DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMEA ~~DMA~~ Docket No. 2526

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

EXPLORATION PROJECT

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip Copies to USBM & USGS. One copy was retained by Region II.

To:	Code 600, Rm. 4637	Date	5-14-52
To:	Robertson	Date	5/15/
To:	Open Com	Date	2-13-53
To:	Open Com	Date	2-4-53
To:	Open Com	Date	4-17-53
To:		Date	
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DO NOT DETACH

CONTROLLED DOCUMENT

FILE COPY
SURNAME:

Robertson
Houk
Burzyglem
Kunkel
Hedges
Selfridge

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

600

Mr. G. Elmo Shoup
Box 756
Salmon, Idaho

APR 17 1953

Re: Docket No. DMEA-2526 - Kyanite
Sparkpling Prospect
Lemhi County, Idaho

Dear Mr. Shoup:

Your application for aid for an exploration project and other data available to us in Washington concerning the subject property have been reviewed.

J.C. 4/17/53

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting a small amount of ore on your claims, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf (RW)

Administrator

JTRobertson:gad 4/15/53
Copy to: Admr. R. File
Docket File
Operating Committee
Field Team, Region II
Mr. Gunsallus, 3522
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

FILE COPY
SURNAME:

Roberson
Smith
Hamallen

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

600

April 15, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A closing review of DMEA-2526 - Kyanite
Contract: None
Property: Sparkplug Prospect
6 unpatented lode claims.
Eureka Mining District
Lemhi County, Idaho
Applicant: George Elmo Shoup, owner
P. O. Box 756
Salmon, Idaho
Amount applied for - $1,400
Amount approved - None

A Denial (after field examination). Letter of denial attached hereto.

Docket Summary:

5/13/52 Received application MF-103, dated 9/23/51, through Region II, and accompanied by field team report by J. S. Vhay. He recommended bulldozer trenching in amount of $1,400.

5/28/52 Received memorandum from G. H. Espenshade, Geological Survey, recommending sampling and testing of kyanite; however, thought deposits were small.

6/11/52 Letter - Nonmetallic Minerals Division to Hewitt Wilson, Electrotechnical Laboratory, Norris, Tennessee, in regard to tests.

6/12/52 Letter from Shoup to Adams requesting that Sparkplug No. 2, No. 3, No. 4, and No. 5 be added to original application.

6/30/52 Received report on sample sent to Norris Laboratory. Sample tested 32-plus cone-equivalent test compared to 37-plus required by National Stockpile specifications.

7/10/52 Letter - Operating Committee to Weissenborn transmitting results of above test and other data.

2/6/53 Letter - Nonmetallic Minerals Division to Mr. Shoup transmitting a list of domestic buyers of kyanite material.

3/6/53 Letter - Region II to Operating Committee. Reported Weissenborn's talk with Jack Vhay, examining geologist. In light of unfavorable tests on kyanite sample, they both agree that the proposed exploration project should be denied.

Resume: The Sparkplug Group is located on the east slope of a mountainous area, elevation 6,000 feet, about four miles northeasterly from Salmon, Idaho. It is accessible by truck.

Much of the surface is covered with about three feet of soil. At the few places where veins containing kyanite are exposed by bulldozing, the kyanite occurs as relatively large crystals, showing cleavage faces as long as three inches. The vein material and bleached quartzite formation in which the veins occur is the result of recrystallization by hydrothermal solutions. At one of the best exposures, there is 2.5 feet of kyanite-bearing material in a total width of seven feet, veinlets a foot or less thick; there are numerous strongly bleached outcrops, but on the whole, the kyanite-bearing vein-matter is narrow and occurs in parallel lenses in the wider bleached zones.

A full description, together with maps, is contained in the field report made by J. C. Vhay, field geologist. This report was followed by a test on a sample by the Electrotechnical Laboratory, Norris, Tennessee. The results were unfavorable; the cone-equivalent test was 32-plus compared to a minimum of 37-plus required in the specifications for kyanite for National Stockpile purchases.

In a letter, dated April 1, 1953, the final conclusions of the DMEA Field Team, Region II, is quoted as follows:

"It is recommended that the application be denied as the sample that has been tested did not meet National Stockpile specifications and as there is reason to believe the deposit does not economically warrant further exploration."

Comment:

The Nonmetallic Minerals Division agrees with the Field Team recommendation in this case. Attached hereto is a copy of the letter of denial of application.

Jasper T. Robertson
Nonmetallic Minerals Division

Attachment
JTRobertson:gad 4/15/53
Copy to: Admr. R. File Docket File
Mr. Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

April 15, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A closing review of DMEA-2526 - Kyanite
Contract: None
Property: Sparkplug Prospect
6 unpatented lode claims.
Eureka Mining District
Lemhi County, Idaho
Applicant: George Elmo Shoup, owner
P. O. Box 756
Salmon, Idaho
Amount applied for - $1,400
Amount approved - None

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A full description, together with maps, is contained in the field report made by J. S. Vhay, field geologist. This report was followed by a test on a sample by the Electrotechnical Laboratory, Norris, Tennessee. The results were unfavorable; the cone-equivalent test was 32-plus compared to a minimum of 37-plus required in the specifications for kyanite for National Stockpile purchases.

In a letter, dated April 1, 1953, the final conclusions of the DMEA Field Team, Region II, is quoted as follows:

"It is recommended that the application be denied as the sample that has been tested did not meet National Stockpile specifications and as there is reason to believe the deposit does not economically warrant further exploration."

Comment:

The Nonmetallic Minerals Division agrees with the Field Team recommendation in this case. Attached hereto is a copy of the letter of denial of application.

Jasper T. Robertson

Jasper T. Robertson
Nonmetallic Minerals Division

Attachment

IN REPLY REFER TO:

G-MD-CNM

Mrs Robertson

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

April 13, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 1 4 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-2526 (Kyanite).

To: L. G. Houk, Defense Minerals Exploration Administration.
From: D. M. Larrabee, U. S. Geological Survey.
Applicant: G. E. Shoup.
Name of property: Sparkplug prospect.
Location of property: Lemhi County, Idaho.
Date of field team report:
Authorship of field team report: Jack Vhay.
Field team's recommendation:

Final recommendation to have been based upon tests of kyanite. Decision made to deny the application but no memo prepared by the Field Team.

