reviewed by
DMEA OPERATING COMMITTEE
12-3-56
(date)

scattered ore bodies, from which about 265 tons of low grade ore were mined and shipped and royalties paid to the Government thereon as provided in the contract. A small quantity of ore remains in the mine in similar small discontinuous scattered ore bodies, but these reserves are not considered minable under present or foreseeable economic conditions. Therefore, under the circumstances, Certification of the project as a discovery or development as a result of the exploration work performed under the DMEA contract is not recommended.

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosures

cc: Allen E. Jones
Manager of Operations
Division of Raw Materials
Atomic Energy Commission
Grand Junction, Colorado

cc: Arthur E. Granger
Manager, Salt Lake Area Office
Atomic Energy Commission
Salt Lake City, Utah

IN REPLY REFER TO:
MINERAL DEPOSITS
DMEA
RECEIVED
NOV 19 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Box 4126 University Station
Tucson, Arizona

DMEA
DEPARTMENT OF THE INTERIOR
NOV 20 1956
REGION III
DENVER, COLORADO

GEOLOGICAL SURVEY
DENVER, COLORADO
RECEIVED
NOV 29 1956
D.M.E.A.

November 14, 1956

MEMORANDUM

To: Executive Officer, DMEA Field Team, Region III

From: John N. Faick
T. M. Romslo

Through: E. N. Harshman
W. L. Emerick
W. R. Storms

Subject: Docket DMEA 3669 (Uranium) Contract Idm-E834, Globe Uranium, Inc. (Sue Mine), Gila County, Arizona

Enclosed are the original and 10 copies of our final report on the DMEA exploration project at the Sue Mine.

J. N. Faick
John N. Faick
U. S. Geological Survey

T. M. Romslo
T. M. Romslo
U. S. Bureau of Mines

JNF:ms

cc: Harshman (10)
King
Storms
Emerick

Reviewed by
DMEA OPERATING COMMITTEE
12-3-56
(date)

DMEA
DEPARTMENT OF THE INTERIOR
NOV 30 1956
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NOV 29 1956
D.M.E.A.

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FINAL REPORT BY FIELD TEAM
REGION III

DMEA-3669 (URANIUM) CONTRACT Idm-E834

GLOBE URANIUM, INC. (SUE MINE)

GILA COUNTY, ARIZONA

John N. Faick, Geologist
U. S. Geological Survey

T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

November 14, 1956

Reviewed by
DMEA OPERATING COMMITTEE
12-3-56
(date)

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

SUMMARY AND CONCLUSIONS

The Defense Minerals Exploration Administration and Globe Uranium, Inc., during 1955 and 1956, jointly explored the Sue Mine under contract Idm E-834, Docket 3669. The Sue property, which is situated about 15 miles north of Globe, consists of 57 unpatented claims, of which 12 are subordinated to the Government under terms of the contract.

At the Sue mine a small amount of low grade uranium ore is localized in nearly horizontal thin-bedded, shaley, flaggy sandstones in the Dripping Spring quartzite of younger pre-Cambrian age. The uraniferous bed ranges from 1 to 8 feet thick, and the principal uranium concentrations are along or near the northerly or easterly trending joints in the favorable bed.

The property had been explored by about 660 feet of underground workings, consisting of 2 main adits, several drifts, crosscuts, and raises; prior to the company's application to the Government. Examination of the Sue mine indicated that further exploration was desirable and a 2-stage project was approved, with each stage consisting of 500 feet of drifting, 500 feet of crosscutting, and 800 feet of long-hole percussion drilling. Only the first stage of the work was completed, as the results did not warrant participation in the second stage. The total cost of the project was $24,121.00, of which the Government's share was $18,090.75.

Stage I work resulted in the discovery of a few small bodies of low-grade ore from which about 265 tons of low-grade ore were mined and shipped to the purchasing depot at Cutter, Arizona. Non-DMEA ore shipped amounted to 185 tons. The project was terminated in June 1956, and the Government denied the operator's request to participate in Stage II because of unfavorable findings under Stage I.

Probably not over 200 tons of ore remain in the mine, in small, discontinuous, scattered ore bodies. These small reserves are not economically minable under present or foreseeable conditions. Additional exploration is not recommended because there is no geological reason to expect results any better than obtained under Stage I.

DMEA-3669 (URANIUM) CONTRACT Idm-E834
GLOBE URANIUM, INC. (SUE MINE)
GILA COUNTY, ARIZONA

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RECEIVED 1956

INTRODUCTION

Globe Uranium, Inc., an Arizona corporation, requested assistance from the Defense Minerals Exploration Administration, as authorized by the Defense Production Act of 1950 as amended, to explore for uranium in the Sue mining claims in the Sierra Ancha mountains, Gila County, Arizona. The application, docket DMEA 3669 (Uranium), which was received by DMEA early in 1955, was reviewed by R. D. Trace and John E. Crawford, members of the Uranium Commodity Committee, and the application was referred to the field for an examination and a report.

The Sue mine was examined on behalf of DMEA April 5 and 6, 1955, by J. N. Faick, U. S. Geological Survey, and W. H. Hardwick, U. S. Bureau of Mines. The examiners were accompanied by W. W. Sorsen, Mine Manager, who represented the applicant company, Globe Uranium, Inc. As a result of the DMEA field examination, it was decided that the property was worthy of additional exploration and contract No. Idm E-834 was granted to Globe Uranium, Inc. to explore the property in 2 stages.

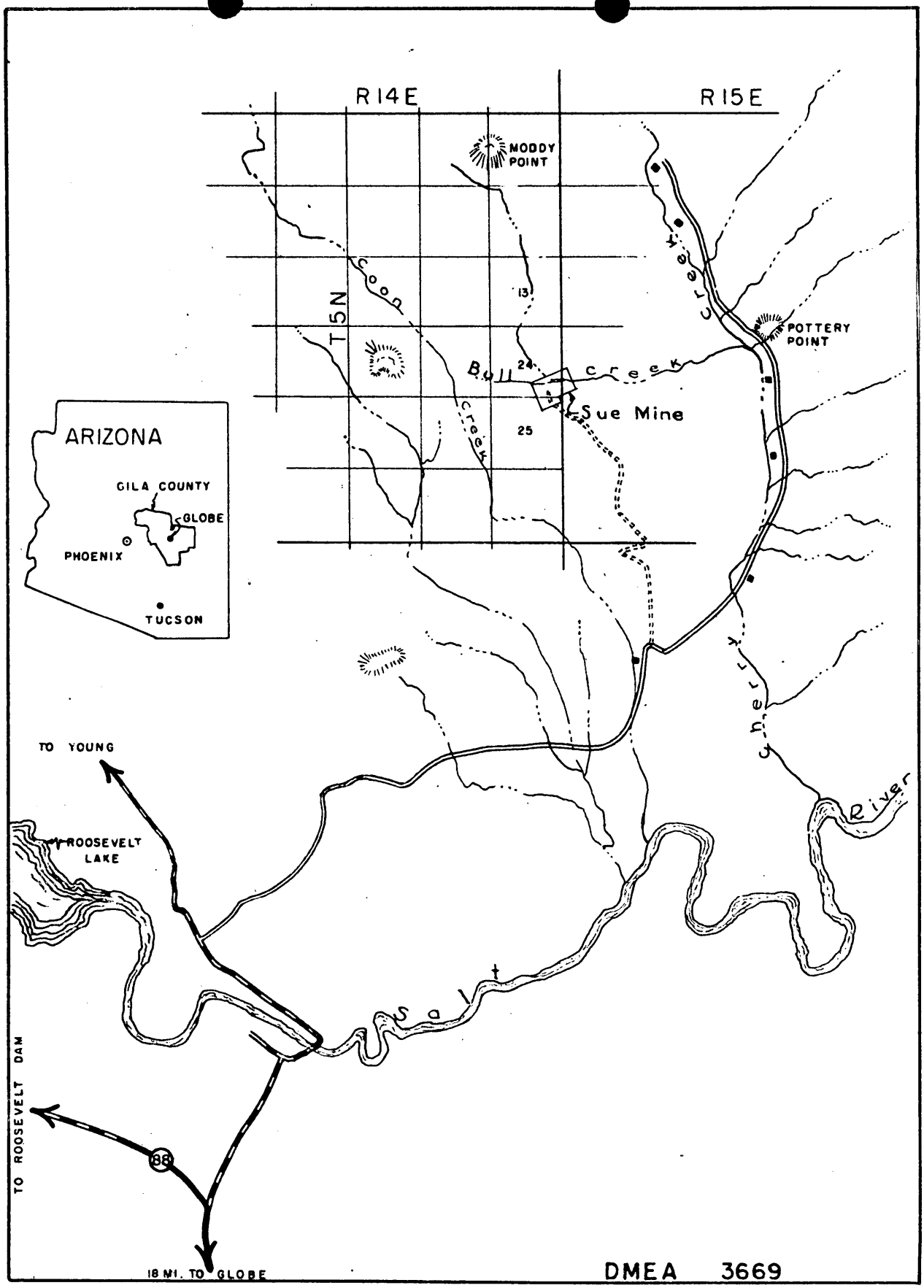
The property previously had been studied in detail for the Atomic Energy Commission by R. J. Schwartz and E. D. Mace, and the results of these studies were made available to the examiners for inclusion in their report. Also included in their report was data made available by H. C. Granger and A. F. Shride, both of the U. S. Geological Survey.

1956

LOCATION, ACCESSIBILITY, PHYSICAL FEATURES AND CLIMATE

The Sue mine is situated near the head of Bull Canyon, a tributary of Cherry Creek in the McFadden Peak quadrangle in Gila County, Arizona, approximately 15 airline miles north of Globe (see fig. 1). It is described as being situated in secs. 24 and 25, T. 5 N., R. 14 E., and secs. 19 and 30, T. 5 N., R. 15 E. The mine is reached from Globe by 15.7 miles of paved State highway, 17.1 miles of graded County road, and 5.2 miles of recently improved mine access roads. To reach the Sue mine from Globe drive west on U. S. Highway 60 to the junction with Arizona Highway 88, turn north at this junction and proceed 14 miles to the Young turnoff and follow this road for 6.9 miles to the Cherry Creek road, and drive east on the Cherry Creek road to Coon Creek. At a point 0.7 mile east of the cattle guard at the Coon Creek ranch, turn north onto the recently completed AEC road and proceed 4.8 miles to the easterly branching mine road. The access road, 0.6 mile long, terminates at the main adit of the mine. During wet weather a 4-wheel drive vehicle is preferable for the last 5 miles.

The Sue claims are in an area of relatively rugged topography characterized by plateaus and mesas into which narrow canyons have been deeply incised. Differences in elevation of 1,000 feet in a horizontal distance of half a mile are not uncommon, and in many places there are vertical cliffs ranging from 30 to 300 feet in height. The Sue mine occupies an area of comparatively low relief on the high ridge between Bull Canyon and Coon Creek.



- FIGURE 1 -
LOCATION MAP - SUE MINE - GLOBE URANIUM INC.
GILA COUNTY, ARIZONA

The climate is mild; however, snowstorms may interrupt work for short periods in the winter time. The precipitation ranges from 15 to 18 inches, most of which occurs as heavy snowstorms in December and January or as torrential thunderstorms in July and August. Sparse vegetation consists of juniper, pinon pine, live oak, and various grasses and cacti.

Water supply is available from Cherry Creek 3 miles east and 1500 feet below the Sue claims, or in Coon Creek $4\frac{1}{2}$ miles west and 500 feet below the Sue claims. Labor and general mining supplies are available in Globe, a distance of about 40 miles by road from the mine.

PROPERTY OWNERSHIP AND EXTENT

Globe Uranium, Inc. is reported to control in excess of 300 unpatented claims, of which the 57 claims, shown on figure 2, constitute the group known as the Sue Mine. Only 12 claims, including the Sue Nos. 9 to 13 and 15 to 18, and Climax claims 1 to 3, were subordinated under the contract because it was decided that only these claims would be benefited by the exploration project. These claims were subject to royalty payments for the purpose of the contract.

The Globe Uranium, Inc. maintained an office at 31 West Monroe Street, Phoenix, Arizona. Officers of the corporation are J. R. Heron, President, and C. O. Lee, Secretary-Treasurer.

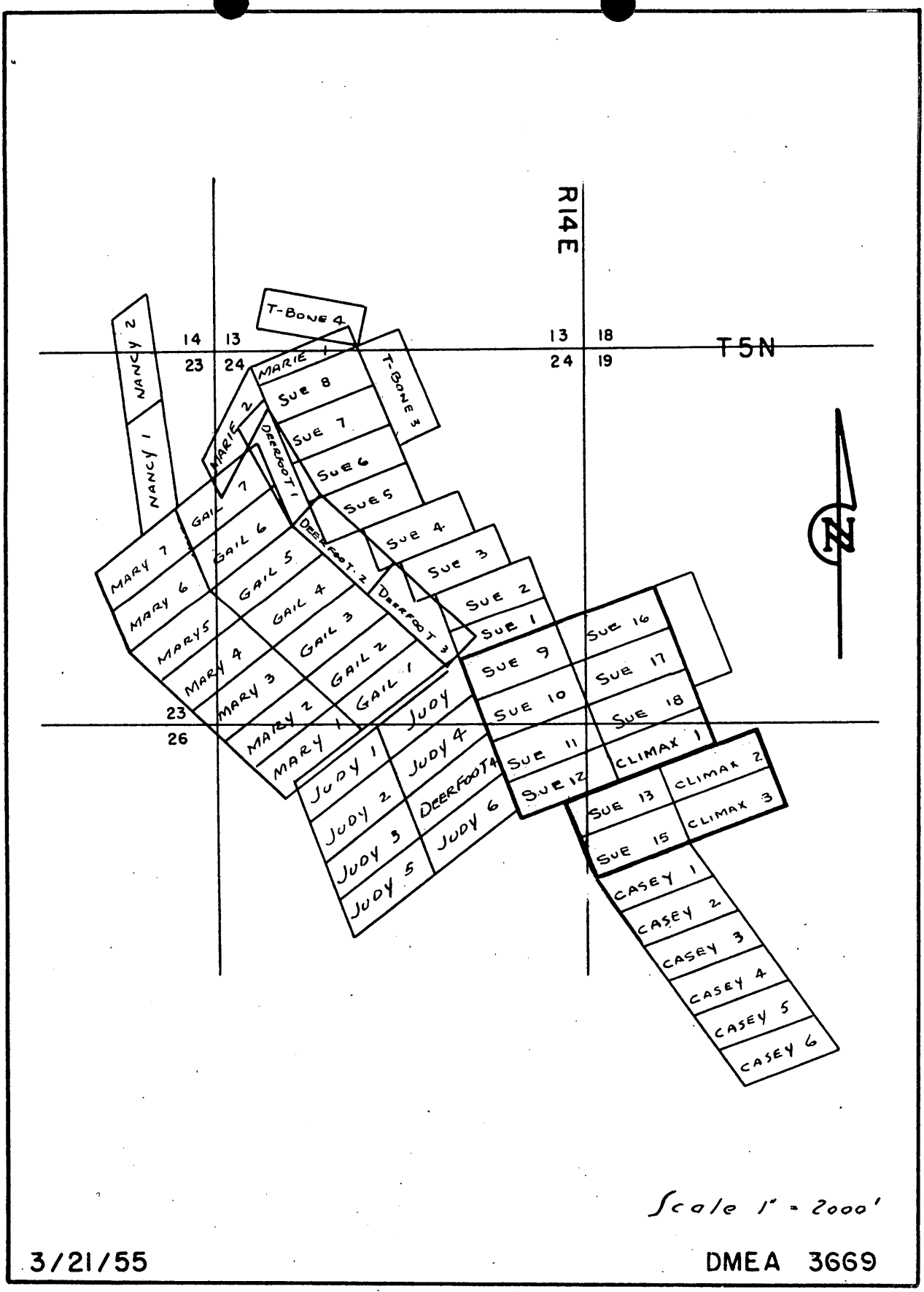


FIGURE 2 CLAIM MAP - SUE MINE - GLOBE URANIUM INC.

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NOV 29 1956
E.M.E.A.

HISTORY

Uranium was first discovered in the Dripping Spring quartzite in Gila County, at the Red Bluff prospect in 1950, and several other discoveries were made shortly thereafter. Aerial radiometric surveys made over large areas by the AEC attracted attention to a number of radioactive anomalies in the Sierra Ancha Mountains. One of these anomalies was at the Sue Mine area. Here Mr. K. C. Heron located a large number of claims in 1954 and subsequently he and his brother J. R. Heron and C. O. Lee, formed Globe Uranium, Inc., for the purpose of developing the claims. Exploration of these claims at Company expense started in 1954. About 5 miles of rough access road was built to the mine, and this was replaced by a good improved road built by the county and AEC early in 1956. When the examiner visited the property in April 1955 it had been explored by adit No. 1 about 175 feet long, by adit No. 2 about 105 feet long, and by about 380 feet of drifts, crosscuts and sub-levels, and a couple of raises each a few feet long. The outcrop of the orebearing zone was stripped for about 1200 feet and a number of surface and sub-surface radiometric traverses had been made. This early exploration work resulted in mining a few hundred tons of ore that was stockpiled at the mine to await completion of the AEC purchasing depot near Globe, Arizona. About 185 tons of it was shipped in 1955 under AEC contract No. AT 05-1-440 and AEC license No. P-2225. The ore shipped contained from 0.10 to 0.24 percent U_3O_8.

GENERAL GEOLOGY

The Sue Mine area (see fig. 3) is underlain by nearly horizontal sedimentary formations of pre-Cambrian age, which rest upon a granitic complex of older pre-Cambrian rocks. Diabase sills and dikes, probably of later pre-Cambrian age, intrude the pre-Cambrian formations.

The most widely distributed formations in the area are limestones and clastic sediments belonging to the Apache group of the younger pre-Cambrian. Brief descriptions of these formations are given in Plate I, a generalized stratigraphic section appropriate for Gila County and adjacent areas in Central Arizona. The Dripping Spring formation of the Apache group is noteworthy in that it exhibits higher radioactivity than is normally found in the surrounding rocks. Only the upper member of the Dripping Spring is known to contain notable amounts of uranium and most of it has been found in the middle unit of the upper member. Most of the more significant concentrations of uranium discovered to date occur within an interval that lies from 50 to 150 feet above the base of the upper member.

GEOLOGY OF THE MINE AREA

The ore zone at the Sue Mine was explored by a 1000-foot long bench cut along the outcrop of the mineralized stratum and by approximately 1445 feet of underground workings within an area about 150 to 200 feet wide from east to west and about 700 feet long from north to south. These workings explored a stratum from about 1 to 8 feet thick in which small amounts of uranium are erratically distributed.

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

224 New Customhouse
Denver 2, Colorado

November 16, 1956

Mr. C. O. Lee, Secretary-Treasurer
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Docket DMEA 3669 (Uranium), Contract Idm-E834, Arizona Globe Uranium, Inc. (Sue Mine), Gila County, Arizona

Dear Mr. Lee:

To bring our royalty files current, you are requested to submit an original and six (6) copies of a statement regarding your status of eligibility to receive AEC bonus payments for production of the first 10,000 lbs of U_3O_8 from land subordinated to the Government by the terms of Contract Idm-E834.

Yours very truly,

Original signed by
W. M. TRAVER

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

MHM/vj

cc: Royalty File E834
Corres. File E834
Sec. Opr. Comm. (2)
S. R. Wilson
Marshall
Chron.

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

224 New Customhouse
Denver 2, Colorado

November 5, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3~~9~~69 (Uranium), Contract No. Idm-E834, Arizona Globe Uranium, Inc. (Sue mine), Gila County, Arizona

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

Final payment to the Operator will be processed by this office today, in conformance with the Report of Review of reported project costs by the Contract Administration and Audit Division, dated October 16, 1956.

W. M. Traver

W. M. Traver

Enclosures

MINERS, DEVELOPERS, SHIPPERS OF URANIUM ORE

arizona globe uranium, inc.

MINING OFFICE: 293 North Broad Street Globe, Arizona

GENERAL OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

November 1, 1956

DMEA
DEPARTMENT OF THE INTERIOR
NOV 5 1956
REGION III
DENVER, COLORADO

United States Department of the Interior
Defense Materials Exploration Administration
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA 3669 (Uranium)
Contract Idm-E 834
Sue Mine
Gila County, Arizona

RECEIVED
NOV 7 1956

FINAL ENGINEERING
AND GEOLOGIC REPORT

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

Gentlemen:

In response to your letter dated August 31, 1956, we submit herewith our final engineering and geologic report as required under Article 6 (c) of the subject contract. We further request the release to your office of a Report of Review of contract expenditures by the Contract Administration and Audit Division, DMEA. We are at this moment unaware of the procedure to follow in effecting the aforesaid release, but stand ready to write such letters and make such authorizations as you may instruct, if that should be necessary.

Yours very truly,

ARIZONA GLOBE URANIUM, INC.

C. O. Lee
Secretary-Treasurer

cc: Mr. W. R. Storms
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

FINAL ENGINEERING AND GEOLOGIC REPORT ON SUE MINE GILA COUNTY, ARIZONA

* * * * * *

DMEA
DEPARTMENT OF THE INTERIOR
NOV 5 1956
REGION III
DENVER, COLORADO

SUBMITTED BY : ARIZONA GLOBE URANIUM, INC.
31 WEST MONROE STREET
PHOENIX, ARIZONA

SUBMITTED TO : UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 NEW CUSTOMHOUSE
DENVER 2, COLORADO

RECEIVED
NOV 7 1956
D.M.E.A.

ATTENTION OF : MR. W. M. TRAVER
EXECUTIVE OFFICER, DMEA
FIELD TEAM, REGION III

RE : DOCKET DMEA 3669 (URANIUM)
CONTRACT Idm-E834
SUE MINE
GILA COUNTY, ARIZONA

SUBMITTED BY : RICHARD W. HENES
GENERAL SUPERINTENDENT & ENGINEER

DATE : OCTOBER 26, 1956

The purpose of the work at the Sue Mine since early in 1954, and more particularly since August, 1955, when operations under that certain U. S. Government loan, DMEA 3669, were begun, has been to explore the upper member of the dripping springs quartzite formation of the Apache Group of pre-Cambrian age, by drifting, crosscutting and long-hole percussion drilling.

Work since August, 1955, under DMEA 3669 has resulted in 750 feet of tunnel having an average 6' x 8' cross section and an average 3% grade.

The first 300 feet of tunnel were driven by drilling with two J40 Ingersoll Rand jackhammers using 24" Copco air legs and six foot 1" hexagonal integral carbide crossbit steel with 1.25-1.50" bits. 23-hole six-foot rounds were drilled with four and five hole burn cuts, and shot satisfactorily with ammonia-gelatin dynamite and nitro-starch powder, ranging in volume strength from 40% to 65%, depending upon the ground. The remaining tunnel was drilled with two S58 Gardner-Denver jackhammers using 30" Swede air legs and six foot 1" hexagonal integral carbide crossbit steel with 2.00" bits. This work, using larger bits, proved more efficient, as 23 hole rounds with five hole burn cuts were shot almost without bootleg using 65% volume strength nitro starch powder. All shooting was done with fuse and cap exploders.

An Eimco 12-B mucking machine was used in loading Card 3/4 ton mine cars with 6" side boards, and tramming was done by hand, for the entire work.

A Chicago Pneumatic 365 cfm diesel driven rotary compressor proved to be an economical and dependable source of air for actuating the mucking machine and jackhammers and adequate air was available at all times for full scale operation, even at the end of 650' of 2" pipe and 50' of 3/4" air hose.

Other equipment employed at and around the mine during DMEA operations included two 1½ ton dump trucks for hauling ore from the mine portal to the stockpile site, a 12" centrifugal mine ventilation blower driven by a four cylinder continental gasoline engine and connected with 12" and 8" flexible ventilation tubing, three four-wheel-drive vehicles, two pickup trucks, one Chicago pneumatic 105 cfm gasoline driven compressor, one LeRoi Tractair 105 cfm compressor, one WJ-55 jackhammer, one WR-31 stoper, one CP-32 drophammer, one 5 HP Worthington slusher, one 7½ HP Gardner Denver slusher, two heavy liners, one Model 4010 Phillips Geiger counter, one Model DG-9 Detectetron Geiger probe counter, two model 111 Precision Scintillators, one gasoline powered bit grinder, one gasoline powered centrifugal water pump, one oxy-acetylene welding outfit, one D-2 Caterpillar crawler tractor, two 250 gallon water tanks, and other miscellaneous small tools and equipment.

To recap generally, the Sue property area lies near the edge of the Mexican Highland and the Colorado Plateau, which gives rise to a butte and mesa topography that has been deeply incised by streams, giving steep sided canyons.

All the consolidated rocks in the area are considered to be of pre-Cambrian age, with the possible exception of the Apache diabase. The earliest rocks in the area are designated as Pinal schist, a thinly laminated sericitic variety, and certain granitic rocks that intrude the schist. Both the schist and the granite are described as older pre-Cambrian, and were subjected to a long period of erosion before the deposition of the succeeding formations.

Resting on the eroded surface of the older pre-Cambrian rocks is the Scanlan conglomerate. This formation varies from place to place. Generally, it is about five feet thick, and consists of sub-angular unclassified cobbles.

The Scanlan conglomerate is overlain conformably by the Pioneer shale. This formation consists of dark reddish brown sandy shale, composed largely of fine, granitic detritus and little or no calcareous material.

Overlying the Pioneer shale is the Barnes conglomerate, which consists of smooth cobbles of white vein quartz, and hard, vitreous, pink and white quartzite in an arkosic matrix.

The Dripping Spring quartzite lies comformably above the Barnes conglomerate, and is composed of a fine arkosic quartzite similar to the matrix of the underlying Barnes conglomerate. The lower third of the Dripping Spring quartzite formation consists of a hard, fine grained quartzite, which generally shows no definite division into distinct beds, and weathers to a lighter color than the upper member. Generally, the top of the lower member forms a well defined bench. The upper member consists of alternating beds, from a few inches to several feet in thickness, of a grayish silty quartzite, and a gray to tan, sandy arkosic quartzite. All beds weather to various shades of brown depending on the amount of pyrite present.

The ore horizon is generally located from 50 to 100 feet above the bottom of the

upper member. The flaggy beds below the ore horizon generally erode to a distinct slope in contrast to the beds in the ore horizon, which present a more or less vertical face of from six to forty feet in thickness. Above this horizon, the flaggy beds again erode to a slope for a vertical distance of up to 150 feet.

The Dripping Spring formation is believed to have been deposited in shallow water, giving as principal evidence the presence of ripple marks, sun cracks, and worm casts, visible on the surface of the beds. This is particularly noticeable in the flaggy sections of the Dripping Spring formation.

The Mescal limestone, characterized by many thin lenticular bands of chert, is a light gray to white limestone in beds one to four feet in thickness. Although remnants of this member are scattered throughout the area conformably overlying the Dripping Spring quartzite, most of the Mescal formation has been removed by erosion.

The younger pre-cambrian sediments overlying the Pinal schist are known as the Apache series. Diabase dykes and masses intrude the Apache sediments. Their intrusion was accompanied or preceded by extensive faulting, which divided the strata into numerous blocks. The diabase not only forced its way between the strata, but filled the fault fissures and forced the blocks apart. The dominant form is the intrusive sill which has been regular throughout the vicinity, and which, in lifting the brittle quartzite, has caused the extensive fracturing. The fracture system is great in extent, and has probably been responsible for the infiltration of mineralizing solutions throughout the formation.

The Apache diabase intrudes the Troy diabase, and may even be Mesozoic in age. The asbestos deposits of Arizona are associated with the Apache diabase.

As mentioned above, the Globe uranium district lies near the edge of the Colorado plateau. Formations are generally flat lying with dips less than 15°. The area has been cut by numerous block faults, which results in the Dripping Spring quartzite being present at the various elevations throughout the area. The horizontal attitude of the formations has been little disturbed by this faulting except for vertical movement retained in the various blocks.

This faulting and diabase intrusion has fractured the Apache series, particularly the more brittle ore-bearing series of the Dripping Spring quartzite.

Development work, including DMEA exploration, has been confined to the Sue #16, #17 and #18 claims, where initially a 1000 foot bench cut in the favorable uranium bearing horizon of the Dripping Spring quartzite exposed about 400 feet of that formation.

Two adits and two sub-levels have been driven in the radioactive zone. Junction #I adit was first driven on a well defined, almost vertical fracture in a grey siltstone bed dipping about 3° to the south. 180 feet of drifting and 90 feet of crosscutting were carried out in this horizon before it was determined that the work was slightly below the ore horizon, and a short raise was driven into the ore above. By the end of May, 1955, about 300 feet of sub-level drifting was done and several hundred tons of development ore had been segregated in three dumps according to indicated grade. These dumps were subsequently exposed to the leaching effect of rains pending completion of an ore buying station near Globe, Arizona, and shipments ranged in grade from 0.10% U_3O_8 to 0.24% U_3O_8. It was

decided not to ship most of this ore because of its too low grade.

This work proved that southerly trending fractures displayed highest radioactivity. The sub level drift followed a N 12° E fracture which produced an ore face varying in height from six to eight feet, in width from three to ten feet, and holding for approximately 180 feet in length.

At DMEA station 170+00 the Junction #I adit ran into a highly oxidized, iron stained rock, which became less oxidized in nature at DMEA station 350+00. No appreciable uranium mineralization, other than sparse secondary mineral coatings on sporadic fractures, was encountered to the end of the drift, at DMEA station 550+00. This condition leads to the conclusion that the oxidized zone cut off the occurrence of the uranium mineralization.

Crosscuts were driven 75 feet east at DMEA station 410+00 and 50 feet west at DMEA station 330+00, at which stations there were anomalously radioactive fractures, but no appreciable ore zones were uncovered in either of these crosscuts or in adjacent areas which were explored with long hole percussion drilling.

At DMEA station 135+00 a crosscut was driven west along a radioactive east-west fracture, which intersected a highly radioactive southerly trending fracture at 47 feet. A sub level drift was driven north and south on this fracture, with the north portion intersecting an ore body at 30 feet, which produced approximately 200 tons of ore ranging in grade from 0.14% U_3O_8 to 0.37% U_3O_8. This ore body presented a working face of ore ranging from four to six feet in height and from three to twelve feet in width.

At DMEA station 52+00 a sub level crosscut was driven west along a small ore body until it broke into the old sub level drift. Some insignificant ore production resulted here, while a short sub level crosscut to the east produced no ore.

The uranium bearing zone at the Sue property has been found so far to be in a brittle uranium bearing member of the Dripping Springs quartzite, which is from four to six feet thick in the sub levels of the mine. Metatorbernite is the most prevalent occurrence, but bassetite, uranocircite and uraniferous hyalite ore are also common. No primary minerals have been conclusively identified, but the ore is believed rather to be colloidal uranium or uranyl ions which were originally absorbed on clay. Even at depth certain beds are bleached and others stained dark by oxidized iron minerals.

The mineralization seems to be confined to almost vertical south trending fractures in the favorable quartzite horizon. The mineralized seams vary from paper thinness up to about an inch in thickness. It is believed that these fractures acted as both channelways for uranium bearing solutions and depositional openings. They may also have presented channelways for later meteoric solutions that leached the uranium already deposited, and redeposited it on the surface as metatorbernite.

It is believed that the source of the uranium mineralization at the Sue may be from one or more of the following:

(1) A primary uranium-bearing zone, and the section in which the workings are presently located may be the altered or oxidized zone of a larger primary zone.

(2) The present mineralization found in the workings may have resulted from meteoric waters collecting uranium from a lean primary zone, and redepositing uranium in fractures. Solution and redeposition of uranium can be brought about by changes in Ph. of the solution. Deposition can be brought about by presence of carbonaceous material, carbonates, and reduction environments brought about by the presence of minerals in their reduced state, such as ferrous iron and cuprous copper. Release of pressure along the channelways in which these waters travel is probably another influencing factor in deposition of uranium.

(3) The source of uranium may be from uranium being deposited in the favorable horizon of the Dripping Spring quartzite when it was laid down. Certain beds contain anomalous amounts of uranium, which are not obviously related to fracturing. Assays of this type of material vary from 0.01% to 0.03% chemical U_3O_8, and is below ore grade. Mechanics of concentration from such a source could be carried out in a manner similar to that from a lean primary hydro-thermal zone, mentioned under #2.

The enclosed map shows the workings to date at the Sue Mine.

Talbert

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

OCT 22 1956

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

Re: Report of Review
Idm-E834, DMEA-3669
Arizona Globe Uranium, Inc.

Dear Mr. Breding:

The recently received copies of your Report of Review in lieu of final audit of the referenced project indicate the period covered as "months of August, 1955 to July, 1955". The period correctly should have been stated as "months of August, 1955 to July, 1956".

This Division corrected the Washington copies before effecting distribution. All other copies undoubtedly have been distributed in accordance with the authority delegated to you by the last paragraph of page 72 of the audit manual; however, you should arrange to have this correction made in all regional copies.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

EDTalbert/wb
October 22, 1956

Copy to: Docket
Admr. Reading File
Mr. Chambers

MINERS, DEVELOPERS, SHIPPERS OF URANIUM ORE

arizona globe uranium, inc.

GENERAL OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

Chairman (2)

October 19, 1956

RECEIVED
OCT 31 1956
DEPARTMENT OF THE INTERIOR

OCT 29 1956
REGION III
DENVER, COLORADO

U. S. Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 3669 (Uranium)
Contract No. Idm-E834
Arizona Globe Uranium, Inc.
(Sue Mine)
Gila County, Arizona

Attention: Mr. J. W. Townsend:

Gentlemen:

We have received your letter dated October 17, 1956, and wish to advise that the report under Article 6 (c) of the subject contract is complete except for certain geological information which we expect to have next Tuesday, October 23. The report should be in the mail by Friday, October 26.

Very truly yours,

ARIZONA GLOBE URANIUM, INC.

R. W. Hames

R. W. Hames
General Superintendent

RWH:mla

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

RECEIVED
OCT 19 1956

224 New Customhouse
Denver 2, Colorado

October 17, 1956

Mr. Chuck O. Lee, Secretary-Treasurer
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Docket No. DMEA 3669 (Uranium)
Contract No. Idm-E834
Arizona Globe Uranium, Inc.
(Sue mine)
Gila County, Arizona

Dear Mr. Lee:

Your attention is directed to the provisions in Article 6(c) of the contract form on which Contract No. Idm-E834 is prepared, relative to the rendering by your company of a final engineering and geologic report pertaining to the work completed under the contract.

We are desirous of closing this account at an early date. Therefore, we will appreciate your prompt attention to the matter of rendering the required final engineering and geologic report and, further, we would appreciate advise by return mail as to the approximate date we can expect to receive the report.

Very truly yours,

J. W. Townsend

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

JWT:prl

cc: Chairman, Op. Comm. (2)
Harshman
Storms
Emerick
Townsend
Corres. file
Chron.

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

RECEIVED
SEP - 4 1956

New Customhouse
Denver 2, Colorado

August 31, 1956

Mr. Chuck O. Lee, Secretary-Treasurer
Arizona Globe Uranium, Inc.
31 W. Monroe Street
Phoenix, Arizona

Re: Docket DMEA 3669 (Uranium)
Contract Idm-E834
Sue Mine
Gila County, Arizona

Dear Mr. Lee:

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

An amount of $200.00 is withheld from the July Voucher, and an amount of $300.00 was withheld from the May, 1956 Voucher making a total of $500.00 withheld to date. This amount shall continue to be held pending resolution of all matters relative to closing the account which includes

1. The rendering by your company of an acceptable final engineering and geologic report as stipulated in Article 6 (c) of the contract form.
2. Release to this office of a Report of Review of contract expenditures by the Contract Administration and Audit Division, DMEA.

We request that your final engineering and geologic report be submitted as soon as possible.

Very truly yours,

W. M. TRAVER

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

JDC:jy
cc: Corresp. E834
Sec. Op. Comm. (2)
Storms
Townsend
Chron.

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

224 New Customhouse
Denver 2, Colorado

August 22, 1956

Memorandum

To: W. R. Storms

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3669 (Uranium) Contract Idm-E834, Arizona Globe Uranium, Inc. (Sue Mine) Gila County, Arizona

Form MF-104, Operator's Monthly Report and Voucher, for May, 1956 was received in this office June 18, 1956 and processed for payment June 19, 1956.

We have not received a voucher for work performed during June and July, 1956. If a voucher covering this period has been submitted to your office by the Operator, please forward the voucher to this office as soon as possible. If the voucher has not been submitted to your office, please contact the Operator and find out whether or not he plans to submit a voucher for the period, and notify this office of the Operator's intention.

W. M. TRAVER

W. M. Traver

JDC:jy
cc: Corresp. E834
Sec. Op. Comm. (2)
Townsend
Chron.

RECEIVED
AUG 24 1956

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

RECEIVED
AUG - 3 1956

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

August 1, 1956

Mr. J. R. Heron, President
Arizona Globe Uranium, Inc.
293 North Broad Street
Globe, Arizona

Re: Docket DMEA 3669 (Uranium)
Contract Idm-2834
Arizona Globe Uranium, Inc.
(Sue mine)
Gila County, Arizona

Dear Mr. Heron:

Your letter of July 24, 1956, to Mr. W. R. Storms, Tucson, Arizona, relative to a one-year suspension of operations, was forwarded to this office for appropriate action.

By our letter to you of July 10, 1956, by certified mail, we informed you that the contract is to be considered completed upon completion of the work authorized under Stage I of the contract. Therefore your request for a one-year suspension of operations under the contract is denied.

In regard to considering the contract completed upon completion of the work authorized under Stage I, if future developments at the Sue mine provide additional information indicating that the property might qualify for additional Government assistance under the DMEA program, the contract can be revived upon your request submitted in a manner similar to your original application.

Very truly yours,

DMEA Field Team, Region III

By W. M. Traver
W. M. Traver
Executive Officer

JWT:prl

cc: Chairman, Op. Comm. (3)
Harshman
Storms
Emerick
Townsend
Corres. file
Finance Office, Reg. III
Contract File, Reg. III
Chron.

w/copy of Operator's request of July 24 and joint memorandum from J. N. Faick and T. M. Remalo, of July 26, 1956

DMEA
Date Rec'd.

JUL 30 1956

BUREAU OF MINES
Denver, Colorado

MINERAL DEPOSITS
DMEA
RECEIVED

JUL 30 1956

U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

July 26, 1956

Memorandum

To : Executive Officer, DMEA Field Team, Region III

From : J. H. Faick
T. M. Romslo

Through: W. R. Storms
W. L. Emerick
E. N. Harshman

WRS
WLE
ENH

Subject : Request for recess, Docket DMEA-3669, Contract Idm-E834 (Uranium) Arizona Globe Uranium, Inc. (Sue Mine(Gila County, Ariz.

RECEIVED
AUG - 3 1956

The operator in a letter of July 24, 1956 to W. R. Storms, requests that project be recessed for a period of one year. During the recess the operator plans to more fully investigate the area explored under Stage I with the hope of revealing evidence to justify Government participation in the explorations of Stage II.

Richard W. Hones, General Manager for the corporation, told Romslo on July 25 that Stage I of the project was completed early in July after drilling 4 long holes, none of which penetrated uranium ore. These findings will be checked next month during a progress examination. They are not expected to alter the writers' recommendation of June 28, 1956 that the contract should be terminated because additional exploration cannot reasonably be expected to yield results better than those obtained in Stage I. If the operator's findings subsequent to termination of the contract appear to justify additional exploration it can re-apply for Governmental aid.

T. M. Romslo
T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

J. H. Faick
J. H. Faick, Geologist
U. S. Geological Survey

CC W. A. Traver (8)
W. L. Emerick
E. N. Harshman
DMEA-3669
DF

T.Romslo:JHFaick:fr;

RECEIVED
AUG - 3 1956

July 24, 1956

Mr. W. R. Storms
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: Docket DMEA 3069 (Uranium)
Contract Idm - E 834
Arizona Globe Uranium, Inc.
(Sue Mine)
Gila County, Arizona

Dear Mr. Storms:

Request is hereby made for a recess in the running of the subject contract for a one (1) year period from the date hereof, or for a shorter period at the option of Arizona Globe Uranium, Inc., if favorable developments at the Sue Mine should occur earlier.

This request is made to allow us sufficient time to fully investigate the underground area penetrated to date under Phase I of the subject DMEA contract, with the thought that such further investigation may reveal mineralization of enough significance to justify Government participation under Stage II of the subject contract.

Very truly yours,

ARIZONA GLOBE URANIUM, Inc.

J. R. Heron,
President

JRH:RWS:mla

I, C. C. LEE, certify that I am the Secretary of AMERICAN GRADE URANIUM, INC.; that J. F. HERRING, who signed this request on behalf of AMERICAN GRADE URANIUM, INC. was then the President of AMERICAN GRADE URANIUM, INC.; that this request was duly signed for and in behalf of AMERICAN GRADE URANIUM, INC. by authority of its governing body, and is within the scope of its corporate powers.

C. C. Lee, Secretary

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

RECEIVED
JUL 23 1956

224 New Customhouse
Denver 2, Colorado

July 19, 1956

Mr. C. O. Lee, Secretary-Treasurer
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Royalty payments, Docket DMEA 3669 (Uranium)
Contract Idm-E834, Arizona Globe Uranium, Inc.
(Sue Mine), Gila County, Arizona

Dear Mr. Lee:

Settlement sheets and partial royalty payments of $205.89 for liquidation Nos. 564,616, 617 and 947 have been received from Lucius Pitkin, Inc. The correct royalty due on the four shipments, exclusive of AEC Production Bonus payments is $266.87, leaving a balance of $60.98 due as follows:

	Liq. No. 564	Liq. No. 616	Liq. No. 617	Liq. No. 947
Ore Value	$472.73	$ 978.38	$ 803.13	$1,638.45
Development Allow.	81.50	139.77	114.73	234.07
Hauling Allowance	143.93	113.45	149.57	242.65
Premiums	-- --	96.33	22.45	106.16
Gross Value	$698.16	$1,327.93	$1,089.88	$2,221.33
Allowable Deductions	-- --	-- --	-- --	-- --
Net Value	698.16	1,327.93	1,089.88	2,221.33
Royalty Due	34.91	66.40	54.49	111.07
Royalty Paid	23.64	53.74	41.28	87.23
Balance Royalty Due	$11.27	$12.66	$13.21	$23.84

Your corporation's check for $7.90 as additional royalty payment on Liquidation Nos. 377 and 482 has also been received. The correct balance of royalty due, as stated in our letter of June 4, 1956, is $7.97. You thus owe $0.07 royalty on these two shipments exclusive of AEC Production Bonus payments.

Your check for $61.05 representing payment for total balance of royalties now due should be made payable to the Defense Minerals Exploration Administration and sent to the Executive Officer, Room 224 New Customhouse, Denver 2, Colorado.

Yours very truly,

W. M. TRAVER

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

MMM/vj
cc: Royalty File E834
Correspondence File E834
Sec. Opr. Comm. (2)
W. R. Storms
Marshall
Chron.

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

RECEIVED
JUL 16 1956

224 New Customhouse
Denver 2, Colorado

July 13, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3769 (Uranium), Contract Idm-E834, Arizona
Globe Uranium, Inc. (Sue mine), Gila County, Arizona

Consistent with advice from you by teletype of July 10, 1956, we are enclosing four copies of a notice to the Operator, dated July 10, 1956 that the contract is to be considered completed upon completion of the work authorized under Stage I.

Also enclosed are four sets of data relative to the matter.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
JUL 1 0 1956

204 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

July 10, 1956

Mr. J. R. Huron, President
Arizona Globe Uranium, Inc.
253 North Broad Street
Globe, Arizona

Re: Docket DMEA 3669 (Uranium)
Contract Idm-2834
Arizona Globe Uranium, Inc.
(Sue mine)
Gila County, Arizona

Dear Mr. Huron:

Your letter of June 15, 1956 to Mr. V. R. Storms, U. S. Bureau of Mines, Tucson, Arizona, requesting the Government's approval for certain work under Stage II of the Contract, was forwarded to this office for appropriate action.

Project work approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding material of acceptable grade and in quantities that will significantly improve the mineral supply position for the National Defense program.

A careful study of the results of the exploration work performed under Stage I of DMEA Contract Idm-2834 indicates to this agency that the probability of disclosing a significant quantity of minable grade uranium ore by the additional work you propose under Stage II is not considered sufficiently promising to justify Government participation in the costs of the proposed work.

Under the circumstances, we regret to advise you that your request for the Government's approval of the additional work to be performed under Stage II of the Contract is denied.

Inasmuch as the Government's approval for additional work to be performed under the Contract will not be forthcoming, the Contract is to be considered as being completed upon completion of the work approved for performance under Stage I of the Contract.

As the contract is considered to be completed, your attention is directed to the provisions of Article 6 (e) of the Contract form relative to the rendering of a final engineering and geologic report as well as a final progress report and voucher pertaining to the work completed under the Contract.

Very truly yours,

DMEA Field Team, Region III

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

JWT:prl

c.: Chairman, Oper. Comm. (4)
Finance Office, Region III
Contract File, Region III
Harshman
Storms
Emerick
Townsend
Corres. file
Chron.

MINERAL DEPOSITS
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JUL 2 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

RECEIVED
JUL 13 1956

Box 4125 University Station
Tucson, Arizona

June 25, 1956

MEMORANDUM

To: Executive Officer, DMEA Field Team Region III

From: J. E. Faick
E. M. Romslo

Through: J. R. Stevens
W. L. Emerick
E. M. Kreuzman

WRS
WLE
EMK

Subject: Requested amendment, Docket DMEA 3669, Contract Ida 2834 (Uranium), Arizona Globe Uranium, Inc. (Sue Mine) Gila County, Arizona

Under date of June 15, 1956 the operators of the above subject project requested permission to start Stage II of the project with modifications which would require an amendment to the contract. The proposed exploration, which is illustrated by the operator's map included with the request, consists of 2 parts: (1) extend DMEA Crosscut #2 westerly 250 feet, (2) extend DMEA Crosscut #3 easterly 250 feet. To support this request the applicant cites a comparatively small production of approximately 300 tons of low-grade ore, most of which was localized near northerly trending faults where they cut an apparently favorable bed in the Scripps Spring quartzite. The purpose of the proposed crosscuts is to expose more of the northerly trending fractures, since which it is hoped to find additional ore.

The writers are opposed to the work allowed under Stage II of the contract and do not believe further Government participation in the project is justified. This project was originally undertaken because:

1. It was expected that ore bodies of sizable size and grade would be found in the favorable beds where intersected by high-angle fractures and faults.

2. It was expected that commercial ores of a primary nature would be found at depth, beyond the zone of supergene oxidation.

Our impressions of the results of the project work completed thus far are as follows:

1. The larger and more radioactive zones appear to be closest to the outcrop, and, as depth is attained by the workings, smaller, fewer, and less-radioactive zones are encountered.

2. Radioactivity at the Jon mine appears to be directly proportional to the intensity of oxidation. The amount of iron oxide stain, the amount of secondary uranium minerals, and the intensity of radioactivity all seem to diminish as greater depth is attained by the workings.

3. The character of the host rocks, and structural conditions appear to become less favorable as greater depth is attained; however, specific data of a quantitative nature are lacking. The porosity of the host rocks appears to decrease with increasing depth and the fractures become tighter and less numerous.

Stage I of the project has failed to find appreciable amounts of uranium ores and has given no indication that larger amounts of ore exist on the property. It has explored the zones originally thought most likely to contain ore, and the remaining exploration possibilities do not appear to be any better. The applicant does not point out more favorable objectives, but only proposes additional work of the same type. If additional work is done, it would appear best to do it from crosscut No. 1, which is close to the most highly mineralized part of the mine workings. If it is desirable to widen the zone of exploration, we would suggest driving a raise into the favorable bed from the end of crosscut No. 1, and crosscutting in the favorable bed westward from the raise.

We do not believe additional exploration would yield results better than those obtained by Stage I; therefore, we recommend that Government participation in this project be terminated.

I concur
RWH

J. W. Falck
U. S. Geol. Survey

T. M. Romeo
U. S. Bureau of Mines

JWF:rmd

cc: Secretaries (5)
Stearns
Falck

MINERS · DEVELOPERS · SHIPPERS OF URANIUM ORE

arizona globe uranium, inc

GENERAL OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

June 15, 1956

JUN 2 0 1956

Mr. W. R. Storms
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

U. S. BUREAU OF MINES
SOUTHWEST EXPERIMENT STATION
JUN 2 2 1956
TUCSON, ARIZONA

RE DMEA Docket 3669 (Uranium)
Contract Idm - E834

Dear Mr. Storms:

Enclosed herewith are six copies of a map of the Sue Mine, Gila County, Arizona, showing progress to date, including all of the DMEA drifting and crosscutting, and also other mine workings.