Letter, Weissenborn and Volin to Selfridge April 1, 1953 recommends denial.

Action suggested:

Follow field team's recommendation.

D. M. Larrabee

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 6 1953

April 1, 1953

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

Reviewed by
DMEA OPERATING COMMITTEE
4-10-53
(date)

Re: Docket No. DMEA-2526 (Kyanite)
Sparkplug Prospect
Lemhi County, Idaho

Dear Mr. Selfridge:

Reference is made to your letter of February 16, 1953, and attached correspondence pertaining to the captioned application. We note that an answer was never made by the Field Team to the Operating Committee's letter of July 10, 1952. This was an oversight on our part for which we apologize. We have delayed answering the referenced letter, awaiting the return of Mr. Jack Vhay, U. S. Geological Survey, from an out-of-town trip, as he was the field representative who made the original field examination.

Mr. Vhay reports that following receipt of the Operating Committee's letter of July 10 he had occasion to contact Mr. G. E. Shoup, applicant, and that at that time he informed Mr. Shoup that his kyanite samples did not measure up to National Stockpile specifications. He informed Mr. Shoup that he should inquire as to market conditions for kyanite and that he might possibly be able to dispose of kyanite produced from his property to sources other than the National Stockpile. Apparently it was for such information that Mr. Shoup wrote the Administrative Officer, DMEA, on February 4, 1953.

The sample of kyanite tested in the Electrotechnical Laboratory, the testing results of which accompanied the Operating Committee's letter of July 10, was a selected high-grade specimen. Inasmuch as this selected sample did not meet stockpile specifications and as the Sparkplug deposit was small in size and the kyanite sporadic, it was not deemed feasible to obtain a composite sample as such a sample would in all likelihood have also failed to meet stockpile specifications. Rather than thoroughly sample the deposit, and as the testing that had been done indicated the deposit was not economically worthwhile, the Field Team decided to reverse its recommendation and recommend instead that the application be denied. Unfortunately, this change of opinion was not made known to the Operating Committee.

It is recommended that the captioned application be denied as the sample that has been tested did not meet National Stockpile specifications and as there is reason to believe the deposit does not economically warrant further exploration.

By DMEA Field Team, Region II

A. E. Weissenborn

A. E. Weissenborn, Executive Officer
(U. S. Geological Survey)

Acting for Thomas E Howard

M. E. Volin, Member
(U. S. Bureau of Mines)

cc: USBM (2)
Vhay

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

Houk
Selfridge
Lemmon

FEB 16 1953

Mr. G. Elmo Shoup
Box 756
Salmon, Idaho

Subject: Docket No. DMA-2526 - Kyanite
Sparkplug Prospect
Lemhi County, Idaho

Dear Mr. Shoup:

Reference is made to your letter of February 4, 1953, on the subject application and your request for information on kyanite.

The mineral kyanite exists in nature in many degrees of purity, and with different physical characteristics. Most domestic kyanite requires beneficiation to eliminate the impurities. The Defense Minerals Exploration Administration is interested in exploring for sources that will provide kyanite of stockpile quality.

A list of private buyers is enclosed for your information and aid in developing a market for your kyanite. While strategic kyanite is listed among the commodities authorized for purchase for the National stockpile, purchases are not being made at this time.

Your interest in the exploration program is appreciated. The self-addressed envelope is returned herewith, inasmuch as official Government correspondence does not require postage.

Sincerely yours,

STGNED

Lawrence G. Houk, Chief
Nonmetallic Minerals Division

Enclosures 2/13/53
Copy to: Admr. R. File
Docket File
Field Team, Region II
Mr. Gunsallus, 3522
Mr. Norton, G-232 GSA Bldg.
Mr. Houk

J.H.
2-16-53

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

Hank Selfridge

FEB 16 1953

Air Mail

Mr. A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II
South 157 Howard Street
Spokane 8, Washington

Subject: Docket No. DMEA-2526 - Kyanite
Sparkplug Prospect
Lemhi County, Idaho

Dear Mr. Weissenborn:

Reference is made to the subject application and the enclosed letter of February 4, 1953 from the applicant, and a copy of our reply.

Please review the results of the tests, as suggested in our letter of July 10, 1952, and make your recommendations to this office as promptly as possible.

Sincerely yours,

George C. Selfridge

S.H. 2-16-53

Chairman, Operating Committee

Approved:

J. H. Hedges

Member, Bureau of Mines

D. M. Lemmon

Member, Geological Survey

Enclosures 2

LGHouk:gad 2/13/53
Copy to: Admr. R. File
Docket File
Operating Committee
Mr. Gunsallus, 3522
Mr. Norton, G-232 GSA Bldg.
Mr. Houk

G. ELMO SHOUP
Mines and Minerals Consultant
Box 756
SALMON, IDAHO

February 4, 1953.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 9 1953

Administrative Officer
Defense Minerals Exploration Administration
Washington 25, D. C.

Subject: DMEA-2526
Re.: Sparke Plug Lode Claims
Kyanite Property

Dear Sir:

Since the above Loan is not possible or a probable and as the Ore Kyanite is still strategic. Why is it not possible that a market for our Ore or property cannot be found?

Assays from our Ore Samples to private Assayers have showen a HIGH-GRADE product, the price of the Kyanite is high and seems to be enough that tonnage from this point is feasible.

We would like information where to market our Ore eather in Goverment stockpile or private concerns. Or we would like to see the Kyanite (Cyanite) withdrawen from the stratégic list of Minerals.

An early reply from your office would be appreciated,.

Sincerely yours,
G. Elmo Shoup
G. Elmo Shoup.

Encl: Self- addressed envelope for reply.
GES.

What did Region II write Shoup?

George Elmo Shoup
Salmon, Idaho

DMEA-2526
Kyanite

7/29/52 - Telephone conversation between L. G. Houk and Bureau of Mines, College Park.

Bureau of Mines, College Park, Region VIII, called with regard to further testing the kyanite samples. "Preliminary evaluation indicates unlocking between 10 and 20 mesh. Percentage of kyanite in the samples will be evaluated by heavy media tests and result supplied within the week."