This letter is our formal request for an amendment of the subject contract to allow the Phase II drifting to be changed to crosscutting normal to the DMEA main drift, as shown in red on the maps; 250 feet westerly, normal to drift, extending DMEA crosscut No. 2, and 250 feet easterly, normal to drift, extending DMEA crosscut No. 3. Mining developments at the Sue mine lead us to believe that this exploration is justified, and we therefore further request your authority to commence said crosscuts and prosecute the same to completion.

In addition to the recent ore shipments from the Sue mentioned in our May DMEA report, additional shipments of approximately 60 tons of 0.30% U_3O_8 ore and 20 tons of 0.25% U_3O_8 ore have been made. The AEC returns on this ore have not yet been received.

Findings to date at the Sue indicate a north-south trend in fracture mineralization. The recent ore shipments aforementioned came from two small stopes on or associated with north-south fractures, one parallel to the main drift, and just a few feet westerly of Station 52 + 00, and the other parallel to the main drift and 47 feet westerly of Station 135 + 00. In addition, most of the production before the DMEA work was commenced came from a stope parallel to the main drift, and 20 feet westerly thereof. The mineralization in the vicinity of DMEA Station 52 + 00 was definitely associated with the north-south fracture in the old stope worked prior to the DMEA work, and that westerly of Station 135 + 00 was on a separate north-south fracture. The mineralization encountered in crosscut No. 2 at Station 42 + 00, and in crosscut No. 3 at Station 75 + 00 is also along

MINERS DEVELOPERS SHIPPERS OF URANIUM ORE

arizona globe uranium, inc

GENERAL OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

north-south fractures. Mineralization in crosscut No. 2 seems to be along the same fracture which was worked for ore in crosscut No. 1. In view of the foregoing, it appears advisable to crosscut rather than drift any further, to reveal as many north-south fractures as possible, with the thought that the north-south fractures will be drifted along for ore, and that the extent of mine workings can and should be governed by the extent of the north-south fracture mineralization encountered.

There is no major work of consequence presently being done at the Sue, as most company personnel and equipment are deployed in completing the annual assessment work on other groups of claims, and all DMEA work approved to date has been completed. After July 1st, full scale work at the Sue will be resumed.

Very truly yours,

ARIZONA GLOBE URANIUM, Inc.

By _____
J. R. Heron
President

I, C. O. LEE, certify that I am the Secretary of Arizona Globe Uranium, Inc.; that J. R. HERON, who signed this request on behalf of Arizona Globe Uranium, Inc. was then the President of Arizona Globe Uranium, Inc.; that this request was duly signed for and in behalf of Arizona Globe Uranium, Inc. by authority of its governing body, and is within the scope of its corporate powers.

_____
C. O. Lee
Secretary

JRH:KWA:nla
Enclosures

DEPARTMENT OF THE INTERIOR

DMEA

1[illegible]01(01) Revolving Fund, Defense Production Act, Interbureau (Allocated Working Fund to the Office of the Secy.)

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

FILE COPY
Surname:
FLKnouse
Jillis
Jackson 7/6/56
Chambers
Johnson
Selfridge
Mittendorf

T E L E T I P E

JUL 10 1956

W. M. TRAVER
EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

REURTT JULY 3 DMEA 3669 ARIZONA GLOBE URANIUM, INC. WE SUGGEST A LETTER TO OPERATOR IN LIEU OF TERMINATION AGREEMENT ADVISING RESULT OF STAGE I DOES NOT JUSTIFY GOVERNMENT PARTICIPATION IN FURTHER EXPLORATION OF PROPERTY. THIRD SENTENCE SECOND PARAGRAPH EXHIBIT A PRECLUDES OPERATOR FROM STAGE II WORK UNLESS GOVERNMENT GIVES ADVANCE WRITTEN APPROVAL. OPERATORS FINAL REPORT SHOULD BE REQUESTED.

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE (GCS)

FLKnouse/izm 7-6-56

cc to: Docket
Code 700
Mr. Knouse
Admr.'s Reading File
Operating Committee
Confirmation to Region III (2)
Messrs. JECrawford, Rml 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

FROM SOLICITOR
JUL 9 - 1956
FOR SIGNATURE

FROM SOLICITOR
FOR SIGNATURE

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

RECEIVED
JUL 13 1956

[illegible] New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

July 10, 1956

Mr. J. R. Brown, President
Arizona Globe Uranium, Inc.
595 North Broad Street
Globe, Arizona

Re: Docket DMEA 3669 (Uranium)
Contract Ida-2854
Arizona Globe Uranium, Inc.
(Sun Mine)
Gila County, Arizona

Dear Mr. Brown:

Your letter of June 15, 1956 to Mr. W. R. Stearns, U. S. Bureau of Mines, Tucson, Arizona, requesting the Government's approval for certain work under Stage II of the Contract, was forwarded to this office for appropriate action.

Project work approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding material of acceptable grade and in quantities that will significantly improve the mineral supply position for the National Defense program.

A careful study of the results of the exploration work performed under Stage I of DMEA Contract Ida-2854 indicates to this agency that the probability of disclosing a significant quantity of minable grade uranium ore by the additional work you propose under Stage II is not considered sufficiently promising to justify Government participation in the costs of the proposed work.

Under the circumstances, we regret to advise you that your request for the Government's approval of the additional work to be performed under Stage II of the Contract is denied.

Inasmuch as the Government's approval for additional work to be performed under the Contract will not be forthcoming, the Contract is to be considered as being completed upon completion of the work approved for performance under Stage I of the Contract.

As the contract is considered to be completed, your attention is directed to the provisions of Article 6 (e) of the Contract form relative to the rendering of a final engineering and geologic report as well as a final progress report and voucher pertaining to the work completed under the Contract.

Very truly yours,

IWRA Field Team, Region III

W. M. Traver

E. N. Harshman

JWT:prl

c: Chairman, Oper. Comm. (4)
Finance Office, Region III
Contract File, Region III
Harshman
Storms
Emerick
Townsend
Corres. File
Chron.

MINERAL DEPOSITS
DMEA
RECEIVED
JUL 2 1956

U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO
DMEA
Date Rec'd
JUL 2 1956

BUREAU OF MINES
Denver, Colorado

Box 4125 University Station
Tucson, Arizona

June 28, 1956

MEMORANDUM

To: Executive Officer, DMEA Field Team Region III

From: J. H. Faick
T. M. Romalo

Through: W. R. Storms
W. L. Kmarick
E. M. Harshman

Subject: Requested amendment, Docket DMEA 3669, Contract Ida 8834 (Uranium), Arizona Globe Uranium, Inc. (Sue Mine) Gila County, Arizona

Under date of June 15, 1956 the operators of the above subject project requested permission to start Stage II of the project with modifications which would require an amendment to the contract. The proposed exploration, which is illustrated by the operator's map included with the request, consists of 2 parts: (1) extend DMEA Crosscut #2 westerly 250 feet, (2) extend DMEA Crosscut #3 easterly 250 feet. To support this request the applicant cites a comparatively small production of approximately 300 tons of low-grade ore, most of which was localized near northerly trending faults where they cut an apparently favorable bed in the Dripping Spring quartzite. The purpose of the proposed crosscuts is to expose more of the northerly trending fractures, along which it is hoped to find additional ore.

The writers are opposed to the work allowed under Stage II of the contract and do not believe further Government participation in the project is justified. This project was originally undertaken because:

1. It was expected that ore bodies of minable size and grade would be found in the favorable beds where intersected by high-angle fractures and faults.

2. It was expected that commercial ores of a primary nature would be found at depth, beyond the zone of supergene oxidation.

Our impressions of the results of the project work completed thus far are as follows:

1. The larger and more radioactive zones appear to be closest to the outcrop, and, as depth is attained by the workings, smaller, fewer, and less-radioactive zones are encountered.

2. Radioactivity at the Sue mine appears to be directly proportional to the intensity of oxidation. The amount of iron oxide stain, the amount of secondary uranium minerals, and the intensity of radioactivity all seem to diminish as greater depth is attained by the workings.

3. The character of the host rocks, and structural conditions appear to become less favorable as greater depth is attained; however, specific data of a quantitative nature are lacking. The porosity of the host rocks appears to decrease with increasing depth and the fractures become tighter and less numerous.

Stage I of the project has failed to find appreciable amounts of uranium ores and has given no indication that larger amounts of ore exist on the property. It has explored the zone originally thought most likely to contain ore, and the remaining exploration possibilities do not appear to be any better. The applicant does not point out more favorable objectives, but only proposes additional work of the same type. If additional work is done, it would appear best to do it from crosscut No. 1, which is close to the most highly mineralized part of the mine workings. If it is desirable to widen the zone of exploration, we would suggest driving a raise into the favorable bed from the end of crosscut No. 1, and crosscutting in the favorable bed westward from the raise.

We do not believe additional exploration would yield results better than those obtained by Stage I; therefore, we recommend that Government participation in this project be terminated.

I concur
EMH

J. R. Faick
U. S. Geol. Survey

T. M. Romslo
U. S. Bureau of Mines

JRF:ms

cc: Burmeister (8)
Storms
Faick

RECEIVED
JUL 16 1956

June 15, 1956

COPY

Mr. W. R. Storms
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

RE DMEA Docket 3669 (Uranium)
Contract Idm - E834

Dear Mr. Storms:

Enclosed herewith are six copies of a map of the Sue Mine, Gila County, Arizona, showing progress to date, including all of the DMEA drifting and crosscutting, and also other mine workings.

This letter is our formal request for an amendment of the subject contract to allow the Phase II drifting to be changed to crosscutting normal to the DMEA main drift, as shown in red on the maps; 250 feet westerly, normal to drift, extending DMEA crosscut No. 2, and 250 feet easterly, normal to drift, extending DMEA crosscut No. 3. Mining developments at the Sue mine lead us to believe that this exploration is justified, and we therefore further request your authority to commence said crosscuts and prosecute the same to completion.

In addition to the recent ore shipments from the Sue mentioned in our May DMEA report, additional shipments of approximately 60 tons of 0.30% U_3O_8 ore and 20 tons of 0.25% U_3O_8 ore have been made. The AEC returns on this ore have not yet been received.

Findings to date at the Sue indicate a north-south trend in fracture mineralization. The recent ore shipments aforementioned came from two small stopes on or associated with north-south fractures, one parallel to the main drift, and just a few feet westerly of Station 52 + 00, and the other parallel to the main drift and 47 feet westerly of Station 135 + 00. In addition, most of the production before the DMEA work was commenced came from a stope parallel to the main drift, and 20 feet westerly thereof. The mineralization in the vicinity of DMEA Station 52 + 00 was definitely associated with the north-south fracture in the old stope worked prior to the DMEA work, and that westerly of Station 135 + 00 was on a separate north-south fracture. The mineralization encountered in crosscut No. 2 at Station 42 + 00, and in crosscut No. 3 at Station 75 + 00 is also along

COPY

north-south fractures. Mineralization in crosscut No. 2 seems to be along the same fracture which was worked for ore in crosscut No. 1. In view of the foregoing, it appears advisable to crosscut rather than drift any further, to reveal as many north-south fractures as possible, with the thought that the north-south fractures will be drifted along for ore, and that the extent of mine workings can and should be governed by the extent of the north-south fracture mineralization encountered.

There is no major work of consequence presently being done at the Sue, as most company personnel and equipment are deployed in completing the annual assessment work on other groups of claims, and all DMEA work approved to date has been completed. After July 1st, full scale work at the Sue will be resumed.

Very truly yours,

ARIZONA GLOBE URANIUM, Inc.

By J. R. Heron
J. R. Heron
President

I, C. O. LEE, certify that I am the Secretary of Arizona Globe Uranium, Inc.; that J. R. HERON, who signed this request on behalf of Arizona Globe Uranium, Inc. was then the President of Arizona Globe Uranium, Inc.; that this request was duly signed for and in behalf of Arizona Globe Uranium, Inc. by authority of its governing body, and is within the scope of its corporate powers.

C. O. Lee
C. O. Lee
Secretary

JRH:RWH:mla
Enclosures

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

224 New Customhouse
Denver 2, Colorado

July 5, 1956

Mr. C. O. Lee, Secretary-Treasurer
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Royalty payments, Docket DMEA 3669, Contract Idm-E834 (Uranium), Arizona Globe Uranium, Inc. (Sue mine), Gila County, Arizona

Dear Mr. Lee:

Enclosed is a photocopy of our letter dated June 4, 1956 for which we have not received your reply.

Please give this matter your prompt attention.

Yours very truly,

W. M. TRAVER

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

Enclosure

MHM/vj

cc: Royalty File E834
Sec. Opr. Comm. (2)
W. R. Storms
Marshall
Chron.

Chairman, Operating Committee,
D.M.E.A.

DN 235 BUR MINES 7-3-56 4-14

CHAIRMAN, OPERATING COMMITTEE, DMEA

RE DOCKET DMEA ~~3969,~~ 3669 CONTRACT IDM-E834, ARIZONA GLOBE URANIUM INC. STAGE I WORK COMPLETED RESULTING IN MINOR PRODUCTION. OPERATOR REQUESTS APPROVAL OF ADDTXX ADDITIONAL WORK FOR STAGE II BUT NOT AS OUTLINED IN THE CONTRACT. FIELD AND THIS OFFICE IN AGREEMENT THAT FURTHER GOVERNMENT PARTICIPATION NOT WARRANTED. PLEASE TELETYPE AUTHORIZATION TO TERMINATE CONTRACT YXX BY DENYING THE OPERATOR S REQUEST FOR STAGE II WOR2

W M TRAVER

RECEIVED
JUL 5 - 1956

Denver, Colo.

JUL 5 8 04 AM '56

BUREAU OF
MAIL ROOM
WASHINGTON, D. C.

700

Surname copy

F L Knouse
Ellis
Selfridge

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

JUN 29 1955

Hon. Carl Hayden
United States Senate
Washington 25, D. C.

Re: Docket No. DMEA-3669 (Uranium)
Globe Uranium, Incorporated
Sue Mine
Gila County, Arizona

My dear Senator Hayden:

This will acknowledge your inquiry of June 24, 1955, concerning the status of the above-docketed application.

A contract is being prepared. Barring unforeseen circumstances, the proposed contract will be forwarded for the signature of the Operator within a short time.

Sincerely yours,

C. O. Mittendorf

Administrator

FLKnouse/gla
6-28-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Code 700 - Mr. Knouse
DMEA Field Team, Region III (2)

R.C.L.

CARL HAYDEN, ARIZ., CHAIRMAN
RICHARD B. RUSSELL, GA.
DENNIS CHAVEZ, N. MEX.
ALLEN J. ELLENDER, LA.
LISTER HILL, ALA.
HARLEY M. KILGORE, W. VA.
JOHN L. MC CLELLAN, ARK.
A. WILLIS ROBERTSON, VA.
WARREN G. MAGNUSON, WASH.
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EDWARD J. THYE, MINN.
JOSEPH R. MC CARTHY, WIS.
KARL E. MUNDT, S. DAK.
MARGARET CHASE SMITH, MAINE
HENRY DWORSHAK, IDAHO
EVERETT MC KINLEY DIRKSEN, ILL.
CHARLES E. POTTER, MICH.

EVERARD H. SMITH, CLERK
THOMAS J. SCOTT, ASST. CLERK

700

United States Senate

COMMITTEE ON APPROPRIATIONS

June 24, 1955

RECEIVED
JUN 24 1955

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration
Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Mittendorf:

I will appreciate your advising me regarding the status of the loan application filed by the Globe Uranium Company (Docket No. 3669).

Yours very sincerely,

Carl Hayden

U. S. S.

P. S. Please address reply to me; sending me original and one copy.

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

RECEIVED
JUN 25 1956

224 New Customhouse
Denver 2, Colorado

June 20, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3669 (Uranium), Contract Idm-E834
Arizona Globe Uranium, Inc. (Sue Mine)
Gila County, Arizona

Enclosed for your records are four copies of project work approval issued by the DMEA Field Team, Region III. Also enclosed are four sets of data relative to the work approval.

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

Enclosures

MINERAL DEPOSITS
DMEA
RECEIVED
JUN 15 1956

RECEIVED
JUN 25 1956

DMEA
Date Rec'd.
JUN 18 1956

BUREAU OF MINES
Denver, Colorado

June 13, 1956

Memorandum

To : Executive Officer, DMEA Field Team, Region III

Through : W. R. Stearns and E. N. Harshman

From : T. M. Romslo and Leonid Bryner

Subject : Proposed additional long hole drilling, DMEA contract Ldm-2814, Docket DMEA-3669 (Brandon) Arizona Globe Brandon, Inc., (Sue Mine), Gila County, Ariz.

Reference is made to the attached 5 copies of the operator's letter of June 10, 1956, with maps. The letter requests permission for the drilling of the remaining 207.5 feet of long holes authorized under Stage I. Locations and designs of the proposed drilling are shown on the map.

We recommend approval of operator's request because: (1) The proposed holes will explore along radioactive N-S fractures that apparently localize ore mineralization at the Sue mine; (2) The 207.5 feet of requested drilling is the remainder of the 800 feet authorized by Stage I; and (3) drilling sites will be prepared at no expense to the Government by drilling short raises from the 2 crosscuts recently completed under the contract.

The proposed drill holes may encounter small amounts of commercial ore, but the results of this drilling should not affect our decision to recommend denial of Stage II explorations for reasons given in Faick's memorandum of April 17, 1953 to E. N. Harshman.

T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

Leonid Bryner, Geologist
U. S. Geological Survey

CC W. M. Travor (Orig. & 8)
E. N. Harshman
J. N. Faick
DMEA-3669
MF

TMRomslo:frj

RECEIVED
JUN 25 1956

COPY

June 10, 1956

Mr. W. R. Storms
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: DMEA Docket 3669 (Uranium)
Contract Idm - E834

Dear Mr. Storms:

Request is hereby made for the remaining 207.5 feet of percussion long hole drilling under Phase I of the subject contract.

Enclosed are six (6) copies of a map of the Sue Mine, Gila County, Arizona, showing proposed locations of the requested holes in red. Each hole is to be of a minimum diameter of 1½" to allow for geiger tube probing.

Two holes, totaling 107.5 feet are requested at DMEA Crosscut No. 2 Sta. 42 + 00, where it is believed the radioactive fracture from Crosscut No. 1 comes through. It is intended that a horizontal hole be drilled in each direction, northerly and southerly, along this fracture and in the ore horizon. We request authorization for a DMEA hole northerly 57.5 feet in length, and one southerly 50 feet in length.

Two holes, totaling 100 feet are requested at DMEA Crosscut No. 3 Sta. 75 + 00, where a pronounced north-south radioactive fracture has been encountered. We request authorization for a 50 foot horizontal hole in each direction, northerly and southerly, along said fracture and in the ore horizon.

It is anticipated that raises will be driven at each of the aforesaid two drilling stations to provide room for drilling horizontally as requested.

COPY

These raises will be driven a sufficient height to expose the most radioactive horizon existent within a short distance above each of the aforesaid stations, and the horizontal drilling will be undertaken in these horizons. Stoper holes indicate that the raises will probably not have to be over five feet in height above the tops of the crosscuts.

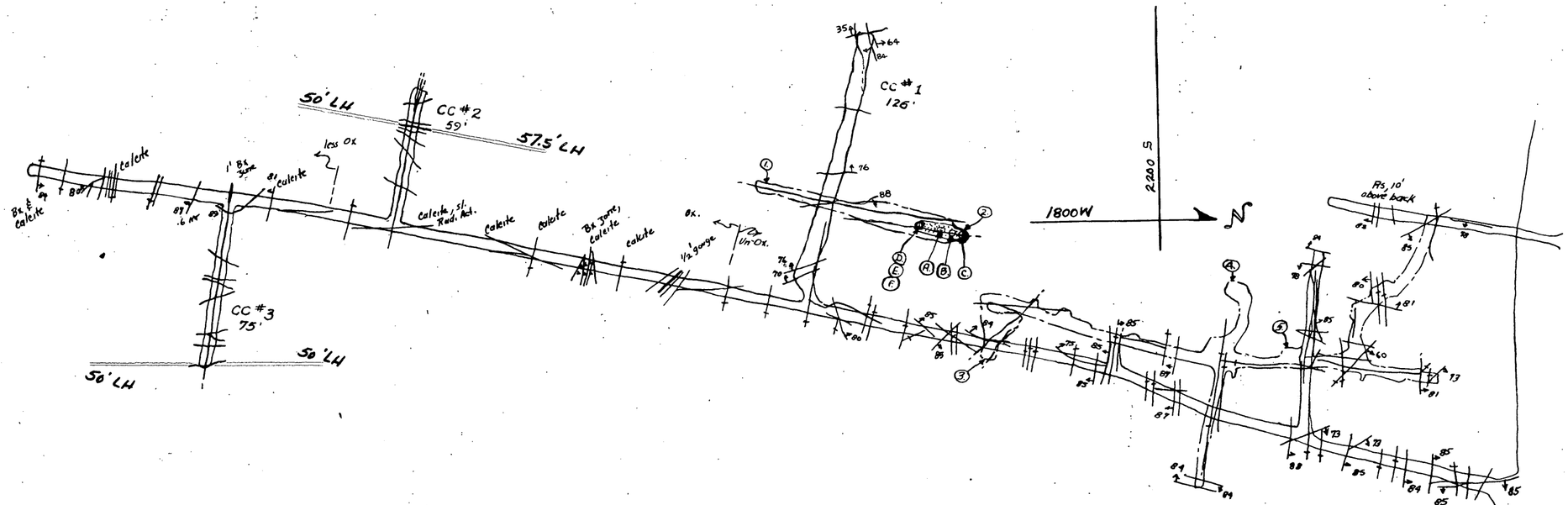
Very truly yours,

ARIZONA GLOBE URANIUM, INC.

R. W. Henes
General Superintendent

J. R. Heron
President

RWH:mla
Enclosures



SUE

1" = 50'

DOCKET DMEA. 3669 (URANIUM)
CONTRACT Idm E-834
ARIZONA GLOBE URANIUM, INC.

PROGRESS MAP OF SUE MINE
MONTH OF MAY, 1956

RECEIVED
JUN 2 5 1956

MINERAL DEPOSITS
DMEA
RECEIVED
JUN 15 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

RECEIVED
JUN 25 1956

DMEA
Date Rec'd.
JUN 18 1956

BUREAU OF MINES
Denver, Colorado

June 12, 1956

Memorandum

To : Executive Officer, DMEA Field Team, Region III

Through : W. R. Storms and E. N. Harshman

From : T. M. Romslo and Leonid Bryner

Subject : Proposed additional long hole drilling, DMEA contract Ldm-2324, Project DMEA-3660 (Uranium) Arizona Globe Uranium, Inc., (Sun Mine), Gila County, Ariz.

Reference is made to the attached 6 copies of the operator's letter of June 10, 1956, with maps. The letter requests permission for the drilling of the remaining 207.5 feet of long holes authorized under Stage I. Locations and designs of the proposed drilling are shown on the map.

We recommend approval of operator's request because: (1) The proposed holes will explore along radioactive N-S fractures that apparently localize ore mineralization at the Sun mine; (2) The 207.5 feet of requested drilling is the remainder of the 500 feet authorized by Stage I; and (3) drilling alone will be prorated at no expense to the Government by drilling short raises from the 2 crosscuts recently completed under the contract.

The proposed drill holes may encounter small amounts of commercial ore, but the results of this drilling should not affect our decision to recommend denial of Stage II explorations for reasons given in Falck's memorandum of April 17, 1956 to E. N. Harshman.

T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

Leonid Bryner, Geologist
U. S. Geological Survey

CC W. M. Tanner (Orig. & 6)
E. N. Harshman
J. H. Falck
DMEA-3660
RF

TMRomslo:frj

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

RECEIVED
JUN 25 1956

224 New Customhouse
Denver 2, Colorado

June 18, 1956

Mr. J. R. Moren, President
Arizona Globe Uranium, Inc.
293 North Broad Street
Globe, Arizona

Re: Docket DMEA 3669 (Uranium)
Contract Idm-834

Dear Mr. Moren:

In reference to your letter of June 10, 1956, and consistent with provisions in the contract pertaining to long-hole percussion drill holes to be drilled under Stage I of the contract, the Government approves the following four drill holes which will complete the drilling to be performed under Stage I of the contract:

(1) From a point in No. 2 Crescent approximately 42 feet from its beginning, drill two horizontal percussion drill holes, one northerly not to exceed 57.5 feet in length, and one southerly not to exceed 90 feet in length.

(2) From a point in No. 3 Crescent approximately 75 feet from its beginning, drill two horizontal percussion drill holes, one northerly not to exceed 50 feet in length, and one southerly not to exceed 50 feet in length.

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

Very truly yours,

DMEA Field Team, Region III

W. M. Traver

W. M. Traver

K. H. Harshman

K. H. Harshman

JWT:bh
cc-Chairman, Op. Comm. (4)
Finance Office, Region III
Amendment File
Harshman
Storms
Faick
Townsend
Corres. File E-834
Chron.

ERS DEVELOPERS SHIPPERS OF URANIUM ORE

arizona globe uranium, in

MINING OFFICE 293 North Broad Street Globe, Arizona

GENERAL OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

RECEIVED
JUN 25 1956
U. S. BUREAU OF MINES
SOUTHWEST EXPERIMENT STATION
JUN 12 1956
TUCSON ARIZONA

June 10, 1956

Mr. W. R. Storms
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Re: DMEA Docket 3669 (Uranium)
Contract Idm - E834

Dear Mr. Storms:

Request is hereby made for the remaining 207.5 feet of percussion long hole drilling under Phase I of the subject contract.

Enclosed are six (6) copies of a map of the Sue Mine, Gila County, Arizona, showing proposed locations of the requested holes in red. Each hole is to be of a minimum diameter of 1½" to allow for geiger tube probing.

Two holes, totaling 107.5 feet are requested at DMEA Crosscut No. 2 Sta. 42 + 00, where it is believed the radioactive fracture from Crosscut No. 1 comes through. It is intended that a horizontal hole be drilled in each direction, northerly and southerly, along this fracture and in the ore horizon. We request authorization for a DMEA hole northerly 57.5 feet in length, and one southerly 50 feet in length.

Two holes, totaling 100 feet are requested at DMEA Crosscut No. 3 Sta. 75 + 00, where a pronounced north-south radioactive fracture has been encountered. We request authorization for a 50 foot horizontal hole in each direction, northerly and southerly, along said fracture and in the ore horizon.

It is anticipated that raises will be driven at each of the aforesaid two drilling stations to provide room for drilling horizontally as requested.

MINERS, DEVELOPERS SHIPPERS OF URANIUM ORE

arizona globe uranium, inc

MINING OFFICE 293 North Broad Street Globe, Ariz.

GENERAL OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

These raises will be driven a sufficient height to expose the most radioactive horizon existent within a short distance above each of the aforesaid stations, and the horizontal drilling will be undertaken in these horizons. Stoper holes indicate that the raises will probably not have to be over five feet in height above the tops of the crosscuts.

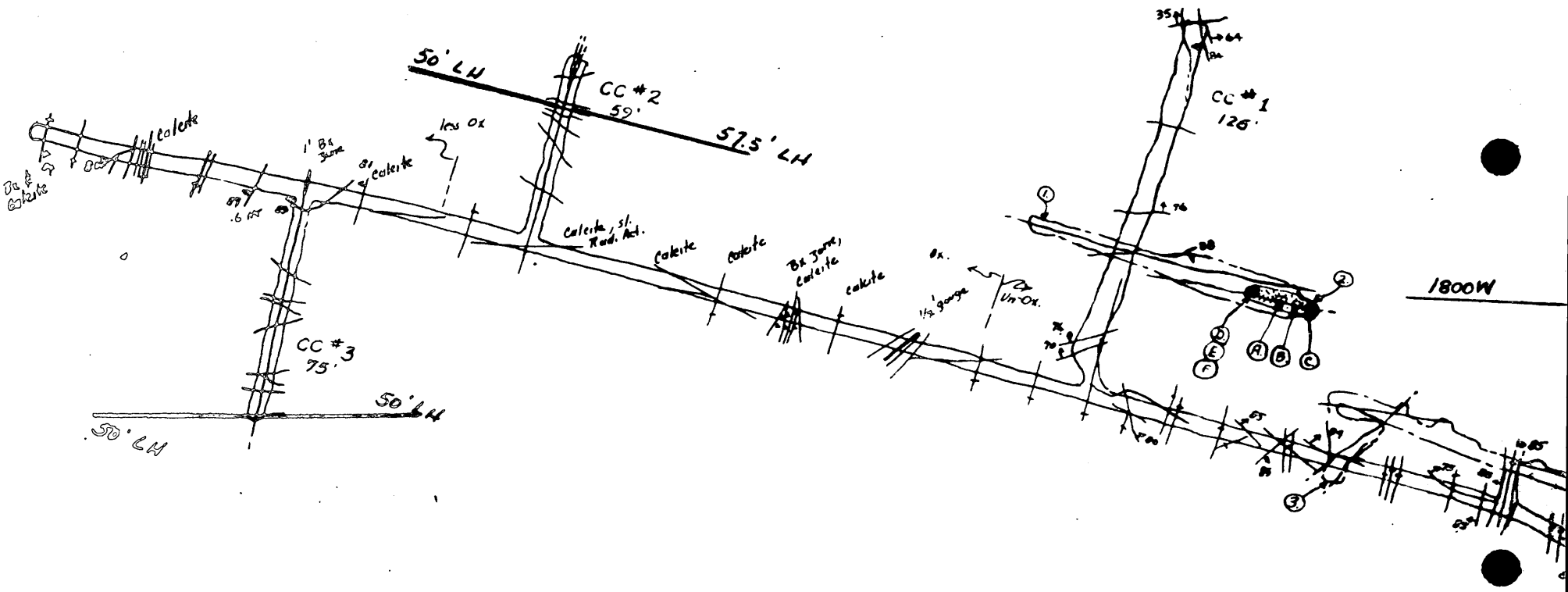
Very truly yours,

ARIZONA GLOBE URANIUM, INC.

R. W. Henes
General Superintendent

J. R. Heron
President

RWH:mla
Enclosures



SUE

1" = 50'

DOCKET DMEA' 36
CONTRACT Idm E
ARIZONA GLOBE UR

PROGRESS
MONTH OF

RECEIVED
JUN 2 5 1956

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

RECEIVED
JUN 25 1956

[illegible]
[illegible]

June 18, 1956

Mr. J. R. Bryan, President
Arizona Globe Uranium, Inc.
[illegible] North Broad Street
Globe, Arizona

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

Dear Mr. Bryan:

In reference to your letter of June 12, 1956, and consistent with provisions in the contract pertaining to long-hole percussion drill holes to be drilled under Stage I of the contract, the Government approves the following four drill holes which will complete the drilling to be performed under Stage I of the contract:

(1) From a point in No. 2 Crosscut approximately 42 feet from the beginning, drill two horizontal percussion drill holes, one northerly not to exceed 97.5 feet in length, and one southerly not to exceed 50 feet in length.

(2) From a point in No. 3 Crosscut approximately 75 feet from the beginning, drill two horizontal percussion drill holes, one northerly not to exceed 50 feet in length, and one southerly not to exceed 50 feet in length.

Bidding in this work approval shall be contingent to insures the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the final unit cost of any item of work.

Very truly yours,

DMEA Field Team, Region III

W. M. Isaacs
V. M. Isaacs

E. H. Kershman
E. H. Kershman

JWT:bh
cc-Chairman, Op. Comm. (4)
Finance Office, Region III
Amendment File
Kershman
Stearns
Faisk
Townsend
Corres. File E-834
Chron.

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

RECEIVED
JUN - 7 1956

Room 224 New Customhouse
Denver 2, Colorado

June 4, 1956

Mr. E. O. Lee, Secretary-Treasurer
Arizona Globe Uranium, Inc
31 West Monroe Street
Phoenix, Arizona

Re: Royalty payments, Docket DMEA 3669, Contract Ldm-2834 (Uranium), Arizona Globe Uranium, Inc. (Sun mine), Gila County, Arizona

Dear Mr. Lee:

Settlement sheets and partial royalty payment of $18.87 for liquidation Nos. 377 and 482 have been received from Lucius Pitkin, Inc. The correct royalty on these two shipments, excluding A.E.C. Production Bonus payments, is $26.84 leaving a balance of $7.97 due as follows:

	Liq. No. 377	Liq. No. 482
Ore Value	$170.05	$207.84
Development Allowance	36.97	35.43
Haulage Allowance	80.83	63.55
Gross Value	287.85	306.52
Minus Allowable Deductions	-- --	-- --
Net Value	287.85	306.52
Value per ton	10.90	14.58
Royalty due	11.51	15.33
Royalty paid	8.30	10.37
Balance Royalty Due	3.21	4.96

Your check for $7.97 should be made payable to the Defense Minerals Exploration Administration and sent to the Executive Officer, Room 224 New Customhouse, Denver 2, Colorado.

In addition, it is to your advantage to make application to the Atomic Energy Commission for bonus payment on initial production if you have not done so, and to inform this office when payment is begun.

Payment is made directly to the operator. You are therefore requested to include this benefit in computing the total amount of royalty due and to make payment accordingly. Computation of royalty on Liquidation Nos. 377 and 482 including the A.E.C. Production Bonus Payment for example is:

	Liq. No. 377	Liq. No. 482
Value prior to Prod.Bonus	$287.85	$306.52
A.E.C. Production Bonus	170.05	207.24
Gross Value	457.90	513.76
Minus Deductions	-- --	-- --
Net Value	457.90	513.76
Value per ton	17.34	24.44
Royalty due at 5%	22.90	25.69

We trust the foregoing information and the enclosed copy of DMEA Order 1 Amended fully explains the $7.97 still due and royalty payments when receiving A.E.C. Production benefits.

Yours very truly,

W. M. TRAVER

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

Enclosure

MMM/vj

cc: Royalty File E834
Sec. Opr. Comm. (2)
W. R. Storms
Marshall
Chrok..

C.

RECEIVED
MAY 2 - 1956

3669

April 27, 1956

COPY

Western Uranium Project
Lucius Pitkin, Inc.
P. O. Box 1351
Grand Junction, Colorado

Royalty - Contract Idm - E 834

Attention: Mr. H. C. Jackson
Business Administrator

Gentlemen:

We have received your letter dated April 23, 1956, a copy of which is attached hereto, regarding royalty payments to the D.M.E.A., and wish to advise that your procedure, using 5% of settlement values exclusive of development and haulage allowances for calculating royalty will be satisfactory. We also agree that royalty checks should be sent to:

Executive Officer
DMEA
Region III
Room 224, New Customhouse
Denver 2, Colorado

and be payable to the Defense Minerals Exploration Administration.

Yours very truly,

ARIZONA GLOBE URANIUM, INC.

C. O. Lee
Secretary-Treasurer

cc: (6) W. M. Traver
Executive Officer
DMEA, Region III
Room 224, New Customhouse
Denver 2, Colorado

GG: (3) Charles A. Rasor, Chief
Ore Procurement Branch,
Mining Division
U. S. Atomic Energy Commission
Grand Junction Operations Office
Grand Junction, Colorado

Sec. Op. Comm. (2)

CC: (2) W. R. Storms, U. S. Bureau of Mines
P. O. Box 4097, University Station, Tucson, Arizona

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

RECEIVED
APR 26 1956

224 New Customhouse
Denver 2, Colorado

April 24, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3669 (Uranium), Contract Idm-E834, Arizona
Globe Uranium, Inc. (Sue mine), Gila County, Arizona

Enclosed are four copies of project work approval issued by the DMEA Field Team, Region III.

Also enclosed are four sets of data relative to the matter.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
APR 2 0 1956

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

April 23, 1956

Mr. C. O. Lee, Secretary-Treasurer
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Docket DMEA 3669 (Uranium),
Contract Idm-2834,
Arizona Globe Uranium, Inc.,
(Sue mine),
Gila County, Arizona

Dear Mr. Lee:

In reference to your letter of April 13, 1956, and consistent with provisions in the Contract relative to the crosscutting to be performed under Stage I, this constitutes the Government's approval for you to crosscut from the drift driven under Stage I of the Contract at the following locations:

1. At a point approximately 330 feet from the starting point of the DMEA drift, crosscut Westerly normal to the drift.

2. At a point approximately 480 feet from the starting point of the DMEA drift, crosscut both Easterly and Westerly normal to the drift.

The total crosscutting under this approval shall not exceed 125 feet and the extent of crosscutting at each location must be acceptable to the Government.

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

Very truly yours,

DMEA Field Team, Region III

W. W. Traver

E. M. Harshman

JWT:prl

cc: Chairman, Oper. Comm. (4)
Finance Office, Region III
Amendment file
Harshman
Storms
Faick
Townsend
Carson
Green file

MINERAL DEPOSITS
DMEA
RECEIVED
APR 19 1956
U.S.
GEOLOGICAL SURVEY
DENVER, COLORADO
RECEIVED
APR 20 1956

Box 4126 University Station
Tucson, Arizona

DMEA
Date Rec'd.
APR 19 1956
BUREAU OF MINES
Denver, Colorado

April 17, 1956

MEMORANDUM

To: Executive Officer, DMEA Field Team, Region III

From: J. N. Faick
T. M. Romalo

Through: E. N. Harshman
" W. R. Storms

Subject: Docket DMEA 3669 (Uranium), Contract Idu-2634, Arizona-Globe Uranium, Inc., Sue Uranium Mine, Gila County, Arizona.

On April 13, 1956, the operators of the above subject contract submitted a request for permission to drive 125 feet of crosscut, the remainder to be driven under Stage I of the contract. This project was visited by T. M. Romalo, U.S.B.M., and J. N. Faick, U.S.G.S., on April 2 and 3, to study the results of the exploration work done thus far, and to determine whether additional exploration was desirable. We concluded that the small amount of work remaining in Stage I should be done, and that the information obtained would be evaluated before considering any work under Stage II. Work remaining to be done amounts to 125 feet of crosscut and some long hole exploratory drilling.

The operators propose crosscutting at 3 places, which may be located on the previously submitted map showing locations of long drill holes. The lengths of the crosscuts are not exactly known; however, the total is not to exceed 125 feet. The location, direction and objective is given below:

Location in Drift	Direction of Crosscut	Objective
DMEA Station 330+00	Westerly	To explore a zone where 2 mineralized fractures might intersect.
DMEA Station 430+00	Easterly	To explore a zone of slightly radioactive fractures.
DMEA Station 480+00	Westerly	To explore the westerly extension of the zone of radioactive fractures.

The operators request that they be granted permission to distribute the 125 feet of crosscutting at their discretion so that they will be able to do the most work on the best showings. We believe the operators' request is reasonable; therefore we recommend that permission to complete this phase of Stage I be granted. It is likely that permission to drill the remaining long holes will be requested when the crosscutting nears completion. At present there is no indication that permission to start Stage II will be requested by the operators or granted by DMEA.

John H. Faick
John H. Faick

T. M. Romalo
T. M. Romalo

JHF:ms

cc: Harshman (8)
Storms

RECEIVED
APR 20 1956

COPY

April 13, 1956

Re: Docket BMEA 3669 (Uranium)
Contract Idm-2834

Mr. W. R. Storms
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Dear Mr. Storms:

Permission is hereby requested for crosscutting under Phase I of the subject BMEA contract normal to the BMEA main drift, said crosscutting not to exceed 125 feet and to be distributed, at the discretion of Arizona Globe Uranium, Inc., at not to exceed three locations as follows:

BMEA Sta. 330/00 - in a westerly direction normal to drift

BMEA Sta. 420/00 - in an easterly direction normal to drift

BMEA Sta. 420/00 - in a westerly direction normal to drift

The last BMEA progress report shows a slightly anomalous condition above the drift at BMEA sta. 330/00, where a vertical stoper hole has been drilled right on a prominent east-west fracture. It is believed that a westerly crosscut here will serve the two-fold purpose of exploring the possibilities of the east-west fracture at that station and also determining whether the north-south fracture at BMEA crosscut sta. 47/00 carries as far south as BMEA sta. 330/00. If this north-south fracture does intersect the east-west fracture at BMEA sta. 330/00, it would appear that there is a better possibility of an extensive ore zone at this intersection than at any other point between BMEA sta. 135/00 and 330/00. This crosscut will be driven first to an approximate depth of 50 feet, and then further, if showings justify.

BMEA sta. 420/00 presents a fracture series in an area where several other slightly radioactive fractures have been encountered (BMEA sta. 390/00 to 430/00) and it is intended that following driving of the crosscut at BMEA sta. 330/00, or simultaneous therewith, a crosscut to the east at BMEA sta. 420/00 will be undertaken, as the east wall of the drift in

this area shows greatest radioactivity. If, within 50 feet or so, favorable ore or fracture zones do not develop, it is intended to crosscut west at DMEA sta. 420/00 for the remainder of the DMEA Phase I crosscut work, and further, at the expense of Arizona Globe Uranium, Inc., if showings justify. In this connection, however, the total DMEA crosscut work may be used up in either or both of the previously described locations if showings justify in the opinion of Arizona Globe Uranium, Inc., considering what information is available, including recommendations by the AEC staff in Globe, Arizona.

This request seeks authorization up to three crosscuts, so that we can continuously prosecute this final Phase I crosscut work in the most practical manner, keeping the work in the most favorable of three locations day by day as it progresses. Under the authorization requested, it is possible that all of the remaining DMEA work could be used up in one of the requested locations if favorable showings seemed to justify, and on the other hand, any one or two of the crosscuts could be abandoned after a few feet of advance if geological conditions and drilling seemed to indicate that good results would not be forthcoming.

The pulp sample from the first 22-ton lot of ore non-selectively taken from above DMEA sta. 52/00 in a six foot by six foot block was chemically assayed privately at 0.15% U_3O_8. DMEA royalty is forthcoming from this 22-ton lot. Work is presently being done at DMEA sta. 52/00 and along a north-south fracture at that location, above the drift and six feet to the west of the drift. Ore is being stockpiled for sampling before shipment is made. In addition, a drift is being driven to the north along the north-south fracture at DMEA crosscut sta. 47/00 for the development of additional ore.

It is expected at this time that the remaining 207.5' of long hole drilling under Phase I of the DMEA contract will be requested for use in the crosscuts covered herein at a later date.

Yours very truly,

ARIZONA GLOBE URANIUM, INC.

Richard W. Hanes

Richard W. Hanes
General Superintendent

C. O. Lee

C. O. Lee
Secretary-Treasurer

RWH/em

COPY

RECEIVED
APR 19 1956
APR 2 - 1956

Box 4126 University Station
Tucson, Arizona

April 17, 1956

DMEA
Date Rec'd.
APR 19 1956
BUREAU OF MINES
Denver, Colorado

MEMORANDUM

To: Mr. E. H. Harrington

From: J. H. Faick

Subject: Interim Examination, Contract DMEA 3669 (Uranium)
Contract Ida-5834, Arizona-Globe Uranium, Inc.,
Sun Uranium Mine, Gila County, Arizona

On April 2-3, 1956 the writer and T. M. Romalo re-examined the Sun mine. At this time operations had halted temporarily because of inclement weather but Richard W. Reuss, Superintendent, and H. Smith, a mining contractor, were present during the first part of the examination and together we were able to make radiometric logs of 4 holes, which completed radiometric logging of all the long holes drilled under the contract. This examination confirms our growing suspicions that unless larger quantities of higher grade material are encountered soon there will be no justification for undertaking Stage II of the project.

Inspection of the underground workings leaves the examiners with 4 fairly definite impressions, as follows:

1. The largest and most radioactive bodies appear to be localized near intersections of nearly vertical, northerly trending fractures and thin, irregularly bedded shaly quartzite.
2. The host rocks, the Dripping Spring quartzite, appears to be nearly horizontal and the most favorable bed stays a few feet above the exploration drifts, and does not dip into the workings at the south end of the mine as previously expected.

3. The larger and more radioactive zones appear to be closest to the outcrop, and as depth is attained by the workings, smaller, fewer and less-radioactive zones are encountered.

4. Radioactivity at the Zac appears to be directly proportional to the intensity of oxidation; the amount of iron oxide stain, the amount of secondary uranium minerals, and the intensity of radioactivity seem to diminish as greater depth is attained by the workings.

A few samples were cut by the examiners and these analyses will be submitted by Bonalo when available. Analyses of the operator's samples and his radiometric logs will be available at a later date. The applicant is expected to request permission to complete Stage I of the contract, and we believe this is a reasonable request; however, it does not appear now that Stage II of the contract would be justified.

John N. Falck

JNF:mm

cc: Barahman (8)
Storms

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

RECEIVED
APR 2 5 1956

[illegible] New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

April 23, 1956

Mr. C. O. Lee, Secretary-Treasurer
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Docket DMEA 3669 (Uranium),
Contract [illegible],
Arizona Globe Uranium, Inc.,
(Sue mine),
Gila County, Arizona

Dear Mr. Lee:

In reference to your letter of April 13, 1956, and consistent with provisions in the Contract relative to the crosscutting to be performed under Stage I, this constitutes the Government's approval for you to crosscut from the drift driven under Stage I of the Contract at the following locations:

1. At a point approximately 330 feet from the starting point of the DMEA drift, crosscut Westerly normal to the drift.

2. At a point approximately 460 feet from the starting point of the DMEA drift, crosscut both Easterly and Westerly normal to the drift.

The total crosscutting under this approval shall not exceed 185 feet and the extent of crosscutting at each location must be acceptable to the Government.

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

Very truly yours,

DMEA Field Team, Region III

W. H. Weaver

E. M. Hawkins

JWT:pcl

cc: Chairman, Oper. Comm. (4)
Finance Office, Region III
Amendment file
Hawkins
Storms
Faick
Townsend
Corres. file
Chron.

MINERAL DEPOSITS
DMEA
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APR 19 1956
APR 23 1956
U.S. GEOLOGICAL SURVEY
DENVER, COLORADO

Box 4126 University Station
Tucson, Arizona

DMEA
Date Rec'd.
APR 19 1956
BUREAU OF MINES
Denver, Colorado

April 17, 1956

MEMORANDUM

To: Executive Officer, DMEA Field Team, Region III

From: J. H. Faick
T. M. Romslo

Through: R. M. Burnham
W. R. Storms

Subject: Docket DMEA 3669 (Uranium), Contract Ida-2534, Arizona-Globe Uranium, Inc., Sue Uranium Mine, Gila County, Arizona.

On April 13, 1956, the operators of the above subject contract submitted a request for permission to drive 125 feet of crosscut, the remainder to be driven under Stage I of the contract. This project was visited by T. M. Romslo, U.S.B.M., and J. H. Faick, U.S.G.S., on April 2 and 3, to study the results of the exploration work done thus far, and to determine whether additional exploration was desirable. We concluded that the small amount of work remaining in Stage I should be done, and that the information obtained would be evaluated before considering any work under Stage II. Work remaining to be done amounts to 125 feet of crosscut and some long hole exploratory drilling.

The operators propose crosscutting at 3 places, which may be located on the previously submitted map showing locations of long drill holes. The lengths of the crosscuts are not exactly known; however, the total is not to exceed 125 feet. The location, direction and objective is given below:

Location in Drift	Direction of Crosscut	Objective
DMEA Station 330+00	Westerly	To explore a zone where 2 mineralized fractures might intersect.
DMEA Station 420+00	Easterly	To explore a zone of slightly radioactive fractures.
DMEA Station 420+00	Westerly	To explore the westerly extension of the zone of radioactive fractures.

The operators request that they be granted permission to distribute the 125 feet of crosscutting at their discretion so that they will be able to do the most work on the best showings. We believe the operators' request is reasonable; therefore we recommend that permission to complete this phase of Stage I be granted. It is likely that permission to drill the remaining long holes will be requested when the crosscutting nears completion. At present there is no indication that permission to start Stage II will be requested by the operators or granted by DMEA.