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

JUL 10 1952

Mr. A. L. Weissenborn
Executive Officer, DMEA
Field Team, Region II
South 157 Howard Street
Spokane 8, Washington

Subject: Docket No. DMEA-2526 - Kyanite
Sparkplug Prospect
Lemhi County, Idaho

Dear Mr. Weissenborn:

Reference is made to the above captioned docket, with respect to which on May 8, 1952, you submitted to this office an application, a proposed contract, and an examination report. At that time, the Field Team recommended an exploration program consisting of bulldozer trenching in the amount of $1,400.00.

A sample of kyanite was submitted to the Electrotechnical Laboratory for the purpose of testing the strategic quality of the kyanite. The result of the test of this one sample is enclosed. It seems advisable that the enclosed test results should be reviewed by the Regional Field Team. Please note in the accompanying report from the Electrotechnical Laboratory that the samples as received are not suitable for purchase by the National Stockpile and that indications are that relatively fine grinding will be required to liberate the kyanite from the associated gangue and difficulty will be experienced in meeting the particular size specifications in P-27.

The small size of the sample submitted to this office indicates that this material may be selected specimens and not indicative of the type of material that would be mined at this deposit. If this material is not truly representative of the deposit then the Field Team should sample the deposit. If the raw material as mined is deemed acceptable for stockpiling a weighted composite should be made from the samples and this composite should be sent to the Electrotechnical Laboratory at Norris, Tennessee. Should the material as mined require beneficiation, there is enclosed for your metallurgical staff a copy of stockpiling specifications P-27 for their information and guidance in preparing a beneficiated composite for stockpile acceptability. The sampling and evaluation tests of the percentage of kyanite in the rock should be a part of the Field Team examination and the simple beneficiation tests completed in the Regional Laboratories.

see Lani

While this deposit does not appear to qualify for exploration assistance under DMEA the Operator should be advised of possible commercial outlets which may be interested in receiving samples of his kyanite for appraisal and possible purchase.

Sincerely yours,

(signed) FRANK E. JOHNSON

(JHS) cc 7/10

Chairman, Operating Committee
Defense Minerals Exploration
Administration

Approved:

J. H. Hedges (JHS)
Member, Bureau of Mines

T. P. Thayer (JHS)
Member, Geological Survey

Enclosures 2

LGHouk:gad 7/7/52

Copy to: Admin. Reading File
Docket File
Operating Committee (2)
Mr. Espenshade, G-232 GSA Bldg.
Mr. Kauffman, Jr., 1347
Mr. Houk

FILE COPY
SURNAME:

Robertson
Houk

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

600

Code 600

July 2, 1952

Memorandum

To: Gilbert H. Espenshade, U. S. Geological Survey

From: Jasper T. Robertson, Non-Metallic Minerals Division

Subject: Docket No. DMEA-2526 - Kyanite
Electrotechnical Laboratory's test of sample sent in by Field Team

Attached please find copy of a report received by Mr. Houk from Electrotechnical Laboratory on test of a sample of kyanite from Sparkplug Prospect near Salmon, Idaho.

Signed

Jasper T. Robertson
Non-Metallic Minerals Division
Defense Minerals Exploration Administration

Attachment

JTRobertson:mp
cc: Docket File
Field Team, Region II
Adm. Reading File
Mr. Marton, G-232, GSA Bldg.
Mr. Gunsallus, 3071
Mr. Kauffman, Jr., 1347
Mr. Houk

GH.
7-2-52

DMEA 2526

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
SOUTHEASTERN REGION
REGION VII

OFFICE OF
REGIONAL DIRECTOR

P. O. BOX 217
NORRIS, TENNESSEE

June 27, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 30 1952
DMEA-2526

Mr. Lawrence G. Houk, Chief
Non-Metallic Minerals Division
Defense Minerals Exploration Administration
United States Department of the Interior
Washington 25, D.C.

Dear Sir:

Tests made by the Electrotechnical Laboratory indicate that the "as-received" samples of kyanite from the Sparkplug Prospect near Salmon, Idaho, DMEA Docket No. 2526 are not suitable for purchase for the National stockpile.

The "as-received" kyanite samples have a pyrometric cone equivalent (similar to fusion) of cone 32-plus (approximately 1715°C) and the Munitions Board Specification P-27 (23 August 1951) under which kyanite is purchased for the National stockpile requires cone 37 or better.

On the basis of a heavy media separation, petrographic examinations, and preliminary x-ray analyses, the constitution of the kyanite samples is roughly as follows:

Head Sample

Gravity fraction	Weighted percent	Component(s)	Identification method
+ 3.33	34.2	98% (estimated) kyanite	petrographic
- 3.33 + 2.95	14.4	muscovite, some fine kyanite and unidentified materials	x-ray
- 2.95	51.4	quartz, muscovite, some fine kyanite and unidentified materials	x-ray

The pyrometric cone equivalent of the 3.33 gravity fraction is 38 (approximately 1835°C). Indications are that relatively fine grinding would be required to liberate the kyanite from associated gangue, and difficulty would be experienced in meeting the particle size specification.

Very truly yours,

Alton Gabriel

Alton Gabriel, Acting for
Hewitt Wilson
Regional Director, Region VII

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
So. 157 Howard Street
Spokane 4, Washington

June 12, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 16 1952

Mr. Robert E. Adams
Administrative Officer
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Re: DMEA-2526, Kyanite
G. Elmo Shoup

Dear Mr. Adams:

Enclosed are copies of a letter from Mr. Shoup amending his original application. Three copies of form MF-100 and four maps of the Spark Plug group of claims are also being submitted at this time.

Sincerely yours,

K. H. Gray
Kathryn Gray
For: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosures.

FILE COPY
SURNAME:

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

600

JUN 11 1952

Mr. Hewitt Wilson
Regional Director, Bureau of Mines
Electrotechnical Laboratory
P. O. Box 217
Norris, Tennessee

Subject: Docket No. DMEA-2526 - Kyanite
Sparkplug Prospect
Near Salmon, Idaho

Dear Mr. Wilson:

Transmitted herewith are samples of kyanite from the Sparkplug Prospect near Salmon, Idaho, DMEA Docket No. 2526. These samples have been submitted by Mr. J. S. Vhay, of the U. S. Geological Survey Spokane office to this office for evaluation.

Will you kindly test and evaluate these samples of kyanite and inform this office as to whether or not this material is of strategic quality or if it can be milled to specifications that will make it acceptable for purchase for the National stockpile.

Sincerely yours,

SIGNED 6/11/52

Lawrence G. Houk, Chief
Non-Metallic Minerals Division
Defense Minerals Exploration
Administration

Enclosure

LGHouk:gad 6/11/52

Copy to: Admin. Reading File
Docket File
Mr. Gunsallus, 3071
Mr. Norton, G-232, GSA Bldg.
Mr. Houk

Subject: DMEA-2526
Re: Exploration Loan
Spark Plug Lode and Spark Plug
Lode No.1.

Mr. Robert E. Adams.
Administrative Officer
Defense Minerals Exploration Administration
Washington 25,D. C.

June 2, 1952.

Dear Sir:

We wish toamend our application as of above and add the following Claims, Spark Plug No. 2, Spark Plug No.3, Spark Plug No.4 and Spark Plug No.5. This will give us the total of Six (6) Spark Plug Lode Claims with the above added.

This change is neccessary in order to cover the Vein or Deposite containing the Kyanite Ore, which we wish to develope by the Exploration Loan

The Location and Assessment work has been done on these Claims and they are now in the process of Filing in the Local Recorder Office.

Additional Ore reserve was found in the Location or Discovery drifts of these added Claims.

Sincerely yours,

George Elmo Shoup

George Elmo Shoup. Partner and Owner,
Mgr. Spark Plug Lode Claims.

Subject: DMEA-2526
Re: Exploration Loan
Spark Plug Lode and Spark Plug
Lode No.1.

June 2, 1952.

Mr. Robert E. Adams.
Administrative Officer
Defense Minerals Exploration Administration
Washington 25, D. C.

Dear Sir:

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The Location and Assessment work has been done on these Claims and they are now in the process of filing in the Local Recorder Office.

Additional Ore reserve was found in the Location or Discovery drifts of these added Claims.

Sincerely yours,

George Elmo Shoup

George Elmo Shoup. Partner and Owner,
Mgr. Spark Plug Lode Claims.

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. _____

Date received _____

GEORGE ELMO SHOUP
P. O. BOX 756
SALMON, IDAHO.

Name and address of applicant

Date June 2,1952

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products? Kyanite (Cyanite)
   (*b*) What are the byproducts, if any? Not Knowen
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly). Surface Striping ---± 850 Linear Feet

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point. 5 Miles West Salmon, Idaho.
   (*b*) Mining district. Eureka
   (*c*) Township, Section, Range.
   (*d*) County, State. Lemhi County, Idaho

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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JUN 16 1952

4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   ☒ Owner.
   ☐ Lessee.
   ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin End of Development by Exploration Loan.
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project. Over 22 Years of Experience in all pkrases of Mining.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

16—63792-2

(See Report by Geological Survey for above)

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
Earl Stokes, Salmon, Idaho	Partner	NONE	NONE	NONE	NONE	NONE	NONE
William Stokes c/o Above	"	"	"	"	"	"	"
G. Elmo Shoup.	Manager	NONE	NONE	NONE	NONE	NONE	NONE
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues: NONE

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production: NONE

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by a [illegible] available report on the geology and ore reserves.

16—63792-1

Refer to Geological Survey Report

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

Five (5) Miles Road in Good Condition

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

Springs and small Creek give ample Water Supply

15. Power:

State amount of power used, rate per hour, and source thereof.

Ample Power supply available at Property

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation. NONE

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain. NO.

CERTIFICATION

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

(Name of company)

By George Elmo Shoup
(Signature of authorized official)

(Date)

Manager Spark Plug Lode Claims
(Title)

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—63792-1

DMEA-2526

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
So. 157 Howard Street
Spokane 4, Washington

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 1 3 1952

May 8, 1952

Memorandum

To: Operating Committee

From: Field Team, Region II

Subject: Submission of application and proposed contract for George Elmo Shoup, Kyanite prospect, Lemhi County, Idaho.

An application for DMEA assistance to explore a Kyanite prospect in Lemhi County, Idaho, was submitted by Mr. George E. Shoup, P. O. Box 756, Salmon, Idaho, and was held here pending a report by Mr. J. S. Vhay of the Geological Survey, who had visited the property. This report is now submitted together with Mr. Shoup's application and a draft of a proposed short form contract.

The exploration is very simple and merely calls for a small amount of bulldozing to expose a quartz-mica-tourmaline vein containing kyanite. Present knowledge indicates that the individual veins are small and discontinuous, but, because specimens of high quality kyanite have been obtained, the small amount of exploration recommended is considered worthwhile.

Mr. Vhay is now in Salmon, Idaho, and will obtain a more complete description of the claims from the county recorder's office, should this be necessary.

By DMEA Field Team, Region II

A. E. Weissenborn, Exec. Officer
(U. S. Geological Survey)

M. E. Volin, Member
(U. S. Bureau of Mines)

Enclosures

cc: USBM, Spokane
USBM, Albany

MF-103
(Rev. June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. DMEA-2526
Metal or Mineral
Date Received 5-13-52
Amount $
Participation (Government %)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 13 1952

GEORGE ELMO SHOUP.
P. O. BOX 756,
SALMON, IDAHO.

Name and address of applicant

Date OCTOBER 23, 1951.

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Spark Plug Lode 20 Acres, Spark Plug Lode No.I 20 Acres.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.
   R.19 W. T. 22 N. EUREKA DISTRICT, LEMHI COUNTY, IDAHO (5 Miles West of Salmon, Idaho)

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find? KYANITE AND OTHER INPORTANT MINERALS

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

16—64067-2

REFER TO UNITED STATES GEOLOGICAL SURVEY REPORTS.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

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

(Name of company)

By George Elmo Shoup
(Signature of authorized official)

October 23 1951
(Date)

Manager & Owner
(Title)

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—64067-2

[illegible]
P. O. Box 755
[illegible], Idaho

Date: October 29, 1951.

ANSWER TO QUESTION NUMBER 3. (a) & (b).