John H. Faick

F. A. Romalo

JHF:ma

cc: Hornbaum (6)
Stearns

VELOPERS SHIPPERS OF URANIUM ORE

ona globe uranium, inc

MINING OFFICE: 293 North Broad Street Globe, Arizona

GENERAL OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

April 13, 1956

Re: Docket DMEA 3669 (Uranium)
Contract Idm-E834

U. S. BUREAU OF MINES
SOUTHWEST EXPERIMENT STATION
APR 13 1956
TUCSON, ARIZONA

Mr. W. R. Storms
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Dear Mr. Storms:

Permission is hereby requested for crosscutting under Phase I of the subject DMEA contract normal to the DMEA main drift, said crosscutting not to exceed 125 feet and to be distributed, at the discretion of Arizona Globe Uranium, Inc., at not to exceed three locations as follows:

DMEA Sta. 330+00 - in a westerly direction normal to drift

DMEA Sta. 420+00 - in an easterly direction normal to drift

DMEA Sta. 420+00 - in a westerly direction normal to drift

The last DMEA progress report shows a slightly anomalous condition above the drift at DMEA sta. 330+00, where a vertical stoper hole has been drilled right on a prominent east-west fracture. It is believed that a westerly crosscut here will serve the two-fold purpose of exploring the possibilities of the east-west fracture at that station and also determining whether the north-south fracture at DMEA crosscut sta. 47+00 carries as far south as DMEA sta. 330+00. If this north-south fracture does intersect the east-west fracture at DMEA sta. 330+00, it would appear that there is a better possibility of an extensive ore zone at this intersection than at any other point between DMEA sta. 135+00 and 330+00. This crosscut will be driven first to an approximate depth of 50 feet, and then further, if showings justify.

DMEA sta. 420+00 presents a fracture series in an area where several other slightly radioactive fractures have been encountered (DMEA sta. 390+00 to 430+00) and it is intended that following driving of the crosscut at DMEA sta. 330+00, or simultaneous therewith, a crosscut to the east at DMEA sta. 420+00 will be undertaken, as the east wall of the drift in

this area shows greatest radioactivity. If, within 50 feet or so, favorable ore or fracture zones do not develop, it is intended to crosscut west at DMEA sta. 420+00 for the remainder of the DMEA Phase I crosscut work, and further, at the expense of Arizona Globe Uranium, Inc., if showings justify. In this connection, however, the total DMEA crosscut work may be used up in either or both of the previously described locations if showings justify in the opinion of Arizona Globe Uranium, Inc., considering what information is available, including recommendations by the AEC staff in Globe, Arizona.

This request seeks authorization up to three crosscuts, so that we can continuously prosecute this final Phase I crosscut work in the most practical manner, keeping the work in the most favorable of three locations day by day as it progresses. Under the authorization requested, it is possible that all of the remaining DMEA work could be used up in one of the requested locations if favorable showings seemed to justify, and on the other hand, any one or two of the crosscuts could be abandoned after a few feet of advance if geological conditions and drilling seemed to indicate that good results would not be forthcoming.

The pulp sample from the first 22-ton lot of ore non-selectively taken from above DMEA sta. 52+00 in a six foot by six foot block was chemically assayed privately at 0.15% U_3O_8. DMEA royalty is forthcoming from this 22-ton lot. Work is presently being done at DMEA sta. 52+00 and along a north-south fracture at that location, above the drift and six feet to the west of the drift. Ore is being stockpiled for sampling before shipment is made. In addition, a drift is being driven to the north along the north-south fracture at DMEA crosscut sta. 47+00 for the development of additional ore.

It is expected at this time that the remaining 207.5' of long hole drilling under Phase I of the DMEA contract will be requested for use in the crosscuts covered herein at a later date.

Yours very truly,

ARIZONA GLOBE URANIUM, INC.

Richard W. Henes

Richard W. Henes
General Superintendent

C. O. Lee

C. O. Lee
Secretary-Treasurer

RWH/en

MINERAL DEPOSITS
RECEIVED
APR 19 1956
APR 20 1956
DMEA
Date Rec'd.
APR 19 1956
BUREAU OF MINES
Denver, Colorado

Box 4126 University Station
Tucson, Arizona

April 17, 1956

MEMORANDUM

To: Mr. E. N. Hansmann JCMH

From: J. H. Faick

Subject: Interim Examination, Docket DMEA 3669 (Uranium)
Contract Ida-2334, Arizona-Globe Uranium, Inc.,
Sue Uranium Mine, Gila County, Arizona

On April 2-3, 1956 the writer and Z. M. Kosnic re-examined the Sue mine. At this time operations had halted temporarily because of inclement weather but Richard W. Kosnic, superintendent, and H. Smith, a mining contractor, were present during the first part of the examination and together we were able to make radiometric logs of 4 holes, which completed radiometric logging of all the long holes drilled under the contract. This examination confirms our growing suspicions that unless larger quantities of higher grade material are encountered soon there will be no justification for undertaking Stage II of the project.

Inspection of the underground workings leaves the examiners with 4 fairly definite impressions, as follows:

1. The largest and most radioactive bodies appear to be localized near intersections of nearly vertical, northerly trending fractures and thin, irregularly bedded shaly quartzite.
2. The host rocks, the Dripping Spring quartzite, appears to be nearly horizontal and the most favorable bed stays a few feet above the exploration drifts, and does not dip into the workings at the south end of the mine as previously expected.

3. The larger and more radioactive zones appear to be closest to the outcrop, and as depth is attained by the workings, smaller, fewer and less-radioactive zones are encountered.

4. Radioactivity at the Sun appears to be directly proportional to the intensity of oxidation; the amount of iron oxide stain, the amount of secondary uranium minerals, and the intensity of radioactivity seem to diminish as greater depth is attained by the workings.

A few samples were cut by the examiners and these analyses will be submitted by Romalo when available. Analyses of the operator's samples and his radiometric logs will be available at a later date. The applicant is expected to request permission to complete Stage I of the contract, and we believe this is a reasonable request; however, it does not appear now that Stage II of the contract would be justified.

John H. Faick

JHF:ms

cc: Harshman (8)
Sherms

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

RECEIVED
APR 23 1956

ew Customhouse
er 2, Colorado

April 19, 1956

Mr. Chuck O. Lee, Secretary-Treasurer
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Docket DMEA-3669 (Uranium)
Contract Idm-E834
Sue Mine
Gila County, Arizona

Dear Mr. Lee:

We are processing your Monthly Report and Voucher for March, 1956.

An amount of $300.00 is withheld pending resumption of work under the contract. If work is not resumed, this amount shall continue to be held pending resolution of matters relative to closing the account, which includes the rendering of a Final Engineering and Geologic Report as stipulated under Article 6 (c) of the contract, and release of the final Report of Review of contract expenditures by the Contract Administration and Audit Division, DMEA.

No maps were submitted with the March, 1956 Monthly Report. If work is resumed under the contract, please include with all future reports such maps as are necessary to show progress for each reporting period and also the progress to date at the end of each period.

Very truly yours,

W. M. TRAVER

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

JDC:jy
cc: Corresp. E834
Sec. Op. Comm. (2)
Storms
Townsend
Chron.

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

RECEIVED
APR 20 1956

224 New Customhouse
Denver 2, Colorado

April 17, 1956

3669

Mr. Charles A. Raeder, Chief
Ore Procurement Branch, Mining Division
United States Atomic Energy Commission
Grand Junction Operations Office
Grand Junction, Colorado

Dear Mr. Raeder:

On April 10, 1956 a letter was sent to your attention by C. O. Lee, Secretary-Treasurer of Anderson Globe Uranium, Inc., regarding the requirement for Government's royalty on future production. A copy of this letter is enclosed for your convenience.

Please revise your records to have the subject royalty checks sent to the Executive Officer, DMEA, Region III, Room 224 New Customhouse, Denver 2, Colorado. All Government royalty checks are to be made payable to the Defense Minerals Exploration Administration, and we would appreciate receiving four copies of each settlement sheet for our files.

Very truly yours,

W. M. TRAVER

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

Encl.

RIB:bh
cc - Mr. C. O. Lee
Royalty File E-834 w/copy letter
Sec., Op. Comm. (2) " "
W. R. Storms " "
Berk.
Chren.

COPY

RECEIVED
APR 20 1956

April 10, 1956

United States Atomic Energy Commission
Grand Junction Operations Office
Grand Junction, Colorado

Attention: Mr. Charles A. Rasor, Chief
Ore Procurement Branch
Mining Division

Re: Contract No. AT (05-1)-622

Gentlemen:

This is to give notice of the United States Government's claim for royalty on uranium ores purchased from the Arizona Globe Uranium, Inc. Sue Mine after March, 1956, and you are hereby authorized to pay the royalty, as explained below, directly to the Government and to furnish the Government with copies of the settlement sheets. The Government agent for collection of these amounts is:

Mr. W. R. Storms
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

The Government's royalty is due by virtue of an Exploration Project Contract (Short Form), Form No. MF-200A as revised June, 1954, Docket No. DMEA-3669, Contract No. Idm-E 834, which provides:

" (c) Basis for computation. - The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, consentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that

United States Atomic Energy Commission
Grand Junction, Colorado
Attention: Mr. Charles A. Rasor

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APR 20 1956

April 10, 1956

term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes" as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

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

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (1/2) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts. (For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.) "

There are certain stockpiles of ore from the Sue Mine property which were accumulated prior to the execution of the aforesaid contract, and which, when sold, will not be subject to the Government's royalty. You will be notified in advance when any of this ore is shipped so as not to take a royalty out of the proceeds therefrom, but unless such notice is received with the shipment, or before, all ore hereafter is to be considered subject to the royalty.

Yours very truly,

ARIZONA GLOBE URANIUM, INC.

C. O. Lee, Secretary-Treasurer

cc: W. R. Storms
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

cc: United States Atomic Energy Commission (2 cc)
Globe Ore-Buying Station
Cutter, Arizona

COPY

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

RECEIVED
MAR 19 1956

224 New Customhouse
Denver 2, Colorado

March 16, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3669 (Uranium), Contract Idm-E834, Arizona
Globe Uranium, Inc., Sue mine, Gila County, Arizona

Enclosed are four copies of project work approval issued by the DMEA Field Team, Region III.

Also enclosed are four sets of data relative to the matter.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
MAR 19 1956

224 New Customhouse
Denver 2, Colorado

March 14, 1956

Mr. J. R. Heron, President
Arizona Globe Uranium, Inc.
293 North Broad Street
Globe, Arizona

Re: Docket DMEA 3669 (Uranium)
Contract Idm-E834

Dear Mr. Heron:

In reference to your letter of February 20, 1956, and consistent with provisions in the contract pertaining to Stage I work, this constitutes the Government's approval for you to drill not to exceed thirteen (13) percussion drill holes from eight drill stations as shown on the map entitled, "Docket DMEA 3669 (Uranium), Contract Idm-E834, Arizona Globe Uranium, Inc. (Long Hole Drilling Plan)," dated 2/16/56, which is attached hereto and made a part of this work approval.

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

Very truly yours,

DMEA Field Team, Region III

W. M. Traver

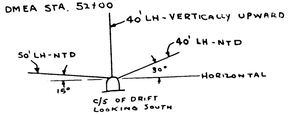
W. M. Traver

E. N. Harshman

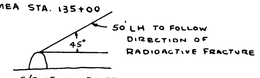
E. N. Harshman

Enclosure
JWT:prl
cc: Chairman, Oper. Comm. (4)
Finance Office, Region III
Amendment File
Harshman
Storms
Faick
Townsend
Corres. file
Chron.

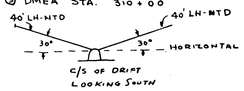
130' — ① DMEA STA. 52+00



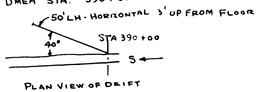
50' — ② DMEA STA. 135+00



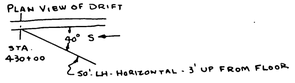
80' — ③ DMEA STA. 310+00



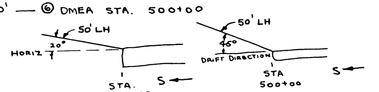
50' — ④ DMEA STA. 390+00



50' — ⑤ DMEA STA. 430+00



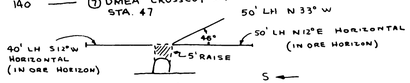
50' — ⑥ DMEA STA. 500+00



SECTION - ELEVATION OF DRIFT

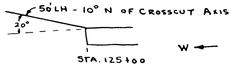
PLAN OF DRIFT

140' — ⑦ DMEA CROSSCUT #1
STA. 47



C/S OF #1 CROSSCUT

50' — ⑧ DMEA CROSSCUT #1
STA. 125+00



SECTION-ELEVATION OF CROSSCUT

TOTAL FOOTAGE REQUESTED HEREIN

600'

TYPE - PERCUSSION

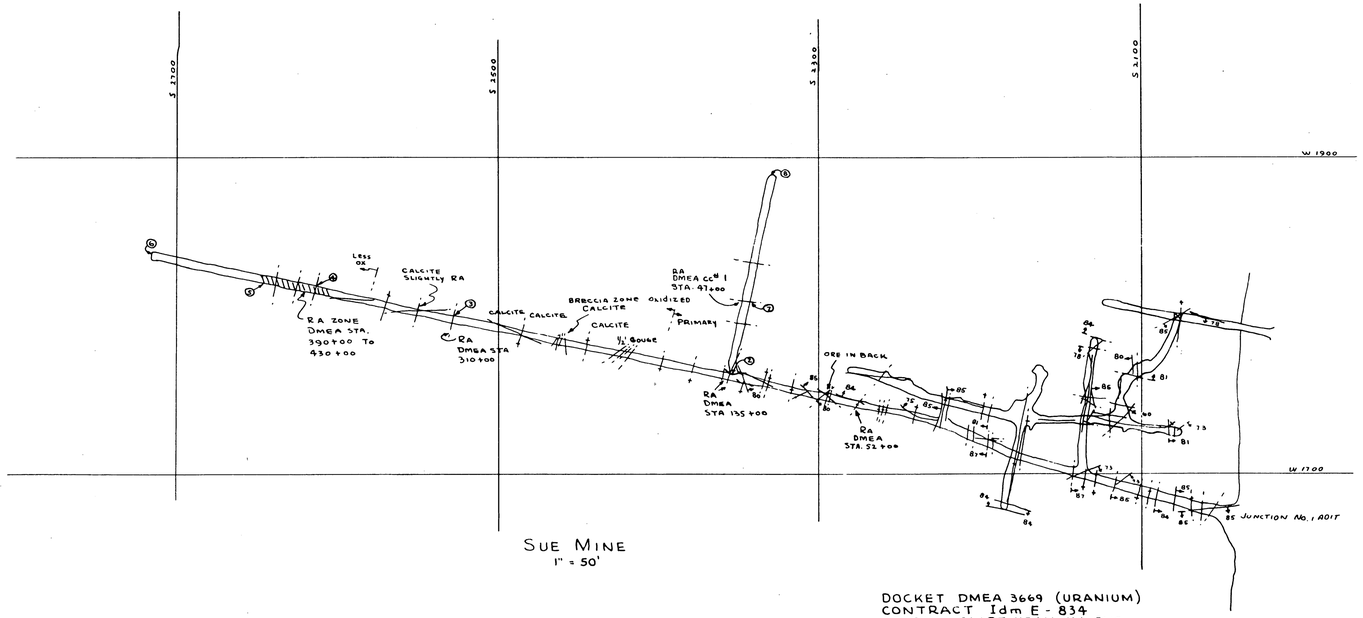
SIZE - MINIMUM DIAMETER OF 1½"

- LEGEND -

LH = LONG HOLE

NTD = NORMAL TO DRIFT

RA = RADIOACTIVE



SUE MINE
1" = 50'

DOCKET DMEA 3669 (URANIUM)
CONTRACT Idm E - 834
ARIZONA GLOBE URANIUM, INC.
(LONG HOLE DRILLING PLAN)

2/16/56

MINERAL DEPOSITS
DMEA
RECEIVED
MAR 8 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO
DMEA
Date Rec'd.
MAR 9 1956
BUREAU OF MINES
Denver, Colorado

Box 4126 University Station
Tucson, Arizona

March 5, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: T. M. Romalo
J. N. Faick

Through W. R. Storms
E. M. Marshman

Subject: Proposed Long Hole Drilling, DMEA-3669 (Uranium)
Contract Idm-2834, Arizona Globe Uranium, Inc.,
Sue Uranium Mine, Gila County, Arizona

Reference is made to W. M. Traver's letter of February 28, 1956 to W. R. Storms.

The requested 11 copies of the map are attached to this memorandum that contains requested comments on 3 items.

Item 1, Do conditions at this time indicate that Stage II work will be recommended for approval? The answer is no. To date only a few zones of weak anomalous radio-activity have been encountered by the authorized 500 feet of adit and 125 feet of crosscutting. These zones will be tested by the long holes to determine if they could contain significant amounts of commercial ore. The best of these zones, as determined by long hole drilling, probably will be further tested by mining small sections in an effort to more accurately establish the grade of ore and the conditions under which the mineralized zones occur. We now doubt that significant amounts of uranium ore will be developed. As stage 2 probably will not be recommended, we believe hole No. 6 should be drilled to explore in advance of the present adit face.

Item 2, Why did crosscut diverge from favorable structure? Uranium mineralization associated with the favorable cross-fracture died out within several feet of the adit. Consequently it was decided to run the crosscut normal to the average trend of the more favorable north-south fractures.

Item 3, Has verbal approval been given for any of the drilling? The answer is no. However, as approval was anticipated the 40-foot vertical hole of DMEA Station 52 + 00 was

started and completed during the last half of February. For this reason we believe approval of the requested drilling should be made retroactive to February 15, 1956.

W. W. Porzelo
U. S. Bureau of Mines

John H. Faick
U. S. Geological Survey

DMEA Field Team (~~8~~ 10)
W. R. Storms (2)
J. H. Faick

DMEA
Date Rec'd.

FEB 28 1956

BUREAU OF MINES
Denver, Colorado

RECEIVED
MAR 1 0 1956

Memorandum

February 23, 1956

To : DMEA Field Team, Region III

Through : Walter R. Storms, Superintendent, Southwest Experiment Station, Region III
E. N. Harshman, Denver Federal Center, Denver, Colo.

From : J. N. Faick, Geologist, U. S. Geological Survey and
T. M. Romslo, Mining Engineer, U. S. Bureau of Mines

Subject : Proposed long hole drilling, DMEA Contract Ldn-1834, Docket DMEA-3669, Arizona Globe Uranium, Inc., Sue Uranium Mine, Gila County, Ariz. (Reference: Attached 6 copies of Operator's letter, with maps, of February 20, 1956).

The operator requests permission for the drilling of 600 feet of the allowable 800 feet of long holes under Stage I. Locations and designs of the proposed holes are shown on the map and the reasons for the drilling are given in the letter.

We find the proposed drilling program preferable to that outlined by the contract because it is designed to explore only in and near those zones found favorable by the adit and crosscut and by drilling done at no expense to the Government. Therefore we recommend that the contract be amended, if necessary, to provide for the proposed drilling. To provide for drilling that may have started shortly after completion of the survey by Messrs. Hones and Schwartz, the effective date of the amendment or authorization should be February 15, 1956.

J. N. Faick
J. N. Faick, Geologist
U. S. Geological Survey

T. M. Romslo
T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

cc: W. R. Trever (8)
E. N. Harshman
J. N. Faick
DMEA-3669
WF

JNFAICK-T.M.ROMSLO:FRJ

February 20, 1956

Re: Docket DMEA 3649 (Uranium)
Contract Ide-2834

Mr. W. R. Stevens
U. S. Bureau of Mines
P. O. Box 1097
University Station
Tucson, Arizona

Dear Mr. Stevens:

Enclosed are six copies of a map of the Sue Mine, Gila County, Arizona, showing proposed locations for the placement of long percussion drill holes under Phase I of the subject contract, which allows 800 feet of drilling. We are requesting only 600 feet at this time. Inasmuch as the drill holes requested are not exactly spaced not less than 100 feet apart as shown in Figure 3, DMEA 3649, this request is submitted in duplicate so that it may be used as a request for amendment to the subject contract if necessary, however, it is believed that the aforesaid Figure 3 is not intended as an inflexible requirement, deviation from which will require an amendment.

The program of drilling mapped on the enclosed maps was worked out by the writer and Roland J. Schmarte, head geologist of the Globe Office of the U. S. Atomic Energy Commission located in Globe, Arizona. Mr. Schmarte and the writer mapped this program on February 14, 1956, taking into consideration all sheetings in the Sue Mine to date, and especially those encountered in the DMEA work. The program is specifically aimed toward accomplishing the dual object of defining the extent of radioactive zones uncovered in the underground workings and also exploring the greatest possible favorable appearing area for the discovery of presently unknown radioactive zones. The drill holes are to be of a minimum diameter of 1-1/2" to allow for the insertion of geiger tube probes to render radioactivity readings along the length of the holes. A radiometric log for each hole will be prepared on the basis of the geiger counter readings processed.

Three holes totaling 130 feet are requested at station no. 1, DMEA Sta. 52+00. A strong east-west fracture in this area has been tested out with short vertical percussion drill holes and geiger tube probing, rendering the following results:

DMEA Sta.	MR/HR at 1' up	MR/HR at 2' up	MR/HR at 3' up	MR/HR at 4' up	MR/HR at 5' up	MR/HR at 6' up	MR/HR at 7' up
46+00				1.00			
47+00		.50	.75				
49+00			.70	.70	.70	.70	
50+00	.50	.60	.70	1.50	2.20	.90	.70
50+50		1.50	2.10	1.50	1.20	.50	
51+00		.60	.60	.60	.60	.60	.60
52+00	2.50	3.10		3.30	1.50	1.60	
53+00	1.00	1.00	.50	.40	.35		

The hole to the west is calculated to pass over the old workings in the mine, and to define vertical and horizontal extent of the fracture encountered to the west. The hole to the east is calculated to produce like information in the opposite direction. The vertical up hole is placed here to test for the presence of additional ore horizons. This location is considered wise for an up hole because of the extraordinarily high radioactivity in the roof of the drift, enhancing the possibility of like concentrations existing in other favorable horizons directly above.

One hole 50 feet in length is requested at station no. 2, DMEA sta. 135+00, where the DMM crosscut no. 1 was approved on the basis of strong radioactivity in the roof of the drift. Inasmuch as the crosscut has deviated from the radioactive fracture started in on, it is believed that a long hole angled upward and following the true course of the fracture will serve best to define the extent of the mineralization associated with the fracture, both vertically, and to the west.

Two holes, each 40 feet long, are requested at station no. 3, DMEA sta. 310+00, where readings at the roof of the drift are about five times background, and where a pronounced east-west fracture occurs. This location presents an isolated spot of abnormal radioactivity in the main drift which has no easy explanation. A 40 foot long hole in each direction along the east-west fracture, and angled upward, will do most in defining both vertical and horizontal linear extent of any radioactive zone above the drift.

One 50 foot hole is requested at station no. 4, DMEA sta. 390+00, where there begins a 40 foot zone of radioactivity which strengthens and wanes as east-west fractures are encountered along the drift. The radioactivity

along this stretch of drift occurs about three feet up from the floor of the drift, and it seems that there may have been some shifting of the ground to perhaps lower the radioactive horizon which previously existed above the roof of the drift. The flaggy bedded quartzite structure lies about two feet down from the roof of the drift in this area, but it cannot definitely be identified as that which was encountered back at the first part of the drift. The multitude of fractures and scattered breccia zones present the possibility of slips having occurred which cumulatively have resulted in an overall change in elevation of the bedding planes. Since the location of greatest radioactivity in this 40 foot zone has been definitely established as being about three feet up from the drift floor, a horizontal long hole on this plane and angled out to the side of the drift is believed to present the best possibility for cutting similar, and perhaps better zones to the west of the drift.

One 50 foot hole is requested at station no. 5, DMEA sta. 430+00, as a correlative to that hole requested at station no. 4. The hole at station no. 5 will serve to furnish like information on the east side of the drift along the same horizon and in the same area as the hole at station no. 4.

One 50 foot hole is requested at station no. 6, at the face of the DMEA main drift for Phase I. This hole is calculated to explore the area above, beyond and to the west of the main drift.

Two 50 foot holes and one 40 foot hole are requested at station no. 7, DMEA crosscut No. 1 sta. 47+00, where the crosscut cuts a north-south fracture giving radioactivity readings of triple background at the roof of the drift. We propose to drive a raise at this station not to exceed five feet above the roof of the drift, which will put us in the horizon from which ore was produced in the mine prior to the DMEA work. It is proposed to drill one 50 foot horizontal hole along the course of the fracture to the north, and one 40 foot horizontal hole along the course of the fracture to the south. These two holes are expected to reveal whether this fracture is an extension of that productive fracture which was worked earlier in the mine, and which produced several hundred tons of ore, and also whether there are zones of ore interspersed along its course. A third hole 50 feet in length is proposed at this station at an angle of 45° to the horizontal and on a N 35° W course. This hole is to explore the ground above the drift and also in the area of a second radioactively anomalous north-south fracture in the crosscut to the west.

This request includes one final 50 foot hole at the face of DMEA crosscut no. 1, sta. 125+00, to explore the area above, beyond and to the north of the face of the crosscut. This hole will explore area further west of the Sue workings than any other work done to date, will penetrate area in a horizon presently believed to be most favorable for the presence of ore, and in addition, will furnish information on the advisability of extending the crosscut.

Mr. W. R. Stearns
Tucson, Arizona

February 20, 1956

-4-

This request, embracing a total of 600 feet, is based upon recommendations by Mr. Schwartz, who has followed the uranium picture in the Globe area since its inception, as both a geologist and an engineer. It is submitted as presenting the most practical and intelligent program possible considering the geology and mineral occurrences in the Sue Mine. Arizona Globe Uranium, Inc. is undertaking additional long hole drilling at its own expense in accordance with Mr. Schwartz's recommendations, the results of which will also provide further information for the benefit of the DMEA workings. The last 200 feet of Phase I DMEA long hole drilling is being reserved at this time pending the results of the drilling under this request, and also the results of the second DMEA Phase I crosscut, which has not yet been requested.

Your early action on this request is respectfully solicited.

Very truly yours,

ARIZONA GLOBE URANIUM, INC.

R. W. Kenes
General Superintendent

J. R. Ryan, President

E. C. Lee
E. C. Lee, Secretary-Treasurer

RWK/em
Encls.

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

RECEIVED
MAR 19 1956

224 New Customhouse
Denver 2, Colorado

March 14, 1956

Mr. J. R. Moron, President
Arizona Globe Uranium, Inc.
293 North Broad Street
Globe, Arizona

Re: Docket DMEA 3669 (Uranium)
Contract DMe-1834

Dear Mr. Moron:

In reference to your letter of February 20, 1956, and consistent with provisions in the contract pertaining to Stage I work, this constitutes the Government's approval for you to drill not to exceed thirteen (13) percussion drill holes from eight drill stations as shown on the map entitled, "Docket DMEA 3669 (Uranium), Contract DMe-1834, Arizona Globe Uranium, Inc. (Long Hole Drilling Plan)," dated 2/16/56, which is attached hereto and made a part of this work approval.

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

Very truly yours,

DMEA Field Team, Region III

W. H. Drever

E. N. Harshman

Enclosure
JWF:prl
cc: Chairman, Oper. Comm (4)
Finance Office, Region III
Amendment File
Harshman
Storms
Faick
Townsend
Corres. file
Chron.

DMEA
Date In
MAR 6 1956

BUREAU OF MINES
Denver, Colorado
Box 4126 University Station
Tucson, Arizona

March 5, 1956

RECEIVED
MAR 10 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: T. M. Rosalie, J. E. Patek — Through: W. E. Sharon, E. W. Hawkins

Subject: Proposed Long Hole Drilling, DMEA-[illegible] (Uranium)
Contract [illegible], Arizona Elder Uranium, Inc.,
Ace Uranium Mine, Gila County, Arizona

Reference is made to W. H. Draper's letter of February 28, 1956 to W. E. Sharon.

The requested 11 copies of the map are attached to this memorandum that contains requested comments on 3 items.

Item 1, Do conditions at this time indicate that Stage II work will be recommended for approval? The answer is no. To date only a few zones of weak anomalous radio-activity have been encountered by the authorized 500 feet of adit and 185 feet of crosscutting. These zones will be tested by the long holes to determine if they could contain significant amounts of commercial ore. The best of these zones, as determined by long hole drilling, probably will be further tested by mining small sections in an effort to more accurately establish the grade of ore and the conditions under which the mineralized zones occur. We now doubt that significant amounts of uranium ore will be developed. As stage II probably will not be recommended, we believe hole No. 6 should be drilled to explore in advance of the present adit face.

Item 2, Why did crosscut diverge from favorable structure? Uranium mineralization associated with the favorable cross-fracture died out within several feet of the adit. Consequently it was decided to run the crosscut normal to the average trend of the more favorable north-south fractures.

Item 3, Was verbal approval been given for any of the drilling? The answer is no. However, an approval was anticipated the 40-foot vertical hole of DMEA Station 32 + 60 was

started and completed during the last half of February. For this reason we believe approval of the requested drilling should be made retroactive to February 15, 1956.

[illegible]
U. S. Bureau of Mines

John M. Daish
U. S. Geological Survey

[illegible] Field Team (10)
W. B. Stevens (1)
J. H. Polak

DMEA
Date

FEB 6

BUREAU OF MINES
Denver, Colorado

Memorandum

February 23, 1956

MAR

To : DMEA Field Team, Region III

Through : Walter R. Storms, Superintendent, Southwest Experiment Station, Region III
E. N. Harshman, Denver Federal Center, Denver, Colo.

From : J. N. Faick, Geologist, U. S. Geological Survey and T. M. Romalo, Mining Engineer, U. S. Bureau of Mines

Subject : Proposed long hole drilling, DMEA Contract Idm-E834, Docket DMEA-3669, Arizona Globe Uranium, Inc., Sun Uranium Mine, Gila County, Ariz. (Reference: Attached 6 copies of Operator's letter, with maps, of February 20, 1956).

The operator requests permission for the drilling of 600 feet of the allowable 800 feet of long holes under Stage I. Locations and designs of the proposed holes are shown on the map and the reasons for the drilling are given in the letter.

We find the proposed drilling program preferable to that outlined by the contract because it is designed to explore only in and near those zones found favorable by the adit and crosscut and by drilling done at no expense to the Government. Therefore we recommend that the contract be amended, if necessary, to provide for the proposed drilling. To provide for drilling that may have started shortly after completion of the survey by Messrs. Hanes and Schwartz, the effective date of the amendment or authorization should be February 15, 1956.

J. N. Faick
J. N. Faick, Geologist
U. S. Geological Survey

T. M. Romalo
T. M. Romalo, Mining Engineer
U. S. Bureau of Mines

CC W. M. Traver (8)
E. N. Harshman
J. N. Faick
DMEA-3669
DF

JNFAICK-T.M.ROMALO:FRJ

RECEIVED
MAR 1 1956

February 20, 1956

Re: Docket DMEA 3669 (Uranium)
Contract Idm-E83

Mr. W. R. Storms
U. S. Bureau of Mines
P. O. Box 4097
University Station
Tucson, Arizona

Dear Mr. Storms:

Enclosed are six copies of a map of the Sue Mine, Gila County, Arizona, showing proposed locations for the placement of long percussion drill holes under Phase I of the subject contract, which allows 800 feet of drilling. We are requesting only 600 feet at this time. Inasmuch as the drill holes requested are not exactly spaced not less than 100 feet apart as shown in Figure 3, DMEA 3669, this request is submitted in sextuplicate so that it may be used as a request for amendment to the subject contract if necessary, however, it is believed that the aforesaid Figure 3 is not intended as an inflexible requirement, deviation from which will require an amendment.

The program of drilling mapped on the enclosed maps was worked out by the writer and Roland J. Schwartz, head geologist of the Globe Office of the U. S. Atomic Energy Commission located in Globe, Arizona. Mr. Schwartz and the writer mapped this program on February 14, 1956, taking into consideration all showings in the Sue Mine to date, and especially those encountered in the DMEA work. The program is specifically aimed toward accomplishing the dual object of defining the extent of radioactive zones uncovered in the underground workings and also exploring the greatest possible favorable appearing area for the discovery of presently unknown radioactive zones. The drill holes are to be of a minimum diameter of 1-1/2" to allow for the insertion of geiger tube probes to render radioactivity readings along the length of the holes. A radiometric log for each hole will be prepared on the basis of the geiger counter readings procured.

Three holes totaling 130 feet are requested at station no. 1, DMEA Sta. 52+00. A strong east-west fracture in this area has been tested out with short vertical percussion drill holes and geiger tube probing, rendering the following results:

DMEA Sta.	MR/HR @ 1' up	MR/HR at 2' up	MR/HR at 3' up	MR/HR at 4' up	MR/HR at 5' up	MR/HR at 6' up	MR/HR at 7' up
46+00				1.00			
47+00		.50	.75				
49+00			.70	.70	.70	.70	
50+00	.50	.60	.70	1.50	2.20	.90	.70
50+50		1.50	2.10	1.50	1.20	.50	
51+00		.60	.60	.60	.60	.60	.60
52+00	2.50	3.10		3.30	1.50	1.60	
53+00	1.00	1.00	.50	.40	.35		

The hole to the west is calculated to pass over the old workings in the mine, and to define vertical and horizontal extent of the fracture encountered to the west. The hole to the east is calculated to produce like information in the opposite direction. The vertical up hole is placed here to test for the presence of additional ore horizons. This location is considered wise for an up hole because of the extraordinarily high radioactivity in the roof of the drift, enhancing the possibility of like concentrations existing in other favorable horizons directly above.

One hole 50 feet in length is requested at station no. 2, DMEA sta. 135+00, where the DMEA crosscut no. 1 was approved on the basis of strong radioactivity in the roof of the drift. Inasmuch as the crosscut has deviated from the radioactive fracture started in on, it is believed that a long hole angled upward and following the true course of the fracture will serve best to define the extent of the mineralization associated with the fracture, both vertically, and to the west.

Two holes, each 40 feet long, are requested at station no. 3, DMEA sta. 310+00, where readings at the roof of the drift are about five times background, and where a pronounced east-west fracture occurs. This location presents an isolated spot of abnormal radioactivity in the main drift which has no easy explanation. A 40 feet long hole in each direction along the east-west fracture, and angled upward, will do most in defining both vertical and horizontal linear extent of any radioactive zone above the drift.

One 50 feet hole is requested at station no. 4, DMEA sta. 390+00, where there begins a 40 feet zone of radioactivity which strengthens and wanes as east-west fractures are encountered along the drift. The radioactivity

along this stretch of drift occurs about three feet up from the floor of the drift, and it seems that there may have been some shifting of the ground to perhaps lower the radioactive horizon which previously existed above the roof of the drift. The flaggy bedded quartzite structure lies about two feet down from the roof of the drift in this area, but it cannot definitely be identified as that which was encountered back at the first part of the drift. The multitude of fractures and scattered breccia zones present the possibility of slips having occurred which cumulatively have resulted in an overall change in elevation of the bedding planes. Since the location of greatest radioactivity in this 40 foot zone has been definitely established as being about three feet up from the drift floor, a horizontal long hole on this plane and angled out to the side of the drift is believed to present the best possibility for cutting similar, and perhaps better zones to the west of the drift.

One 50 foot hole is requested at station no. 5, DMEA sta. 430+00, as a correlative to that hole requested at station no. 4. The hole at station no. 5 will serve to furnish like information on the east side of the drift along the same horizon and in the same area as the hole at station no. 4.

One 50 foot hole is requested at station no. 6, at the face of the DMEA main drift for Phase I. This hole is calculated to explore the area above, beyond and to the west of the main drift.

Two 50 feet holes and one 40 feet hole are requested at station no. 7, DMEA crosscut No. 1 sta. 47+00, where the crosscut cuts a north-south fracture giving radioactivity readings of triple background at the roof of the drift. We propose to drive a raise at this station not to exceed five feet above the roof of the drift, which will put us in the horizon from which ore was produced in the mine prior to the DMEA work. It is proposed to drill one 50 foot horizontal hole along the course of the fracture to the north, and one 40 feet horizontal hole along the course of the fracture to the south. These two holes are expected to reveal whether this fracture is an extension of that productive fracture which was worked earlier in the mine, and which produced several hundred tons of ore, and also whether there are zones of ore interspersed along its course. A third hole 50 feet in length is proposed at this station at an angle of 45° to the horizontal and on a N 33° W course. This hole is to explore the ground above the drift and also in the area of a second radiometatively anomalous north-south fracture in the crosscut to the west.

This request includes one final 50 feet hole at the face of DMEA crosscut no. 1, sta. 125+00, to explore the area above, beyond and to the north of the face of the crosscut. This hole will explore area further west of the Sue workings than any other work done to date, will penetrate area in a horizon presently believed to be most favorable for the presence of ore, and in addition, will furnish information on the advisability of extending the crosscut.

Mr. W. R. Storms
Tucson, Arizona

February 20, 1956

-4-

This request, embracing a total of 600 feet, is based upon recommendations by Mr. Schwartz, who has followed the uranium picture in the Globe area since its inception, as both a geologist and an engineer. It is submitted as presenting the most practical and intelligent program possible considering the geology and mineral occurrences in the Sue Mine. Arizona Globe Uranium, Inc. is undertaking additional long hole drilling at its own expense in accordance with Mr. Schwartz's recommendations, the results of which will also provide further information for the benefit of the DMEA workings. The last 200 feet of Phase I DMEA long hole drilling is being reserved at this time pending the results of the drilling under this request, and also the results of the second DMEA Phase I crosscut, which has not yet been requested.

Your early action on this request is respectfully solicited.

Very truly yours,

ARIZONA GLOBE URANIUM, INC.

R. W. Hines
General Superintendent

J. E. Moten, President

G. O. Lee, Secretary-Treasurer

RWH/em
Encls.

Surname copy

700

FLKnouse

Ellis
Lawrence
Selfridge
Johnson
Matthews

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

DEC 23 1955

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

Re: Docket No. DMEA-3669 (Uranium)
Contract No. Idm-2834
Arizona Globe Uranium, Inc.
(Formerly Globe Uranium, Inc.)
Sue Mine
Gila County, Arizona

Dear Mr.Traver:

Reference is made to Mr. J. W. Townsend's memorandum of December 14, 1955, inquiring as to the status of the Government's approval to change the subject company's name from Globe Uranium, Inc., to Arizona Globe Uranium, Inc.

Enclosed are two copies of a letter dated October 17, 1955, from Mr. R. W. Hanna, Arizona Globe Uranium, Inc., which is self-explanatory. The certificate enclosed therewith satisfied the Government's requirement as stated in the second paragraph of our letter under date of September 12, 1955, to Mr. C. O. Lee, Secretary, Arizona Globe Uranium, Inc. Upon review of this document by our Legal Division, our records were changed to Arizona Globe Uranium, Inc. We regret that you were not advised of this action.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosures

APPROVED:

/s/ Robert W. Geehan (JHB)

Member, Bureau of Mines

Thor H. Kiilsgaard (JHB)

Member, Geological Survey

FLKnouse/gla
12-16-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Knouse

R.C.S.

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

RECEIVED
DEC 19 1955

224 New Customhouse
Denver 2, Colorado

December 14, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket DMEA 3669 (Uranium), Contract Idm-E834, Arizona
Globe Uranium, Inc., Sue mine, Gila County, Arizona

Enclosed are four copies of work approval issued by this office.

Also enclosed are four sets of data relative to the matter.

for E. N. Harshman

Enclosures

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

RECEIVED DEC 10 1955

224 New Customhouse
Denver 2, Colorado

December 14, 1955

Mr. R. W. Benes, General Superintendent
Arizona Globe Uranium, Inc.
293 North Broad Street
Globe, Arizona

Re: Docket DMEA 3669 (Uranium),
Contract Idm-5834

Dear Mr. Benes:

In reference to your letter of November 25, 1955, to Mr. W. R. Storms, Tucson, Arizona, and in conformance with the provisions in Exhibit "A" attached to Contract Idm-5834 relative to Stage I work, this constitutes the Government's approval for you to perform the following work under Stage I of the Contract:

> Drive a crosscut not to exceed 125 feet in length in a westerly direction normal to the drift previously driven under Stage I of the Contract from a point in the drift beginning at DMEA Station 135 + 00.

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

Very truly yours,

for J W Townsend

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

JWT:prl
cc: Chairman, Oper. Comm. (4)
Finance Office, Region III
Amend. file, Region III
Harshman
Storms
Faick
Townsend
Corres. file
Chron.

December 6, 1955

Memorandum

To: W.M. Traver, Executive Officer, DMEA Field Team, Region III, Denver, Colorado

From: T.M. Romslo, Mining Engineer, U.S. Bureau of Mines, and J.N. Faick, Geologist, U.S. Geological Survey, Tucson, Arizona

Through: Walter R. Storms and E.M. Harshman

Subject: Operator's request for cross-cutting, DMEA Contract Idm-2834, Docket DMEA-3669 (Uranium) Globe Uranium, Inc., Sue Uranium Mine, Gila County, Arizona

Reference is made to the attached Operator's letter with map of November 25, 1955.

The operator requests permission for driving a cross-cut to the west from a zone of uranium mineralization at DMEA stations 135 to 145 feet in the adit which is presently being advanced under subject contract.

We recommend approval of the crosscut because:

1. It is allowable under the contract
2. It will test the most favorable zone encountered to date and for other mineralized zones that could be present
3. The cross-cut also will provide room for long-hole drilling if found advisable.

Present indications are that the most favorable horizon is immediately above the back of the adit. On this basis, the operator has started to drill 6-foot stoper holes in the adit at 4-foot intervals. The drilling is being done at no expense to the Government.

Copies to: W.M. Traver (8)
J.N. Faick
DMEA 3669
DF

T.M. Romslo

J.N. Faick

arizona globe uranium, inc.

GENERAL OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

November 25, 1955

U. S. BUREAU OF MINES
SOUTHWEST EXPERIMENT STATION
NOV 27 1955
TUCSON, ARIZONA

Mr. W. R. Storms
U. S. Bureau of Mines
P O Box 4097
University Station
Tucson 5, Arizona

Re: Docket DMEA 3669 (Uranium)
Contract IDM-E834

Dear Mr. Storms:

Permission is requested for crosscutting under Phase I of the subject DMEA contract normal to the DMEA drift in a westerly direction for 125 feet, beginning at DMEA station 135+00, and on the level with the DMEA drift.

A thorough investigation of the DMEA drift, which now has reached station 310+00, shows a great concentration of abnormal radiation to be centered in the area of DMEA station 135+00. Six foot vertical sloper holes in the roof of the drift at the following stations yield the following radiometric readings in MR / hour:

DMEA Station	Surface	1'depth	2' depth	3' depth	4' depth	5'depth	6' depth
135+00	0.40	0.60	1.50	1.00	2.00	0.18	0.10
136+00	0.40	0.60	2.00	2.00	1.50	0.50	0.30
139+00	0.40	0.50	0.90	0.40	0.40	0.20	0.10
140+00	0.30	1.50	1.00	0.40	0.30	0.10	0.10
141+00	0.30	0.60	0.80	0.30	0.20	0.20	

These stoper holes are located along the west side of the drift on either side of an east-west fracture. It is believed that a crosscut perpendicular to the drift in a westerly direction at DMEA Station 135+00 will be most desirable if done on the same level with the DMEA drift, so that ore bodies above the drift can be stoped out with greatest efficiency. It is anticipated that the crosscut will deviate from the course of the east-west fracture because of the DMEA limitations upon crosscut direction, but that nevertheless crosscutting in this area offers a good possibility for locating mineralized north-south fractures, inasmuch as a junction between mineralized east-west and north-south fractures will probably result in an extensive mineralized surrounding area.

We request only 125 feet of crosscut at DMEA station 135+00 because it is our intention to also request a crosscut of 125 feet to the east under Phase I in the near future. To date there has been very little exploration to the east.

Very truly yours,
ARIZONA GLOBE URANIUM, INC.

R. W. Henes

R. W. Henes, General Superintendant

C. A. Lee

C. A. Lee, Secretary-Treasurer

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

[illegible]
Denver 2, Colorado

December 14, 1953

Mr. R. W. Hanes, General Superintendent
Arizona Globe Uranium, Inc.
893 North Broad Street
Globe, Arizona

Re: Docket DMEA 3669 (Uranium),
Contract DMe-2834

Dear Mr. Hanes:

In reference to your letter of November 25, 1953, to Mr. W. R. Sterns, Tucson, Arizona, and in conformance with the provisions in Exhibit "A" attached to Contract DMe-2834 relative to Stage I work, this constitutes the Government's approval for you to perform the following work under Stage I of the Contract:

> Drive a crosscut not to exceed 185 feet in length in a westerly direction normal to the drift previously driven under Stage I of the Contract from a point in the drift beginning at DMEA Station 135 + 00.

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

Very truly yours,

for J. W. Townsend
R. M. Burchman
Acting Executive Officer
DMEA Field Team, Region III

JWT:prl
cc: Chairman, Oper. Comm. (4)
Finance Office, Region III
Assnd. file, Region III
Burchman
Sterns
Faick
Townsend
Corres. file
Chron.

DMEA
DEC 16 1955
BUREAU OF MINES
Denver, Colorado

December 6, 1955

Memorandum

To: W.H. Traver, Executive Officer, DMEA Field Team, Region III, Denver, Colorado

From: T.M. Romslo, Mining Engineer, U.S. Bureau of Mines, and J.N. Faick, Geologist, U.S. Geological Survey, Tucson, Arizona

RECEIVED
DEC 19 1955

Through: Walter R. Storms and E.N. Marshman

Subject: Operator's request for cross-cutting DMEA Contract Idm-2834, Docket DMEA-3669 (Uranium) Globe Uranium, Inc., Sue Uranium Mine, Gila County, Arizona

Reference is made to the attached Operator's letter with map of November 23, 1955.

The operator requests permission for driving a cross-cut to the west from a zone of uranium mineralization at DMEA stations 135 to 145 feet in the adit which is presently being advanced under subject contract.

We recommend approval of the crosscut because:

1. It is allowable under the contract
2. It will test the most favorable zone encountered to date and for other mineralized zones that could be present
3. The cross-cut also will provide room for long-hole drilling if found advisable.

Present indications are that the most favorable horizon is immediately above the back of the adit. On this basis, the operator has started to drill 6-feet steper holes in the adit at 4-feet intervals. The drilling is being done at no expense to the Government.

Copies to: W.H. Traver (8)
J.N. Faick
DMEA 3669
UF

T.M. Romslo

T.M. Romslo

J.N. Faick

J.N. Faick

Arizona Globe Uranium, Inc.

HEAD OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

November 25, 1955

U. S. BUREAU OF MINES
SOUTHWEST EXPERIMENT STATION
NOV 28 1955
TUCSON, ARIZONA

Mr. W. R. Storms
U. S. Bureau of Mines
P O Box 4097
University Station
Tucson 5, Arizona

WRS

Re: Docket DMEA 3669 (Uranium)
Contract IDM-E834

Dear Mr. Storms:

Permission is requested for crosscutting under Phase I of the subject DMEA contract normal to the DMEA drift in a westerly direction for 125 feet, beginning at DMEA station 135+00, and on the level with the DMEA drift.

A thorough investigation of the DMEA drift, which now has reached station 310+00, shows a great concentration of abnormal radiation to be centered in the area of DMEA station 135+00. Six foot vertical sloper holes in the roof of the drift at the following stations yield the following radiometric readings in MR / hour:

DMEA Station	Surface	1'depth	2' depth	3' depth	4' depth	5'depth	6' depth
135+00	0.40	0.60	1.50	1.00	2.00	0.18	0.10
136+00	0.40	0.60	2.00	2.00	1.50	0.50	0.30
139+00	0.40	0.50	0.90	0.40	0.40	0.20	0.10
140+00	0.30	1.50	1.00	0.40	0.30	0.10	0.10
141+00	0.30	0.60	0.80	0.30	0.20	0.20	

These stoper holes are located along the west side of the drift on either side of an east-west fracture. It is believed that a crosscut perpendicular to the drift in a westerly direction at DMEA Station 135+00 will be most desirable if done on the same level with the DMEA drift, so that ore bodies above the drift can be stoped out with greatest efficiency. It is anticipated that the crosscut will deviate from the course of the east-west fracture because of the DMEA limitations upon crosscut direction, but that nevertheless crusscutting in this area offers a good possibility for locating mineralized north-south fractures, inasmuch as a junction between mineralized east-west and north-south fractures will probably result in an extensive mineralized surrounding area.