(a) Repairing Two Miles of Mine access road with Tractor-dozer at the cost of Four-hundred Dollars ($400.00)

Uncovering of the Kyanite and other Strategic Minerals Deposits by stripping operations, this is to remove all overburden and topsoil from the top of the deposits with a Tractor-dozer at the cost of One-Thousand ($1000.00) Dollars.

TOTAL COST $1400.00

(b) The project will require Four Days for repair of Mine Access road 4 Days

Stripping operations will Require Ten Days to uncover Deposits. 10 Days

Total time of Project 14 Days

Answer To Question Number 4.
Refer to United States Geological Survey Report.

ANSWER TO QUESTION NUMBER 5.
NO COST Other than Mentioned in Question Number 3. Part (a)

ANSWER TO QUESTION NUMBER 6.

None at this Time to be Built.

ANSWER TO QUESTION NUMBER 7.

(a) EQUIPMENT: One Tractor-dozer of Large Size at the price of $150.00 For a day or the Total Price through Project $1400.00. This Includes One Operator.

ANSWER TO QUESTION NUMBER 8

To be under Government Supervision.

ANSWER TO QUESTION NUMBER 9.

NO COST .

ANSWER TO QUESTION NUMBER 10 (a) (b)

(a) One-hundred and fifty dollars ($150.00) (b) NO.

ANSWER TO QUESTION NUMBER 11.

REFER TO UNITED STATES GEOLOGICAL SURVEY REPORT.

[illegible]

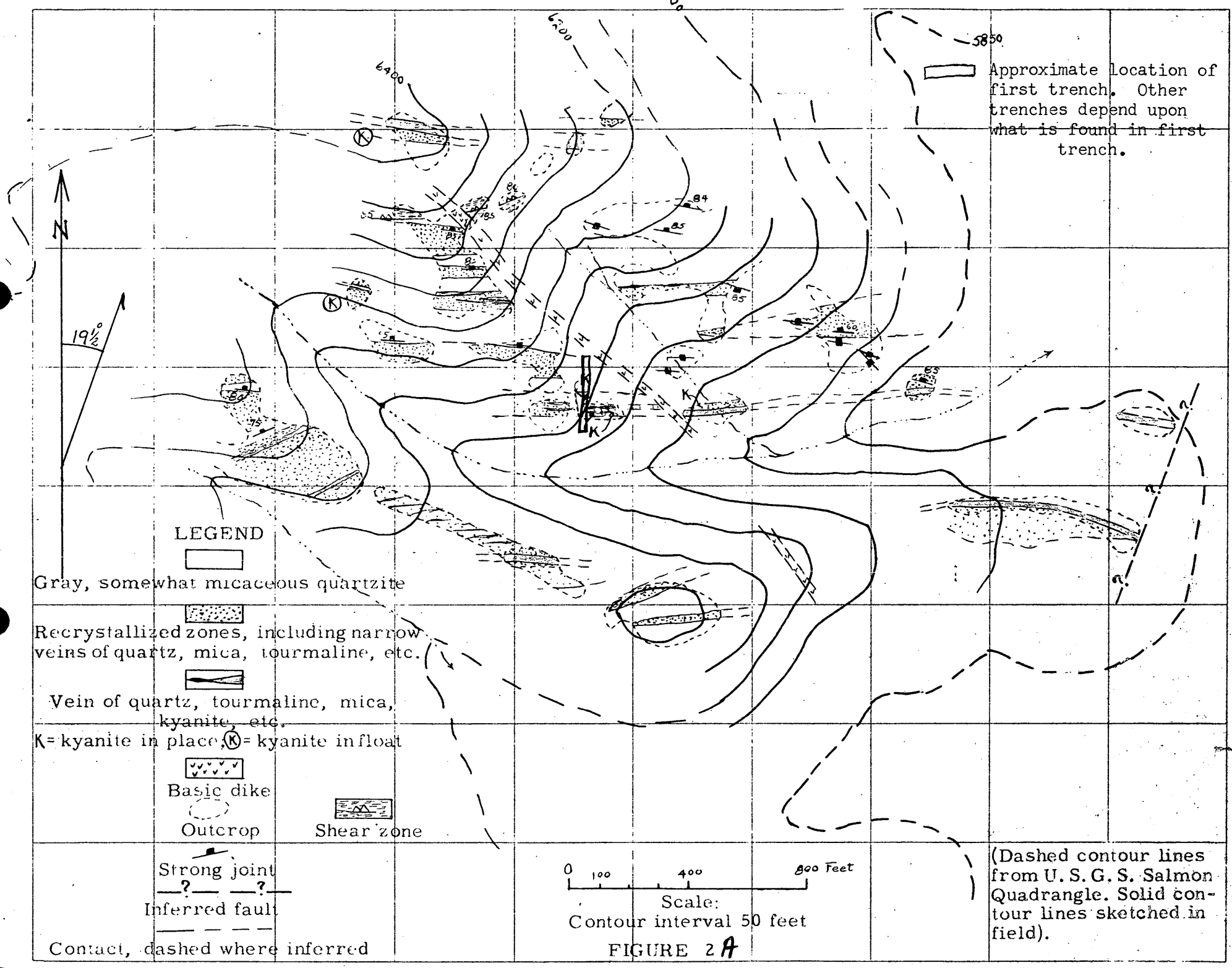

6000
6200
6400
5850
Approximate location of first trench. Other trenches depend upon what is found in first trench.
N
19½°
LEGEND
Gray, somewhat micaceous quartzite
Recrystallized zones, including narrow veins of quartz, mica, tourmaline, etc.
Vein of quartz, tourmaline, mica, kyanite, etc.
K= kyanite in place, (K)= kyanite in float
Basic dike
Outcrop
Shear zone
Strong joint
Inferred fault
Contact, dashed where inferred
0 100 400 800 Feet
Scale:
Contour interval 50 feet
(Dashed contour lines from U. S. G. S. Salmon Quadrangle. Solid contour lines sketched in field).
"ALBANENE" No. 198M K&E CO., N.Y.
REG. U.S. PAT. OFF.