We request only 125 feet of crosscut at DMEA station 135+00 because it is our intention to also request a crosscut of 125 feet to the east under Phase I in the near future. To date there has been very little exploration to the east.

Very truly yours,
ARIZONA GLOBE URANIUM, INC.

R. W. Henes

R. W. Henes, General Superintendant

C. O. Lee

C. O. Lee, Secretary-Treasurer

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

RECEIVED
DEC 15 1955

224 New Customhouse
Denver 2, Colorado

AIR MAIL

December 14, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket DMEA 3669 (Uranium), Contract Idm-E834, Globe Uranium, Inc., Sue mine, Gila County, Arizona

Reference is made to the Administrator's letter of September 12, 1955, to Mr. C. O. Lee, Secretary, Arizona Globe Uranium, Inc.

We will appreciate advice as to the status of the Government's approval to the change of the company's name from Globe Uranium, Inc. to Arizona Globe Uranium, Inc.

for E. N. Harshman

S, DEVELOPERS, SHIPPERS F URANIUM ORE

rizona globe uranium, inc.

INING OFFICE: 293 North Broad Street Globe, Arizona

GENERAL OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

October 17, 1955

RECEIVED
OCT 19 1955

United States Department of the Interior
Defense Materials Exploration Administration
Washington 25, D. C.

Attention: Mr. C. O. Mittendorf
Administrator

Re: Docket No. DMEA-3669 (Uranium)
Contract No. Idm - E834
Globe Uranium, Inc.
Sue Mine
Gila County, Arizona

Gentlemen:

In accordance with your letter dated September 12, 1955 relating to the subject docket, we enclose herewith two (2) duplicate copies of "Certificate of Amendment to Articles of Incorporation for Globe Uranium, Inc." wherein it is authorized that our corporate name be changed to Arizona Globe Uranium, Inc. The enclosed certificates were procured by us from the Arizona Corporation Commission, and have been certified by said commission.

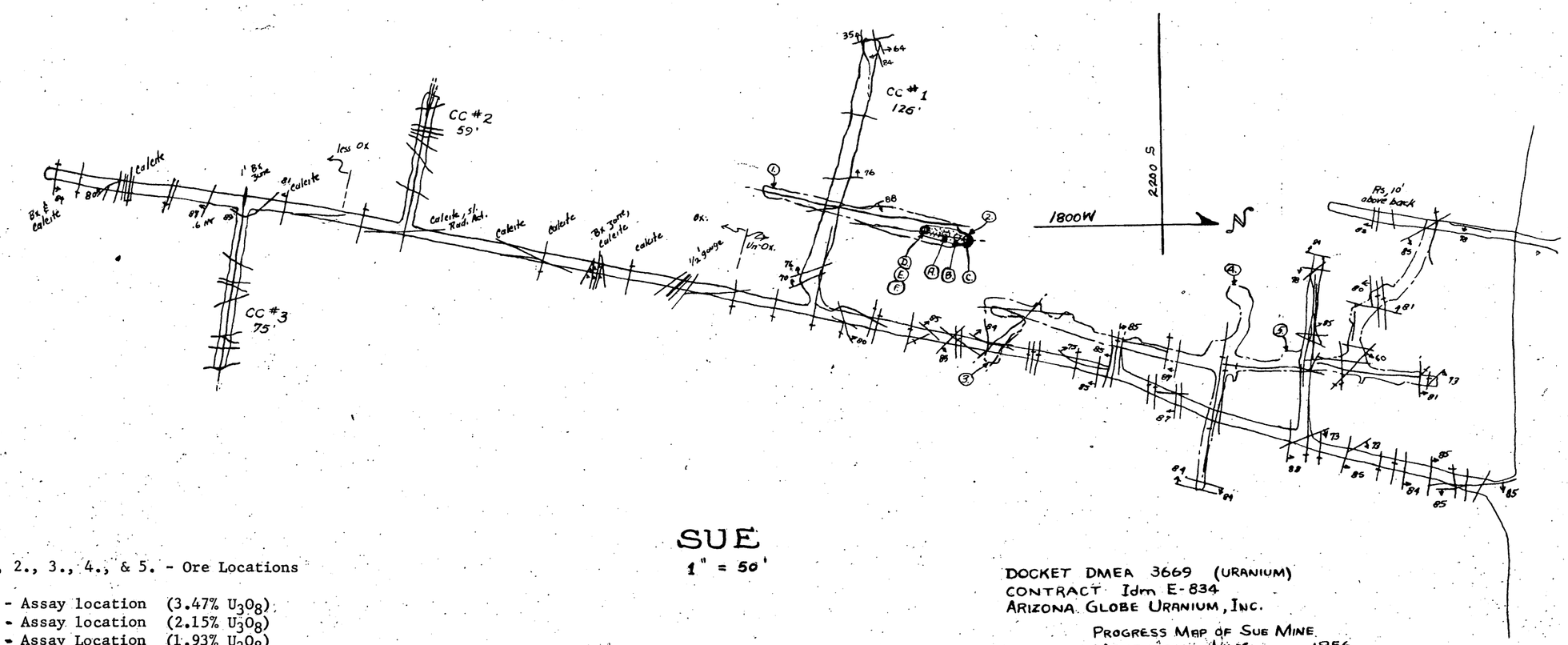
Very truly yours,

ARIZONA GLOBE URANIUM, INC.

R. W. Henes

R. W. Henes

RWH:ll



SUE

1" = 50'

1., 2., 3., 4., & 5. - Ore Locations

A. - Assay location (3.47% U_3O_8)
B. - Assay location (2.15% U_3O_8)
C. - Assay Location (1.93% U_3O_8)
D. - Assay Location (0.11% U_3O_8)
E. - Assay Location (0.86% U_3O_8)
F. - Assay Location (0.20% U_3O_8)

DOCKET DMEA 3669 (URANIUM)
CONTRACT Idm E-834
ARIZONA GLOBE URANIUM, INC.

PROGRESS MAP OF SUE MINE
MONTH OF JULY, 1956

STATE OF ARIZONA

ARIZONA CORPORATION COMMISSION

GREAT SEAL OF THE STATE OF ARIZONA
DITAT DEUS
1912

To all to Whom these Presents shall Come, Greeting:

I, MEL D. MICHAEL, SECRETARY OF THE ARIZONA CORPORATION COMMISSION, DO HEREBY CERTIFY THAT the annexed is a true and complete copy of the Amendment to the Articles of Incorporation of GLOBE URANIUM, INC. which was filed in the office of the said Arizona Corporation Commission as provided by law, which changes the name to ARIZONA GLOBE URANIUM, INC.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED THE OFFICIAL SEAL OF THE ARIZONA CORPORATION COMMISSION, AT THE CAPITOL, IN THE CITY OF PHOENIX, THIS 4th DAY OF October A. D. 1955

Mel D. Michael

BY SECRETARY,

ASSISTANT SECRETARY

INC 378-A 10M 5-53

CERTIFICATE OF AMENDMENT TO
ARTICLES OF INCORPOTATION FOR
GLOBE URANIUM, INC.

THIS IS TO CERTIFY that at a special meeting of the stockholders of GLOBE URANIUM, INC., a corporation duly organized and existing under and by virtue of the laws of the State of Arizona, held at 31 West Monroe Street, Phoenix, Arizona, on the 11th day of April, 1955, at the hour of 10:00 of the morning, pursuant to notice in writing given all stockholders more than thirty (30) days prior to the date of the said meeting notifying the said stockholders of the purpose of the meeting in changing the corporate name and amending the Articles of Incorporation, upon the unanimous vote of more than fifty-one per cent (51%) of the stockholders, representing more than fifty-one per cent (51%) of the issued and outstanding stock of the corporation, said stockholders being present in person or represented by proxy, Article 1 of the Articles of Incorporation for Globe Uranium, Inc., was amended to provide as follows:

ARTICLE I

The name of the corporation shall be ARIZONA GLOBE URANIUM, INC., and its principal place of business shall be in Phoenix, Arizona, but other offices may be established and maintained within or outside of Arizona at such places as the board of directors may designate, where meetings of stockholders and directors may be held.

IN WITNESS WHEREOF, the president and secretary of Globe Uranium, Inc., have hereunto set their hands this 23rd day of June, 1955.

J. R. Heron
President

(Corporate seal)
ATTEST:

C. O. Lee
Secretary

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

On this, the 23rd day of June, 1955, before me, the undersigned Notary Public, personally appeared J. R. HERON and C. O LEE, who acknowledged themselves to be the president and secretary, respectively, of GLOBE URANIUM, INC., an Arizona corporation, and that they, as such officers, being authorized so to do, executed the foregoing Certificate of Amendment to Articles of Incorporation for Globe Uranium, Inc. for and on behalf of the said corporation, for the purpose therein expressed.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Lelia G. Long

My commission expires
August 7, 1958.

NOTARIAL SEAL

ARIZONA CORPORATION COMMISSION

INCORPORATING DIVISION

FILED

JUN 24 1955

At 2:30 P. M. at request of

Shimmel, Hill & Cavanagh

whose address is T. & T. Bldg.,

Phoenix, Ariz.

MEL D. MICHAEL
ACTING SECRETARY

By Belle J. Lund.

Surname copy 700

Ellis
Rubin
Talbert

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

SEP 12 1955

Mr. C. O. Lee, Secretary
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Docket No. DMEA-3669 (Uranium)
Contract No. Idm-E834
Globe Uranium, Inc.
Sue Mine
Gila County, Arizona

Dear Mr. Lee:

This will acknowledge your letter of August 31, 1955, with two duplicate copies of your corporation's "Certificate of Amendment to Articles of Incorporation for Globe Uranium, Inc.," authorizing the change of your corporate name to Arizona Globe Uranium, Inc. Our letter of August 22 contemplated that you would send us, for our records, copies of the State's approval of the charter amendment changing the corporate name.

The corporate name will be changed in our records as soon as we receive copies of the authorization.

In the meantime, communications will be directed to you at 31 West Monroe Street, Phoenix, Arizona, rather than to your Mining Office at 293 North Broad Street, Globe, Arizona, as previously shown on the subject contract.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

EWEllis/MCRubin/gla
(9-7-55)
9-8-55
cc to: Admr.'s Reading File
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JCHosted, Rm. 3210, GSA
Code 700
DMEA Field Team, Region III (2)

MINERS, DEVELOPERS, SHIPPERS OF URANIUM ORE

arizona globe uranium, inc.

MINING OFFICE: 293 North Broad Street Globe, Arizona

GENERAL OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

August 31, 1955

RECEIVED
SEP - 6 1955

United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Attention: Mr. C. O. Mittendorf
Administrator

Re: Docket No. DMEA-3669 (Uranium)
Contract No. Idm-E834
Globe Uranium, Inc.
Sue Mine
Gila County, Arizona

Gentlemen:

Enclosed herewith are two duplicate copies of our certificate of Amendment to Articles of Incorporation for Globe Uranium, Inc., which certificate authorizes the change of our corporate name to Arizona Globe Uranium, Inc.

I have signed the enclosed duplicate copies and affixed the corporate seal to them in order to attest to their authenticity.

Very truly yours,

ARIZONA GLOBE URANIUM, INC.

By C. O. Lee

C. O. Lee, Secretary

COL:ll

RECEIVED
SEP - 6 1955

CERTIFICATE OF AMENDMENT TO ARTICLES OF INCORPORATION FOR GLOBE URANIUM, INC.

THIS IS TO CERTIFY that at a special meeting of the stockholders of GLOBE URANIUM, INC., a corporation duly organized and existing under and by virtue of the laws of the State of Arizona, held at 31 West Monroe Street, Phoenix, Arizona, on the 11th day of April, 1955, at the hour of 10:00 of the morning, pursuant to notice in writing given all stockholders more than thirty (30) days prior to the date of the said meeting notifying the said stockholders of the purpose of the meeting in changing the corporate name and amending the Articles of Incorporation, upon the unanimous vote of more than fifty-one per cent (51%) of the stockholders, representing more than fifty-one per cent (51%) of the issued and outstanding stock of the corporation, said stockholders being present in person or represented by proxy, Article I of the Articles of Incorporation for Globe Uranium, Inc., was amended to provide as follows:

ARTICLE I

The name of the corporation shall be ARIZONA GLOBE URANIUM, INC., and its principal place of business shall be in Phoenix, Arizona, but other offices may be established and maintained within or outside of Arizona at such places as the board of directors may designate, where meetings of stockholders and directors may be held.

IN WITNESS WHEREOF, the president and secretary of Globe Uranium, Inc., have hereunto set their hands this 23rd day of June, 1955.

J. R. Heron
President

ATTEST:

C. O. Lee
Secretary

STATE OF ARIZONA
COUNTY OF MARICOPA } ss.

On this, the 23rd day of June, 1955, before me, the undersigned Notary Public, personally appeared J. R. HERON and C. O. LEE, who acknowledged themselves to be the president and secretary, respectively, of GLOBE URANIUM, INC., an Arizona corporation; and that they, as such officers, being authorized so to do, executed the foregoing Certificate of Amendment to Articles of Incorporation for Globe Uranium, Inc. for and on behalf of the said corporation, for the purpose therein expressed.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Lelia G. Long

My commission expires
August 7, 1958.

Surname Copy

Ellis

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

AUG 22 1955

. C. O. Lee, Secretary
izona Globe Uranium, Inc.
1 West Monroe Street
hoenix, Arizona

Re: Docket No. DMEA-3669 (Uranium)
Contract No. Idm-E834
Globe Uranium, Inc.
Sue Mine
Gila County, Arizona

Dear Mr. Lee:

With reference to your letter of August 9, addressed to the attention of W. M. Traver, Executive Officer, DMEA Region III, it is noted you are requesting a change in the name of the captioned contract from Globe Uranium, Inc. to Arizona Globe Uranium, Inc.

In this connection, will you kindly forward two copies of the amendment to your Company's charter which authorizes said change in name.

If we find this document in order, the Company name will be automatically changed in our records.

Sincerely yours,

C. O. Mittendorf

Administrator

EWEllis:ai
8/19/55
cc to: Admr. Reading File
Docket
Messrs. J.E.Crawford, Rm. 3641
T.H.Kiilsgaard, Rm. 5222
J.O.Hosted, Rm. 3210, GSA
Code 700
DMEA Field Team, Region III (2)

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

224 New Customhouse
Denver, Colorado

August 16, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Change of company name, DMEA Docket 3669 (Uranium), Contract Idm-E834, Globe Uranium, Inc., Sue Mine, Gila County, Arizona

In answer to our letter of August 3, 1955 to Mr. James R. Heron, President of Globe Uranium, Inc., the enclosed letter signed by the company secretary has been received.

Please prepare an amendment to Contract Idm-E834 changing the name of the operating company to the Arizona Globe Uranium, Inc., as requested in their August 11, 1955 letter or authorize this office to make the amendment.

W. M. Traver

W. M. Traver

Enclosure - to 700

RECEIVED
AUG 18 1955

EVELOPERS, SHIPPI OF URANIUM ORE

zona globe uranium, inc.

NING OFFICE: 293 North Broad Street Globe, Arizona

ENERAL OFFICES: 31 West Monroe Street • ALpine 3-5187 • Phoenix, Arizona

August 9, 1955

DMEA
Date Rec'd.

AUG 12 1955

BUREAU OF MINES
Denver, Colorado

United States Department of the Interior
Defense Minerals Exploration Administration
224 New Custom House
Denver, Colorado

Re: DMEA Docket 3669 (Uranium)
Contract Idm-E834

Attention: W. M. Traver
Executive Officer, DMEA

Gentlemen:

We do hereby request that the name Globe Uranium, Inc. appearing in your Contract IDM-E834 be changed to Arizona-Globe Uranium, Inc.

The name of our company was changed from Globe Uranium, Inc. to Arizona-Globe Uranium, Inc. by a resolution of our Board of Directors. This change was made to distinguish our company from a Utah company going under the style of Globe Uranium. The change in name took place after our application Form MF-103 was filed with you, and therefor the old name appears on that form.

R. W. Henes is one of our attorneys.

Very truly yours,

ARIZONA-GLOBE URANIUM, INC.

By C. O. Lee

C. O. Lee, Secretary

COL:ll

RECEIVED

AUG 18 1955

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

RECEIVED
AUG - 8 1955

224 New Customhouse
Denver 2, Colorado

August 4, 1955

Wm. W. Sorsen, Engineer and Manager
Globe Uranium, Inc.
293 North Broad Street
Globe, Arizona

Re: Royalty payments - DMEA Docket 3669 (Uranium) Contract Idm-E834, Globe Uranium, Inc., Sue claims, Gila County, Arizona.

Dear Mr. Sorsen:

We acknowledge receipt of your letter of July 29, 1955 requesting clarification of royalty questions concerning ore shipments under the subject DMEA Contract.

Your company is not liable for payment of royalties on stockpiled ore which was actually mined from the Sue claims prior to June 30, 1955, the date of Contract Idm-E834; however, all ore encountered and mined subsequent to this date should be stockpiled separately if not shipped immediately, and royalty payments to the U. S. Government are due when payment for same is received by your company.

Please notify ore buyers when you begin shipping DMEA ore to withhold royalties due and to send remittance and four copies of all settlement sheets to the Executive Officer, DMEA Region III, Room 224 New Customhouse, Denver 2, Colorado. All royalty checks are to be made payable to the Defense Minerals Exploration Administration.

For your information, royalty is also due on all payments received from the Atomic Energy Commission as payment for the Initial Production Bonus on DMEA shipments. Our royalty payment on this bonus is to be sent directly by your company when payment is received. It will amount to 5.0 per cent of the amount of payment.

The method of calculating DMEA royalty is fully explained in Section 10 of the enclosed copy of DMEA Order 1 Amended.

Yours very truly,

W. M. TRAVER

W. M. Traver

Enclosure
RDB/vj
cc: Royalty File E834
W. R. Storms
Sec. Opr. Comm.(2)
Berkenkotter
Chron.

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

RECEIVED
AUG - 8 1955

224 New Customhouse
Denver, Colorado

August 3, 1955

Mr. James R. Heron, President
Globe Uranium, Inc.
293 North Broad Street
Globe, Arizona

Re: DMEA Docket 3669 (Uranium), Contract Idm-E834, Globe Uranium, Inc., Sue Claims, Gila County, Arizona

Dear Mr. Heron:

We have received correspondence concerning the subject DMEA contract from yourself and other Globe Uranium officials, all of which were on Arizona Globe Uranium, Inc. stationery. All letters were signed as Arizona Globe Uranium, Inc.

Please advise this office if you are doing business under the name of Globe Uranium, Inc., as stated in your application Form MF-103 and named as the operating company in Contract Idm-E834, or under the name of Arizona Globe Uranium, Inc., as shown on all recent correspondence.

If your company's name is the Arizona Globe Uranium, Inc., a formal request from you will be required before this change can be made to Contract Idm-E834. Please explain this difference to us and send an original and five copies of this request to this office at your earliest opportunity if it is required.

Also, please inform us what position R. W. Hones holds in your company.

RDB:dja
cc: Corresp.File E834
Sec.Op.Comm. (2)
Storms
Townsend
Chron

Very truly yours,

W. M. Traver

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

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

RECEIVED
JUL 29 1955

224 New Customhouse
Denver, Colorado

July 26, 1955

Certified Mail

Mr. Chuck O. Lee
Secretary-Treasurer
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Docket DMEA 3669 (Uranium)
Contract Idm-E834

Dear Mr. Lee:

Enclosed herewith is the Operator's copy of Short Form Exploration Project Contract No. Idm-E834, Docket DMEA 3669. The starting date has been entered in Article 3 as on or before August 15, 1955.

Also enclosed are six copies of Form MF-104, "Operator's Monthly Report and Voucher" and six copies of Form MF-104A, "Operator's Unit Cost and Progress Report". At the completion of the first calendar month of operation and monthly thereafter you are required to submit five copies of the form to Mr. W. R. Storms, U. S. Bureau of Mines, P. O. Box 4097, University Station, Tucson 5, Arizona. The sixth form is for your records.

Please note that the monthly report requires a narrative report which should be accompanied by maps or sketches. The narrative report must be signed by the operator. The monthly report will not be processed for payment unless accompanied by a narrative report. Additional copies of Forms MF-104 and MF-104A will be forwarded to you as required.

For your information and in reply to many questions that have been asked, after Forms MF-104 and MF-104A are received, an engineer will check progress and approve your accounts, after which it will be sent to the Regional Office, Region III, U. S. Bureau of Mines, 224 New Customhouse, Denver 2, Colorado, for auditing and vouchering. If the report is in order, a check will be issued by the Treasury Department for the Government's portion of the costs. If you have any difficulty in completing these forms and the reports, please call on Mr. Storms or this office for assistance.

Your attention is directed to the provision that Stage II work is contingent on the results obtained from Stage I and performance of the work under Stage II is subject to the prior approval of the Government.

When Stage I has been completed, you should request approval from this office of the work you propose to perform under the next stage. Your request for the work approval must be in sextuplicate, complete with a map showing the results of the work performed under Stage I, including assay returns and any other pertinent data which will be of value to the Government in evaluating the work performed under Stage I. You should anticipate a suspension of operations between stages of work to enable the Government geologist and engineer to evaluate the results of the work performed and make their recommendations to this office relative to the additional work you propose.

To eliminate as much delay as possible, if that is of serious consideration, you should expedite forwarding of the results of the work completed and your request for the Government's approval of the additional work you propose.

Field representatives of the Government are not authorized to approve any changes in the work program or contract provisions. Such approval can only be given by the Washington office, DMEA or the DMEA Field Team, Region III, which is comprised of E. N. Harshman, U. S. Geological Survey member, and W. M. Traver, U. S. Bureau of Mines member.

No oral statement of any person shall modify or otherwise affect the terms or conditions of this contract.

It is a regulation that reimbursement for the cost of work accomplished prior to the date of the contract will not be allowed. It is also a requirement that you notify this office in writing the date work actually commences under the contract, with a copy of your letter to Mr. Storms.

Very truly yours,

W. M. Traver

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

Enclosures

WMT:dja

cc: Subject
Chron
Amendment File
Chairman Op. Comm. (2)
Harshman
Storms
Faick
Townsend

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

RECEIVED
JUL - 5 1955

224 New Customhouse
Denver 2, Colorado

June 30, 1955

Mr. J. R. Heron, President
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Docket DMEA-3669

Dear Mr. Heron:

This will acknowledge receipt of your letter dated June 29, 1955.

The Report of Examination on your property has been forwarded to the Washington office of the Defense Minerals Exploration Administration for their final disposition.

Very truly yours,

W. M. Traver

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

HMC:sr

cc Sec. Op. Comm. (2)
Subject
Chron

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

RECEIVED
JUL - 5 1955

224 New Customhouse
Denver 2, Colorado

June 30, 1955

Mr. J. R. Heron, President
Arizona Globe Uranium, Inc.
31 West Monroe Street
Phoenix, Arizona

Re: Docket DMEA-3669

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Very truly yours,

W. M. Traver

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

HMC:sr

cc Sec. Op. Comm. (2)
Subject
Chron

Surname 700

F. L. Knouse
Ellis
Chandler
Selfridge
Hyman

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

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

JUN 30 1955

Re: Docket No. DMEA-3669 (Uranium)
Globe Uranium, Incorporated
Sue Mine
Gila County, Arizona

Dear Mr. Traver:

Enclosed, with attachments, are the original and five copies of a contract designed to explore the subject property, signed by the Administrator for the Government.

If the terms and conditions of this contract meet with your approval and the Operator's, insert in Article 3 of the contract the date when the work is to be started. Then have the original and all copies signed by the company official authorized to sign this document and make the usual distribution thereafter.

If any part of this proposed contract does not meet with your approval or the Operator's, and cannot be amended within your delegated authority, the original and all copies are to be returned with the proposed changes for consideration.

You will note that in addition to the unit cost for drifting, crosscutting, and long-hole drilling, an allowance for the analyses of 310 samples has been included at $3.50/sample. This allowance was added because of the advice from the Atomic Energy Commission's Washington office, that their policy was to analyze not more than three or four samples for such projects at no cost to the Operator.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

FLKnouse:am
6-27-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J.E.Crawford,Rm.3641
T.H.Kiilsgaard,Rm.5224
J.O.Hosted,Rm.3210,GSA
Code 700
Mr. Knouse

APPROVED:

J. H. Hedges (GCS)
Member, Bureau of Mines

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

RCH.

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

June 15, 1955

Memorandum

To: The Administrator

From: F. L. Knouse, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Docket No. DMEA-3669 (Uranium)
Globe Uranium, Incorporated
Sue Mine
Gila County, Arizona

UNIT COST JUSTIFICATION

Unit cost calculations are set forth in Mr. William R. Hardwick's memorandum dated June 3, 1955, to Mr. Walter R. Storms.

In addition to the unit cost for the drifting, cross-cutting and long-hole drilling, an allowance for the analyses of 310 samples for U_3O_8 and CaO has been included at $3.50/sample. This was made after a discussion with Mr. Joseph O. Hosted, AEC, regarding the statement made by the examining engineer that "Sample Analysis will be performed by the Atomic Energy Commission at no expense to the project." Mr. Hosted stated the AEC may analyze three or four samples for each project, but their policy would not permit them to analyze large quantities of samples for this type of project.

F. L. Knouse

F. L. Knouse

Surname copy

F L Knouse
Ellis

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

June 15, 1955

Memorandum

To: The Administrator

From: F. L. Knouse, Mining Engineer
Rare and Miscellaneous Metals Division

Subject: Docket No. DMEA-3669 (Uranium)
Globe Uranium, Incorporated
Sue Mine
Gila County, Arizona

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/s/
F. L. Knouse

FLKnouse/gla
cc to: Admr.'s Reading File
Operating Committee
Docket
Code 700
Mr. Knouse
~~DMEA Field Team, Region III (2)~~

DRAFT
6/15/55
FLKnouse/gla

MF-200A
(Revised June 1954)

Docket No. DMEA 3669

Commodity Uranium

Contract No. Idm-E

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

It is agreed this ..... day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Globe Uranium, Inc., incorporated in Arizona

whose mailing address is 393 North Broad Street
Globe, Arizona
hereinafter called the "Operator," as follows:

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

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

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

(b) The Operator represents and undertakes that:

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

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

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: .....

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

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

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of uranium. The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before December 1, 1956 (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

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

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

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $49,284.00 (rounded). The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $36,963.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 11. *Changes and added provisions.*—

Executed in sextuplicate the day and year first above written.

GLOBE URANIUM, INC.
(Operator)

By .....

.....

THE UNITED STATES OF AMERICA

By .....
Administrator, Defense Minerals
Exploration Administration

I, ..., certify that I am the ..... secretary of the corporation named as Operator herein; that ..... who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[CORPORATE SEAL]

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

EXPLORATION PROJECT CONTRACT
GLOBE URANIUM, INC.
DOCKET NO. DMEA-3669

ANNEX I

The land referred to in Article 2 of the contract form, ~~is~~ known as the Sue Mine, consists of twelve (12) unpatented lode mining claims, all owned by the Globe Uranium, Inc. The claims are located in the Sierra Ancha, Sections 24 and 25, Township 5 North, Range 14 East, and Sections 19 and 30, Township 5 North, Range 15 East, as is shown on the attached map entitled "Figure 2 Claim Map - Sue Mine - Globe Uranium, Inc." and "Figure - 3 - Sue Uranium Mine - Plan Showing Proposed Exploration", ~~Globe~~ Gila and Salt River Base and Meridian, Gila County, Arizona.

The claims are recorded in the Gila County Recorder's Office, Globe, Arizona, as follows:

Claim	Recording Date	Docket	Page
Sue No. 9	4-23-54	6	113
" No. 10	"	6	114
" No. 11	"	6	115
" No. 12	"	6	116
" No. 13	(5-5-54 (7-2-54 Amended	(7 (10	(61 (467
" No. 15	(5-12-54 (7-2-54 Amended	(7 (10	(265 (469
" No. 16	4-23-54	6	117
" No. 17	"	6	118
" No. 18	"	6	119
Climax No. 1	8-30-54	15	81
" No. 2	"	15	82
" No. 3	"	15	83

EXPLORATION PROJECT CONTRACT
GLOBE URANIUM, INC.
DOCKET NO. DMEA-3669

EXHIBIT "A"

Description of the Work

The purpose of the work is to explore the upper member of the Dripping Springs quartzite formation of the Apache Group of pre-Cambrian Age, by drifting, crosscutting and long-hole percussion drilling.

The work shall be performed in two stages: Stage I shall be started first, and if, in the opinion of the Government expressed in writing in advance, the results of Stage I warrant it, a part or all of Stage II shall be commenced and prosecuted, either after completion of Stage I or concurrently, as indicated by the Government.

STAGE I

From the southwest face of Junction No. 1 adit, drift along the radioactive mineralized zone 500 feet in a southwesterly direction and crosscut normal to the direction of the drift in an easterly and westerly direction from the drift in the mineralized zone not to exceed 250 feet at locations approved by the Government. From the drift and crosscuts not more than 800 feet of long-hole percussion drill holes shall be drilled to explore the mineralized zone above the workings.

STAGE II

From the southwest drift face (Stage I), drift along the radioactive mineralized zone in a southwesterly direction not to exceed 500 feet and crosscut normal to the direction of the drift along the mineralized zone not to exceed 250 feet at locations approved by the Government. From Stage II drifting and crosscutting, not more than

800 feet of long-hole percussion drill holes shall be drilled to explore the mineralized zone above the workings.

The work described in Stage I and Stage II is shown on the attached map entitled "Figure - 3 - Sue Uranium Mine - Plan showing Proposed Exploration."

General

The Operator shall furnish the Government with such samples as it specifies, and the method of all sampling and of all sample determination are subject to the approval of the Government. Not more than 155 samples shall be analyzed for U_3O_8 and CaO for Stage I and not more than 155 samples analyzed for Stage II. All drill-hole diameters, locations, direction, and depth shall have the prior approval of the Government. All drifts and crosscuts shall be not less than 5 by 7 feet in cross section in the clear.

The project shall be directed for the Operator by an engineer, approved by the Government, who shall devote at least thirteen days per month, or one-half of the time the project is operating, to the project work, and shall do the required surveying, mapping, sampling, and prepare all reports required under the contract.

Agreed Unit Costs of the Project

1500 feet of drifting and crosscutting @ $30.00/ft.	$45,000.00
1600 feet of long-hole drilling @ $2.00/ft.	3,200.00
310 sample analyses @ $3.50/sample	1,085.00
Estimated total cost of project	$49,285.00
Rounded to	$49,284.00
Government Participation at 75%	$36,963.00

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

RECEIVED
JUN 1 - 1955

224 New Customhouse
Denver 2, Colorado

June 10, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3669 (Uranium), Globe Uranium, Inc., (Sue mine), Gila County, Arizona

Enclosed are two copies of a field memorandum containing the recording data and other required information requested in your teletype dated June 1, 1955.

W. M. Traver

W. M. Traver

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

DMEA
Date Rec'd
JUN 10 1955
BUREAU OF MINES
Denver, Colorado

SOUTHWEST EXPERIMENT STATION
Box 4097
UNIVERSITY STATION

5
TUCSON, ARIZONA

June 8, 1955

RECEIVED
JUN 13 1955

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Denver

From: Superintendent, Southwest Experiment Station, Tucson

Subject: Docket DMEA-3669, Globe Uranium, Inc., Sue Uranium Mine, Gila County, Arizona

In answer to your memorandum of June 1, asking for information about the Sue 13 and 15 claims and the Climax Nos. 1, 2 and 3 claims, W. R. Hardwick visited Globe yesterday and obtained the desired information. His memorandum is attached.

Walter R. Storms

Walter R. Storms

cc - W. M. Traver (8)
DMEA-3669
DF
WRStorms/ts

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

SOUTHWEST EXPERIMENT STATION
Box 4097
UNIVERSITY STATION

RECEIVED
JUN 13 1955
5

TUCSON, ARIZONA
June 8, 1955

Memorandum

To: Walter R. Storms, Superintendent, Southwest Experiment Station, Region III

From: William R. Hardwick, Mining Engineer, Tucson, Arizona

Subject: Docket DMEA-3669 (Uranium), Globe Uranium, Inc., Sue Mine, Gila County, Arizona

With reference to teletype from the Chairman of the Operating Committee that is quoted in a memorandum to you from W. M. Traver on June 1, 1955, I visited W. W. Sorsen on June 6, 1955. Sorsen is Superintendent for Globe Uranium Inc., and he stated that he believed that the company would have no objection to including the additional claims as requested by the Operating Committee.

Sorsen stated that all five claims are the property of Globe Uranium, Inc. The recording data as shown by records in the Gila County Courthouse in Globe is as follows:

Name	Docket	Page	Date	Locator
Sue No. 13	7	61	May 5, 1954	K. C. Heron
Sue No. 13 (Amended)	10	467	July 2, 1954	do.
Sue No. 15	7	265	May 12, 1954	do.
Sue No. 15 (Amended)	10	469	July 2, 1954	do.
Climax No. 1	15	81	August 30, 1954	do.
Climax No. 2	15	82	August 30, 1954	do.
Climax No. 3	15	83	August 30, 1954	do.

William R. Hardwick
William R. Hardwick
Mining Engineer

cc - W. M. Traver (orig. & 8)
DMEA-3669 - Contract
DF
WRHardwick/ts

DMEA
Date Rec'd.
JUN 13 1955
BUREAU OF MINES
Denver, Colorado

June 8, 1955

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Denver

From: Superintendent, Southwest Experiment Station, Tucson

Subject: Docket DMEA-3669, Globe Uranium, Inc., Sue Uranium Mine, Gila County, Arizona

In answer to your memorandum of June 1, asking for information about the Sue 13 and 15 claims and the Climax Nos. 1, 2 and 3 claims, W. R. Murdoch visited Globe yesterday and obtained the desired information. His memorandum is attached.

Walter R. Storms

Walter R. Storms

cc - W. M. Traver (8)
DMEA-3669
DF
WRStorms/ts

June 8, 1955

Memorandum

To: Walter R. Storms, Superintendent, Southwest Experiment Station, Region III

From: William R. Hardwick, Mining Engineer, Tucson, Arizona

Subject: Docket DMEA-3669 (Uranium), Globe Uranium, Inc., Sue Mine, Gila County, Arizona

With reference to teletype from the Chairman of the Operating Committee that is quoted in a memorandum to you from W. M. Traver on June 1, 1955, I visited W. W. Sorsen on June 6, 1955. Sorsen is Superintendent for Globe Uranium Inc, and he stated that he believed that the company would have no objection to including the additional claims as requested by the Operating Committee.

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Climax No. 2	15	82	August 30, 1954	do.
Climax No. 3	15	83	August 30, 1954	do.

William R. Hardwick
William R. Hardwick
Mining Engineer

cc - W. M. Traver (orig. & 8)
DMEA-3669 - Contract
DF
WRHardwick/ts

6/14/55 - gla

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

224 New Customhouse
Denver 2, Colorado

June 9, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3669 (Uranium), Globe Uranium Company (Sue mine), Gila County, Arizona

Enclosed are four copies of estimated costs requested in your teletype of May 25, 1955.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
JUN 13 1955

224 New Customhouse
Denver 2, Colorado

June 9, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3669 (Uranium), Globe Uranium Company (Sue mine), Gila County, Arizona

Enclosed are four copies of estimated costs requested in your teletype of May 25, 1955.

W. M. Traver

W. M. Traver

Enclosures

June 6, 1955

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Southwest Experiment Station, Tucson

Subject: Docket DMEA-3669, Globe Uranium Co.'s Sue Uranium Mine, Gila County, Arizona

As requested in your memorandum of May 31, we are enclosing a memorandum (original and 8 copies) by W. R. Hardwick with estimated costs for drifting, crosscutting, and drilling.

Walter R. Storms

Walter R. Storms

cc - W. M. Traver (8)
DMEA-3669
DF

June 3, 1955

Memorandum

To: Walter R. Storms, Supt., Southwest Experiment Station, Region III

From: William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject: Estimated Costs, Docket DMEA-3669, (Uranium), Globe Uranium Co., Gila County, Ariz.

With reference to the teletype from the Chairman of the Operating Committee quoted in memorandum dated May 31, 1955, to you from the Executive Officer, DMEA Field Team, Region III, the following cost estimate is copied from my examination report:

"Cost of drifting and crosscutting is estimated to be as follows:

Drifting & Crosscutting

Operating labor ----------	$17.54 per foot
Payroll tax, etc. ----------	2.63
Equipment and supplies -----	5.04
Engineering & supervision --	1.00
Water supply ----------	2.00
Repair & maintenance -------	2.00
Total ----------	$30.21 per foot"

These estimated costs were made from the following details:

Operating Labor

The following wage rates were being used at a near by mine and it was assumed that similar rates would apply to the Sue operation:

Superviser ----------	$600.00 per mo.
Miner ----------	14.32 per day
Timberman ----------	13.60 " " ?
Truck driver ----------	13.60 " "
Trammer ----------	13.15 " "
Bucker ----------	12.80 " "
Mechanic ----------	16.00 " "
Diamond drill operator ----	16.00 " "

cc - Traver (orig. & 8)
DMEA-3669
DF

The ground in which the exploration work at the Sue mine will be driven is hard quartzite with numerous fractures normal to the direction of the drift. The powder tends to bootleg on the fractures and short rounds are necessary. An advance of 5 feet per shift in this type of ground is estimated.

It is estimated that the exploration project will require one-half of the supervisor's time. Assuming 25 working days per month, the rate for the supervisor is $24.00 per day, or $12.00 per half day. Tramming is estimated to require one man at the start and three men at the end of the project with an average of two trammers.

The total operating labor is as follows:

	Per day	Per foot
Supervisor (1/2 time)	$12.00	
1 Miner	14.32	
2 Trammers	26.30	
Total operating labor	$52.62	$17.54

Payroll Tax

The total payroll tax is estimated to be 15.0 percent of the total labor cost, including Employees Compensation, State Unemployment, and Social Security . This may be broken down as follows:

Employees Compensation	9.0%
State Unemployment	3.0%
Social Security	2.0%
Public Liability	1.0%
Total	15.0%

Using 15 percent, the cost per shift on the estimated operating labor payroll of $52.62 is $7.89, or $2.63 per foot.

Equipment and Supplies

The value of the equipment to be supplied by operator is estimated as follows:

Air compressor	$4,900.00
Loading ramp and scraper	2,500.00
Mine cars	200.00
Drills	1,000.00
Total	$7,700.00

Using a 60-month period for depreciation and assuming 25 working days per month, the depreciation charge on this equipment amounts to $5.12 per operating day.

The following prices are quoted for supplies in Globe, Ariz.:

Explosives ---------	$21.10/C
Caps ----------	2.25/C
Fuse ----------	13.10/M
Diesel oil ---------	0.20/gal. (delivered)
Drill steel --------	1.00/ft. (approx.)
Bits (carbide) -----	13.50/ea.
Pipe, 2 in. --------	0.80/ft.
Pipe, 1 in. --------	0.20/ft.
Rail (15 lb/yd) ----	125.00/ton

Based on the above prices, the estimated cost of supplies for the proposed drifting is as follows:

	Cost per Shift
Fuse, caps, explosives ---	$3.00
Diesel oil ----------	3.00
Bits and drill steel -----	1.50
Rail ----------	3.10
Pipe ----------	2.40
Total	$13.00

Using an advance of 3 feet per shift, a cost of $13.00 per shift is equal to $4.33 per foot. Pipe and rail can be salvaged or used by the operator after the exploration project has been completed. The estimated value of this salvage material is $1.00 per foot of drift or crosscut. Deducting this salvage value from $4.33 gives an estimated cost of $3.33 per foot for supplies.

Engineering and Technical Supervision

Some engineering and technical work will be required to survey and sample drill holes, drifts, etc., and also to prepare maps and reports. This is estimated to cost $1.00 per foot of drift.

Water Supply

Water must be hauled 4½ miles over a very steep jeep trail. Only small quantities can be hauled at a time and it is estimated that the cost of water delivered at the Sue mine will be $2.00 per 100 gallons. It is estimated that it will require 100 gallons per foot of drift including that required for camp use.

Repair and Maintenance

In the case of the Sue mine, it is not anticipated that a repair crew will be available on the job. The working supervisor will service equipment. However, when an item of equipment breaks down it will be taken to Globe for repair. It is estimated that the cost of this outside repair work will be $2.00 per foot of drift.

Sample analysis will be performed by the Atomic Energy Commission at no expense to the project.

By repeating the summary of the estimated costs of drifting and crosscutting at the Sue mine in a slightly different form, they are as follows:

		Cost per foot
Labor		
Operating labor --	$13.54	
Supervision ------	4.00	
Total labor ----------		$17.54
Payroll tax (15 percent of labor) -----		2.63
Equipment depreciation ----------		1.70
Supplies ----------		3.34
Engineering and technical supervision -		1.00
Water supply ----------		2.00
Repair and maintenance ----------		2.00
Total estimated cost of drifting -------		$30.21

The estimated cost of longhole percussion drill sampling is based on an estimated advance of 31 feet per shift. Assuming one-half the supervisor's time will be required and using the same wage scale as that used for drifting, the cost of longhole is estimated as follows:

Operating Labor

Supervisor -------	$12.00
Miner (driller) --	14.32
Helper ----------	12.50
Total labor ------	$38.82

Using an advance of 31 feet per shift, this $38.82 is equal to $1.25 per foot.

Payroll tax is estimated at 15 percent of total labor, or $0.19 per foot.

Equipment Depreciation

The estimated value of equipment necessary for longhole drilling is as follows:

Compressor -----	$4,000.00
Drill ----------	1,000.00
Total value ----	$5,000.00

Using a 60-month life and assuming 25 working days per month, the depreciation on this equipment is $3.35 per operating day, or $0.11 per foot of longhole.

Supplies

Oil and grease are estimated to cost $0.02 per foot of longhole. Drill bits and steel are estimated to cost $0.30 per foot. Air, water, and miscellaneous supplies are estimated to cost $0.20 per foot. The total cost of supplies is estimated to be $0.73 per foot of longhole. As with the drifting, the analyses of the samples will be done by The Atomic Energy Commission at no expense to the project.

The total cost of longhole drilling is estimated to be as follows:

	Per foot
Supervision and operating labor --	$1.25
Payroll tax ----------	0.19
Equipment depreciation ----------	0.11
Supplies ----------	0.72
Total	$2.27

The recommended estimated cost for drilling and crosscutting is $30.00 per foot. For longhole drilling, the recommended estimated cost is $2.00 per foot.

William R. Hardwick

William R. Hardwick
Mining Engineer

DMEA
Date Rec'd.
JUN 9 1955
BUREAU OF MINES
Denver, Colorado

5

June 6, 1955

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Southwest Experiment Station, Tucson

Subject: Docket DMEA-3669, Globe Uranium Co.'s Sue Uranium Mine, Gila County, Arizona

As requested in your memorandum of May 31, we are enclosing a memorandum (original and 8 copies) by W. R. Hardwick with estimated costs for drifting, crosscutting, and drilling.

Walter R. Storms

Walter R. Storms

cc - W. M. Traver (8)
DMEA-3669
DF

June 3, 1955

Memorandum

To: Walter R. Storms, Supt., Southwest Experiment Station, Region III

From: William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject: Estimated Costs, Docket DMEA-3669, (Uranium), Globe Uranium Co., Gila County, Ariz.

With reference to the teletype from the Chairman of the Operating Committee quoted in memorandum dated May 31, 1955, to you from the Executive Officer, DMEA Field Team, Region III, the following cost estimate is copied from my examination report:

"Cost of drifting and crosscutting is estimated to be as follows:

Drifting & Crosscutting

Operating labor ----------	$17.54 per foot
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Equipment and supplies -----	3.04
Engineering & supervision --	1.00
Water supply ----------	2.00
Repair & maintenance -------	2.00
Total ----------	$30.21 per foot"

These estimated costs were made from the following details:

Operating Labor

The following wage rates were being used at a near by mine and it was assumed that similar rates would apply to the Sue operation:

Supervisor ----------	$600.00	per mo.
Miner ----------	14.32	per day
Timberman ----------	13.80	" "
Truck driver ----------	13.80	" "
Trammer ----------	13.15	" "
Rocker ----------	12.58	" "
Mechanic ----------	16.00	" "
Diamond drill operator ----	16.00	" "

cc - Traver (orig. & 8)
DMEA-3669
DF

The ground in which the exploration work at the Sue mine will be driven is hard quartzite with numerous fractures normal to the direction of the drift. The powder tends to bootleg on the fractures and short rounds are necessary. An advance of 3 feet per shift in this type of ground is estimated.

It is estimated that the exploration project will require one-half of the supervisor's time. Assuming 25 working days per month, the rate for the supervisor is $24.00 per day, or $12.00 per half day. Tramming is estimated to require one man at the start and three men at the end of the project with an average of two trammers.

The total operating labor is as follows:

	Per day	Per foot
Supervisor (1/2 time)	$12.00	
1 Miner	14.32	
2 Trammers	26.30	
Total operating labor	$52.62	$17.54

Payroll Tax

The total payroll tax is estimated to be 15.0 percent of the total labor cost, including Employees Compensation, State Unemployment, and Social Security . This may be broken down as follows:

Employees Compensation	9.0%
State Unemployment	3.0%
Social Security	2.0%
Public Liability	1.0%
Total	15.0%

Using 15 percent, the cost per shift on the estimated operating labor payroll of $52.62 is $7.89, or $2.63 per foot.

Equipment and Supplies

The value of the equipment to be supplied by operator is estimated as follows:

Air compressor	$4,800.00
Loading pump and scraper	2,500.00
Mine cars	300.00
Drills	1,000.00
Total	$7,700.00

Using a 60-month period for depreciation and assuming 25 working days per month, the depreciation charge on this equipment amounts to $5.12 per operating day.

The following prices are quoted for supplies in Globe, Ariz.:

Explosives	$21.10/C
Caps	2.25/C
Fuse	13.10/M
Diesel oil	0.20/gal. (delivered)
Drill steel	1.00/ft. (approx.)
Bits (carbide)	15.50/ea.
Pipe, 2 in.	0.60/ft.
Pipe, 1 in.	0.30/ft.
Rail (15 lb/yd)	125.00/ton

Based on the above prices, the estimated cost of supplies for the proposed drifting is as follows:

	Cost per Shift
Fuse, caps, explosives	$2.00
Diesel oil	3.80
Bits and drill steel	1.50
Rail	5.10
Pipe	1.40
Total	$13.00

Using an advance of 3 feet per shift, a cost of $13.00 per shift is equal to $4.33 per foot. Pipe and rail can be salvaged or used by the operator after the exploration project has been completed. The estimated value of this salvage material is $1.00 per foot of drift or crosscut. Deducting this salvage value from $4.33 gives an estimated cost of $3.33 per foot for supplies.

Engineering and Technical Supervision

Some engineering and technical work will be required to survey and sample drill holes, drifts, etc., and also to prepare maps and reports. This is estimated to cost $1.00 per foot of drift.

Water Supply

Water must be hauled 4½ miles over a very steep jeep trail. Only small quantities can be hauled at a time and it is estimated that the cost of water delivered at the Sue mine will be $2.00 per 100 gallons. It is estimated that it will require 100 gallons per foot of drift including that required for camp use.

Repair and Maintenance

In the case of the Sue mine, it is not anticipated that a repair crew will be available on the job. The working supervisor will service equipment. However, when an item of equipment breaks down it will be taken to Globe for repair. It is estimated that the cost of this outside repair work will be $2.00 per foot of drift.

Sample analysis will be performed by the Atomic Energy Commission at no expense to the project.

By repeating the summary of the estimated costs of drifting and crosscutting at the Sue mine in a slightly different form, they are as follows:

		Cost per foot
Labor		
Operating labor --	$13.54	
Supervision ------	4.00	
Total labor ----------		$17.54
Payroll tax (15 percent of labor) -----		2.63
Equipment depreciation ----------		1.70
Supplies ----------		3.34
Engineering and technical supervision -		1.00
Water supply ----------		2.00
Repair and maintenance ----------		2.09
Total estimated cost of drifting ------		$30.31

The estimated cost of longhole percussion drill sampling is based on an estimated advance of 31 feet per shift. Assuming one-half the supervisor's time will be required and using the same wage scale as that used for drifting, the cost of longhole is estimated as follows:

Operating Labor

Supervisor -------	$12.80
Miner (driller) --	14.32
Helper ----------	12.80
Total labor ------	$38.92

Using an advance of 31 feet per shift, this $38.92 is equal to $1.25 per foot.

Payroll tax is estimated at 15 percent of total labor, or $0.19 per foot.

Equipment Depreciation

The estimated value of equipment necessary for longhole drilling is as follows:

Compressor -----	$4,000.00
Drill ----------	1,000.00
Total value ----	$5,000.00

Using a 60-month life and assuming 25 working days per month, the depreciation on this equipment is $3.33 per operating day, or $0.11 per foot of longhole.

Supplies

Oil and grease are estimated to cost $0.02 per foot of longhole. Drill bits and steel are estimated to cost $0.50 per foot. Air, water, and miscellaneous supplies are estimated to cost $0.20 per foot. The total cost of supplies is estimated to be $0.73 per foot of longhole. As with the drifting, the analyses of the samples will be done by the Atomic Energy Commission at no expense to the project.

The total cost of longhole drilling is estimated to be as follows:

	Per foot
Supervision and operating labor --	$1.25
Payroll tax ----------	0.18
Equipment depreciation ----------	0.11
Supplies ----------	0.73
Total	$2.27

The recommended estimated cost for drilling and crosscutting is $50.00 per foot. For longhole drilling, the recommended estimated cost is $2.00 per foot.

William R. Hardwick

William R. Hardwick
Mining Engineer

DMEA
Date Rec'd.

JUN 9 1955

BUREAU OF MINES
Denver, Colorado

5

June 6, 1955

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Southwest Experiment Station, Tucson

Subject: Docket DMEA-3669, Globe Uranium Co.'s Sue Uranium Mine, Gila County, Arizona

As requested in your memorandum of May 31, we are enclosing a memorandum (original and 8 copies) by W. R. Hendrick with estimated costs for drifting, opencutting, and drilling.

Walter R. Storms

Walter R. Storms

cc - W. M. Traver (8)
DMEA-3669
RF

June 3, 1955

Memorandum

To: Walter R. Storms, Supt., Southwest Experiment Station, Region III

From: William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject: Estimated Costs, Docket DMEA-3669, (Uranium), Globe Uranium Co., Gila County, Ariz.

With reference to the teletype from the Chairman of the Operating Committee quoted in memorandum dated May 31, 1955, to you from the Executive Officer, DMEA Field Team, Region III, the following cost estimate is copied from my examination report:

"Cost of drifting and crosscutting is estimated to be as follows:

Drifting & Crosscutting

Operating labor ----------	$17.54 per foot
Payroll tax, etc. ----------	2.63
Equipment and supplies -----	5.04
Engineering & supervision --	1.00
Water supply ----------	2.00
Repair & maintenance -------	2.00
Total ----------	$30.21 per foot"

These estimated costs were made from the following details:

Operating Labor

The following wage rates were being used at a near by mine and it was assumed that similar rates would apply to the Sue operation:

Supervisor ----------	$600.00	per mo.
Miner ----------	14.35	per day
Timberman ----------	13.00	" "
Truck driver ----------	13.00	" "
Trammer ----------	13.15	" "
Mucker ----------	12.50	" "
Mechanic ----------	16.00	" "
Diamond drill operator ----	16.00	" "

cc - Tracer (orig. & 8)
DMEA-3669
DF

The ground in which the exploration work at the Zoe mine will be driven is hard quartzite with numerous fractures normal to the direction of the drift. The powder tends to bootleg on the fractures and short rounds are necessary. An advance of 3 feet per shift in this type of ground is estimated.

It is estimated that the exploration project will require one-half of the supervisor's time. Assuming 25 working days per month, the rate for the supervisor is $24.00 per day, or $12.00 per half day. Tramming is estimated to require one man at the start and three men at the end of the project with an average of two trammers.

The total operating labor is as follows:

	Per day	Per foot
Supervisor (1/2 time)	$12.00	
1 Miner	14.32	
2 Trammers	16.30	
Total operating labor	$42.62	$17.34

Payroll Tax

The total payroll tax is estimated to be 15.0 percent of the total labor cost, including Employees Compensation, State Unemployment, and Social Security . This may be broken down as follows:

Employees Compensation	9.0%
State Unemployment	3.0%
Social Security	2.0%
Public Liability	1.0%
Total	15.0%

Using 15 percent, the cost per shift on the estimated operating labor payroll of $42.62 is $7.39, or $2.63 per foot.

Equipment and Supplies

The value of the equipment to be supplied by operator is estimated as follows:

Air compressor	$4,800.00
Loading ramp and scraper	2,500.00
Mine cars	300.00
Drills	1,000.00
Total	$7,700.00

Using a 60-month period for depreciation and assuming 25 working days per month, the depreciation charge on this equipment amounts to $5.12 per operating day.

The following prices are quoted for supplies in Globe, Ariz.:

Explosives	$21.10/C
Caps	2.25/M
Fuse	13.10/M
Diesel oil	0.20/gal. (delivered)
Drill steel	1.00/ft. (approx.)
Bits (carbide)	13.50/ea.
Pipe, 2 in.	0.50/ft.
Pipe, 1 in.	0.20/ft.
Rail (15 lb/yd)	125.00/ton

Based on the above prices, the estimated cost of supplies for the proposed drifting is as follows:

	Cost per Shift
Fuse, caps, explosives	$3.00
Diesel oil	3.00
Bits and drill steel	1.50
Rail	3.10
Pipe	2.40
Total	$13.00

Using an advance of 3 feet per shift, a cost of $13.00 per shift is equal to $4.33 per foot. Pipe and rail can be salvaged or used by the operator after the exploration project has been completed. The estimated value of this salvage material is $1.00 per foot of drift or crosscut. Deducting this salvage value from $4.33 gives an estimated cost of $3.33 per foot for supplies.

Engineering and Technical Supervision

Some engineering and technical work will be required to survey and sample drill holes, drifts, etc., and also to prepare maps and reports. This is estimated to cost $1.00 per foot of drift.

Water Supply

Water must be hauled 4½ miles over a very steep jeep trail. Only small quantities can be hauled at a time and it is estimated that the cost of water delivered at the Sun mine will be $2.00 per 100 gallons. It is estimated that it will require 100 gallons per foot of drift including that required for camp use.

Repair and Maintenance

In the case of the Sun mine, it is not anticipated that a repair crew will be available on the job. The working supervisor will service equipment. However, when an item of equipment breaks down it will be taken to Globe for repair. It is estimated that the cost of this outside repair work will be $2.00 per foot of drift.

Sample analysis will be performed by the Atomic Energy Commission at no expense to the project.

By repeating the summary of the estimated costs of drifting and crosscutting at the Sue mine in a slightly different form, they are as follows:

		Cost per foot
Labor		
Operating labor --	$13.54	
Supervision ------	4.00	
Total labor ----------		$17.54
Payroll tax (15 percent of labor) -----		2.63
Equipment depreciation ----------		1.70
Supplies ----------		3.34
Engineering and technical supervision -		1.00
Water supply ----------		2.00
Repair and maintenance ----------		2.00
Total estimated cost of drifting -------		$30.21

The estimated cost of longhole percussion drill sampling is based on an estimated advance of 31 feet per shift. Assuming one-half the supervisor's time will be required and using the same wage scale as that used for drifting, the cost of longhole is estimated as follows:

Operating Labor

Supervisor -------	$12.00
Miner (driller) --	14.32
Helper ----------	12.50
Total labor ------	$38.82

Using an advance of 31 feet per shift, this $38.82 is equal to $1.25 per foot.

Payroll tax is estimated at 15 percent of total labor, or $0.19 per foot.

Equipment Depreciation

The estimated value of equipment necessary for longhole drilling is as follows:

Compressor -----	$4,000.00
Drill ----------	1,000.00
Total value ----	$5,000.00

Using a 60-month life and assuming 25 working days per month, the depreciation on this equipment is $3.33 per operating day, or $0.11 per foot of longhole.

Supplies

Oil and grease are estimated to cost $0.02 per foot of longhole. Drill bits and steel are estimated to cost $0.50 per foot. Air, water, and miscellaneous supplies are estimated to cost $0.20 per foot. The total cost of supplies is estimated to be $0.73 per foot of longhole. As with the drifting, the analyses of the samples will be done by The Atomic Energy Commission at no expense to the project.

The total cost of longhole drilling is estimated to be as follows:

	Per foot
Supervision and operating labor --	$1.25
Payroll tax ----------	0.18
Equipment depreciation ----------	0.11
Supplies ----------	0.73
Total	$2.27

The recommended estimated cost for drilling and cementing is $30.00 per foot. For longhole drilling, the recommended estimated cost is $2.00 per foot.

William R. Hardwick

William R. Hardwick
Mining Engineer

DMEA
Date Rec'd.

JUN 9 1955

BUREAU OF MINES
Denver, Colorado

5

June 6, 1955

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. XXI

From: Superintendent, Southwest Experiment Station, Tucson

Subject: Docket DMEA-3669, Globe Uranium Co.'s Sue Uranium Mine, Gila County, Arizona

As requested in your memorandum of May 31, we are enclosing a memorandum (original and 3 copies) by W. R. Hardwick with estimated costs for drifting, crosscutting, and drilling.

Walter R. Storms

Walter R. Storms

cc - W. M. Traver (3)
DMEA-3669
DF

S

June 3, 1955

Memorandum

To: Walter R. Stearns, Supt., Southwest Experiment Station, Region III

From: William R. Hardwick, Mining Engineer, Tucson, Ariz.

Subject: Estimated Costs, Docket DMEA-3669, (Uranium), Globe Uranium Co., Gila County, Ariz.

With reference to the teletype from the Chairman of the Operating Committee quoted in memorandum dated May 31, 1955, to you from the Executive Officer, DMEA Field Team, Region III, the following cost estimate is copied from my examination report:

"Cost of drifting and crosscutting is estimated to be as follows:

Drifting & Crosscutting

Operating labor ----------	$17.54 per foot
Payroll tax, etc. ---------	2.63
Equipment and supplies -----	5.04
Engineering & supervision --	1.00
Water supply ----------	2.00
Repair & maintenance -------	2.00
Total ----------	$30.21 per foot"

These estimated costs were made from the following details:

Operating Labor

The following wage rates were being used at a near by mine and it was assumed that similar rates would apply to the Sue operation:

Supervisor ----------	$600.00	per mo.
Miner ----------	14.38	per day
Timberman ----------	13.80	" "
Truck driver ----------	13.80	" "
Trammer ----------	13.15	" "
Nucker ----------	12.50	" "
Mechanic ----------	16.00	" "
Diamond drill operator ----	16.80	" "

cc - Traver (orig. & 2)
DMEA-3669
DF

The ground in which the exploration work at the Sue mine will be driven is hard quartzite with numerous fractures normal to the direction of the drift. The powder tends to bootleg on the fractures and short rounds are necessary. An advance of 3 feet per shift in this type of ground is estimated.

It is estimated that the exploration project will require one-half of the supervisor's time. Assuming 25 working days per month, the rate for the supervisor is $24.00 per day, or $12.00 per half day. Trenching is estimated to require one man at the start and three men at the end of the project with an average of two trenchers.

The total operating labor is as follows:

	Per day	Per foot
Supervisor (1/2 time)	$12.00	
1 Miner	14.32	
2 Trenchers	25.30	
Total operating labor	$52.02	$17.34

Payroll Tax

The total payroll tax is estimated to be 15.0 percent of the total labor cost, including Employees Compensation, State Unemployment, and Social Security . This may be broken down as follows:

Employees Compensation	9.0%
State Unemployment	3.0%
Social Security	2.0%
Public Liability	1.0%
Total	15.0%

Using 15 percent, the cost per shift on the estimated operating labor payroll of $52.02 is $7.80, or $2.60 per foot.

Equipment and Supplies

The value of the equipment to be supplied by operator is estimated as follows:

Air compressor	$4,000.00
Loading pump and scraper	2,500.00
Mine cars	300.00
Drills	1,000.00
Total	$7,700.00

Using a 60-month period for depreciation and assuming 25 working days per month, the depreciation charge on this equipment amounts to $5.12 per operating day.

The following prices are quoted for supplies in Globe, Ariz.:

Explosives	$21.10/c
Caps	2.25/c
Fuse	13.10/M
Diesel oil	0.20/gal. (delivered)
Drill steel	1.00/ft. (approx.)
Bits (carbide)	13.00/ea.
Pipe, 2 in.	0.60/ft.
Pipe, 1 in.	0.35/ft.
Rail (15 lb/yd)	125.00/ton

Based on the above prices, the estimated cost of supplies for the proposed drifting is as follows:

	Cost per Drift
Fuse, caps, explosives	$5.00
Diesel oil	3.00
Bits and drill steel	1.00
Rail	3.10
Pipe	2.40
Total	$13.00

Using an advance of 3 feet per shift, a cost of $13.00 per shift is equal to $4.33 per foot. Pipe and rail can be salvaged or used by the operator after the exploration project has been completed. The estimated value of this salvage material is $1.00 per foot of drift or crosscut. Deducting this salvage value from $4.33 gives an estimated cost of $3.33 per foot for supplies.

Engineering and Technical Supervision

Some engineering and technical work will be required to survey and sample drill holes, drifts, etc., and also to prepare maps and reports. This is estimated to cost $1.00 per foot of drift.

Water Supply

Water must be hauled 4½ miles over a very steep jeep trail. Only small quantities can be hauled at a time and it is estimated that the cost of water delivered at the Sue mine will be $2.00 per 100 gallons. It is estimated that it will require 100 gallons per foot of drift including that required for camp use.

Repair and Maintenance

In the case of the Sue mine, it is not anticipated that a repair crew will be available on the job. The working supervisor will service equipment. However, when an item of equipment breaks down it will be taken to Globe for repair. It is estimated that the cost of this outside repair work will be $2.00 per foot of drift.

Sample analysis will be performed by the Atomic Energy Commission at no expense to the project.

By repeating the summary of the estimated costs of drifting and crosscutting at the Sue mine in a slightly different form, they are as follows:

		Cost per foot
Labor		
Operating labor --	$13.54	
Supervision ------	4.00	
Total labor ----------		$17.54
Payroll tax (15 percent of labor) -----		2.63
Equipment depreciation ----------		1.70
Supplies ----------		3.34
Engineering and technical supervision -		1.00
Water supply ----------		2.00
Repair and maintenance ----------		2.00
Total estimated cost of drifting ------		$30.21

The estimated cost of longhole percussion drill sampling is based on an estimated advance of 31 feet per shift. Assuming one-half the supervisor's time will be required and using the same wage scale as that used for drifting, the cost of longhole is estimated as follows:

Operating Labor

Supervisor -------	$12.00
Miner (driller) --	14.32
Helper ----------	12.50
Total labor ------	$38.82

Using an advance of 31 feet per shift, this $38.82 is equal to $1.25 per foot.

Payroll tax is estimated at 15 percent of total labor, or $0.19 per foot.

Equipment Depreciation

The estimated value of equipment necessary for longhole drilling is as follows:

Compressor -----	$4,000.00
Drill ----------	1,000.00
Total value ----	$5,000.00

Using a 60-month life and assuming 25 working days per month, the depreciation on this equipment is $3.33 per operating day, or $0.11 per foot of longhole.

Supplies

Oil and grease are estimated to cost $0.02 per foot of longhole. Drill bits and steel are estimated to cost $0.50 per foot. Air, water, and miscellaneous supplies are estimated to cost $0.20 per foot. The total cost of supplies is estimated to be $0.73 per foot of longhole. As with the drifting, the analyses of the samples will be done by the Atomic Energy Commission at no expense to the project.

The total cost of longhole drilling is estimated to be as follows:

	Per foot
Supervision and operating labor --	$1.[illegible]
Payroll tax ----------	0.1[illegible]
Equipment depreciation ----------	0.11
Supplies ----------	0.73
Total	$2.27

The recommended estimated cost for drilling and crosscutting is $30.00 per foot. For longhole drilling, the recommended estimated cost is $2.00 per foot.

William R. Hardwick

William R. Hardwick
Mining Engineer

700

6-3-55

JUN - 1 1955

[illegible] OF THE [illegible]

GSA

[illegible] 1(01) Revolving Fund,
Defense Production Act (Interior,
(Allocated Working Fund to the Office
of the Secretary,

[illegible]

W. [illegible] BEAVER
[illegible] OFFICER
GSA FIELD TRANS, REGION III
724 [illegible] CONSTITUTION BUILDING
DENVER 2, COLORADO

[illegible] FIELD TRANS REPORT GSA 3669 OLD [illegible] INC.

CLAIM SUE [illegible] THIRTEEN AND FIFTEEN AND [illegible] [illegible], INC,

AND TWELVE OF CONTROLLED BY OPERATOR [illegible] TO BE INCLUDED IN PROJECT.

[illegible] OF BASIC [illegible] DATA AND OTHER [illegible] INFORMATION

[illegible] TO [illegible] IF NOT [illegible].

George C. Selfridge

George C. Selfridge, Chairman
Operating Committee

F/Knowlston
5-31-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. L. Crawford, Rm. 3641
T. M. Killegaard, Rm. 5224
J. D. Nested, Rm. 3710, GSA
Code 700
Mr. Knowles
Confirmation to Region III(1)

Surname 700

F. L. Knouse
Ellis
Kilsgaard
Hedges
Selfridge
Kirmser
Rittendorf

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

DEPARTMENT OF THE INTERIOR
DMEA

JUN - 1 1955

14X4401(01)Revolving Fund,
Defense Production Act (Interior)
(Allocated Working Fund to the Office
of the Secretary)

TELETYPE

W. H. TRAVER
EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

REFERENCE FIELD TEAM REPORT DMEA 3669 GLOBE URANIUM INC. CLAIMS SUE NOS. THIRTEEN AND FIFTEEN AND CLIMAX NOS. ONE, TWO, AND THREE IF CONTROLLED BY OPERATOR ARE TO BE INCLUDED IN PROJECT. PLEASE FURNISH RECORDING DATA AND OTHER REQUIRED INFORMATION INCLUDING LEASE AND CONSENT TO LIEN IF NOT OWNED.

George C. Selfridge

George C. Selfridge, Chairman (JB)
Operating Committee

FLKnouse:am
5-31-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Knouse
Confirmation to Region III(1)

R.C.L.

Surname 700

F L Knouse
Ellis
T Hedges
Kilsgaard
Selfridge
Johnson
Mittendorf

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

DEPARTMENT OF THE INTERIOR

DMEA

MAY 2 5 1955

14X4401(01) Revolving Fund,
Defense Production Act (Interior)
(Allocated Working Fund to the Office
of the Secretary)

TELETYPE

W. H. TRAVER
EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

REFERENCE FIELD TEAM REPORT DMEA 3669 GLOBE URANIUM COMPANY, INC. FURNISH DETAILED BREAKDOWN ALL COSTS JUSTIFYING RECOMMENDED UNIT COST FOR DRIFTING, CROSSCUTTING, AND DRILLING. INCLUDE SUPERVISION, TECHNICAL SERVICES, AND LABOR RATES, SUPPLIES, EQUIPMENT, SAMPLE ANALYSES AND ALL OTHER ITEMS. SEE ESPECIALLY OPERATING COMMITTEE MINUTES NO. 296 DATED NOVEMBER 23, 1953.

George C. Selfridge
George C. Selfridge, Chairman (SHR)
Operating Committee

FLKnouse:am
5-25-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Knouse
DMEA Field Team, Region III (1)

5/23/55 gh

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

May 20, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 3669 (Uranium), Sue mine, Globe Uranium Co., Inc., Gila County, Arizona

I have reviewed the Field Team report of examination, Sue mine, Globe Uranium Co., Inc., DMEA Docket 3669. Mr. Joseph O. Hosted, Washington representative of the Atomic Energy Commission, also studied the report, and we have discussed it together.

We agree that a modified exploration program at a total estimated cost of $48,200 appears warranted, based on the findings of the Field Team. Therefore, we suggest that a contract be prepared authorizing the exploration on the property in the manner prescribed by the Field Team.

The report has been forwarded to the Chief, Division of Minerals, in accord with the routing slip attached thereto.

John E. Crawford

John E. Crawford

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

May 20, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 3669 (Uranium), Sue mine, Globe Uranium Co., Inc., Gila County, Arizona

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The report has been forwarded to the Chief, Division of Minerals, in accord with the routing slip attached thereto.

John E. Crawford

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

May 20, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 3669 (Uranium), Sue mine, Globe Uranium Co., Inc., Gila County, Arizona

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We agree that a modified exploration program at a total estimated cost of $48,200 appears warranted, based on the findings of the Field Team. Therefore, we suggest that a contract be prepared authorizing theexploration on the property in the manner prescribed by the Field Team.

The report has been forwarded to the Chief, Division of Minerals, in accord with the routing slip attached thereto.

John E. Crawford

5/20/55 gla

IN REPLY REFER TO:

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

Defense Minerals Administration
RECEIVED
MAY 19 1955

May 18, 1955

Re: DMEA-3669
Globe Uranium Inc.
Sue Mine
Gila Co., Ariz.

Memorandum

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

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

Subject: Review of Field Team report

This well documented recommendation for a contract has to do with a prospect in a relatively new type of deposit in a new area. As such the reduced program of work proposed by the Field Team is well justified.

Reference to the Assay Sample Map, Fig. 6, could lead one to believe the ore estimates are not too well drawn. If the Indicated Ore block contained 2500 tons of 0.19% U_3O_8, an average determined by sampling the underground work, then at least one tenth has been mined and should be in the 0.20% dump. If the dump contains sorted ore from the mining the grade should be higher than 0.20 since 150± tons of the lower grade material would have been rejected.

The lack of reconciliation does not affect the recommendation with which I concur.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

May 18, 1955

Re: DMEA-3669
Globe Uranium Inc.,
Sue Mine
Gila Co., Ariz.

Memorandum

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

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

Subject: Review of Field Team report

This well documented recommendation for a contract has to do with a prospect in a relatively new type of deposit in a new area. As such the reduced program of work proposed by the Field Team is well justified.

Reference to the Assay Sample Map, Fig. 6, would lead one to believe the ore estimates are not too well drawn. If the Indicated Ore block contained 2500 tons of 0.19% U_3O_8, an average determined by sampling the underground work, then at least one tenth has been mined and should be in the 0.20% dump. If the dump contains sorted ore from the mining the grade should be higher than 0.20 since 150± tons of the lower grade material would have been rejected.

The lack of reconciliation does not affect the recommendation with which I concur.

N. E. Nelson

N. E. Nelson

NENelson:hlm
G-5/18/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Hosted, 3210 GSA

IN REPLY REFER TO:

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

May 18, 1955

Re: DMEA-3069
Globe Uranium Inc.
Sun Mine
Gila Co., Ariz.

Memorandum

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

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

Subject: Review of Field Team report

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Copy to: Director's reading, 4212
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DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Hosted, 3210 GSA

IN REPLY REFER TO:

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

May 18, 1955

Re: DMEA-3.69
Globe Uranium Inc.
Sue Mine
Gila Co., Ariz.

Memorandum

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

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

Subject: Review of Field Team report

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The lack of reconciliation does not affect the recommendation with which I concur.

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G-5/18/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Kosted, 3210 GSA

5/19/55 zgla

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

224 New Customhouse
Denver 2, Colorado

May 16, 1955

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3669 (Uranium), Globe Uranium, Inc., Sue Uranium mine, Yuma County, Arizona

Enclosed are nine copies each of Figure 2 and Figure 3 for possible use in the contract on the subject docket.

The report of examination was forwarded you on May 11, 1955.

W. M. Traver

W. M. Traver

Enclosures

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

224 New Customhouse
Denver 2, Colorado

May 16, 1955

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3669 (Uranium), Globe Uranium, Inc., Sue Uranium mine, Yuma County, Arizona

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The report of examination was forwarded you on May 11, 1955.

W. M. Traver

Enclosures

5/19/55 gla

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

MAY 16 1955

224 New Customhouse
Denver 2, Colorado

May 11, 1955

Memorandum

To: Chairman of the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Report of Examination, DMEA Docket 3669 (Uranium), Sue mine, Globe Uranium Co., Inc., Gila County, Arizona

Enclosed are the original and three copies of the report pertaining to the above application.

We concur with the recommendation of the field examiners that a modified exploration program is warranted.

Extra copies of maps for possible use in a contract requested in your letter of February 25, 1955 have been ordered, and will be forwarded to you.

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
5-18-55
(date)

TRANSMITTED
MAY 11 1955

DMEA
Rec'd.
MAY 6 1955
BUREAU OF MINES
Denver, Colorado

May 4, 1955

Memorandum

To : W. M. Traver, Executive Officer, DMEA Field Team

From : Superintendent, Southwest Experiment Station

Subject : Report on Docket DMEA-2569, Globe Uranium, Inc., Sue Uranium Mine, Gila County, Ariz.

Enclosed are original and 10 copies of the section on Summary, Conclusions and Recommendations by W. R. Hardwick of the Bureau of Mines and J. H. Faick of the Geological Survey, and the section on Engineering by Hardwick for the above report. A separate section on Geology will be submitted by the Survey.

As there seems to be a good chance of discovering a significant amount of uranium ore by further exploratory work at the Sue mine, the DMEA examiners have recommended Government exploration assistance. I concur with this recommendation.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC W. M. Traver (10)
J. H. Faick (with report)
DMEA-2569
DF

WRStorms:frj

5-18-55

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAY 1 6 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-3669, Globe Uranium, Inc., Sue Uranium Mine

Gila County, Arizona

William R. Hardwick, Mining Engineer
U. S. Bureau of Mines

John N. Faick, Geologist
U. S. Geological Survey

May 1955

Reviewed by
DMEA OPERATING COMMITTEE
5-18-55

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MAY 1 0 1955
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MAY 11 1955

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By William R. Hardwick[1] and John N. Faick[2]

Globe Uranium, Inc., an Arizona corporation, with an office at 293 N. Broad St., Globe, Ariz., requested assistance under the Defense Production Act of 1950, as amended, to explore its Sue mining claims in the Sierra Ancha of Gila County, Ariz. for uranium. The application was docketed as DMEA-3669, reviewed by the uranium commodity committee, and referred to the Southwest Experiment Station for a field examination and report.

The Sue mine was examined on April 5-6, 1955 by William R. Hardwick[1] and John N. Faick[2]. The examining team was accompanied by W. W. Sorsen who is superintendent for the applicant company. The proposed project was discussed with R. J. Schwartz and E. V. Mace who examined the Sue mine for the Atomic Energy Commission.

The Sue mine was located by the present owners after the high uranium content of parts of the Dripping Spring formation became known in 1950. The Sue mining claims cover the mineralized outcrop of the upper member of the Dripping Spring quartzite, a part of the younger pre-Cambrian Apache formation. Oxidized uranium minerals (mettatorbernite and autunite) are abundant in

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1/ Mining engineer, U. S. Bureau of Mines
2/ Geologist, U. S. Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
5-18-55
(date)

the outcrop. In addition to the 100 tons of ore mined in the course of preliminary exploration, 2,500 tons of ore with an estimated uranium content of 0.19 percent U_3O_8 is indicated.

The applicant proposed to explore the favorable beds by a program to consist of 2,000 feet of drifting and crosscutting, and 4,000 feet of percussion drill sample holes for a total cost of $74,000.00. The examining team recommends that the property be explored by a program to consist of 1,500 feet of drifting and crosscutting, and 1,600 feet of percussion drill sample holes for a total estimated cost of $48,200.00.

The applicant proposes that the project be set up on a short form type contract with 25 percent of the cost to be at the expense of the applicant and 75 percent of the costs to be provided by the Government.

It is believed that the project may discover a substantial amount of uranium ore. As uranium is of extreme importance to the national economy, the proposed project is technically feasible, and the applicant appears to have a capable staff, Government assistance in an exploration project at this property is recommended.

MAY 1 6 1956

DMEA-3669, GLOBE URANIUM, INC., SUE URANIUM MINE
GILA COUNTY, ARIZONA

Engineering Report

By William R. Hardwick
Mining Engineer
U. S. Bureau of Mines

May 1955

Reviewed by
DMEA OPERATING COMMITTEE
5-18-55
(date)

Office of the Director
Defense Minerals Administration
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DMEA-3669, GLOBE URANIUM, INC., SUE URANIUM MINE
GILA COUNTY, ARIZONA

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1 Generalized geologic section --------- (with Geologic report)

INTRODUCTION

Globe Uranium, Inc., an Arizona corporation with office at 293 N. Broad St., Globe, Ariz., requested assistance under the Defense Production Act of 1950, as amended, to explore its Sue mining claims in the Sierra Ancha of Gila County, Ariz. for uranium. This application, docket No. DMEA-3669 (Uranium), was reviewed by R. D. Trace and John E. Crawford, members of the Uranium Commodity Committee, DMEA, and was referred to the field for an examination and a report.

The Sue mine was visited and examined on April 5-6, 1955 by John N. Faick, geologist, U. S. Geological Survey, and William R. Hardwick, mining engineer, U. S. Bureau of Mines. The examiners were accompanied by W. W. Sorsen, superintendent of the Sue mine, who represented the applicant.

The applicant proposes to explore a flat-lying segment of the upper Dripping Spring quartzite bed for uranium by 2,000 feet of drifting, and 4,000 feet of air-drill sample hole for a total cost which it estimates to be $74,000.00. The applicant proposes that the working agreement be a short form type contract and offers an estimated cost of $33.00 per foot for the drifting and $2.00 per foot for air-drill sample hole.

The merits of the proposed exploration project were discussed with R. J. Schwartz who examined the Sue mine for the Atomic Energy Commission. Some data from the study by Schwartz have been included with this report.

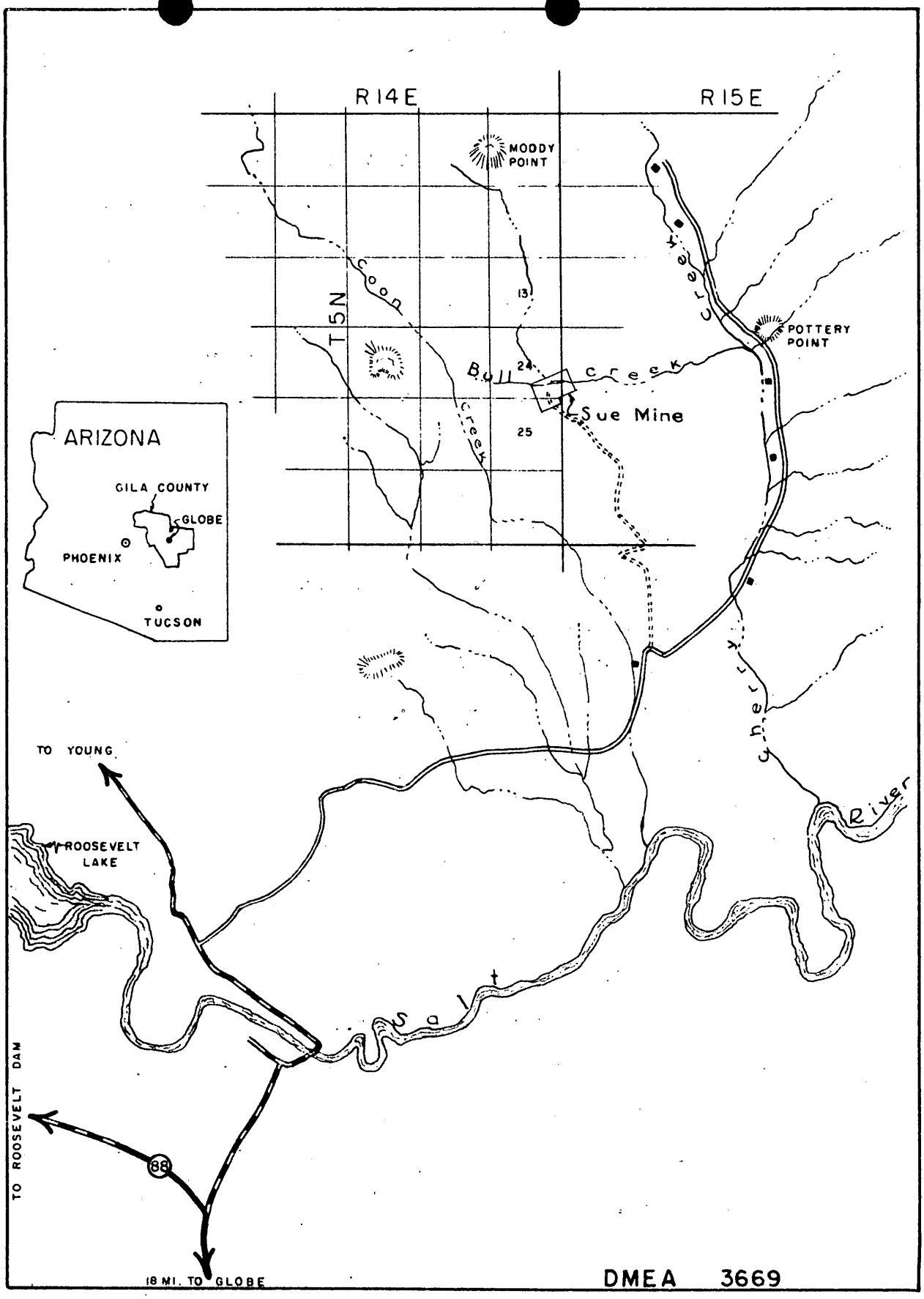
ACKNOWLEDGMENTS

Acknowledgment is due W. W. Sorsen, Superintendent of the applicant company, who was especially helpful in collecting information during the field examination. Acknowledgment also is due the Phoenix Field Office of the Atomic Energy Commission, especially to R. J. Schwartz of that office for helpful information on the district and for permission to use maps and plans from his study of the Sue mine in this report.

LOCATION, TOPOGRAPHY AND CLIMATE

The Sue mine is situated in secs. 24 and 25, T. 5 N., R. 14 E., and secs. 19 and 30, T. 5 N., R. 15 E. The mine is reached from Globe by 18.7 miles of paved State highway, 17.1 miles of graded county road, and 5.2 miles of Jeep trail. To reach the Sue mine from Globe, drive west on U. S. Highway 60 to the junction with Arizona Highway 88; turn north at this junction and proceed 14 miles to the point where the county road to Young joins this road; drive north on this road for 6.9 miles to the point where the Cherry Creek road turns east; drive east on the Cherry Creek road to the point where this road crosses Coon Creek. At a point 0.3 miles east of the cattle guard at the Coon Creek ranch, turn north through a gate and drive 5.2 miles over a rough jeep trail to the mine. A 4-wheel drive vehicle is necessary for the last 5 miles.

The topography is rugged. Differences in elevation of 1,000 feet in a horizontal distance of half a mile are not uncommon, and vertical cliffs of from 50 to 300 feet are common. The Sue claims



- FIGURE 1 -
LOCATION MAP - SUE MINE - GLOBE URANIUM INC.
GILA COUNTY, ARIZONA

on which the applicant proposes to do exploration cover a flat area on the high ridge between Bull Canyon and Coon Creek. The favorable beds outcrop at an altitude of 4,730 feet along the west side of Bull Canyon and are covered with 200 to 300 feet of the Apache group. The favorable beds also outcrop along the Coon Creek side of the area.

The climate generally is mild. Snow storms may interrupt work for short periods in the winter time. The precipitation ranges from 15 inches to 18 inches, most of which occurs as heavy snow storms in December and January, or as torrential thunder storms in July and August.

The vegetation includes juniper, pinon pine, and oak. Some small amount of mine timber may be cut on the claims, but most of the timber required must be hauled from Globe.

A water supply is available in Cherry Creek, 3 miles east and 1,500 feet below the Sue claims, or in Coon Creek, 4½ miles west and 500 feet below the Sue claims. Labor and general mining supplies are available in Globe, 40 miles from the mine.

OWNERSHIP AND EXTENT

When the occurrence of uranium in the area north of Globe became known, Keith C. Heron located a large number of mining claims on favorable outcrops. Later Keith C. Heron with his brother, James R. Heron, and Chuck O. Lee, formed Globe Uranium, Inc., an Arizona corporation.

Globe Uranium, Inc. is reported to own in excess of 300 claims. A part of these claims is shown on figure 2. This group is known as the Sue mine. The applicant has proposed to subordinate seven of these claims for royalty purposes under the proposed contract.

The question of how much ground would be benefited by the proposed project was discussed at some length with W. W. Sorsen, who represented the applicant. It was Sorson's opinion that only the group of claims listed in the application would be benefited by the proposed work. However, Sorsen stated that Globe Uranium, Inc. is anxious to obtain Government exploration assistance and would be willing to subordinate all of the claims necessary to get this aid.

John N. Faick stated that he believed that a larger group of claims might be benefited. Actually, if the continuity of the ore in the particular bed is proven by this project, all of the 6,000 square miles of Dripping Springs quartzite would be benefited to some extent. However, it seems probable that an operator who later discovers ore at his own expense on a claim which he has included in a subordination agreement at the insistence of the Government would not be satisfied.

It is the opinion of the undersigned that the mining claims Sue Nos. 9, 10, 11, 12, 16, 17, 18, and Climax No. 1 are all that would be benefited by the proposed project from a practical standpoint. It is recommended that these claims be subject to royalty payments for the purpose of this contract.

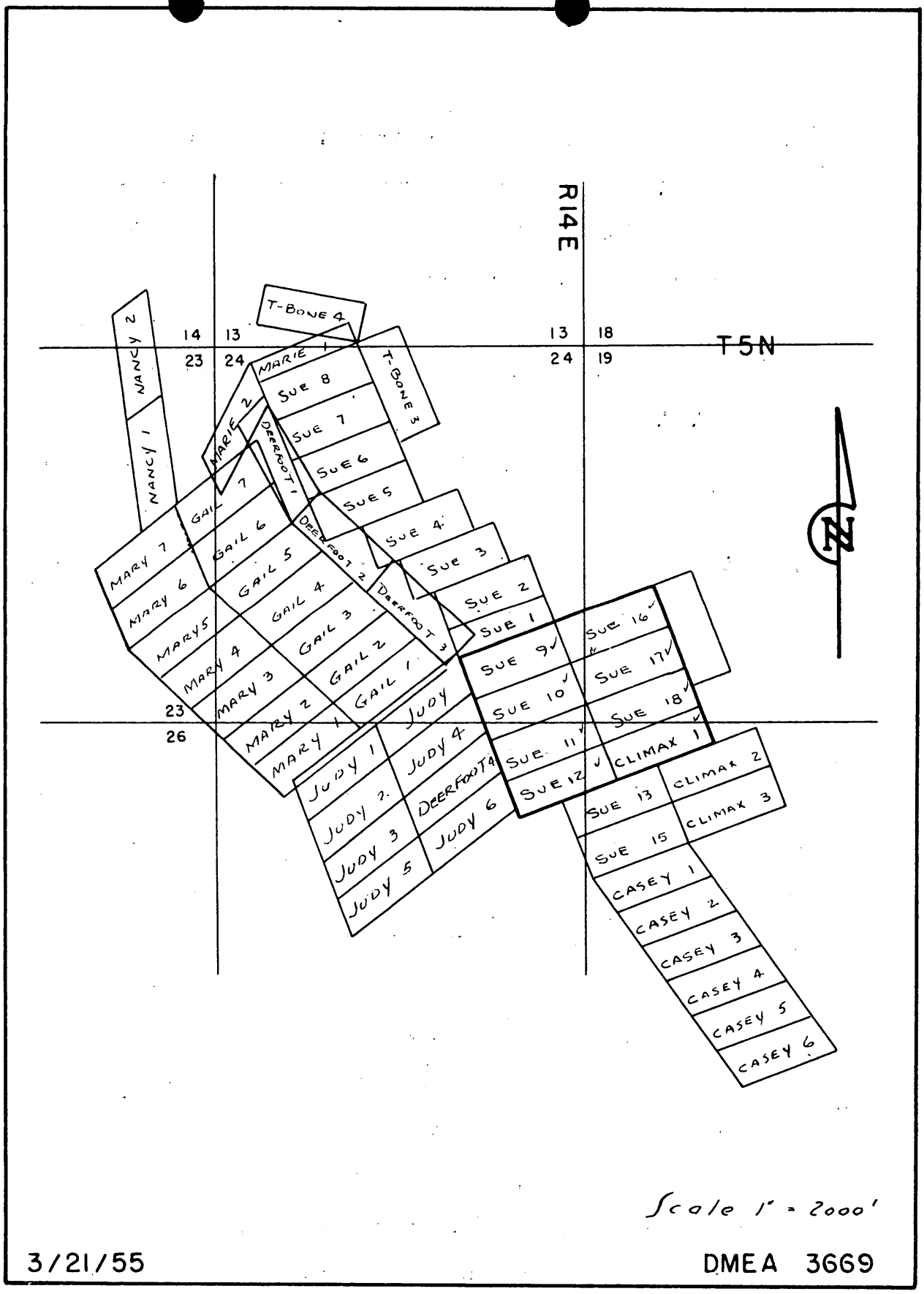


FIGURE 2 CLAIM MAP - SUE MINE - GLOBE URANIUM INC.

HISTORY AND PRODUCTION

Uranium was discovered in the pre-Cambrian Dripping Springs quartzite north of Globe early in 1950. Prospecting activity has been intensive and many deposits with potential ore grade material have been located. Ore grade material has been mined from several deposits, including the Sue mine.

Approximately 100 tons of ore were mined from the Sue mine during the preliminary prospecting stage. Samples of this ore range from 0.15 to .20 percent uranium oxide. It has been stock-piled on the claims pending the completion of a haulage road and the opening of a uranium ore purchasing depot at Globe, Arizona.

DESCRIPTION OF DEPOSIT

The upper member of the Dripping Spring quartzite outcrops along the southwest side of Bull Canyon. This outcrop has been exposed by a bulldozer trench for 1,000 feet and has been explored by three adits. The outcrop was traced east and south along the 4,730-foot contour as shown on figure 3. The outcrop is reported to occur along the Coon Creek side of the Sue claims, but this western outcrop was not examined.

Along the trenched outcrop the rock was a thin-bedded, silicified, arkosic siltstone. The color was predominantly reddish to orange-brown. As nearly as could be observed, the bed ranged from 3 to 15 feet thick and was underlain by a blocky massive bed of quartzite. In the underground workings, fresh surfaces are sometimes medium to dark grey, but the workings are not deep enough to be free from the effects of oxidation from surface waters.

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In the exposed surface trench, metatorbernite can be observed in many places. Autunite was identified in several places. At the Sue mine no primary minerals were identified in the dark grey rock. However, in other prospects in the district a similar dark grey thin-bedded rock contained visible pyrite, chalcopyrite, and pitchblende. The applicant contends that the primary minerals have been oxidized and partially leached from the ground now exposed and it believes that they will be found at greater depth.

ORE RESERVES

On April 1, 1955, E. V. Mace, geologist for the Atomic Energy Commission, and W. W. Sorsen ran a radiometric traverse. A La Roe Scintillation Detector was used and all readings were made with the detector held 2 feet above the rail in the center of the drifts and crosscuts. One hundred thirty readings were made in the traverse. The highest reading was 2.3 MR per hr. and the lowest reading was 0.14. The average of the 130 readings was 0.72; their distribution is shown on figure 5.

In March 1955, E. V. Mace cut 59 channel samples in the drifts and crosscuts. These channel samples were taken in the drifts and crosscuts that gave the best radiometric readings. They were cut across the favorable beds at the positions shown on figure 6 and were radiometrically assayed in the Phoenix sub-office of the Atomic Energy Commission; 11 samples were sent to the U. S. Bureau of Mines to be checked. The following tabulation compares the two sets of determinations.

Sample No.	AEC e % U_3O_8	USBM e % U_3O_8	c % U_3O_8
2	0.14	0.12	0.14
8	1.50	1.52	1.70
11	0.60	0.60	0.64
15	0.09	0.09	0.07
18	0.14	0.12	0.12
22	0.13	0.12	0.12
30	0.48	0.44	0.46
40	0.63	0.58	0.62
47	0.07	0.06	-
51	0.20	0.18	0.20
57	0.05	0.04	-

On April 5 - 6, 1955, channel samples were taken by the DMEA examining team at the same location as some of the Atomic Energy Commission samples were cut. These two sets of samples are compared below:

Atomic Energy Commission			U. S. Bureau of Mines		
Sample No.	Length	e % U_3O_8	Sample No.	Length	e U_3O_8
58	58"	0.04	13163	58"	0.03
53	36	0.05	13164	36	0.06
A-3105-28	48"	0.06	13165	18"	0.23
25	64	0.05	13166	64	0.03
17	76	0.17	12167	76	0.19
A-3105-9	62"	0.63	13168	48"	0.32

Based on the above checks and considering the fact that the chemical determination has as a rule been slightly higher than the radiometric determination for samples from the Sue mine, the radiometric determinations for the channel samples cut by the Atomic Energy Commission and shown on figure 6 are accepted as a reliable measure of the uranium content of the ore.

The applicant company has driven about 800 feet of drift and crosscut, and has stockpiled 100 tons of material. Samples by the applicant and by an Atomic Energy Commission representative indicate that this material will contain from 0.15 to 0.30 percent U_3O_8.

An average of 40 channel samples gave a grade of 0.19 percent U_3O_8 and an average thickness of 59 inches. Allowing 25 feet on each side of the drift sampled for a length of 120 feet (see figure 6), 2,500 tons of ore at an average grade of 0.19 are inferred.

The face of this drift is still in ore. In similar occurrences in other prospects in the district, sulfide or primary ore containing pyrite, chalcopyrite, and pitchblende has been found beyond the oxidized ground and it seems reasonable to infer that such ore will be found in the Sue mine. If sulfide ore containing pitchblende is not found, it still is possible that a significant amount of oxidized ore may be discovered of the same type as that now exposed in the drift.

The total minable ore reserves may be as follows:

Measured ore (dump)	100 tons @ 0.20 percent U_3O_8
Indicated ore	2,500 tons @ 0.19 percent U_3O_8
Inferred ore	Significant amount.

PRESENT STATUS EXPLORATION AND DEVELOPMENT

The applicant company has constructed a jeep trail to the mine, prospected the outcrop for the most favorable location, cut a trench 1,500 feet along the most favorable outcrop, and driven approximately 800 feet of drift and crosscut. According to W. W. Sorsen this work has been accomplished at a total cost of approximately $60,000.00.

Properties of Consolidated Uranium Co. and Miami Copper Co. are north of the Sue group, and Globe Uranium, Inc. has entered into an agreement with these companies to build a road to the property suitable for hauling ore to the highway.

PROPOSED EXPLORATION AND DEVELOPMENT

The applicant has proposed to explore the favorable quartzite bed with a program to consist of 2,000 feet of drifting or cross-cutting, estimated to cut $33.00 per foot, and 4,000 feet of underground percussion drill hole at $2.00 per foot. The total cost estimated by the applicant is $74,000.00.

The applicant proposes to drive three drifts southward from the face of the adits designated as Junction No. 1 and Junction No. 3. At favorable intervals along these drifts, the applicant proposes to drill the back with a long-hole drill and test with a radiometric probe.

The examining team proposes to explore the deposit in two stages by driving a single drift southward in the favorable beds, and testing the back and sides of the drift as shown on figure 3. Some drifting is provided to explore side areas from the drift when conditions warrant.

Exploration of the deposit by drilling core drill holes from the surface was discussed with the applicant. The extremely hard Dripping Springs quartzite is expensive to drill. The ore bodies

are relatively thin and sampling is difficult. The applicant believes that exploration by drilling would be more expensive and would produce less information than drifting. R. J. Schwartz, Atomic Energy Commission representative, stated that some drilling will be done for geological information very soon by his organization.

ESTIMATED COST OF THE PROJECT

The applicant proposes an estimated cost of $33.00 per foot for drifting and crosscutting, and $2.00 per foot for percussion drilling.

Three factors tend to increase the cost of operating at this property: (1) The isolated location; (2) the lack of water; and (3) the hard quartzite formation. Cost of drifting and crosscutting is estimated to be as follows:

	Per foot
Operating labor	$17.54
Pay roll tax, etc.	2.63
Equipment and supplies	5.04
Engineering and supervision	1.00
Water supply	2.00
Repair and maintenance	2.00
Total	$30.21

An estimated cost of $30.00 per foot would seem reasonable for this project.

The cost of longhole percussion drill sampling is estimated as follows:

Operating labor	$1.25
Payroll tax, etc.	0.19
Equipment and supplies	0.63
Miscellaneous	0.20
Total	$2.27

The applicant's estimated cost of $2.00 per foot for percussion drill sample hole seems reasonable.