FIGURE 2A

DMEA-2526

OFFICE OF THE ADMINISTRATOR

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 1 8 1952

So. 157 Howard Street
Spokane 4, Washington

April 10, 1952

Reviewed by
DMEA OPERATING COMMITTEE
5-21-52
(date)

Memorandum

To: Field Team, Region II

From: J. S. Vhay

Subject: Application for exploration contract for Sparkplug Kyanite Prospect.

INTRODUCTION

Early last summer Mr. G. Elmo Shoup of Salmon, Idaho, sent in a sample containing coarse kyanite. Since kyanite is high on the strategic mineral list, the prospect was looked at briefly, and a preliminary study and map made of the deposit. Last October an application for an exploration contract was made which proposed spending $400.00 on road improvement and $1,000.00 on bulldozing the deposit. As the deposit can be reached by truck it is recommended that the contract be changed so that the $1,400.00 be spent on bulldozing. Somewhat more could be spent to properly explore the area for kyanite, but $1,400 worth of bulldozing will show whether more work here is justified.

APPLICANT AND HISTORY

The applicant, G. Elmo Shoup, a resident of Salmon, Idaho, is interested in prospecting and promoting the development of mineral deposits, but he apparently has not had much actual mining experience. He has a partner who operates, and may own, a bulldozer. The kyanite apparently was discovered in 1950 and a number of claims were staked around the discovery point. Some bulldozing was done, most of it on the ridge south of the gulch running through the center of the map, where no kyanite was exposed, but enough was done north of the gulch (at points indicated by "K" on fig. 2) to show that kyanite is present on the property.

LOCATION AND ACCESSIBILITY

The Sparkplug claims are located four miles west-northwest of Salmon, Idaho (see fig. 1), in the southern part of section 27 and the northern part of section 34, T. 22 N., R. 21 E. They are on the steep east slope of the Salmon River mountains at altitudes between 5800 and 6400 feet.

The area can be reached by a poor dirt road, having very steep grades, that leaves the northeast corner of Salmon. This road will have to be improved, or perhaps even relocated, before much heavy hauling can be done on it. The recently installed power line to Cobalt, Idaho, passes less than a thousand feet south of the claims.

GEOLOGY

The claims are on the east side of the Salmon River mountains at an altitude where the slopes are moderate. The slopes are steeper both farther down and higher up the mountain. Somewhat more than half the area on the map (see fig. 2) is covered with soil which is rarely more than three feet deep except in the gulches. Trees cover the north slopes. Grass and sagebrush grow on the rest of the area. The gulch through the center of the mapped area was dry in September; a little water was flowing in the next drainage line south.

The country rock in this area is Belt quartzite. The quartzite is generally impure, fine grained, well bedded, and from dark to light grey in color. Besides quartz, the rock contains considerable muscovite and biotite, formed from the impurities in the rock during metamorphism. Some variation in the composition of different beds shows up as differences in color or in the alteration along the zones in which the quartz, tourmaline, mica and kyanite occur.

The only igneous rock in the mapped area is a metamorphosed basic dike, now consisting mostly of hornblende with a little quartz, oligoclase and zoisite; it may have been a diabase before metamorphism.

The structure of the rocks is relatively simple. Bedding is nearly flat, having low dips, which do not exceed 15 degrees, in various directions. The rocks show several directions of joints, the strongest of which usually controls the later alteration; these strong joints range in direction from N. 70 E. through east-west to N. 70 W.; the average trend is close to east-west. The joints dip steeply either to the north or south. In the northwest part of the mapped area, shearing has produced a zone of closely spaced joints so that the rock appears almost schistose.

The quartzite has been altered in a number of zones approximately parallel to the strong joints. North of the gulch the trend of these zones is close to east-west, and they range from a few feet to over a hundred feet in width (see fig. 2). On the ridge south of the gulch, the alteration is almost continuous for a distance of about 1400 feet in a direction about N. 60 W.; the strikes of the joints in this zone range from about east-west to N. 60 E. This alteration appears mostly as recrystallization of the quartzite; the

quartz, biotite and muscovite are much coarser, chlorite has replaced some of the biotite, and some tourmaline and a phosphate has probably been introduced. The net effect of this recrystallization has been to produce a much lighter colored rock with, in places, spots of biotite; this rock will hereafter be referred to as bleached.

Veins occur within these bleached zones. They are from a few inches up to thirty feet wide. Many of the veins, especially the thicker ones, consist mostly of quartz, with or without some feldspar, mica, and tourmaline. Others consist largely of a fine-grained green mica (?), whereas still others consist of mainly coarse mica, feldspar and some quartz. Commonly in the more micaceous veins considerable amounts of a phosphate mineral, probably dehrnite, are present. At the few places where veins containing kyanite are exposed by bulldozing, the kyanite occurs as relatively large crystals, showing cleavage faces as long as three inches; it is associated with coarse-grained quartz, muscovite, and in places tourmaline. The country rock next to the kyanite-bearing veins has been altered to an easily weathered soft sandy material, which may account for the fact that kyanite was seen in only one natural outcrop. Everywhere else it has been exposed by the bulldozing of from one to two feet of soil. In addition to the places (marked "K" on fig. 2) where kyanite was seen in place, pieces of kyanite float were seen at two other places (marked "K" on fig. 2).

The vein material and bleached quartzite are believed to have originated mostly by metamorphic recrystallization in the presence of some introduced hydrothermal solutions, which must have brought in at least phosphorous and boron, as is indicated by the relatively large amount of dehrnite and tourmaline. Whether any alumina was brought in or the kyanite has resulted merely from the recrystallization of the impure quartzite is difficult to say at present. At least some iron and probably other bases have been removed from the kyanite-bearing veins, which consist almost solely of quartz, kyanite, and muscovite.

ECONOMIC CONSIDERATION

At the best exposure there are 2.5 feet of kyanite-bearing material in a total width of seven feet, in veins a foot or less in thickness. It is probable that the individual veins do not have much length, but rather occur as a number of parallel lenses within the bleached zones. Economically, therefore, what has been exposed by the small amount of bulldozing does not look worthwhile. With kyanite in short supply, however, it is felt that more bulldozing of the soil-covered rock opposite the most strongly bleached and veined outcrops would be a worthwhile gamble.

prospecting?