The program and costs proposed by the applicant are as follows:

	Total
2000 ft. drifting and crosscutting @ $33.00/ft.	$66,000.00
4,000 ft. percussion drilling @ $2.00/ft. -----	8,000.00
Total ----------	$74,000.00

The program and costs recommended by the examining engineer are as follows:

	Total
1,500 ft. drifting and crosscutting @ $30.00/ft.	$45,000.00
1,600 ft. percussion drilling @ $2.00/ft. -----	3,200.00
Total ----------	$48,200.00

It is recommended further that the exploration program be divided into two stages, each stage to consist of 500 feet of drifting, which shall be defined as driving in the favorable bed and in a direction that does not deviate more than 15 degrees from south, 250 feet of crosscutting, and 800 feet of percussion drill hole.

The direction of the drifting is specified because the DMEA examining team believes that the important objective is to gain depth and determine the type and trend of ore.

PROPOSED FINANCING

The applicant has proposed to finance 25 percent of the costs of the proposed exploration project with its own funds and has requested that the Government advance 75 percent of the costs in the form of DMEA exploration assistance. All ore that may be discovered will be subject to royalty until the Government's advance has been repaid.

CONCLUSIONS

From a study of the information gained by a field examination of the Sue uranium mine, a visit to several other uranium mines in the district, ~~xxxxxxxxxx~~ a discussion with the district Atomic Energy Commission representative, and a review of the application for Government assistance, the following conclusions are drawn:

1. Globe Uranium, Inc. has done a substantial amount of exploration at its own expense.

2. Some ore (100 tons) has been mined and additional ore (2,500 tons) has been indicated with a grade of 0.19% U_3O_8.

3. A significant amount of ore is indicated in the district and a uranium purchasing depot is now under construction and will be in operation soon at Cutter, a few miles east of Globe.

4. Geological controls of the uranium ores in the Dripping Spring formation are not known.

5. The similarity ofmineralization and formation at the Sue mine to other mines in the district, that have found primary uranium ore, is close.

6. A significant amount of uranium ore may be discovered by the proposed exploration program.

7. The applicant company as now organized appears to be qualified to complete the proposed program.

8. The commodity, uranium, is important to the national economy.

RECOMMENDATIONS

It is recommended that the applicant's request for assistance be granted and that a contract for Government participation in the costs of the exploration program as outlined in the following paragraph be drawn. This program has been discussed with the applicant's representative, W. W. Sorsen, and it is believed that it will be acceptable although Sorsen did not agree to the lower cost for drifting.

It is recommended that the contract provide for a two-stage exploration program as shown on figure 3 of this report and detailed as follows:

Stage 1:

(1) Extend Junction No. 1 adit in a southerly direction. This drift should be limited to a deviation of not more than 15 degrees from south and should be in the mineralized bed.

(2) Drive crosscuts at favorable points to further explore ore bodies or mineralized trends that may be discovered by drifting. The location and direction of crosscuts is to be subject to prior approval by the DMEA field team.

(3) Drill percussion sample holes at regularly spaced intervals from the drift and crosscuts to test the favorable beds for thickness.

Stage II.

(1) Extend the drift of Stage 1 for an additional 500 feet.

(2) Same as provided in (2) of Stage 1.

(3) Same as provided in (3) of Stage 1.

The recommended program and costs are summarized as follows:

Stage I.

500 ft. of drift @ $30.00/ft	$15,000.00
250 ft. of crosscutting @ $30.00/ft.	7,500.00
800 ft. drill hole @ $2.00	1,600.00
Total stage I	$24,100.00

Stage II.

500 ft. of drift @ $30.00/ft.	$15,000.00
250 ft. of crosscut @ $30.00/ft.	7,500.00
800 ft. of drill hole $2.00/ft.	1,600.00
Total Stage II	$24,100.00
Grand total Stage I and II	$48,200.00

The proposed exploration project is shown on figure 3.

DMEA
Date Rec'd.
MAY 9 1955

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
BUREAU OF MINES
Denver, Colorado

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 16 1955

May 9, 1955

TRANSMITTED
MAY 11 1955

Memorandum

To: Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3669 (Uranium), Sue Mine, Globe Uranium Company, Inc., Gila County, Arizona

Enclosed are the original and 9 copies of a geologic report by J. N. Faick, U. S. Geological Survey, on the subject application.

A uraniferous stratum in the middle unit of the Upper Member of the Dripping Springs quartzite has been partially explored by a surface trench and tunnels. A mineralized zone about 120 feet long, 50 feet wide, and averaging 5 feet thick that contains an estimated 2,500 tons of low-grade ore is indicated by this work. The average grade of 40 samples taken in the mineralized zone is 0.19 percent U_3O_8. The ore has been leached and Faick concludes that the grade might be higher at greater depths. However, Faick concludes that the proposed program is somewhat pretentious, and recommends that a reduced program be approved.

I concur with this recommendation.

DRMacLaren
for E. N. Harshman
Member, Field Team

Enclosures (10)

DRMacLaren:arh

Reviewed by
DMEA OPERATING COMMITTEE
5-18-55
(Date)

Box 4126 University Station
Tucson, Arizona

April 29, 1955

MEMORANDUM

To: Mr. E. N. Harshman

FROM: J. N. Faick

SUBJECT: DMEA 3669 -- Sue Mine, Globe Uranium Company, Inc., Gila County, Arizona (Uranium) Examination Report

Enclosed are the original and 10 copies of the above subject report. This report recommends Government participation in exploration, for reasons explained in the report.

One copy of the Application is returned herewith.

J. N. Faick

JNF:ms

cc: Mr. Harshman - 10
Mr. Stearns

5-18-55

MINERAL DEPOSITS
DMEA
RECEIVED
MAY 4 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

U. S. DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 16 1955

REGION III

GEOLOGY
EXAMINATION REPORT
DMEA 3669

SUE MINE
GLOBE URANIUM COMPANY, INC.

GILA COUNTY, ARIZONA

(Uranium)

By
John N. Faick
Geologist
U. S. Geological Survey

April 29, 1955

Reviewed by
DMEA OPERATING COMMITTEE
5-18-55

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 16 1955

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
FIELD TEAM REGION III

EXAMINATION REPORT

DMEA 3669
SUE MINE
GLOBE URANIUM COMPANY, INC.
GILA COUNTY, ARIZONA
(Uranium)

CONTENTS

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GENERAL GEOLOGY	1
GEOLOGY OF THE MINE AREA	2
ORE RESERVES	6
PROPOSED EXPLORATION	6
CONCLUSIONS AND RECOMMENDATIONS	8

ILLUSTRATIONS

Fig. 1	Location Map	See Engineering Report
Fig. 2	Claim Map	" " "
Fig. 3	Plan, showing proposed exploration	" " "
Fig. 4	Radiometric Survey of Surface Cuts	" " "
Fig. 5	Radiometric Traverse of Sue Mine	" " "
Fig. 6	Assay-Sample Map of Sue Mine	" " "
Fig. 7	Geologic Map, Sue Mine area	Following page 1
Plate I	Generalized Geologic Section	Following page 1

INTRODUCTION

The Sue Mine was examined on behalf of the Defense Minerals Exploration Administration April 5-6, 1955, by John N. Faick, U. S. Geological Survey, and W. H. Hardwick, U. S. Bureau of Mines. These examiners were accompanied by W. W. Sorsen, who represented the applicant company, Globe Uranium, Inc. The property previously had been studied in detail for the Atomic Energy Commission by R. J. Schwartz and E. V. Mace, and the results of these studies were made available for inclusion in this report. Also included herein are data made available to this writer by H. C. Granger, U. S. Geological Survey.

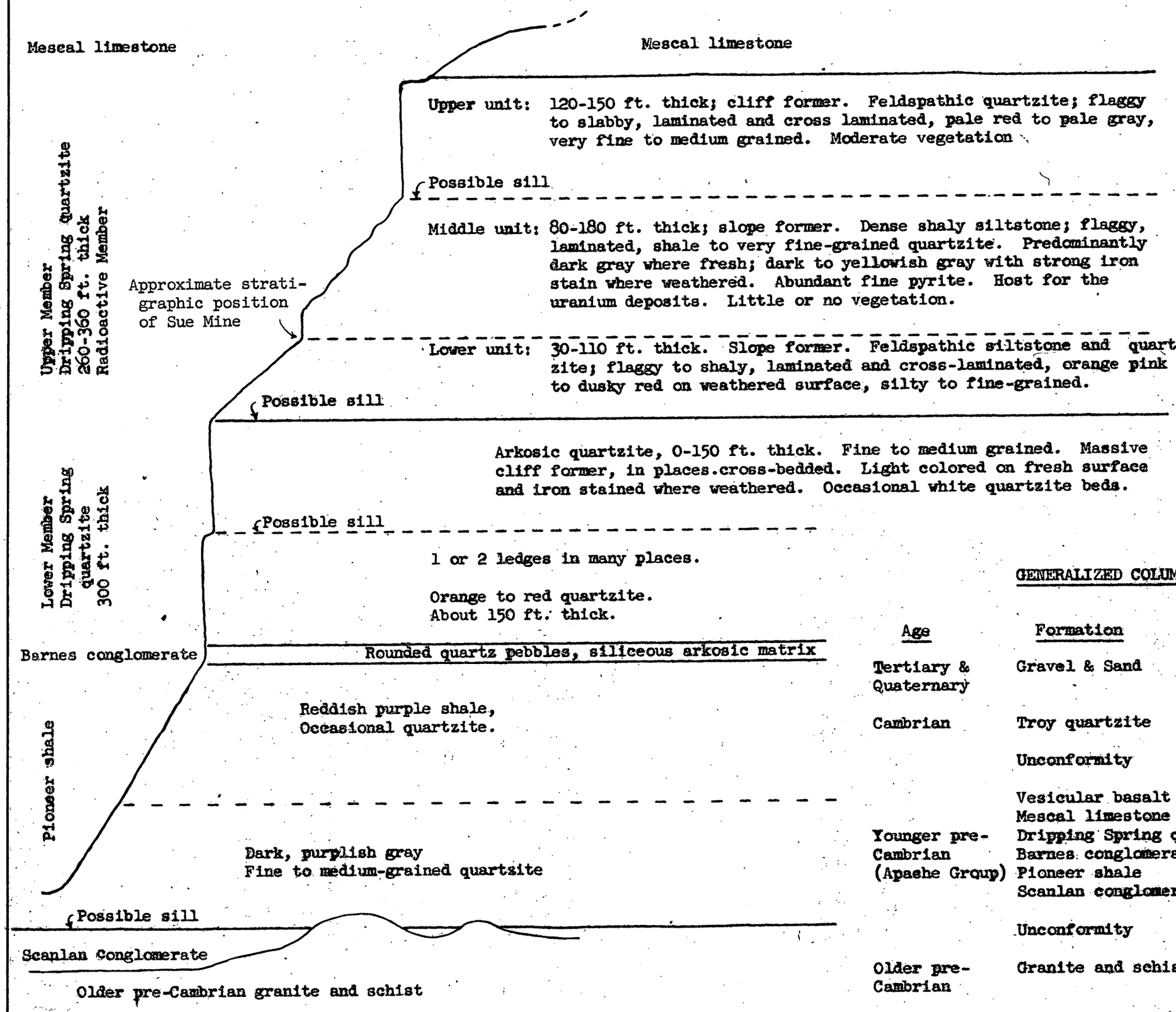
GENERAL GEOLOGY

The Sue Mine is situated near the head of Bull Canyon, a tributary of Cherry Creek on the McFadden Peak quadrangle in Gila County, Arizona, approximately 15 airline miles north of Globe. This is an area of relatively rugged topography, figure 7, characterized by plateaus and mesas into which steep narrow canyons have been deeply incised. The area is underlain by nearly horizontal or gently dipping sedimentary formations of pre-Cambrian and Paleozoic ages, which rest upon a granitic complex of older pre-Cambrian rocks. Diabase sills and dikes, probably of later pre-Cambrian age, intrude the pre-Cambrian formations.

The most widely distributed formations in the area are limestones and clastic sediments belonging to the Apache group

PLATE I

DIAGRAMATIC SECTION OF APACHE GROUP IN GILA COUNTY AND ADJACENT AREAS, ARIZONA



GENERALIZED COLUMNAR SECTION

Age	Formation	Thickness (feet)	Average Thickness
Tertiary & Quaternary	Gravel & Sand		
Cambrian	Troy quartzite	500	
	Unconformity		
Younger pre-Cambrian (Apache Group)	Vesicular basalt flow	0-75	75
	Mescal limestone	225-400	300
	Dripping Spring quartzite	450-700	700
	Barnes conglomerate	0-50	
	Pioneer shale	150-250	250
	Scanlan conglomerate		
	Unconformity		
Older pre-Cambrian	Granite and schist		

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 1 6 1955

of the younger pre-Cambrian. Brief descriptions of these formations are given in Plate I, a generalized stratigraphic section appropriate for Gila County and adjacent areas in Central Arizona. The Dripping Spring formation of the Apache group is noteworthy in that it exhibits higher radioactivity than is normally found in the surrounding rocks and in several places this formation contains uranium in potentially mineable quantities. It is to be noted on Plate I that only the upper member of the Dripping Spring is known to contain notable amounts of uranium and most of it has been found in the middle unit of the upper member. Most of the more significant concentrations of uranium discovered to date occur within an interval that lies from 50 to 150 feet above the base of the upper member.

GEOLOGY OF THE MINE AREA

The outcrop of the ore zone at the Sue mine has been explored by a 1,000-foot bench cut along the ore horizon. Underground the ore zone has been explored by about 700 feet of adits, drifts and crosscut. These workings explored a radioactive stratum in an area about 175 feet long and about 125 feet wide. The radioactive stratum, which dips about 2 degrees south, ranges from about 1 foot to 8 feet thick and averages about 5 feet thick. This stratum is a laminated or flaggy, thin-bedded gray siltstone, which is very slightly crinkled and crumbled. Individual laminae

range in thickness from about 1/8 to 3/4 inches thick. In many places the individual partings or laminae are loose, or open, and the porosity of the stratum is very great, but in other places the planes of lamination are tight or compact, and in these places the stratum is relatively impervious. The thinly-bedded or laminated uraniferous stratum rests upon a massive sandy bed several feet thick, of which the upper 12 to 15 inches is also uraniferous. The uranium in the upper part of the massive bed, in a zone about 12 to 18 inches thick, may be due to reconcentration of uranium which has been leached from the thin-bedded uraniferous stratum.

The beds appear to have been slightly deformed by jointing and fracturing, and possibly by mild flexing, which is barely evident. The joints are nearly vertical and are in two principal sets which are nearly at right angles, one set trending about N 10° E, and the other trending about N 80° W. A maximum of about 20 feet of displacement has taken place on 2 north trending faults which have cut the uraniferous stratum into 3 segments. These faults are believed to be approximately parallel to the prominent Deep Creek fault, which lies about 2000 feet east of the Sue prospect. In addition to the nearly vertical joints and faults the strata have been cut by several low angle faults and fractures, which in places have displaced the beds a few inches

and in other places have caused only slight brecciation of the beds without noticeable displacement. In places these low angle faults pass into bedding planes and become very inconspicuous. The abundance of vague fractures, joints and faults that are present indicate that the zone in which the uranium is localized has participated in adjustment to mild deformational stresses.

Localization of the ore at the Sue mine appears to be due to preferential selection by uranium of a thinly laminated stratum which appears to be more intensely fractured than other strata exposed in the same area. It is not known what influence other factors, such as major faults, regional metamorphism or proximity to diabase intrusions might have had in localizing the uranium at the Sue property.

AEC geologists (Schwartz and Mace), who have done considerable work on the Sue mine, report that pyrite, chalcopyrite, torbernite, meta-torbernite, autunite, and uraninite have been identified from the ore zone. Only torbernite was recognized by this writer, and in all cases it was closely associated with relatively abundant limonite and with honey-yellow, waxy material reported to be an unstable compound of iron and phosphorous. No hypogene minerals were recognized by this writer, and the abundant surficial stains and alteration products indicate that the ore zone,

where explored, is in a zone of supergene alteration. Undoubtedly the zone has been subjected to leaching of unknown intensity by descending meteoric waters.

Radioactive measurements made by the AEC geologists and the applicants, and satisfactorily confirmed by the examiners, indicate that a background of 0.02 to 0.04 milliroentgens per hour is characteristic and that in the mine workings readings that are several times greater than background are obtained in some places. The radiometric survey, figure 5, shows that readings ranging from 0.14 to 1.9 milliroentgens per hour were obtained.

Radiometric analyses of 59 samples, figure 6, taken by the AEC geologists, indicate an equivalent uranium content ranging from 0.01 to 1.50 percent, with an average of 0.15 percent. Of these samples, 9 were chemically analyzed as a check on the radiometric analyses and these 9 samples contained an average of 0.45 percent U_3O_8.

During this examination Hardwick took 2 samples from the surface cut and 8 samples in the underground workings to check the sample analyses provided by AEC and the applicant. The samples taken by Hardwick revealed an equivalent uranium content ranging from 0.01 to 0.32 percent. The 3 samples found to contain the most uranium by radiometric analyses were chemically analyzed, and the average of these was found to be 0.28 percent U_3O_8. The DMEA analyses closely checked those supplied by the applicant and AEC. On nearly all samples it was noted that the chemical analyses were slightly higher than the radiometric analyses.

ORE RESERVES

Ore reserves are not precisely estimated because there are no reliable geological criteria upon which to base an estimate. A mineralized zone, about 120 feet long and 50 feet wide, and averaging about 5 feet thick, appears to contain uraniferous material of potentially mineable grade, thus a reserve of about 2500 tons of low-grade ore is indicated. The average grade of ore as shown by 40 samples taken in the mineralized zone is 0.19 percent U_3O_8. This ore has been leached and altered by meteoric waters, and it is possible that higher grade ore might be present at greater depths below the surface. Although data are not available on which to base an ore reserve estimate there is a possibility that substantial amounts of low grade ore might be discovered by the proposed exploration. It is reasonable to hope that the ore zone is very much larger than indicated by presently available data.

PROPOSED EXPLORATION

The applicants originally proposed exploration of the property by means of driving a total of 2000 feet of drifts, crosscuts and raises, and drilling a total of 4000 feet of underground percussion drill holes. Sorsen expressed a desire to set the project up in stages, with a fairly large amount of drifting and crosscutting provided in the first stage and a smaller amount in a second stage. He proposes to do the percussion drilling concurrently with the drifting, crosscutting and raising. It is proposed to drive the drifts and crosscuts in the ore zone and to

explore the ore and some of the strata above it by drilling at 100-foot intervals and by driving raises in favorable areas.

The applicant's program is reasonably good but is somewhat pretentious, considering the fact that criteria upon which exploration must be based are not well known. However, greatly reducing the size of the project might defeat its purpose. We, therefore, recommend an exploration program which we believe is feasible to execute, reasonable in cost, and adequate to determine if significant reserves are present. The program proposed, and illustrated in figure 3, is as follows:

Stage I. Drive the Junction No. 1 adit in a southerly direction about 500 feet and explore on either side of it with about 250 feet of drifting and crosscutting. Allow about 750 feet of drifts and crosscuts for Stage I.

Allow about 800 feet of percussion-type long hole drilling to explore the walls and backs of the drifts and crosscuts. This drilling is to be done concurrently with the drifting and crosscutting insofar as operations permit.

Stage II. Same as Stage I, but designed to explore the area south of that explored by Stage I.

This program must not be rigid, but must be sufficiently flexible to permit the operator to follow the trend of the ore insofar as possible and to place the drill holes in the places most likely to contain ore, as these are revealed by the drifts and crosscuts.

It is believed this program will adequately explore a zone about 1000 to about 1200 feet long and 300 feet wide. This zone is elongated in a southerly direction, and lies south of the zone which has been partly explored by the present workings.

CONCLUSIONS AND RECOMMENDATIONS

The Sue mine has explored a uraniferous stratum in the favorable Dripping Spring quartzite and has exposed about 2500 tons of low-grade, probably submarginal ore, most of which undoubtedly has suffered from leaching and oxidation. It is hoped that deeper in the hill in which the ore is developed, and at greater depths, will be found significant amounts of uraniferous material containing primary uranium minerals in sufficient quantity to be of possible commercial value. Therefore, Government participation in exploration is recommended.

3/7/55 gh

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

224 New Customhouse
Denver 2, Colorado

March 2, 1955

Mr. J. R. Heron, President
Globe Uranium, Inc.
293 N. Broad Street
Globe, Arizona

Re: Docket No. DMEA-3669
Exploration Assistance
Sue Mine - Uranium

Dear Mr. Heron:

This will acknowledge receipt of your letter dated February 25, 1955, requesting information on your DMEA application.

The application has been released for a field examination and you will be contacted prior to the field examination so that you or your representative may be present.

Very truly yours,

W. M. Traver

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

cc: Administrator, DMEA (2)
W. R. Storms
J. N. Faick
E. N. Harshman
Subject
Chron

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

224 New Customhouse
Denver 2, Colorado

March 2, 1955

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293 N. Broad Street
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Exploration Assistance
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W. M. TRAVER

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

cc: Administrator, DMEA (2)
W. R. Storms
J. N. Faick
E. N. Harshman
Subject
Chron

Surname 700

F. L. Knouse
Ellis
Hedges
Kellogg and
Selfridge
Johnson

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

FEB 25 1955

Mr. James R. Heron, President
Globe Uranium, Incorporated
293 N. Broad Street
Globe, Arizona

Re: Docket No. DMEA-3669 (Uranium)
Sue Mine
Gila County, Arizona

Dear Mr. Heron:

The application for assistance in exploring your property in Gila County, Arizona, under the above-captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to the Executive Officer of Region III at the following address:

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

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

C. O. Mittendorf
by 257
Administrator

FLKnouse:am
2-23-55
cc to: Admr. Reading File
Docket
Code 700
Mr. Knouse
DMEA Field Team, Region III(2)

R.C.h.

Surname 700

F L Knouse
Ellis
Selfridge
Fitzsimons

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

FEB 25 1955

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

Re: Docket No. DMEA-3669 (Uranium)
Globe Uranium, Incorporated
Sue Mine
Gila County, Arizona

Dear Mr. Graver:

The captioned application is referred to your office for a field examination and report on the proposed project.

Enclosed are copies of memoranda from Mr. R. L. Trace and Mr. John E. Crawford, both dated February 16, 1955, members of the Uranium Commodity Committee.

If your office recommends either the program as submitted, or an alternate one approved by the Applicant, please furnish us the necessary information to draft a contract. In this connection six copies of a map showing the proposed work in relation to the mining claim boundaries should be furnished.

Your memorandum of February 3, 1955, states a copy of the application was retained in your files.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

FLKnouse:am
2-23-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Knouse

APPROVED:

J. H. Hedges
Member, Bureau of Mines (JHH)

Thor H. Kiilsgaard
Member, Geological Survey (THK)

RCS

2/17/55 gla

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 16 1955

February 16, 1955

Re: DMEA-3669
Globe Uranium, Inc.
Sue claims
Gila County, Arizona
$74,000 - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of application

Uranium has been known to exist in the pre-Cambrian Dripping Springs quartzite north of Globe since early 1950. According to TEI-490: "Prospecting activity has been intensive since February 1954 and many new deposits have been found. Ore grade material is being mined from at least six different deposits, and several others probably will be in production shortly."

The principal uranium minerals are pitchblende, metatorbernite, autunite, and uranophane. They occur primarily along fractures or in the adjacent wall rock in the middle unit of the upper member of the Dripping Springs quartzite. Also there appears to be some relationship between the ore deposits and nearby diabase dikes and sills.

The size of the known deposits range from 6 inches to 20 feet vertically, they are commonly less than 5 feet in thickness, and their length ranges from a few feet to over 150 feet.

Available evidence suggest that the deposits increase in grade with depth.

The applicant indicates sufficient evidence of mineralization to warrant a Field Team examination of the claims.

Bob Trace
R. D. Trace

IN REPLY REFER TO:

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

February 16, 1955

Re: DMEA-3669
Globe Uranium, Inc.
Sue claims
Gila County, Arizona
$74,000 - Uranium

Memorandum

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From: R. D. Trace, U. S. Geological Survey

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Available evidence suggest that the deposits increase in grade with depth.

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R. D. Trace

RDTrace:hlm
G-2/16/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior

2/17/55 gla

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 17 1955

February 16, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket 3669, Globe Uranium, Inc.,
293 N. Broad St., Globe, Arizona.

I have reviewed the application included in the subject docket and have discussed it with Joseph O. Hosted, representative of the Atomic Energy Commission.

We recommend that the attached application be referred to the Field Team for investigation and report, and that the Field be requested to discuss the application with Ernest E. Thurlow, Atomic Energy Commission, Salt Lake City, Utah.

John E. Crawford
John E. Crawford

Attachment

Copy to: Branch of Rare and Precious Metals
Division of Minerals
J. O. Hosted (2)
J. E. Crawford

February 8, 1955
Subject: DMEA 3669
Re: Exploration Assistance
Sue Mine

Globe Uranium, Inc.
293 N. Broad St.
Globe, Arizona

Gentlemen:

The receipt of your application dated January 26, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3669 and referred to the Rare and Miscellaneous Metals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

February 8, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region III.

DMEA - 3669 Globe Uranium, Inc.

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

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

224 New Customhouse
Denver 2, Colorado

February 3, 1955

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, DMEA Field Team, Region III

Subject: (Uranium), Application for DMEA Assistance, Globe Uranium, Inc., Gila County, Arizona

Enclosed are three copies of a loan application for the subject company for Government assistance in the amount of $74,000.00 to explore by 4,000 feet of drifting, crosscutting and raising, and 2,000 feet of surface percussion drilling, on owned property located in Gila County, Arizona.

One copy of the application is being retained in our files.

W. M. Traver

W. M. Traver

Copy to: Administrator, DMEA

Enclosures

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

RECEIVED

224 New Customhouse
Denver 2, Colorado

February 3, 1955

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, DMEA Field Team, Region III

Subject: (Uranium), Application for DMEA Assistance, Globe Uranium, Inc., Gila County, Arizona

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W. M. Traver

W. M. Traver

Copy to: Administrator, DMEA

Enclosures

W:AG

cub
chron

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
Date Rec'd, FEB 7 1955
JAN 28 1955
BUREAU OF MINES
Denver, Colorado

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

Not to be filled in by applicant

Docket No. 3669
Metal or Mineral Uranium
Date Received 2-7-55
Estimated Cost $74,000
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Globe Hunter, Inc. (incorporated in Arizona)
203 N. Broad St.
Globe, Arizona

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract See attached sheets

(*b*) State any mine name by which the property is known. Sno King

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

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

(*e*) If you own the land, describe any liens or encumbrances on it None

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

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

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

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

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

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

5. *The exploration project.*—(*a*) [redacted]te the mineral or minerals for which you wi[redacted] explore .....

.....

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated Jan 16, 1955

Globe Uranium, Inc.
(Applicant)

By J R Olson
Pres.

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

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

MINUTES OF A SPECIAL MEETING OF THE
BOARD OF DIRECTORS OF
GLOBE URANIUM, INC.
HELD JANUARY 26, 1954

A special meeting of the board of directors of GLOBE URANIUM, INC., an Arizona corporation, was held at 1018 Title & Trust Building, Phoenix, Arizona, on the 26th day of January, 1954.

Present and participating in the said meeting were J. R. Heron, K. C. Heron, and C. O. Lee, being all of the directors of the corporation.

Upon motion duly made and seconded, it was unanimously resolved that J. R. Heron, president of the corporation, arrange for the filing of an application for a D. M. E. A. loan on SUE Claims No. 9 through No. 18 belonging to the corporation, and that the president be ordered, authorized and directed to execute any and all instruments and furnish any and all information which may be required or which will expedite the said D. M. E. A. loan application.

There being no further business to come before the said meeting, upon motion duly made and seconded the meeting was adjourned.

C. O. Lee
Secretary

CERTIFICATE

I DO HEREBY CERTIFY that I am the duly-elected, qualified and acting secretary of GLOBE URANIUM, INC., an Arizona corporation; that the foregoing resolution was adopted at a special meeting of the board of directors of said corporation held at 1018 Title & Trust Building, Phoenix, Arizona, on the 26th day of January, 1954, and that the same has not been modified, changed or rescinded in any respect.

IN WITNESS WHEREOF, I hereunto set my hand and the seal of the corporation this 26th day of January, 1955.

C. O. Lee

C. O. Lee, Secretary

form MF-103 attached sheet 1 applicant Globe Uranium, Inc.
293 N. Broad St.
Globe, Arizona

1.(a) Globe Uranium, Inc.
293 N. Broad St.
Globe, Arizona

(b) A corporation organized in Arizona.

(c) Pres. James R. Heron, Box 1393, Globe, Arizona.
Vice Pres. Keith C. Heron, Globe, Arizona.
Sec'y. & Treas. Chuck O. Lee, 31 W. Monroe, Phoenix, Ariz.

(d) Not applicable.

2.

3.(a) A group of claims known as Sue No.s 9, 10, 11, 12, 16, 17, 18.
Located in secs. 24 & 25, T5N, R14E, and secs. 19& 30, T5N, R15E, Globe and Salt River Base Line and Meridian, Gila County, Arizona.

(b) Sue Mine

(c) Owner

(d) Not applicable.

(e) None

(f) Unpatented claims recorded in Gila County Recorders Office, Globe, Arizona, as follows:

Name	Recording Date	Docket	Page
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#10	"	6	114
#11	"	6	115
#12	"	6	116
#16	"	6	117
#17	"	6	118
#18	"	6	119

4.(a) All exploration work has been done on Sue No. 16 claim. A 1000 foot bench cut along the ore horizon, and a 400 foot truck road below this bench has exposed several zones of uranium mineralization at three different elevations. Two main faults caused this vertical displacement of the ore horizon, with a maximum displacement of twenty feet. Junction tunnels No.s 1, 2, and 3 were started to explore these ore occurrences.

form MF-103 attached sheet 2 applicant Globe Uranium, Inc.
293 N. Broad St.
Globe, Arizona

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Junction No1 tunnel was driven south 175 feet and a crosscut was started at 90 feet and driven west for 75 feet. Spotty mineralization is noted throughout the length of this tunnel, with a bedded zone from 24" to 36" in thickness. This material varies in grade from .05% to .38% uranium oxide by chemical assay. The crosscut was driven along a vertical fracture, but showed only spotty mineralization.
Preliminary drill holes disclosed a bedded ore occurence which starts about 3 feet above the roof of the drift and varies in thickness from 3 feet to 6 feet. No assays are available to date on this occurrence, but the holes were probed with a DG-9 Detectron Geiger counter with 100' probe. Readings in individual holes ranged from .07 in waste to 7.00 M. R./Hr. in ore. Raises will be driven into this ore horizon for the purpose of bulk sampling, and additional drilling will be done to delineate and determine the structural controls on this ore occurrence.

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Junction No. 3 tunnel was started just west of another major fault and 215 feet west of Junction No.2. This tunnel was started on a good showing of meta torbernite which terminated in 6 feet by a vertical N80W fracture. This tunnel was advanced to 27' and was stopped pending the outcome of our drilling program.

The ore found in Junction tunnels 1 and 2 is a dark gray quartzite with uraninite mineralization. The ground is highly fractured and has been subjected to considerable leaching by meteoric water.

The property is accessible from Globe by 37 miles of State and County roads, and 4½ miles of truck trail.

4. (b) About 30 tons of ore has been stockpiled, and assays indicate a range of .05% to .20% in uranium oxide values. An estimate of ore reserves will have to be postponed until we have more information from our drilling program. Inferred ore estimates would indicate about 1000 tons of material averaging .20%.

(c) The property is located at the junction of Deer Creek and Bull Canyon, which expose about 1000 feet of Pre-Cambrian sediments known as the Apache Series. See sketch of geological section. The horizon showing uranium mineralization occurs in the lower one-third of the Upper Dripping Springs quartzite, and is found in a massive, dark gray silty member of highly silicified quartzite. Surface indications show meta torbernite and autunite coatings in fractures, while further underground the mineralization occurs as uraninite.

The ground being explored is dominated by two vertical fracture systems striking N80W and N10E. Numerous small fractures occur throughout. Bedding faults are indicated by gauge between bedding planes. These sometimes curve upward to become cross bedding faults. There is some variation in local dip of the bedding, but in general it varies from 2 to 10 degrees S. The outlines of the ore occurrences are controlled by fractures and bedding. We note that the ore is leaner near fractures, suggesting that leaching has taken place along these water courses. Iron staining and lime coatings in fractures indicate the movement of meteoric water thru the rock. After a rain, several wet places develop in our underground workings which indicate current leaching and retransporting of mineralization is taking place. We believe the area we are now exploring has been subjected to the leaching influences of meteoric waters for eons of time, and has dissolved part of the primary minerals and carried them in solution toward the surface, where evaporation and change of environment caused surface occurrences of meta torbernite and autunite. We expect to find higher grade primary uranium ore by penetrating further underground beyond the leaching influences of surface waters. We believe that the fracture systems have provided the channels for waters that have depleted portions of the original orebody, and that the primary ore does occur in a bedded deposit.

(d) The property is connected to a county maintained road by 4½ miles of truck trail. The county road consists of 17 miles of gravelled secondary road. Thence 20 miles of paved State Highway to Globe.

form EP-103 attached sheet 4 Applicant Globe Uranium, Inc.
293 N. Broad St.
Globe, Arizona

4. (d) continued
The purchasing depot will be located 7 miles east of Globe, making a total ore haul distance of 48 miles. Globe would be the center of all supplies labor and shipping, a distance of 41 miles.

(e) Manpower is available from the Globe-Miami mining center, a source of skilled personnel. Materials, supplies, and equipment are available from Globe or Phoenix, an additional 80 miles by paved highway. Water for exploration or mining could be developed on Coon or Cherry Creeks, a pipeline distance of three miles. Power would be either Diesel or gasoline.

5. (a) Uranium

(b) The Proposed work would consist of 2000 feet of drifts, crosscuts, and raises, and 4000 feet of underground percussion drill hole for radiometric probing. See sketch showing proposed work.

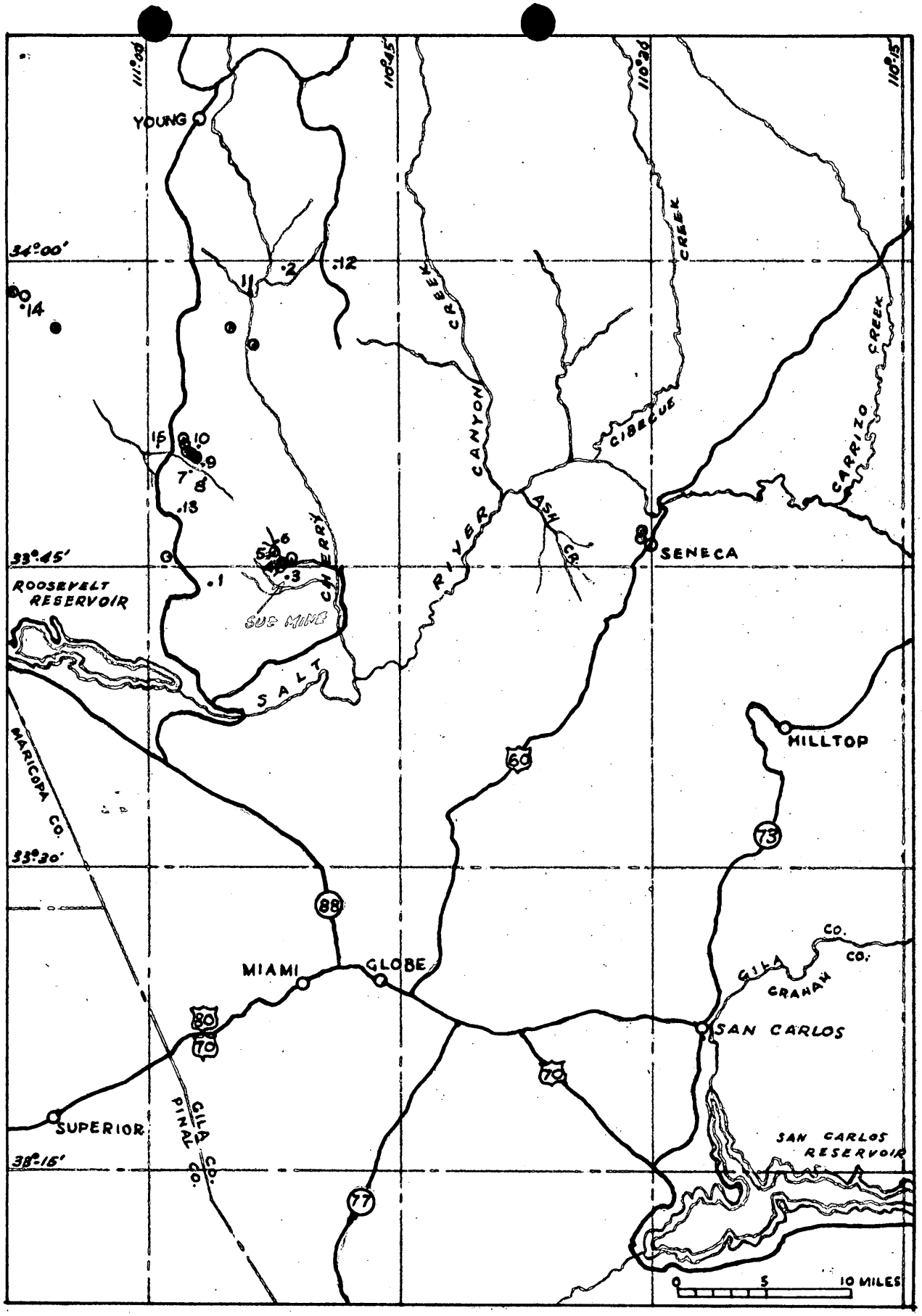
(c) The work will start within 30 days and be completed within 24 months.

(d) Principals responsible for the execution of this project are qualified by extensive experience in the exploration and development of mining properties. Mr. James R. Heron successfully developed a copper property which subsequently produced over 550 cars of smelting ore.
The work will be supervised by Mr. W. Sorsen, a registered Mining Engineer. He has supervised the exploration and development of the following companies:

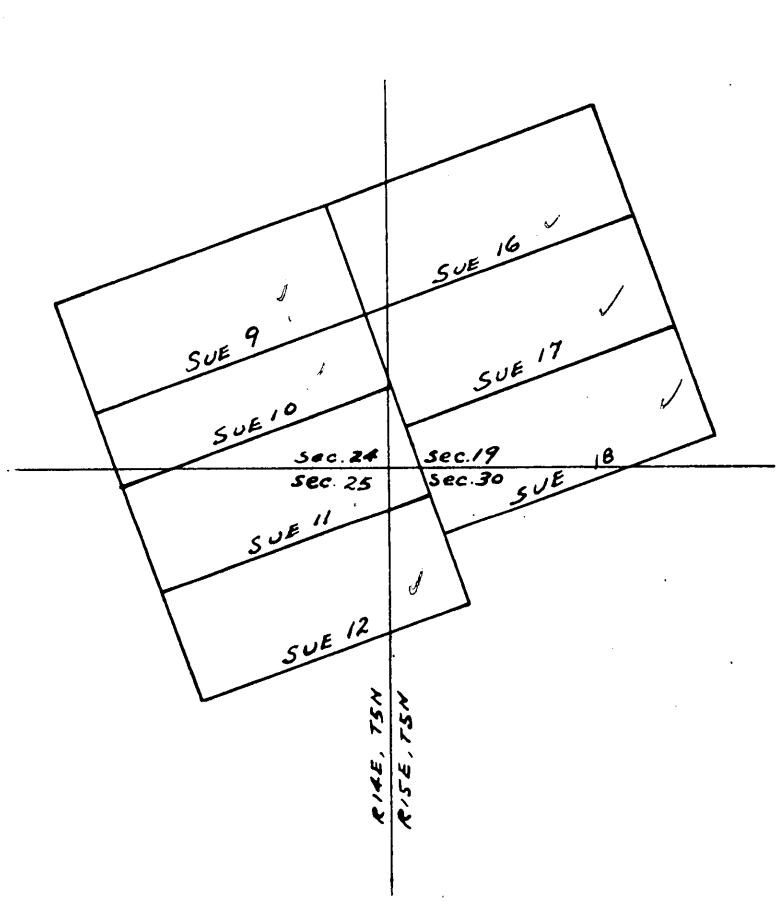
Castle Dome Copper Co.	Miami, Arizona
Dunreath Coal Co.	Knoxville, Iowa
Reserve Mining Co.	Babbitt, Minnesota
Sorsen Asbestos Corp.	Globe, Arizona

6. (a thru h) Not applicable. We intend to do the proposed work on a unit price schedule:
I. Drifting, x-cutting, raising $33.00/foot.
II. Percussion drilling-1 7/8" hole 2.00/foot.

7. (a&b) We will pay for the work as it progresses, and will be reimbursed by the DMEA monthly according to measurement of units of work completed.

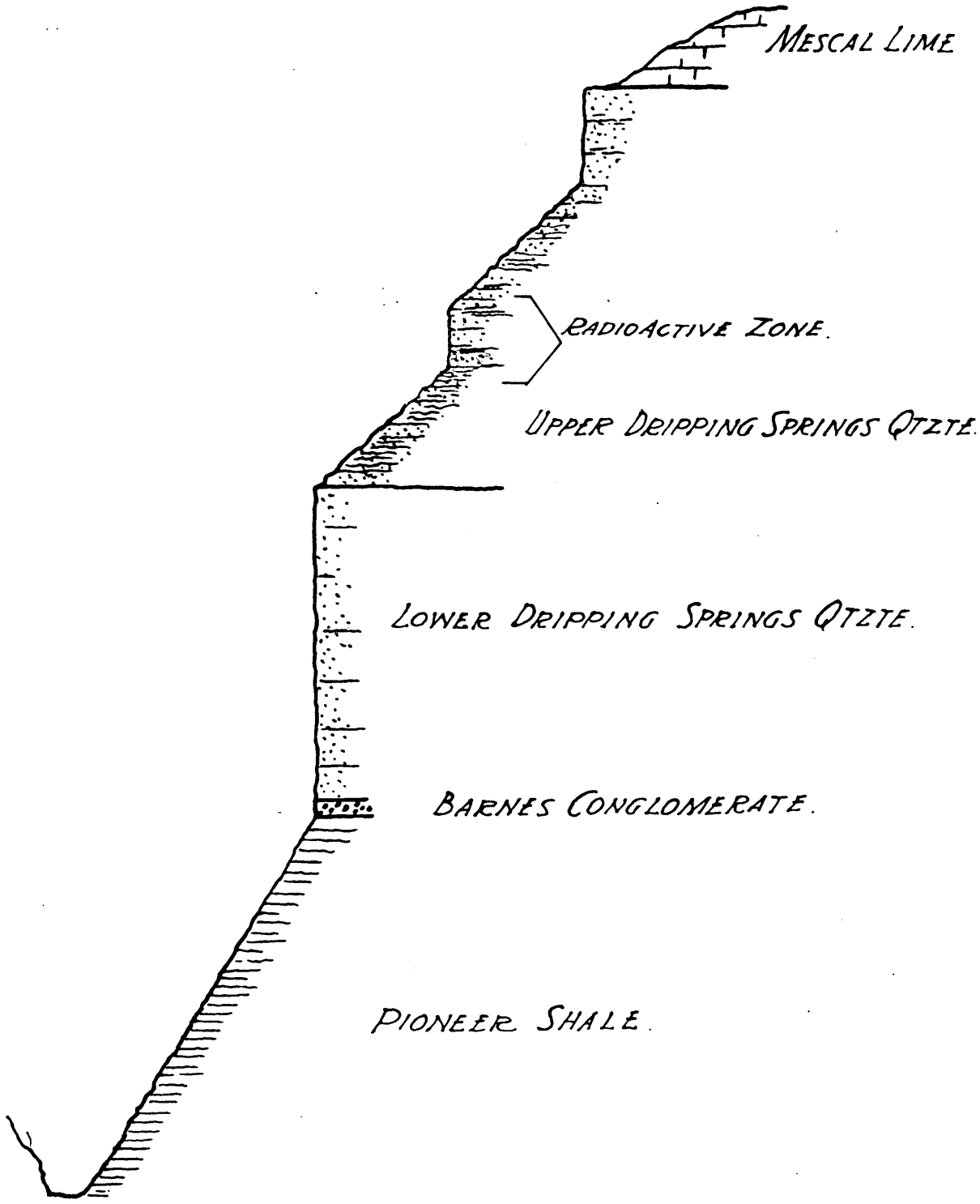


MAP SHOWING A.E.C. AIRBORNE ANAMOLIES, PRINCIPAL PROSPECTS AND MINES.



SKETCH SHOWING SUE CLAIMS

Scale 1" = 1000'



SECTION THROUGH APACHE SERIES
AT BULL CANYON.

1" = 100'

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

Date Rec'd. JAN 28 1955 BUREAU OF MINES Denver, Colorado

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

Not to be filled in by applicant

Docket No. 3669
Metal or Mineral Uranium
Date Received 2-7-55
Estimated Cost $74,000
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Globe Uranium, Inc. (incorporated in Arizona)
293 N. Broad St.
Globe, Arizona

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract See attached sheets

(*b*) State any mine name by which the property is known. Sue Mine

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

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

(*e*) If you own the land, describe any liens or encumbrances on it None

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

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

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

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

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

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

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

.....

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated Jan 16, 195[illegible]

Globe Uranium, Inc.
(Applicant)

By J R Kerson
Pres.

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

MINUTES OF A SPECIAL MEETING OF THE
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HELD JANUARY 26, 1954

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Present and participating in the said meeting were J. R. Heron, K. C. Heron, and C. O. Lee, being all of the directors of the corporation.

Upon motion duly made and seconded, it was unanimously resolved that J. R. Heron, president of the corporation, arrange for the filing of an application for a D. M. E. A. loan on SUE Claims No. 9 through No. 18 belonging to the corporation, and that the president be ordered, authorized and directed to execute any and all instruments and furnish any and all information which may be required or which will expedite the said D. M. E. A. loan application.

There being no further business to come before the said meeting, upon motion duly made and seconded the meeting was adjourned.

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CERTIFICATE

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C. O. Lee

C. O. Lee, Secretary

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Globe, Arizona

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Globe, Arizona

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4.(a) All exploration work has been done on Sue No. 16 claim. A 1000 foot bench cut along the ore horizon, and a 400 foot truck road below this bench has exposed several zones of uranium mineralization at three different elevations. Two main faults caused this vertical displacement of the ore horizon, with a maximum displacement of twenty feet. Junction tunnels No.s 1, 2, and 3 were started to explore these ore occurrences.

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293 N. Broad St.
Globe, Arizona

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The property is accessible from Globe by 37 miles of State and County roads, and 4½ miles of truck trail.

4. (b) About 30 tons of ore has been stockpiled, and assays indicate a range of .05% to .20% in uranium oxide values. An estimate of ore reserves will have to be postponed until we have more information from our drilling program. Inferred ore estimates would indicate about 1000 tons of material averaging .20%.

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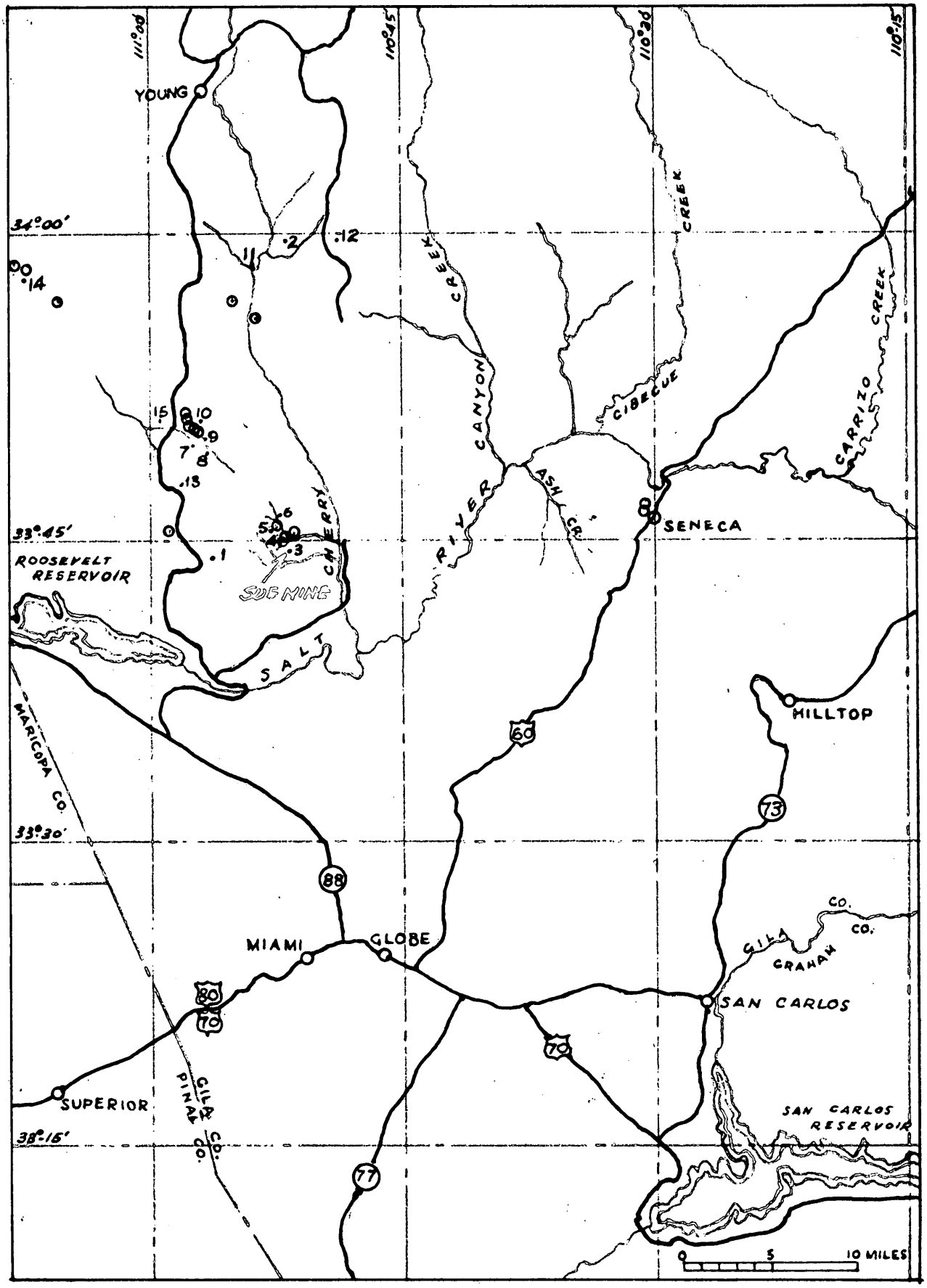
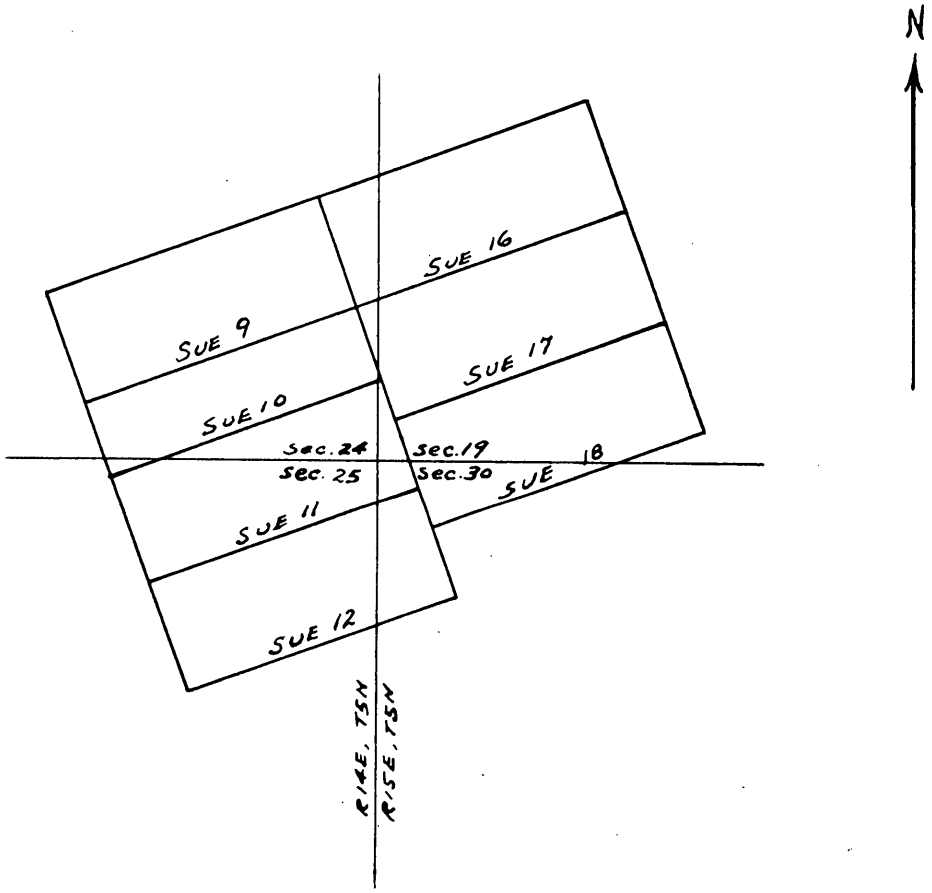
7. (a&b) We will pay for the work as it progresses, and will be reimbursed by the DMEA monthly according to measurement of units of work completed.

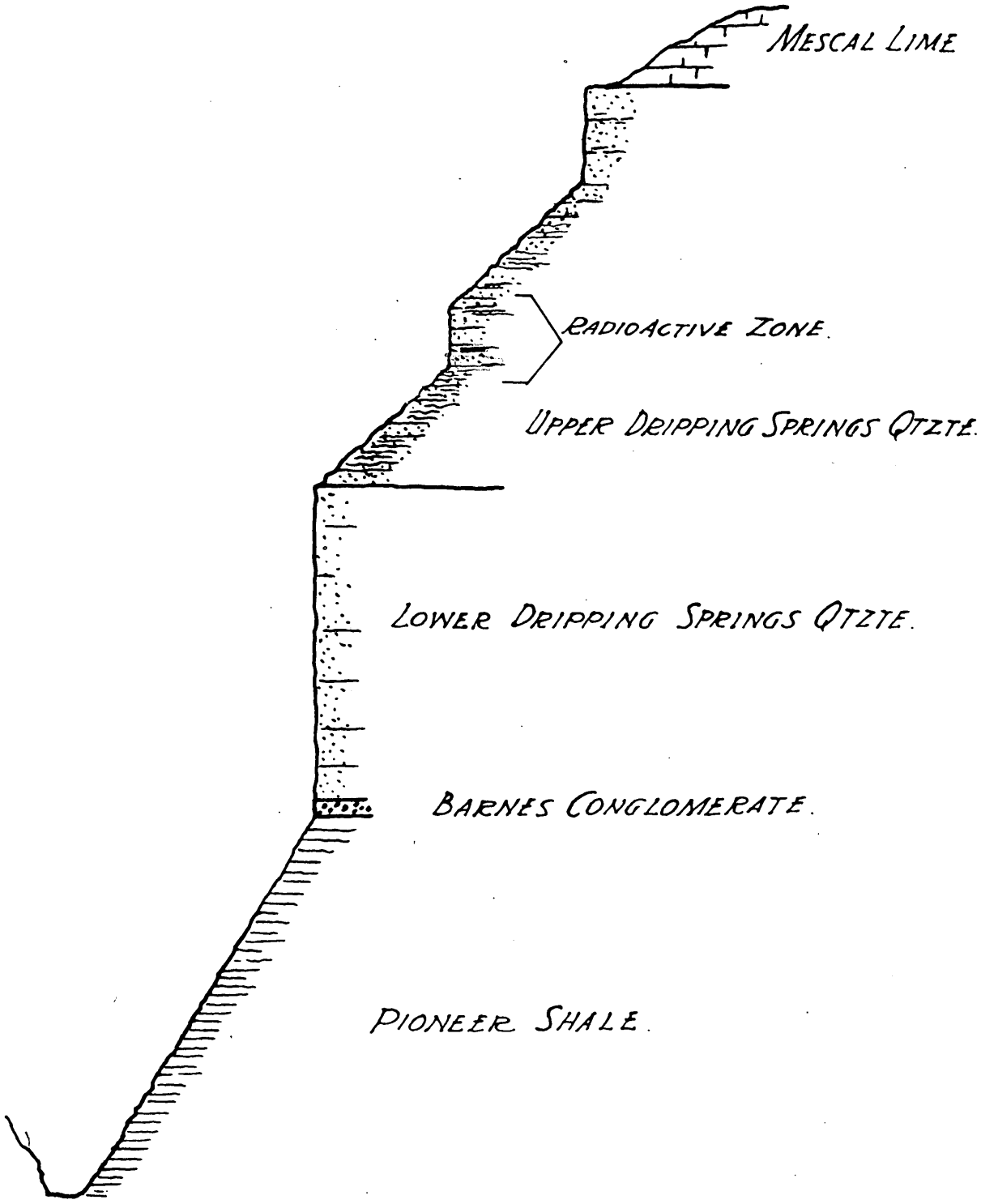


MAP SHOWING A.E.C. AIRBORNE ANAMOLIES, PRINCIPAL PROSPECTS AND MINES.



SKETCH SHOWING SUE CLAIMS

Scale 1" = 1000'



SECTION THROUGH APACHE SERIES
AT BULL CANYON.

1" = 100'

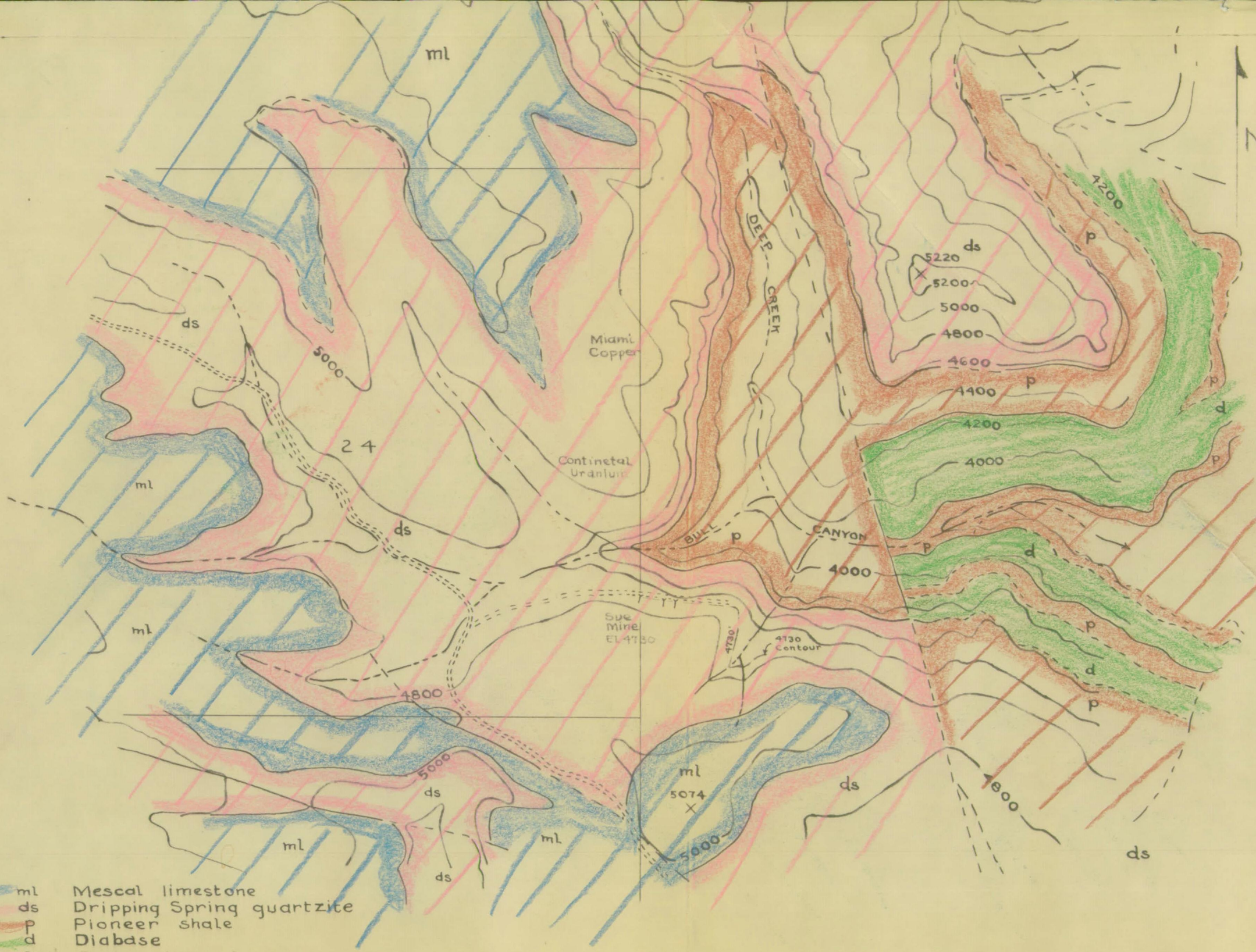


FIGURE 3
GEOLOGIC MAP, SUE MINE AREA

4-15-55 SCALE 1" = 1000' DMEA 3669

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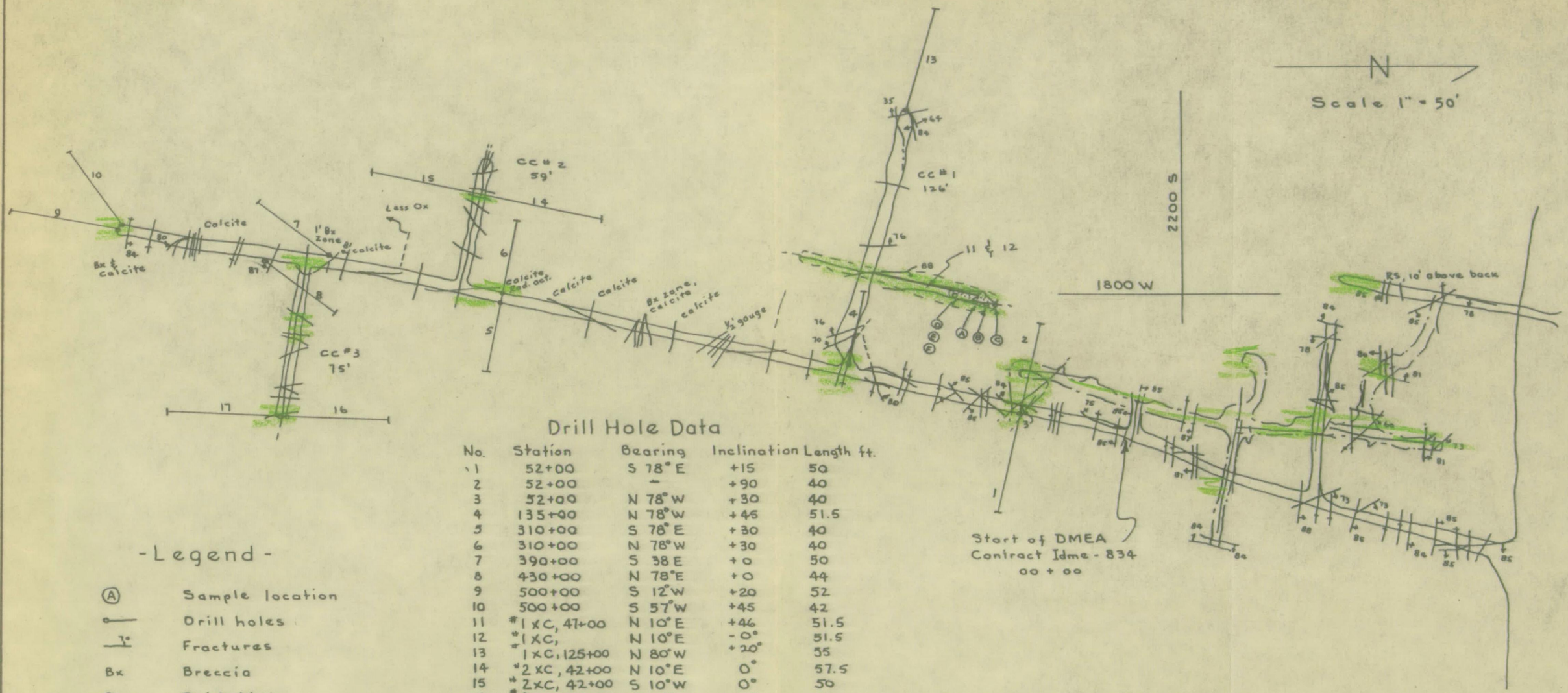

Drill Hole Data

No.	Station	Bearing	Inclination	Length ft.
1	52+00	S 78° E	+15	50
2	52+00	–	+90	40
3	52+00	N 78° W	+30	40
4	135+00	N 78° W	+45	51.5
5	310+00	S 78° E	+30	40
6	310+00	N 78° W	+30	40
7	390+00	S 38 E	+0	50
8	430+00	N 78° E	+0	44
9	500+00	S 12° W	+20	52
10	500+00	S 57° W	+45	42
11	#1 XC, 47+00	N 10° E	+46	51.5
12	#1 XC,	N 10° E	-0°	51.5
13	#1 XC, 125+00	N 80° W	+20°	55
14	#2 XC, 42+00	N 10° E	0°	57.5
15	#2 XC, 42+00	S 10° W	0°	50
16	#3 XC, 75+00	North	0°	50
17	#3 XC, 75+00	South	0°	50

-Legend-

- Ⓐ Sample location
- Drill holes
- Fractures
- Bx Breccia
- Ox Oxidation
- Radioactive area
  Stoped area

DMEA 3669
CONTRACT IdmE-834

FIGURE - 5 - SUE MINE, GILA COUNTY ARIZ.

ARIZONA GLOBE URANIUM, INC.

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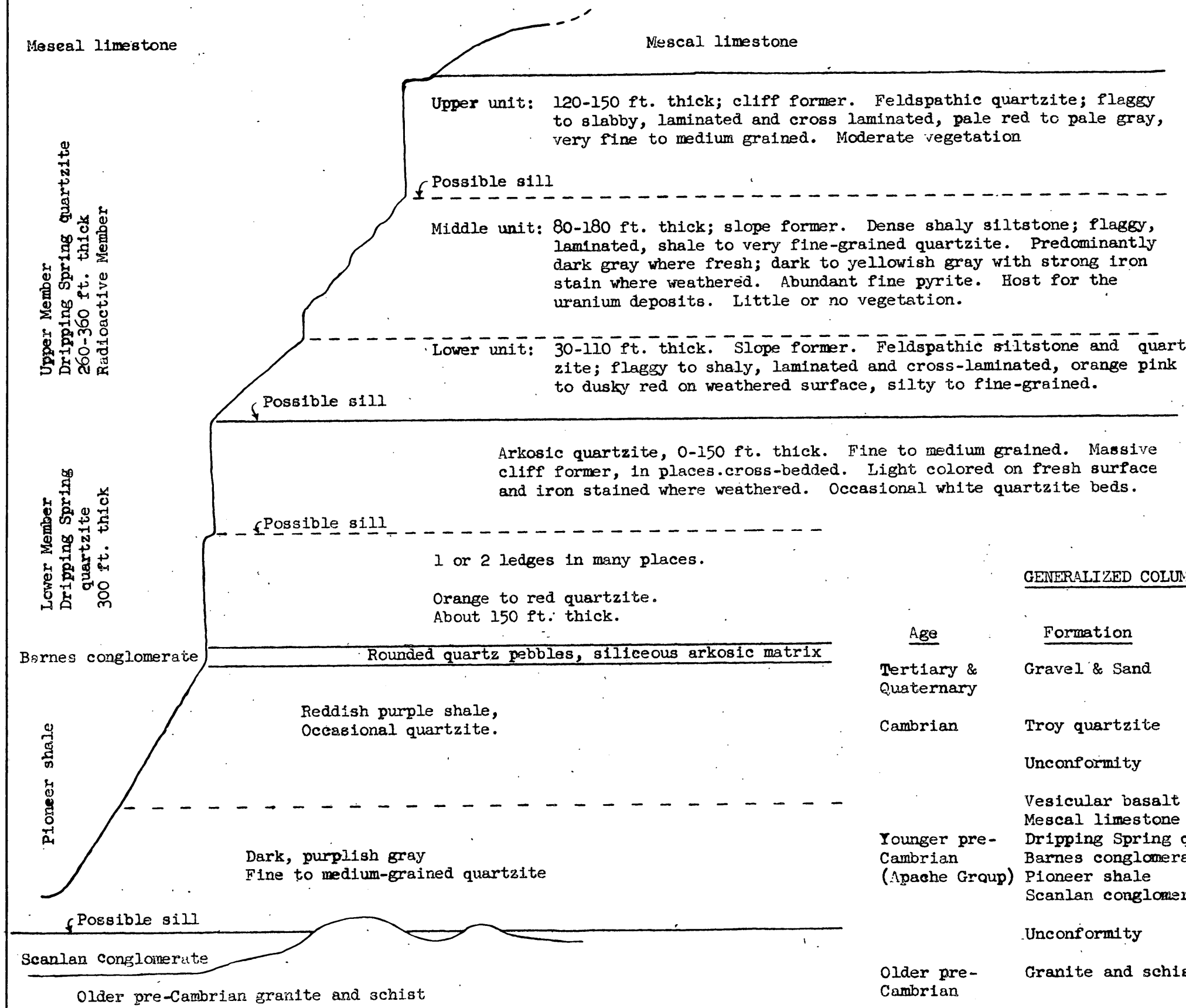
PLATE I

DIAGRAMATIC SECTION OF APACHE GROUP IN GILA COUNTY AND ADJACENT AREAS, ARIZONA



GENERALIZED COLUMNAR SECTION

Age	Formation	Thickness (feet)	Average Thickness
Tertiary & Quaternary	Gravel & Sand		
Cambrian	Troy quartzite	500	
	Unconformity		
Younger pre-Cambrian (Apache Group)	Vesicular basalt flow	0-75	75
	Mescal limestone	225-400	300
	Dripping Spring quartzite	450-700	700
	Barnes conglomerate	0-50	
	Pioneer shale	150-250	250
	Scanlan conglomerate		
	Unconformity		
Older pre-Cambrian	Granite and schist		

The stratum in which the uranium is localized is predominantly a gray-brown, thin-bedded siltstone which in places is moderately laminated or flaggy. In places, particularly near the outcrop, the bed has a relatively high porosity which apparently results from very slight flexing, jointing and faulting. In places this thinly bedded or laminated uraniferous stratum rests upon a massive sandy bed several feet thick, of which the upper 12 to 15 inches is also uraniferous. The uranium in the upper part of the massive bed, in a zone 12 to 18 inches thick, may be due to reconcentration of uranium which has been leached from the thin-bedded uraniferous stratum.

The beds appear to have been slightly deformed by jointing and fracturing, and possibly by mild flexing, which is barely evident. The joints are nearly vertical and are in two principal sets which are nearly at right angles, one set trending about N 10° E, and the other trending about N 80° W. A few feet of displacement has taken place on 2 north trending inconspicuous faults which have cut the uraniferous stratum into 3 segments. These faults are believed to be approximately parallel to the prominent Deep Creek fault, which lies about 2000 feet east of the Sue prospect. In addition to the nearly vertical joints and faults the strata have been cut by several low angle faults and fractures, which in places have displaced the beds a few inches and in other places have caused only slight brecciation of the beds without noticeable displacement. In places these low angle faults pass into bedding planes and become very inconspicuous. The abundance of vague fractures,

joints and faults that are present indicate that the zone in which the uranium is localized has participated in adjustment to mild deformational stresses.

Localization of the ore at the Sue mine appears to be due to preferential selection by uranium of a thinly laminated stratum which appears to be more intensely fractured than other strata exposed in the same area. It is not known what influence other factors, such as major faults, regional metamorphism or proximity to diabase intrusions might have had in localizing the uranium. Evidence of mineralization is scarce and is best detected by a Geiger counter or scintillation counter.

AEC geologists (Schwartz and Mace), who have done considerable work on the Sue mine, report that pyrite, chalcopyrite, torbernite, metatorbernite, autunite, and uraninite have been identified from the ore zone. Only torbernite was recognized by DMEA, and in most places it occurs closely associated with relatively abundant limonite and with honey-yellow, waxy material reported to be an unstable compound of iron and phosphorous. No hypogene minerals except pyrite were recognized, and the abundant surficial stains and alteration products indicate that most of the ore zone, where explored, is in a zone of supergene alteration. Undoubtedly the zone has been subjected to leaching of unknown intensity by descending meteoric waters.

Oxidation appears to be important at the Sue Mine and radioactivity appears to be almost directly proportional to the intensity of oxidation. The amount of secondary torbernite, iron staining, and radioactivity decrease in the mine workings as these reach greater depths away from the outcrop. The character of the host rocks, and structural conditions also appear to become less favorable as greater distance from the outcrop is attained; however, specific data of a quantitative nature are lacking. With increasing depth the host rocks become more massive-bedded, the porosity decreases, and the fractures become tighter and less numerous.

THE PROJECT

Justification:

The project was intended to explore a uranium-bearing zone from 1000 to 1200 feet long and 300 feet wide in nearly horizontal quartzite from 1 to 8 feet thick. This zone is the extension of a uranium bearing stratum explored by outcrop stripping and by several hundred feet of underground workings. It was estimated to contain about 2500 tons of low-grade, probably submarginal ore, most of which may have suffered from leaching and oxidation due to proximity to the outcrop. Exploration was predicated on the hope that significant amounts of material containing commercial amounts of primary uranium minerals would be encountered at greater distances from the outcrop. The decision to participate in exploration of the Sue Mine was partly influenced by the following:

1. The Company had completed considerable exploration work at its own expense, thus demonstrating its ability to complete the project.

2. A couple hundred tons of possible commercial ore had been stockpiled and considerably more was indicated to exist in the mine.

3. A purchasing depot was being erected at Cutter, a few miles east of Globe, and a great deal of exploration work was being done in the Dripping Spring formation, with reasonable hope that some of it would be successful.

4. Most people familiar with the Dripping Spring formation thought that mineable deposits would be discovered in it and the Sue Mine, at the time, appeared to be one of the most likely to contain significant amounts of ore; therefore was considered worthy of exploration.

Program originally proposed:

The applicant proposed to explore the favorable quartzite bed with 2,000 feet of drifts or crosscuts estimated to cost $33.00 per foot, and with 4,000 feet of underground percussion drill holes at $2.00 per foot. The total cost estimated by the applicant was $74,000. Exploration of the deposit by diamond drilling was thought to be impractical because of (a) hard ground and difficult drilling conditions, (b) excessive depth to which drilling would be required, (c) small size and comparative thinness of deposits would make drill information difficult to evaluate.

Modified Exploration proposals:

The exploration project granted by the contract provided for 1,500 feet of drifting and crosscutting at $30.00 per foot, 1,600 feet of long-hole drilling at $2.00 per foot, and 310 sample analyses at $3.50 a sample. The total allowable cost was $49,285.00. Drifts and crosscuts were to be 5x7 feet in the clear, timbered where necessary. The work was to be directed by an engineer who was to devote at least half time to the project, and would do such drafting, surveying, mapping and report preparation as required. The project was divided equally into 2 stages, but work under the second stage was to be undertaken only with the consent of the Government and only if results of Stage I were satisfactory. The work allowed under the 2 stages is as follows:

Stage I

From the southwest face of Junction No. 1 adit, drift along the radioactive mineralized zone 500 feet in a southwesterly direction; and crosscut normal to the direction of the drift both easterly and westerly from the drift in the mineralized zone not to exceed 500 feet at locations approved by the Government. From the drift and crosscuts under this stage not more than 800 feet of long-hole percussion drill holes were to be drilled to explore the mineralized zone above the workings.

Stage II

From the southwest drift face completed under Stage I, execute a project of drifting, crosscutting and drilling similar to Stage I, to be executed only with the approval of the Government.

Work completed

Work under terms of Contract No. Idm-E834, which was executed June 30, 1955, started August 1, 1955 and was officially completed in July 1956. The results obtained in the work were not sufficiently promising to justify undertaking additional exploration and the operator's request for Stage II was denied. The operator then requested a one-year suspension of operations under the contract. The request was made to allow sufficient time to fully investigate the explored area with the thought that such further investigations would reveal mineralization of enough significance to justify Government participation in the work of Stage II of the contract. The request was denied and the contract was terminated. The Government in its letter of denial to the operator stated that contract could be revived in a manner similar to the original application if justified by future findings.

Discussion of the Project

The 500-foot drift started from the south face of the non-DMEA adit 183 feet horizontally in from the mountain side (see fig. 4) and extended in a S. 12° W. direction. From this drift (see fig. 5) the No. 1 crosscut was driven westerly a distance of 125 feet normal to the drift at station 135+00 in the main drift. The No. 2 crosscut was driven westerly a distance of 50 feet from station 330+00 in the main drift, and the No. 3 crosscut was driven easterly a distance of 75 feet from the main drift at station 410 + 00.

A total of 800 feet of drilling in 17 percussion drill holes was completed under the contract. Six samples were cut and analysed under terms of the contract.

During the life of the project, and at the sole expense of the operator, many 6-foot long stoper holes were drilled into the back of the adits and these were tested by probing. In places where favorable indications were obtained additional holes were drilled and tested by probing. In many places concentrations of uranium were revealed, and the best indications were subsequently tested under the contract by long percussion drill holes or by drifting and crosscutting. The most radioactive beds were in the back of the drift or a few feet above it. Radioactivity is noticeably greater near the back of the drift than in the floor. An observation made by the operator is that the toughest ground to drill and blast is also the most radioactive.

Each of the percussion drill holes was probed with a Detectetron DG-9 Geiger counter equipped with a 9-inch probe and 100 feet of cable for probing. For convenience, radiometric readings constituting the logs for each hole were taken at 1/2 meter or 1.64-foot intervals. The geiger counter was calibrated against a pre-determined standard prepared by filling a 6-inch long stovepipe with plaster of paris containing 0.14 percent U_3O_8, and provided with a $1\frac{1}{2}$-inch longitudinal cylindrical hole axially through its center to accommodate the probe. The geiger counter readings obtained with the probe inserted in the hole, as compared to readings obtained for the "stovepipe", provide the means for estimating the uranium content in the rocks. All holes were probed in this manner.

Results of Drifting and Crosscutting

Exploration of the Sue Mine was undertaken through the Junction No. 1 tunnel (main adit) that was advanced a total of 500 feet, and from which were driven 250 feet of crosscuts. The locations of the most radioactive spots encountered are shown on figure 5. The first higher than normal radioactive zone was encountered at operator's station 47+00 to 52+00. This had a horizontal width from N. to S. of about 5 feet and a stratigraphic thickness of about 5 feet. The mineralized zone was on both sides of a vertical fracture that strikes N. 80 W. and the highest grade material was in a zone 24 inches wide adjacent to the fracture. The mineralization starts in the back of the drift and extends upward about five feet. Probing of stoper drill holes in this zone indicated an average grade of about 0.20 percent U_3O_8. Some of this ore was later mined and shipped. Other abnormally radioactive zones were encountered at 135+00 and at 174+00 in the Junction No. 1 adit. At 174+00 the upper 2 feet of the drift contains bassitite associated with small amounts of pyrite, and also possibly uraninite. This mineralization appears to be localized within about 2 feet of a minor easterly trending fault. Other spots of abnormal radioactivity were found between 167+00 and 258+00, and all appear to be associated with steep fractures with no visible displacement. A number of these fractures contain clay or earthy material.

An abnormally radioactive south-trending fracture was encountered by the adit from about 317 to 337. The adit cut unusually tough quartzite, according to the operators; however, the usual flaggy quartzite remained

in the back of the adit, and the greatest radioactivity is found in vicinity of the flaggy quartzite.

The zone from about 170+00 to 355+00 had an oxidized and altered appearance. In this zone the rocks were reddish brown, jointed and fractured, comparatively soft and more or less radioactive. At about 355+00 this general aspect of the drift changed to a dark nearly black color, and the rocks became harder, tougher and less fractured. Presumably the last mentioned zone has not been affected by supergene alteration. This dark, unaltered zone persists to the end of the drift at 507+00, but is not notably radioactive except for a small area in the floor at the face.

From 390+00 to 430+00 abnormal radioactivity was found along the walls of the adit at about 4 feet above the floor. At about 400+00 there is a minor fault with displacement of about a foot.

Three crosscuts were driven from the adit for the purpose of exploring for mineralized fractures that, it was hoped, would lead to minable ore bodies in the favorable beds. The No. 1 crosscut was driven westerly from the adit at station 135+00 to explore a mineralized fracture which crossed the adit. The fracture deviated from the crosscut which was continued for a total of 125 feet in order to explore possible north striking fractures. Two north-south fractures were

found to be abnormally radioactive. The most radioactive of these was at crosscut station 47+00 where long holes were drilled from a 5-foot long raise to explore the radioactive zone. Some ore grade material was found here and a small amount of ore was later stoped.

Crosscut No. 2 was driven westerly a distance of 50 feet from station 330+00 in the adit, and crosscut No. 3 was driven easterly a distance of 75 feet from station 41+00 in the adit. Crosscuts 2 and 3 followed weak easterly-trending mineralized fractures and both penetrated several weakly mineralized northerly trending fractures. Both crosscuts were explored by stoper holes. A northerly trending fracture that cuts No. 2 crosscut at 42+00 is believed to be an extension of the fracture explored by the short raise and small stope in crosscut No. 1.

Results of drilling

While the drifts and crosscuts were being driven the backs were drilled with 6-foot long stoper holes spaced at 4-foot intervals. These holes were probed for radioactivity and where it appeared to be present in significant amounts it was further tested by long percussion drill holes or by raises and crosscuts, etc. Long holes numbered 1 to 17, ranging in length from about 40 to 57.5 feet, were drilled. The locations of these holes are shown on figure 5 and the radiometric logs, as determined by the method explained on page 12, are given in Table I.

TABLE I

Radiometric Logs of Percussion Drill Holes

Hole No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Stovepipe reading	.25	.25	.25	.25	.25	.25	.25	.11	.25	.11	.12	.12	.20	.25	.20	.15	.15
Probe Inserted																	
0.75'	.20	.80	.26	.07	.10	.35	.08	.11	.03	.12	.09	.22	.07	.18	.12	.15	.15
2.39'	.40	1.5	.50	.05	.08	.20	.10	.10	.07	.12	.05	.21	.09	.15	.10	.14	.13
4.03'	.65	.65	.40	.07	.05	.05	.10	.08	.06	.07	.06	.17	.04	.16	.08	.10	.10
5.67'	.65	.65	.40	.05	.06	.05	.10	.10	.07	.08	.05	.18	.03	.15	.06	.08	.10
7.31'	.60	.20	.45	.05	.06	.05	.08	.09	.12	.09	.03	.20	.03	.20	.07	.08	.07
8.95'	.65	.20	.45	.05	.05	.05	.07	.08	.13	.10	.03	.18	.04	.21	.08	.07	.06
10.59'	.30	.15	.70	.06	.04	.05	.07	.07	.10	.11	.05	.21	.04	.25	.10	.08	.07
12.23'	.30	.10	.10	.03	.05	.05	.08	.04	.07	.07	.07	.22	.04	.23	.09	.06	.07
13.87'	.30	.07	.03	.03	.04	.05	.09	.05	.06	.09	.09	.16	.03	.28	.07	.07	.06
15.51'	.30	.025	.05	.02	.12	.07	.12	.05	.07	.11	.04	.11	.03	.20	.08	.10	.05
17.15'	.30	.025	.07	.02	.06	.06	.10	.05	.05	.15	.03	.11	.02	.20	.08	.08	.08
18.79'	.25	.025	.03	.03	.08	.05	.13	.05	.05	.30	.025	.09	.02	.26	.10	.09	.05
20.43'	.18	.06	.02	.03	.06	.04	.11	.045	.04	.25	.02	.07	.02	.15	.09	.08	.05
22.07'	.22	.08	.03	.03	.02	.04	.08	.04	.06	.22	.03	.09	.03	.14	.05	.05	.05
23.71'	.15	.025	.07	.03	.04	.04	.13	.035	.06	.21	.03	.10	.04	.16	.03	.06	.06
25.35'	.07	.025	.04	.02	.04	.05	.12	.035	.05	.25	.02	.14	.04	.30	.04	.05	.04
26.99'	.07	.025	.03	.02	.05	.07	.13	.035	.04	.25	.015	.45	.02	.10	.05	.05	.05
28.63'	.15	.025	.04	.03	.05	.05	.08	.04	.04	.25	.01	.90	.02	.08	.06	.08	.04
30.27'	.11	.05	.04	.03	.05	.05	.09	.06	.05	.25	.01	1.00	.025	.06	.09	.09	.04
31.91'	.07	.03	.04	.03	.03	.05	.07	.055	.07	.12	.01	.95	.02	.05	.15	.09	.04
33.55'	.07	.025	.04	.02	.03	.06	.06	.055	.05	.11	.02	.93	.02	.05	.20	.10	.03
35.19'	.05	.025	.10	.015	.03	.05	.08	.045	.05	.07	.01	.90	.02	.05	.12	.08	.04
36.83'	.04	.03	.10	.02	.04	.13	.08	.035	.06	.06	.01	.70	.02	.05	.12	.05	.05
38.47'	.06	.025	.06	.015	.03	.10	.08	.03	.08	.08	.01	.65	.015	.06	.07	.06	.05
40.11'	.06	.02	.07	.02	.03	.10	.06	.04	.05	.08	.01	.55	.02	.05	.06	.06	.06

TABLE I - CONTINUED

Hole No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Probe inserted																	
41.75'	.03			.02			.07	.03	.05	.10	.01	.50	.015	.06	.06	.06	.07
43.39'	.04			.02			.06	.03	.03		.01	.50	.01	.08	.07	.05	.06
45.03'	.025			.02			.08		.04		.01	.40	.01	.12	.08	.05	.05
46.67'	.03			.05			.10		.05		.01	.35	.015	.08	.06	.06	.05
48.31'	.03			.10			.07		.06		.025	.40	.015	.06	.05	.06	.05
49.95'	.03			.09			.06		.05		.02	.50	.01	.05	.05	.06	.05
51.59'				.05					.04		.02	.65	.015	.06		.05	
53.23'													.01	.05			
54.87'													.01	.05			
56.51'														.06			
58.15'														.05			

Although several spots of moderate to high radioactivity were detected by the drill holes, only one hole (No. 12) revealed an ore zone of minable size, this being at station 47+00 in the No. 1 crosscut. At this station a short raise was driven into the ore and about 200 tons of it was stoped and shipped to the buying station at Cutter, Arizona. The stope is about 5 feet high, 10 feet wide and 35 feet long. Apparently only a small pod of ore was present since further exploration failed to reveal additional ore.

While the adit was being driven a small pod of ore was found by stoper holes approximately at station 50+00. This pod of ore was found in the favorable beds above the adit, and the mineralized zone is about 5 feet thick, 10 feet wide and 20 feet long, from which about 40 tons of ore was shipped.

SAMPLES, GRADE AND PRODUCTION

At the time DMEA received the application from the Company, considerable exploration had been completed, radiometric surveys had been made and many samples taken (see figure 4). Results of this work, which were studied and checked at the time of the original field examination, are summarized from Hardwick[1/] as follows:

In March 1955, E. V. Mace cut 59 channel samples in the drifts and crosscuts. These channel samples were taken in the drifts and crosscuts that gave the best radiometric readings. They were cut across the favorable beds at the positions shown on figure 4 and were radiometrically

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1/ Hardwick, W. R., Sue Uranium Mine, Gila County, Arizona, Engineering Report, p. 6-7, May 1955.

assayed in the Phoenix sub-office of the Atomic Energy Commission; 11 of the 59 samples were sent to the U. S. Bureau of Mines to be checked. The following tabulation compares the two sets of determinations.

Sample No.	AEC e % U_3O_8	USBM e % U_3O_8	USBM c % U_3O_8
2	0.14	0.12	0.14
8	1.50	1.52	1.70
11	0.60	0.60	0.64
15	0.09	0.09	0.07
18	0.14	0.12	0.12
22	0.13	0.12	0.12
30	0.48	0.44	0.46
40	0.63	0.58	0.62
47	0.07	0.06	-
51	0.20	0.18	0.20
57	0.05	0.04	-

On April 5 - 6, 1955, six channel samples, shown on fig. 4, were taken by the DMEA examining team at the same location as some of the Atomic Energy Commission samples were cut. These two sets of samples are compared below:

Atomic Energy Commission			U. S. Bureau of Mines		
Sample No.	Length	e % U_3O_8	Sample No.	Length	e U_3O_8
58	58"	0.04	13163	58"	0.03
53	36"	0.05	13164	36"	0.06
A-3105-28	48"	0.06	13165	18"	0.23
25	64"	0.05	13166	64"	0.03
17	76"	0.17	13167	76"	0.19
A-3105-9	62"	0.63	13168	48"	0.32

The average grade of 40 channel samples cut by Mace in the old part of the mine is 0.19 percent U_3O_8 for an average thickness of 59 inches.

The mineralized zone from stations 47+00 to 52+00 in the adit is localized near northerly trending and easterly trending fractures. A Bureau of Mines analysis of a sample taken from a one to three-inch wide fracture zone a few feet west of the adit contained 0.66 U_3O_8 (chemical) and 0.71 percent U_3O_8 (radiometric). A sample of about 30 tons of stockpiled ore, from the small stope in this zone probably represented by lot 28 assayed 0.14 and 0.17 percent U_3O_8 respectively chemical and radiometric.

Under the contract six samples were cut by the operator from the northern part of the small stope above the No. 1 crosscut. The location of the operator's samples is shown on Figure 4, and the results are as follows:

No.	Percent cU_3O_8	Description
A	3.47	Sample cut 3 ft. by 6 in. on east side of mineralized fracture 50 ft. north of crosscut, and midway between roof and floor of stope.
B	2.15	Same as "A", but taken 55 ft. north of crosscut.
C	1.93	Same as "A", but taken 60 ft. north of crosscut.
D	0.11	Chip sample taken 6 feet west of mineralized fracture at a point 40 ft. north of crosscut, and midway between roof and floor of stope.
E	0.86	Same as "D" except it was taken 2 ft. west of mineralized fracture.
F	0.20	Same as "D" except it was taken 4 ft. west of mineralized fracture.

At station 47+00 in crosscut No. 1 a sample along a mineralized fracture zone 3 inches wide yielded 0.06 and 0.08 percent U_3O_8, chemical and radiometric respectively. In this zone a small stope was developed in the favorable beds above the crosscut, the production of which is shown in the table below. Additional samples were not thought to be necessary, because of the very small extent of the radioactive zones and because a great many radiometric readings were taken and these were found to be reliable when checked by chemical analyses.

About 265 tons of ore in 7 lots were shipped from the DMEA project area to the AEC depot at Cutter, Arizona. These are as follows:

		Percent U_3O_8			
Lot No.	Tons	AEC	ARC Laboratory	Arizona Testing Laboratory	Mining Location
28	26.405	0.14		0.15	Adit Sta. 52
33	21.019	0.17	0.16	0.20	" " "
42	47.944	0.17	0.16		Above Sta. 47, No. 1 Xc
52	37.776	0.37	0.35		" " " " " "
54	49.884	0.23	0.21		" " " " " "
58)			0.30		
59)	81,646	0.29	0.24		" " " " " "
	264,674				

In the above table the ARC laboratory analyses are shown for comparison with the AEC analyses upon which ore payments are based.

Ore mined and stockpiled prior to beginning of the DMEA project, therefore, not subject to Government lien, was shipped in 1955. These shipments are as follows:

Dates	Liquidation No.	Tons	Percent U_3O_8
8- 2-55	8167	10.334	0.21
8- 2-55	8168	33.669	0.24
8-17-55	8260	6.827	0.12
8-17-55	8261	17.815	0.18
8-22-55	8321	25.476	0.18
8-29-55	8364	19.906	0.11
8-30-55	8398	18.808	0.10
9-19-55	8561	25.922	0.10
9-27-55	8664	16.164	0.10
11-21-55	9169	10.389	0.15
	Total	185.310	

ORE RESERVES

Under present conditions ore reserves in the Sue Mine probably do not exceed a couple hundred tons and probably are less. It is impossible to give an accurate estimate because of the scattered, erratic occurrence of ore and because of the small size and discontinuous nature of the ore bodies. The ore is localized in certain quartzite beds that are regarded as being more favorable than others. Most of the ore occurs along or near northerly striking joints; however, smaller amounts of ore is found on easterly trending joints, and some of the richer spots occur at joint intersections. There appears to be little or no relationship between the amount and radioactivity and the frequency of joints. Other than the jointing and the presence of presumably favorable

beds there are no practical guides to ore. The ore bodies are small and discontinuous and under these conditions it is almost impossible to estimate ore reserves. The small amount of ore that might remain could not be profitably mined under present conditions.

EXPENDITURES

The units of work performed and the Government approved expenditures under contract Idm-E834 were as follows:

Drifting - 500 feet @ $30.00/ft.	$15,000.00
Crosscutting - 250 feet @ $30.00/ft.	7,500.00
Long-holes - 800 feet @ $2.00/ft.	1,600.00
Sample analyses - 6 @ $3.50/sample	21.00
Total approved expenditures	$24,121.00
Government's share @ 75%	18,090.75

As of August 31, 1956, $500.00 of the $18,090.75 was being withheld by the Government pending resolution of matters relative to closing the account.

ROYALTY PAYMENTS

According to our records as of July 19, 1956 a total of 264,674 tons of ore having a gross value of $5,931.67, exclusive of AEC Production Bonus payments, was produced under the contract. Total royalty payments to the Government on the above production amounted to $293.71.

EFFICIENCY OF OPERATIONS

Richard W. Henes, a graduate mechanical engineer with about 3 years of previous experience in uranium prospecting in the Globe area, was project supervisor except for the first month of operations. During the first few months under Mr. Henes, the operations were rather inefficient, largely because of an inexperienced mine foreman and inadequate equipment and living accommodations for the workers. In December 1955, the work was contracted to Harrison C. Smith, a competent small mine operator of Globe, Arizona. Mr. Smith completed the project in an efficient manner after first constructing new living quarters and installing adequate equipment.