CONCLUSION

Inasmuch as there is some chance that considerable more kyanite may be present under some of the soil-covered areas on the Sparkplug claims, it is recommended that an exploration contract for $1,400 worth of bulldozing be entered into with Mr. G. Elmo Shoup on a 10-90 basis. The Government's representative should spot in the trenches and keep a close eye on the work as it progresses.

Can't see on a job like this

cc: USBM - Spokane
USBM - Albany

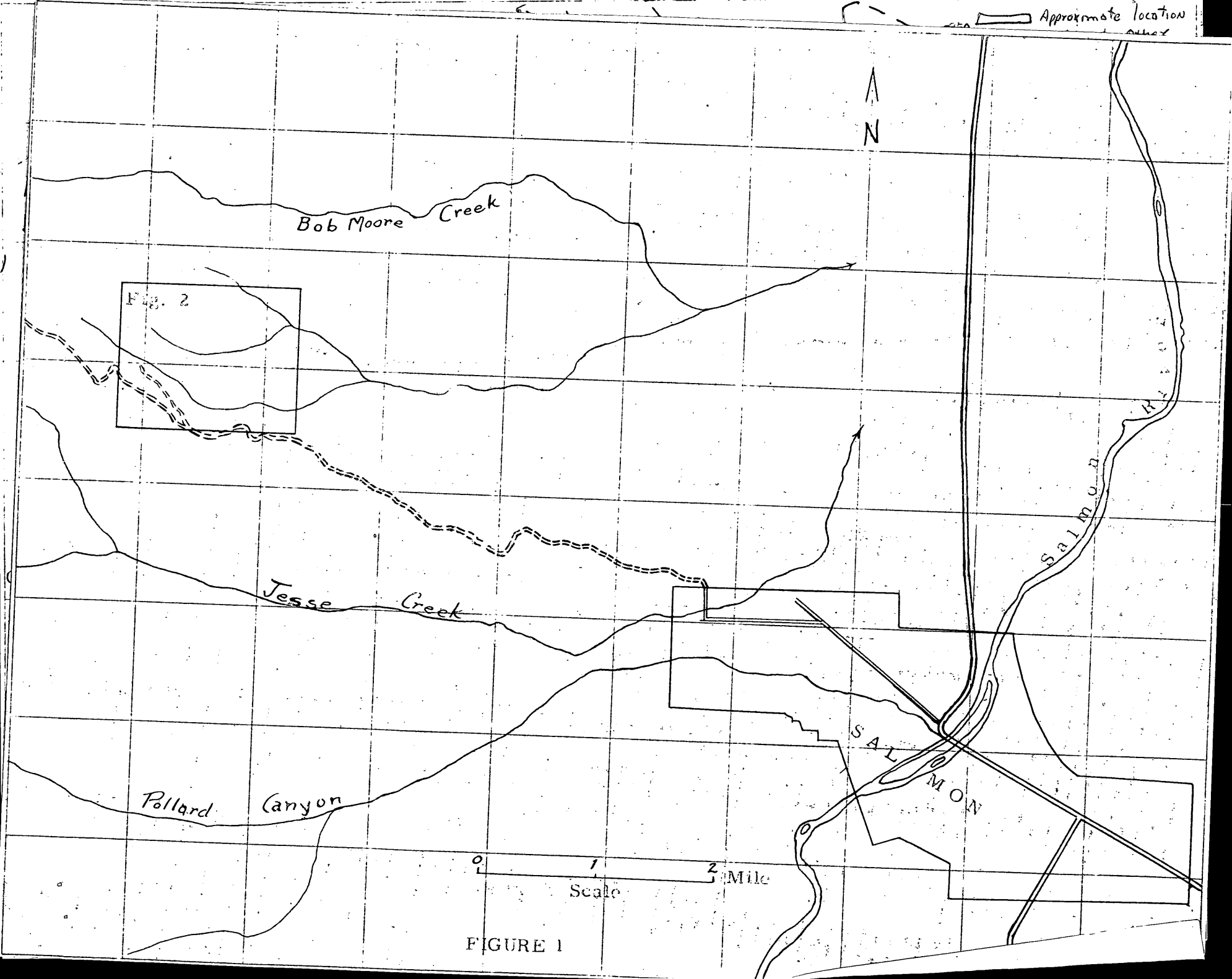

Approximate location
N
Bob Moore Creek
Fig. 2
Jesse Creek
Pollard Canyon
Salmon River
SALMON
0
1
2
Mile
Scale