Map

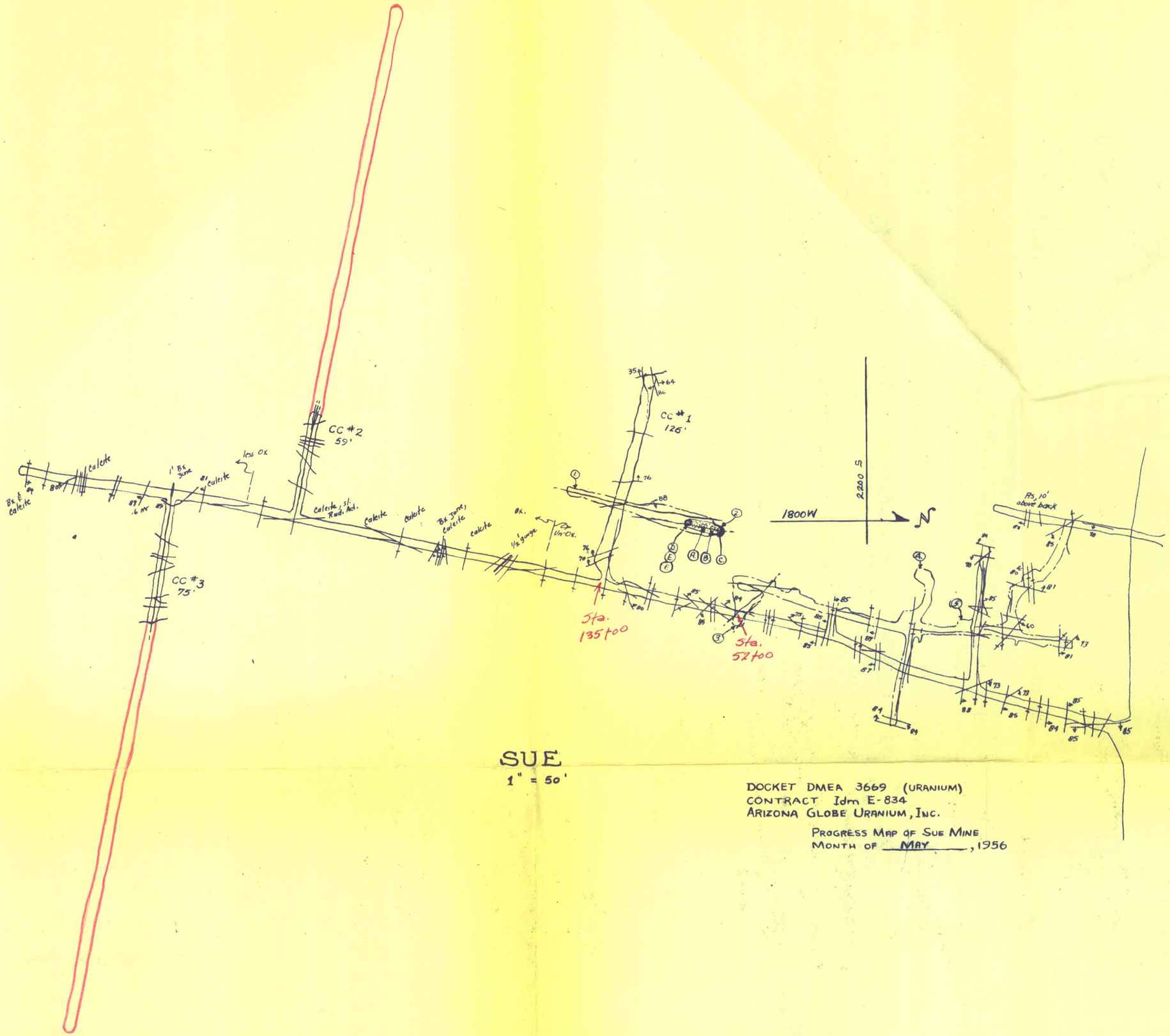
~~VANCE HONGOL~~
~~8043 N RDIAN~~
~~45C~~
~~EXPLORATION AL.~~
~~BUILDING~~
~~WASHINGTON 25, D.C.~~

CONTENTS — MERCHANDISE, FOURTH C[illegible] POSTMASTER:
THIS PARCEL MAY BE OPENED FOR POSTAL INS[illegible] ARY
RETURN POSTAGE GUARANTEED.

REGISTERED
NO. 301110

3 1 1956

RECEIVED
JUL 16 1956



DOCKET DMEA 3669 (URANIUM)
CONTRACT Idm E-834
ARIZONA GLOBE URANIUM, INC.

PROGRESS MAP OF SUE MINE
MONTH OF MAY, 1956

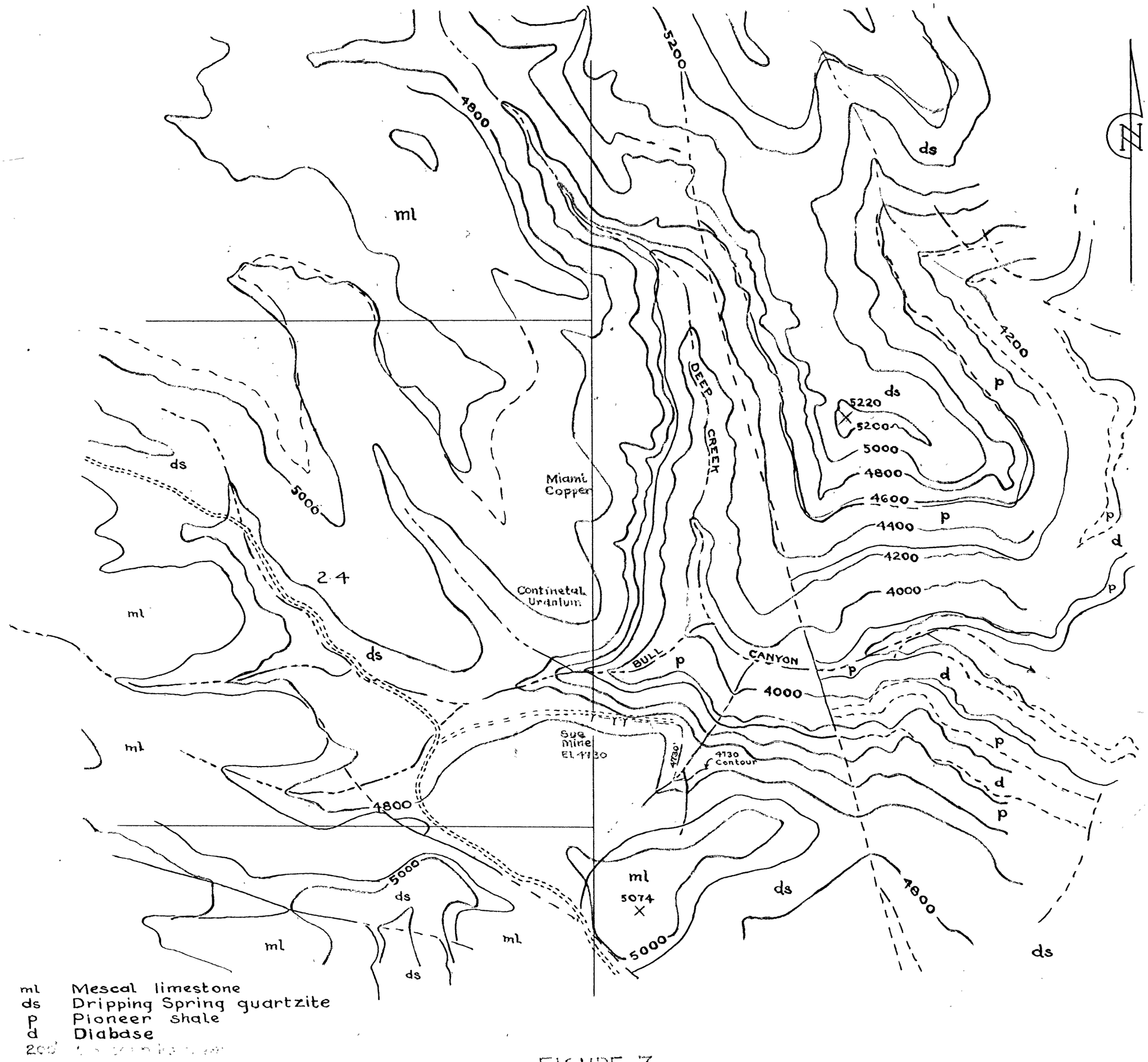
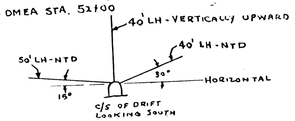


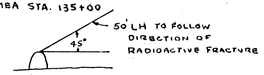
FIGURE 7
GEOLOGIC MAP, SUE MINE AREA

4-15-55 SCALE 1" = 1000' DMEA 3668

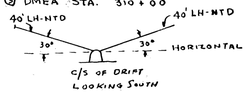
130' — ① DMEA STA. 52+00



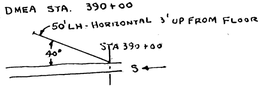
50' — ③ DMEA STA. 135+00



80' — ② DMEA STA. 310 + 00



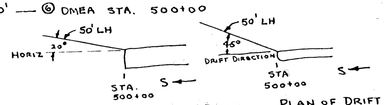
50' — ④ DMEA STA. 390+00



PLAN VIEW OF DRIFT

50' — ⑤ DMEA STA. 430+00

50' — ⑥ DMEA STA. 500+00



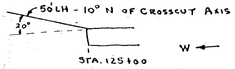
SECTION - ELEVATION OF DRIFT

PLAN OF DRIFT

140' — ⑦ DMEA CROSSCUT #1
STA. 47

C/S OF #1 CROSSCUT

50' — ⑧ DMEA CROSSCUT #1
STA. 125+00



SECTION-ELEVATION OF CROSSCUT

TOTAL FOOTAGE REQUESTED HEREIN

600'

TYPE - PERCUSSION

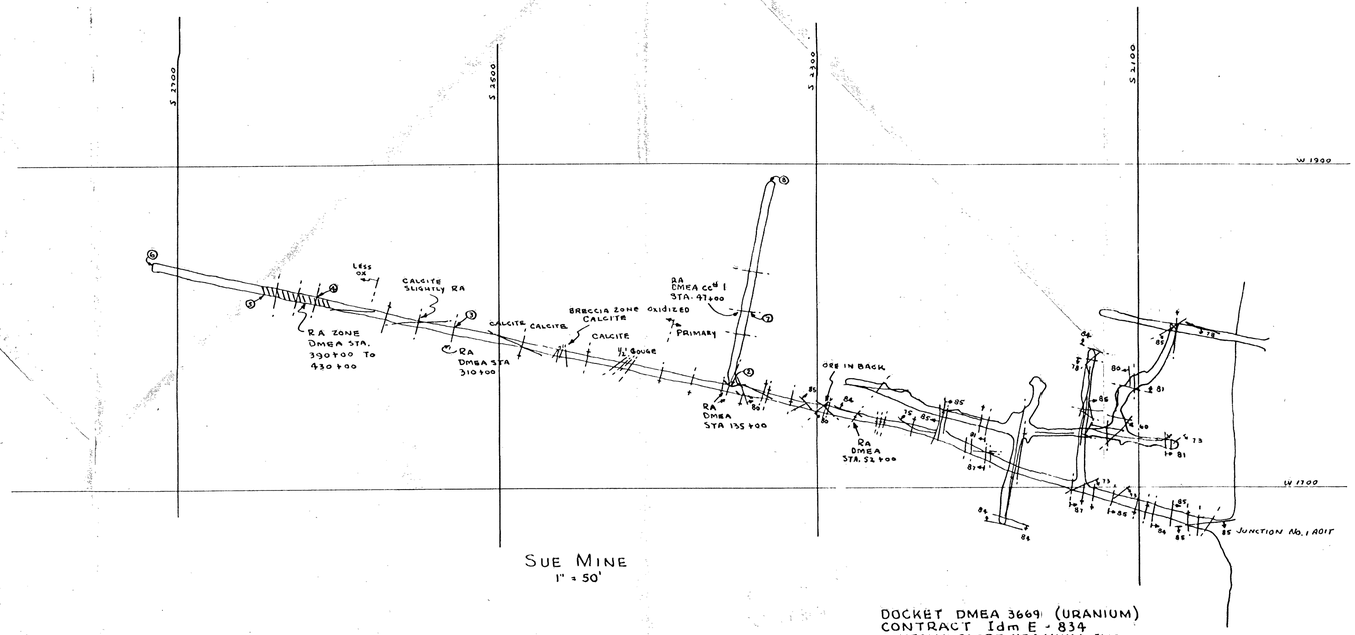
SIZE - MINIMUM DIAMETER OF 1½"

~ LEGEND ~

LH = LONG HOLE

NTD = NORMAL TO DRIFT

RA = RADIOACTIVE

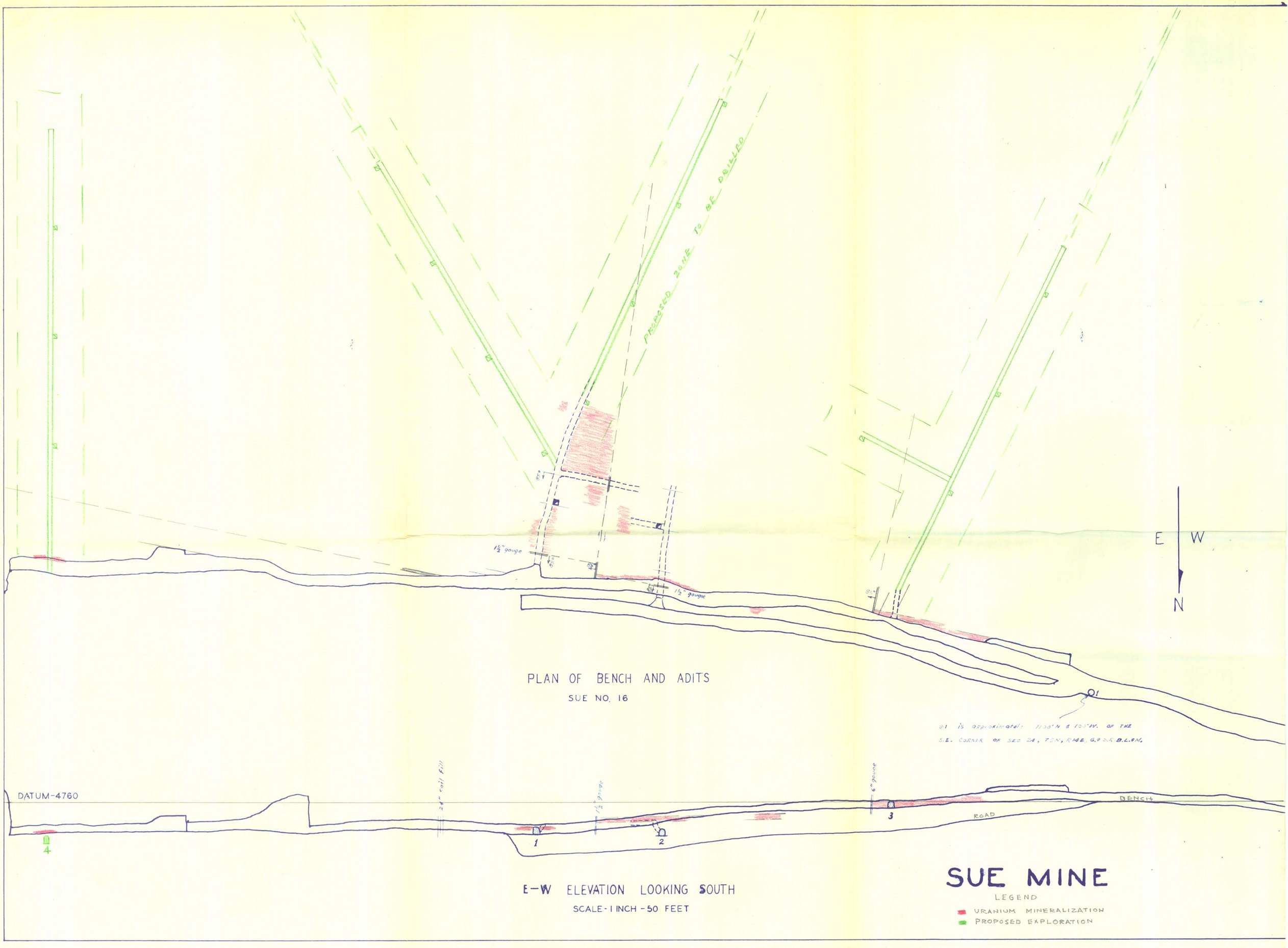


SUE MINE

1" = 50'

DOCKET DMEA 3669 (URANIUM)
CONTRACT Idm E - 834
ARIZONA GLOBE URANIUM, INC.
(LONG HOLE DRILLING PLAN)

2/16/56


PROPOSED ZONE TO BE DRILLED
1½" gauge
1½" gauge
E
W
N
PLAN OF BENCH AND ADITS
SUE NO. 16
⊙1 is approximately 1130'N & 100'W. OF THE
S.E. CORNER OF SEC 24, T2N, R14E, G&SRB.L&M.
DATUM-4760
24" rail fill
1½" gauge
6" gauge
BENCH
ROAD
1
2
3
4
E-W ELEVATION LOOKING SOUTH
SCALE-1 INCH-50 FEET
SUE MINE
LEGEND
URANIUM MINERALIZATION
PROPOSED EXPLORATION

ASSAY SAMPLE MAP

OF THE

SUE MINE

Gila County, Arizona

Channel sampling by E.V.M., March 1955

Drawn by R.J.S., April 1955

Scale: 1" = 10'

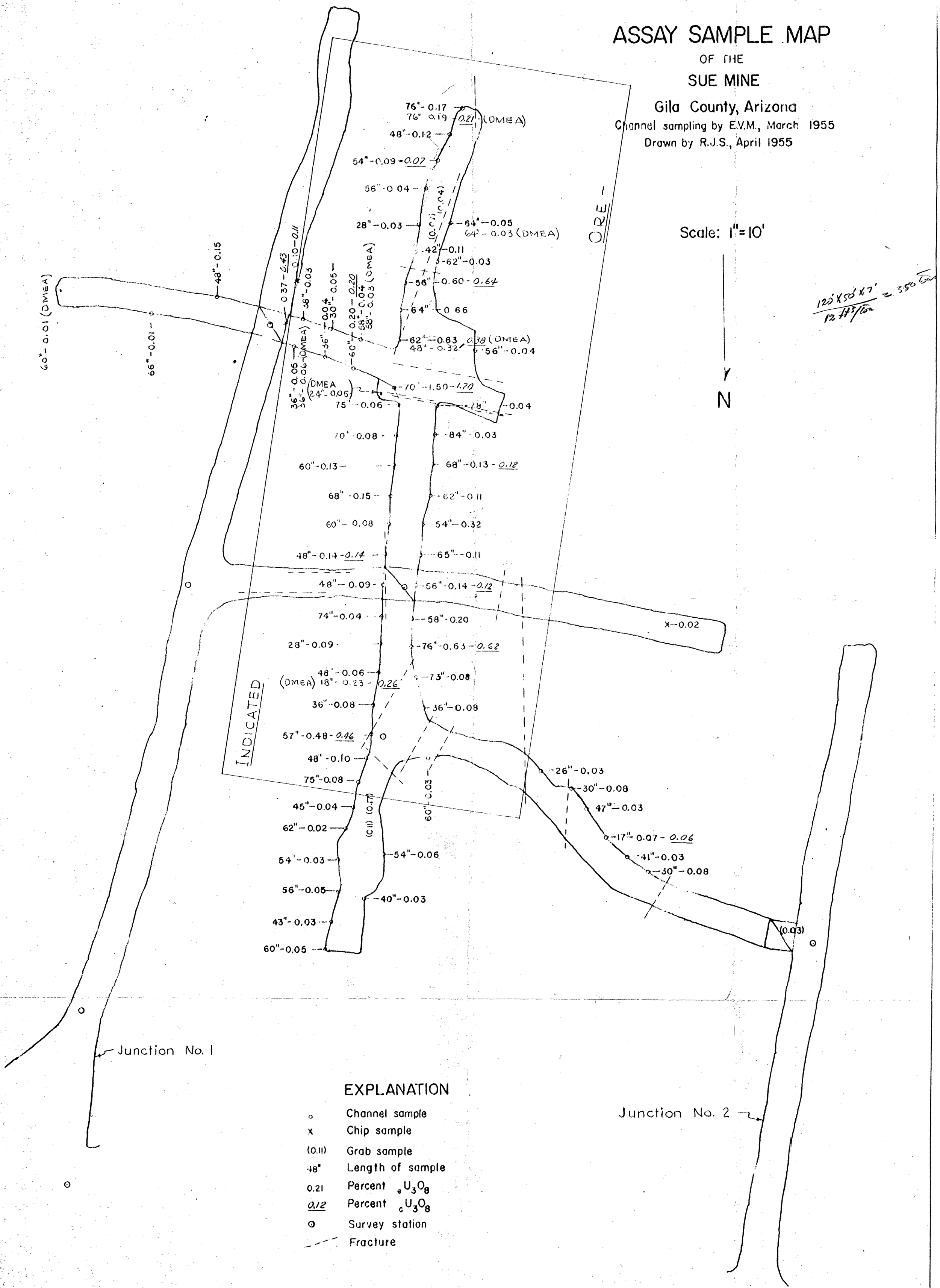
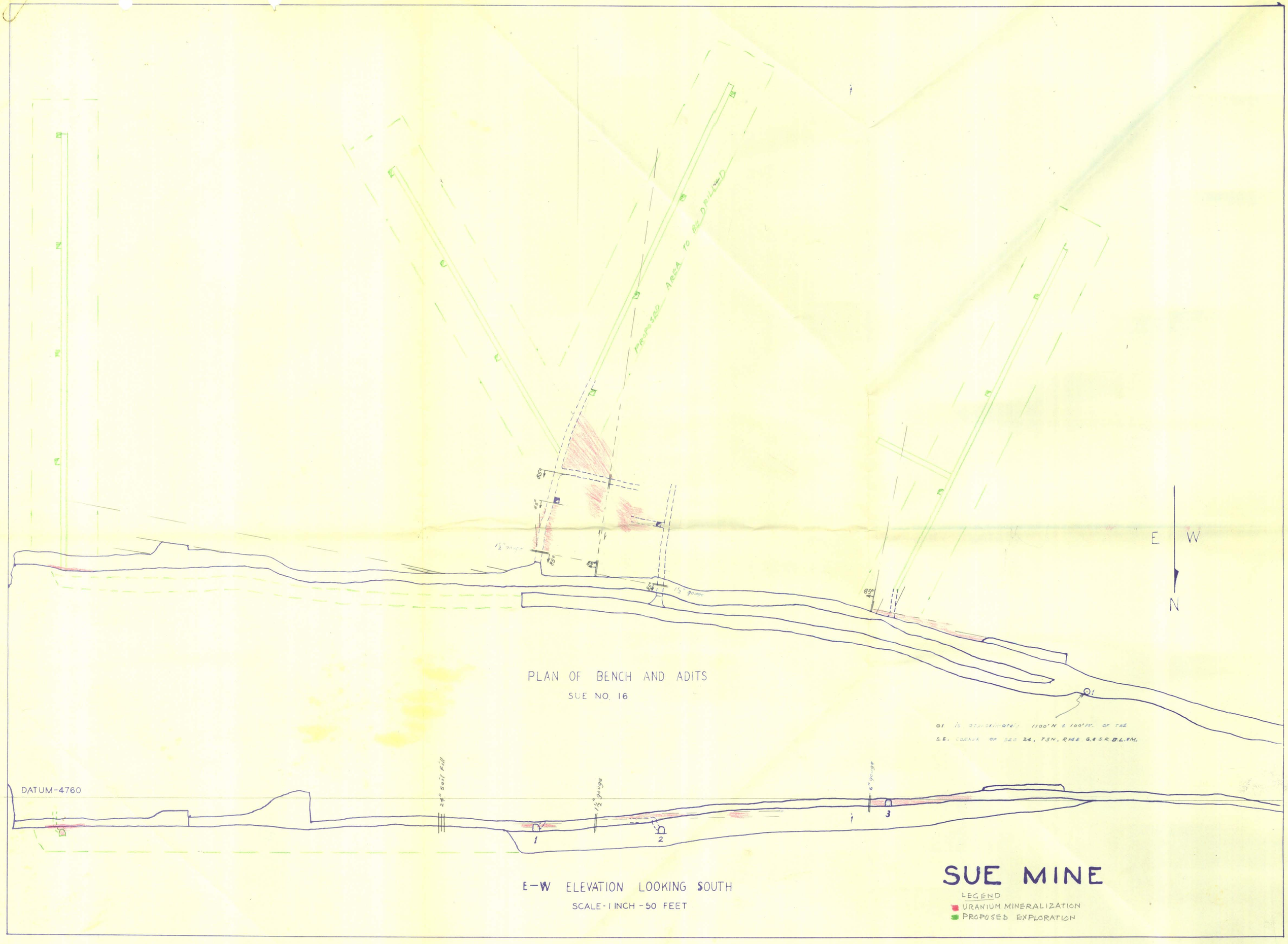


FIGURE 4 — DMEA 3669


PROPOSED AREA TO BE DRILLED
1½" gauge
85°
E
W
N
PLAN OF BENCH AND ADITS
SUE NO. 16
01 IS APPROXIMATELY 1100' N & 100' W. OF THE
S.E. CORNER OF SEC 24, T5N, R14E G.&S.R.B.&L.M.
DATUM-4760
24" soil fill
1½" gauge
6" gauge
1
2
3
E-W ELEVATION LOOKING SOUTH
SCALE-1 INCH-50 FEET
SUE MINE
LEGEND
URANIUM MINERALIZATION
PROPOSED EXPLORATION

ASSAY SAMPLE MAP

OF THE

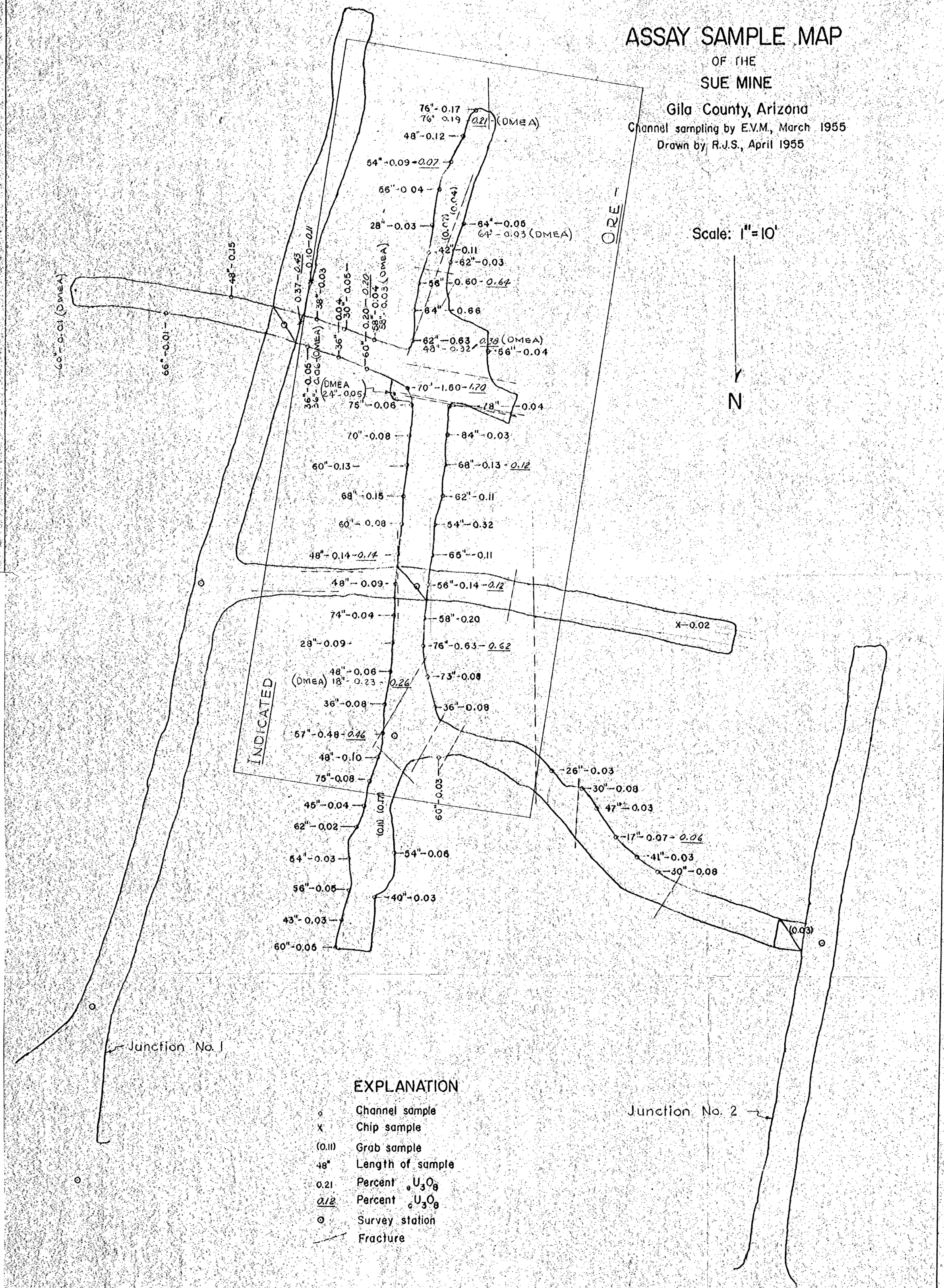
SUE MINE

Gila County, Arizona

Channel sampling by E.V.M., March 1955

Drawn by R.J.S., April 1955

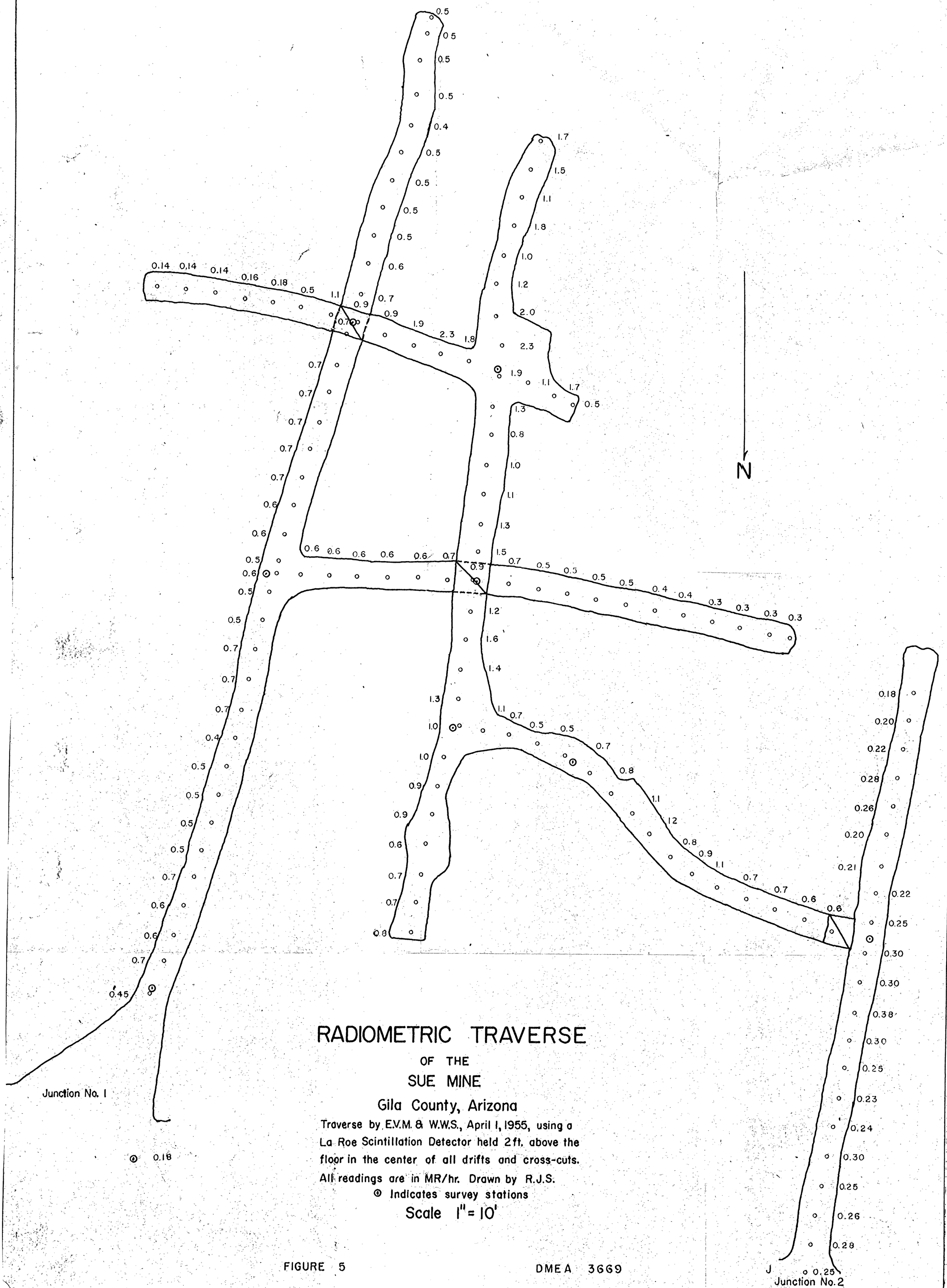
Scale: 1" = 10'



EXPLANATION

○	Channel sample
X	Chip sample
(0.11)	Grab sample
48"	Length of sample
0.21	Percent $_{e}U_3O_8$
0.12	Percent $_{c}U_3O_8$
⊙	Survey station
—/—	Fracture

FIGURE 6 — DMEA 3669



RADIOMETRIC TRAVERSE

OF THE

SUE MINE

Gila County, Arizona

Traverse by E.V.M. & W.W.S., April 1, 1955, using a La Roe Scintillation Detector held 2 ft. above the floor in the center of all drifts and cross-cuts. All readings are in MR/hr. Drawn by R.J.S.

⊙ Indicates survey stations

Scale 1" = 10'

FIGURE 5

DMEA 3669

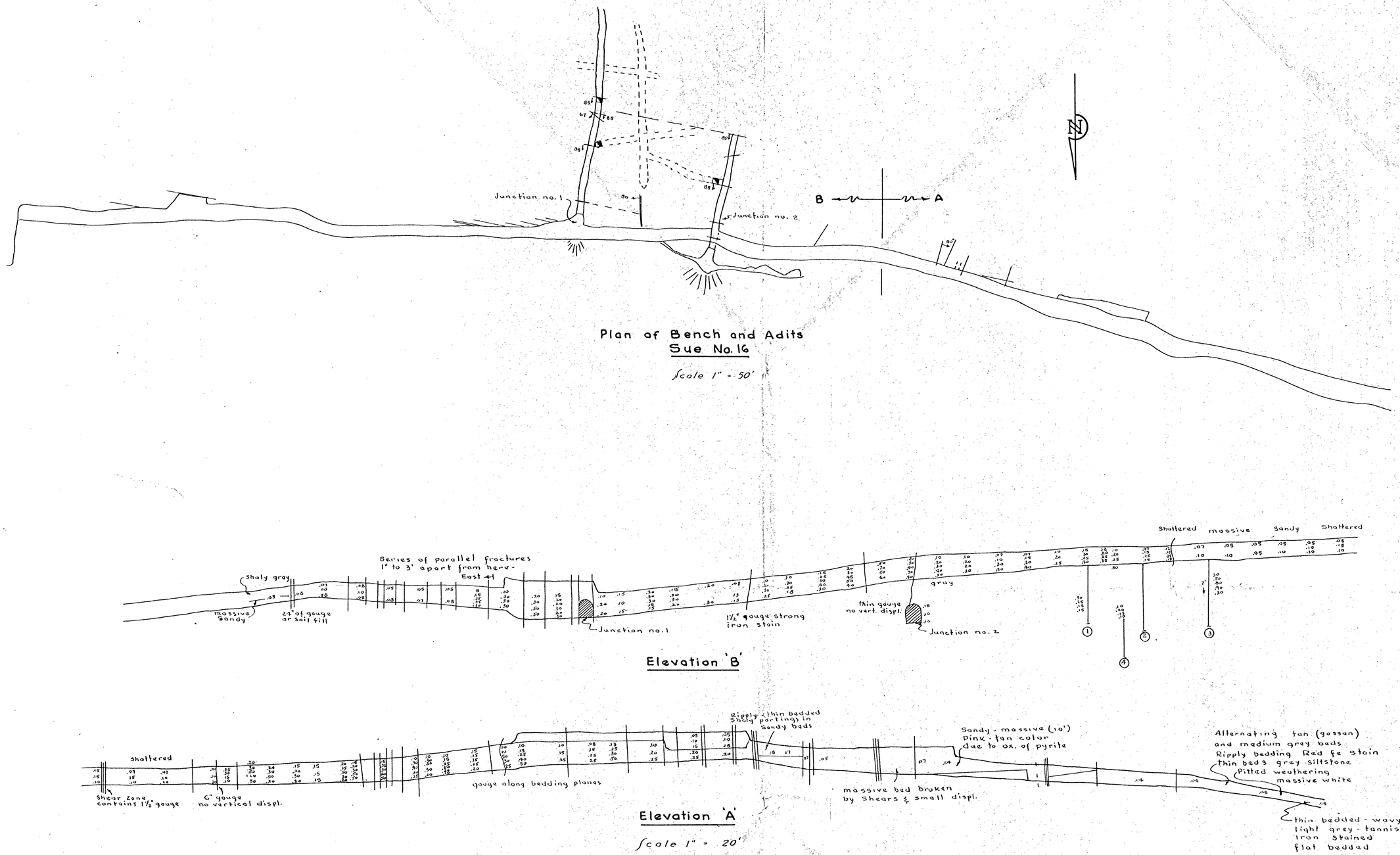


FIGURE 4 RADIOMETRIC SURVEY OF SURFACE CUT

DMEA - 3669

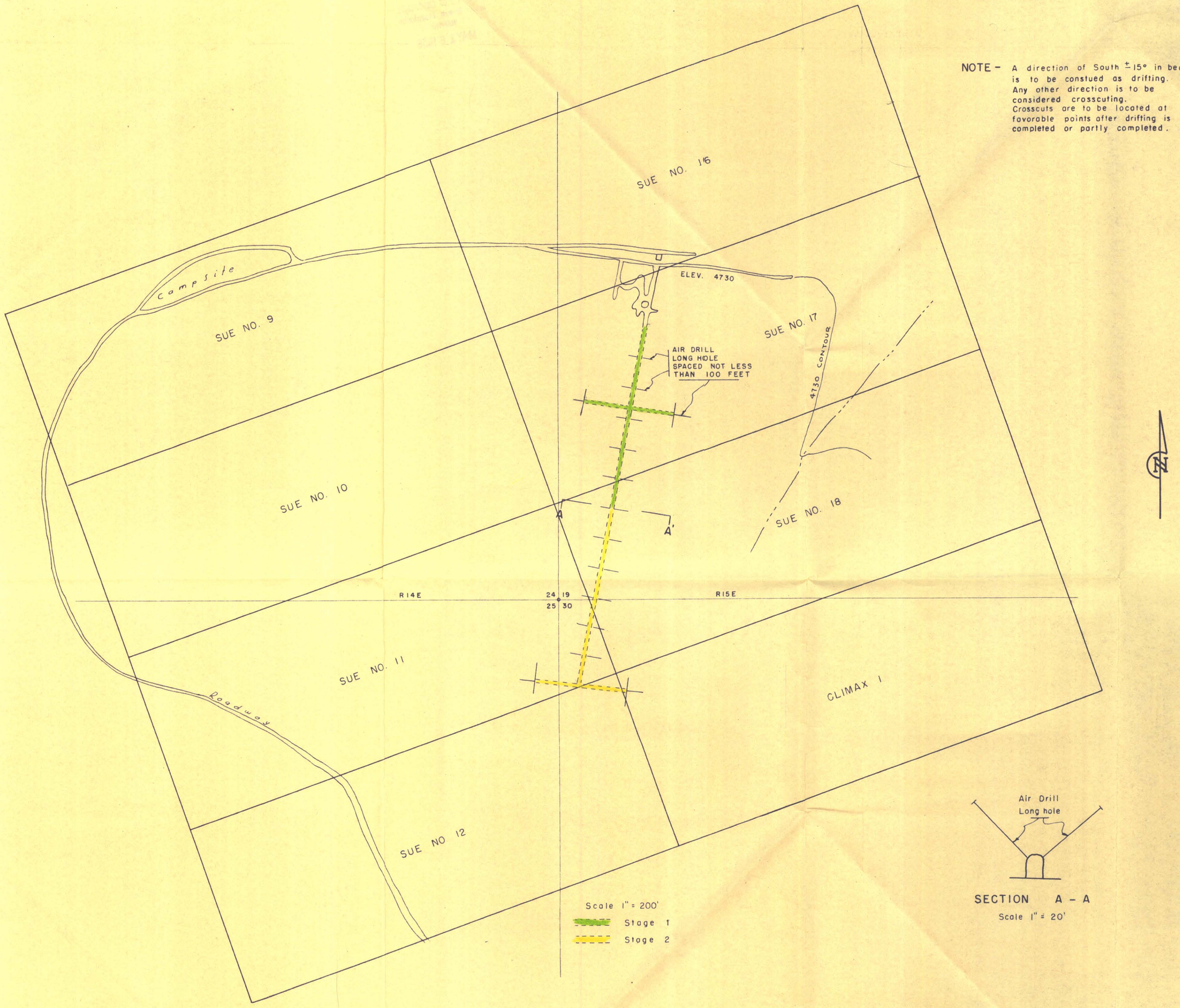
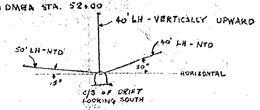
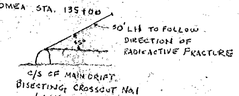


FIGURE - 3 - SUE URANIUM MINE - PLAN SHOWING PROPOSED EXPLORATION

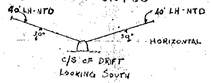
130' — ① DMEA STA. 52+00



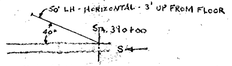
50' — ② DMEA STA. 135+00



80' — ③ DMEA STA. 310+00

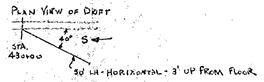


50' — ④ DMEA STA. 390+00

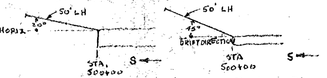


PLAN VIEW OF DRIFT

50' — ⑤ DMEA STA. 430+00

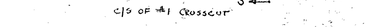


50' — ⑥ DMEA STA. 500+00



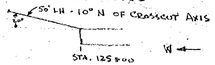
SECTION - ELEVATION OF DRIFT PLAN OF DRIFT

140' — ⑦ DMEA CROSSCUT #1 STA. 47+00



C/S OF #1 CROSSCUT

50' — ⑧ DMEA CROSSCUT #1 STA. 125+00



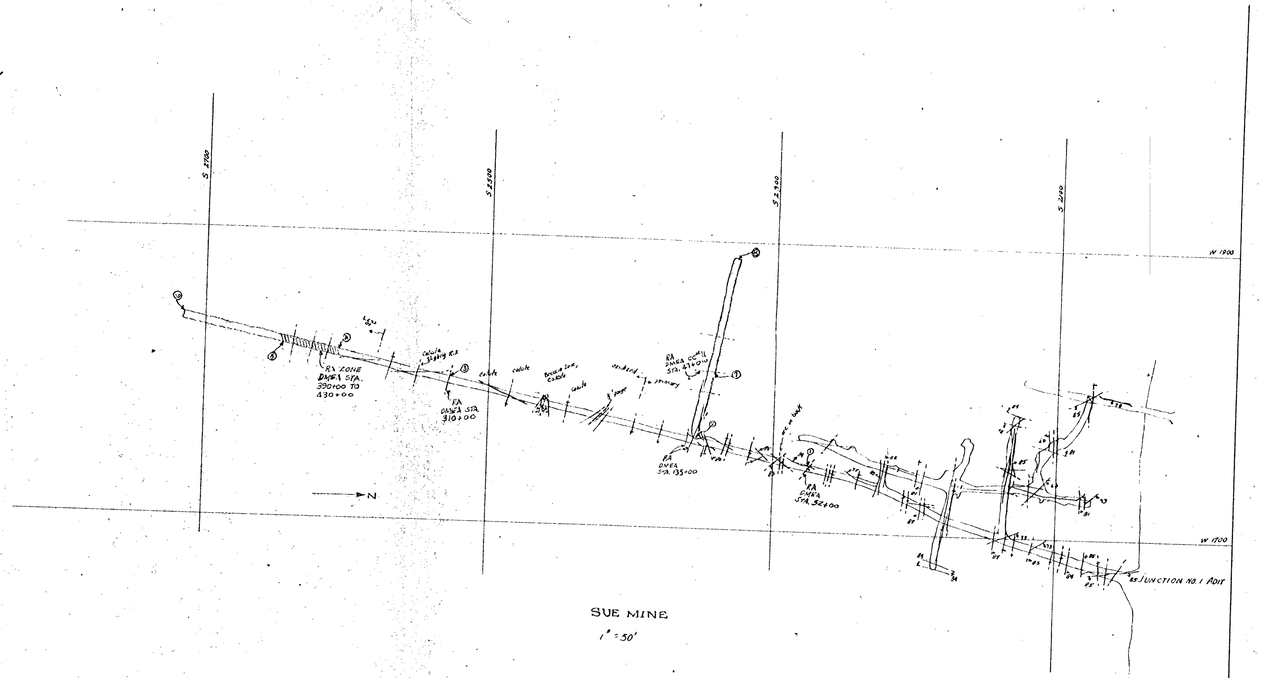
SECTION - ELEVATION OF CROSSCUT

TOTAL FOOTAGE REQUESTED HEREIN
600'

TYPE - PERCUSSION
SIZE - MINIMUM DIAMETER OF 1½"

LEGEND

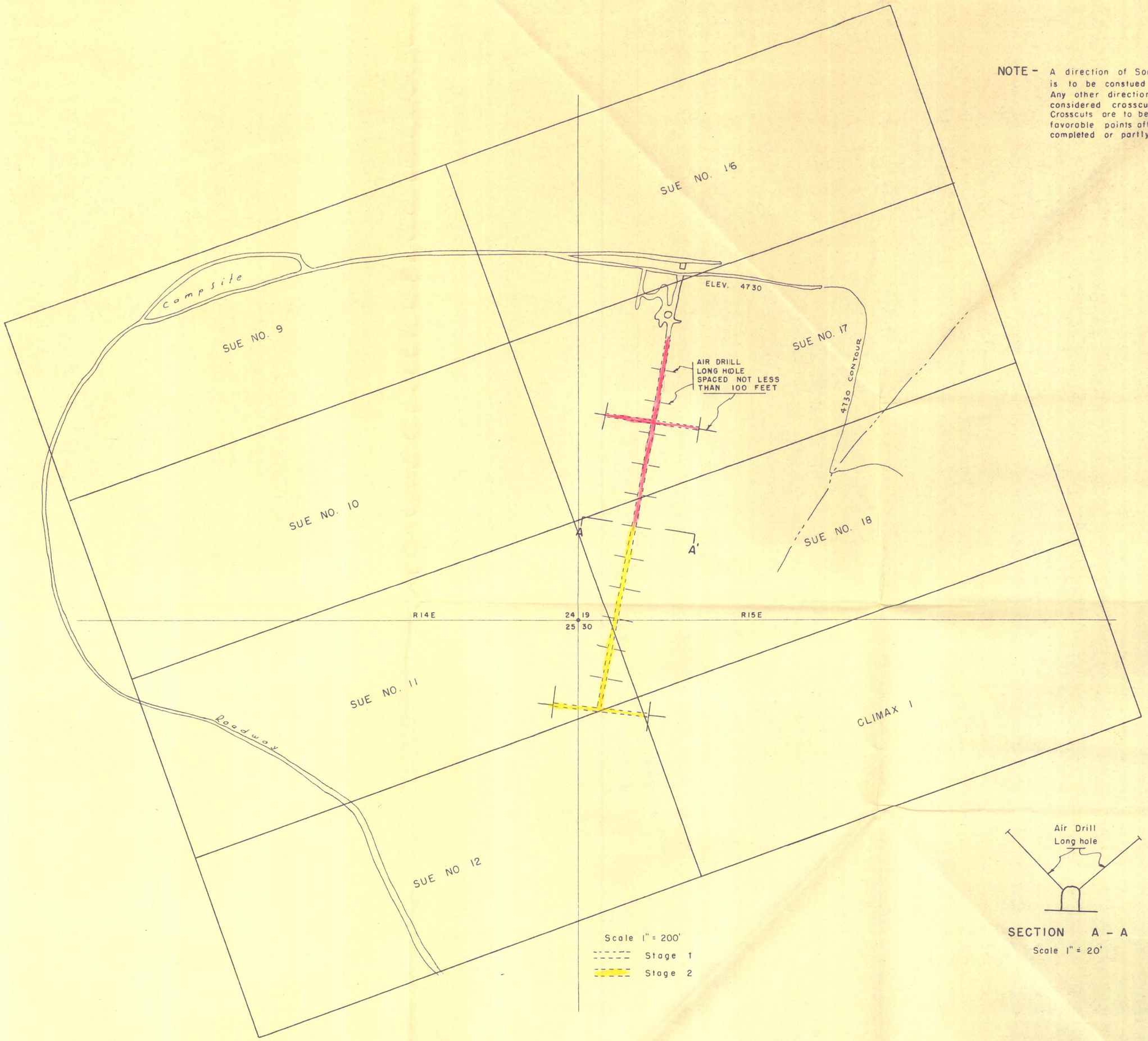
LH = LONG HOLE
NTD = NORMAL TO DRIFT
RA = RADIOACTIVE



SUE MINE
1" = 50'

DOCKET DMEA 3669 (URANIUM)
CONTRACT Idm E-834
ARIZONA GLOBE URANIUM, INC.
(LONG HOLE [illegible])

NOTE - A direction of South ± 15° in bed is to be constued as drifting. Any other direction is to be considered crosscuting. Crosscuts are to be located at favorable points after drifting is completed or partly completed.



DMEA 3669

FIGURE - 3 - SUE URANIUM MINE - PLAN SHOWING PROPOSED EXPLORATION