FIGURE 1

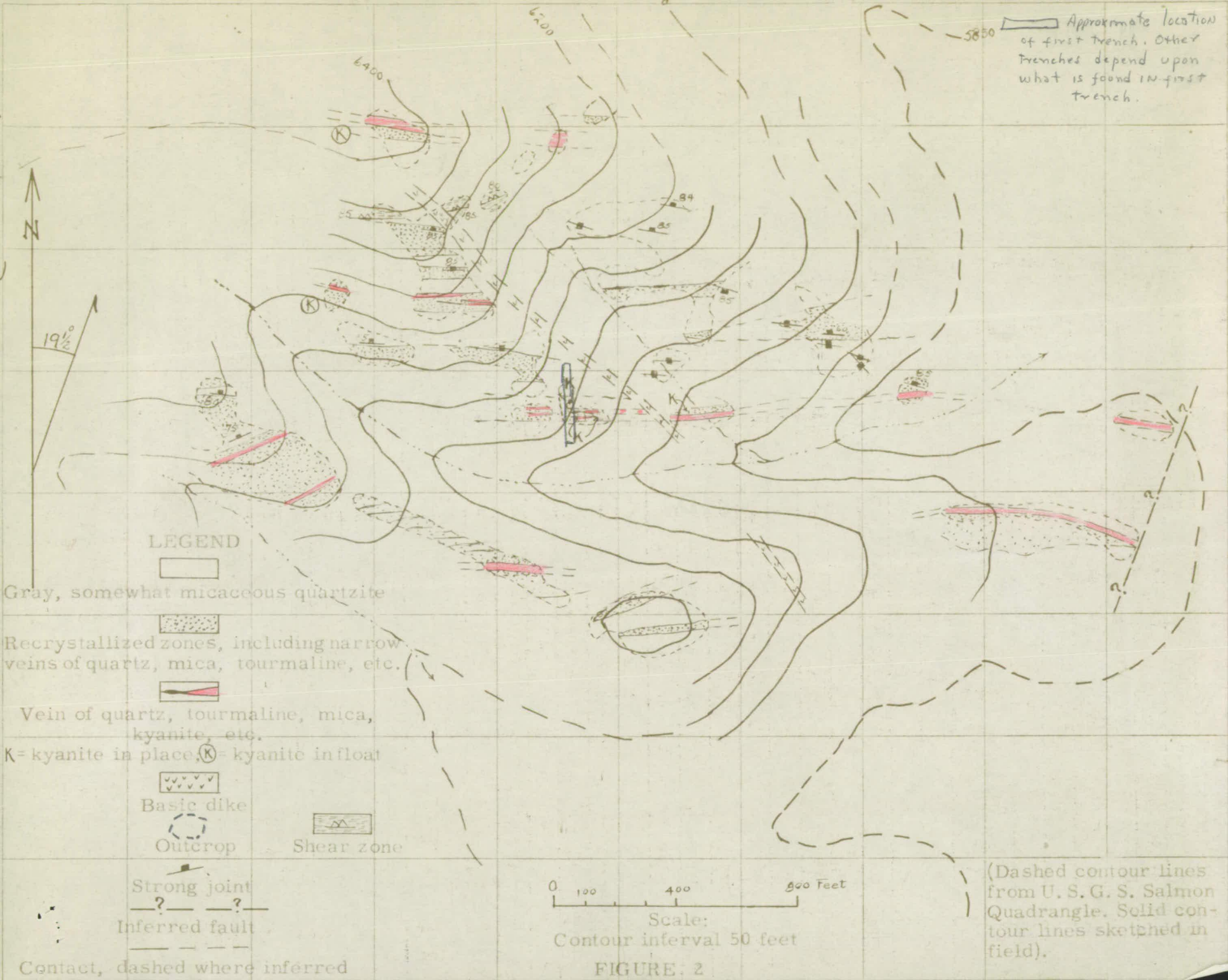

Approximate location of first trench. Other trenches depend upon what is found in first trench.
6400
6200
5850
N
19½°
LEGEND
Gray, somewhat micaceous quartzite
Recrystallized zones, including narrow veins of quartz, mica, tourmaline, etc.
Vein of quartz, tourmaline, mica, kyanite, etc.
K = kyanite in place, (K) = kyanite in float
Basic dike
Outcrop
Shear zone
Strong joint
Inferred fault
Contact, dashed where inferred
0 100 400 800 Feet
Scale:
Contour interval 50 feet
(Dashed contour lines from U. S. G. S. Salmon Quadrangle. Solid contour lines sketched in field).

FIGURE 2

EXPLORATION

Subject: DMEA-2526
Re: Exploration Loan
Spark Plug Lode and Spark Plug
Lode No. 1

Mr. George Elmo Shoup
P. O. Box 756
Salmon, Idaho

My dear Mr. Shoup:

This will acknowledge receipt of your application dated October 23, 1951 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2526 and referred to the Non-Metallics Division.

Kindly refer to DMEA-2526 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Administrative Officer

7862

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. DMEA-2526
Metal or Mineral
Date Received 5-13-52
Amount $
Participation (Government %)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 13 1952

GEORGE ELMO SHOUP
P. O. BOX 756,
SALMON, IDAHO

Name and address of applicant

Date OCTOBER 23, 1951

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Spark Plug Lode 20 Acres, Spark Plug Node No. I. 20 Acres

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   R. 19 W. T. 22 N. EUREKA DISTRICT, LEMHI COUNTY, IDAHO. (5 Miles West of Salmon, Ida

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find? KYANITE AND OTHER INPORTANT MINERALS.

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

16—64067-2

REFER TO UNITED STATES GEOLOGICAL SURVEY REPORTS.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail. This information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

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

(Name of company)	By George Elmo Shoup (Signature of authorized official)
October 23, 1957 (Date)	Manager and Owner (Title)

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—64067-2

GEORGE ELMO SHOUP
P. O. BOX 756
SALMON, IDAHO

Date: October 23, 1951.

ANSWER TO QUESTION NUMBER 3. (a) & (b).

(a) Repairing Two Miles of Mine access road with Tractor-dozer at the cost of Four-hundred Dollars ($400.00)

Uncovering of the Kyanite and other Strategic Minerals Deposits by stripping operations, this is to remove all overburden and topsoil from the top of the deposits with a Tractor-dozer at the cost of One-Thousand ($1000.00)Dollars.

TOTAL COST $1400.00

(b) The project wil require Four Days for repair of Mine Access road 4 Days

Stripping operations will Require Ten Days to uncover Deposits. 10 Days

Total time of Project 14 Days

Answer To Question Number 4.
Refer to United States Geological Survey Report.

ANSWER TO QUESTION NUMBER 5.
NO COST Other than Mentioned in Question Number 3. Part (a)

ANSWER TO QUESTION NUMBER 6.

None at this Time to be Built.

ANSWER TO QUESTION NUMBER 7.

(a) RENTED: One Tractor-dozer of Large Make at the price of $100.00 For a day or the Total Price through Project $1400.00. This includes One Operator.

ANSWER TO QUESTION NUMBER 8

To be under Goverment Supervision.

ANSWER TO QUESTION NUMBER 9.

NO COST .

ANSWER TO QUESTION NUMBER 10 (a) (b)

(a) One-hundred and fifty dollars ($150.)) (b) YES.

ANSWER TO QUESTION NUMBER 11.

REFER TO UNITED STATES GEOLOGICAL SURVEY REPORT.

George Elmo Shoup

MF-200 (A)
(February 1952)

DOCKET No. DMEA _____

COMMODITY Kyanite

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] George Elmo Shoup, P. O. Box 756, Salmon, Idaho

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of Idaho, County of Lemhi, described as follows:[3] Unpatented lode claims Spark Plug, and Spark Plug No. 1, sec. 27 and 34, T. 22 N., R. 21 E. Eureka Mining District.

the Operator represents and undertakes:[4]

(*a*) That the Operator is the owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: _____

(*b*) That the Operator is a lessee, in possession and entitled to possession, and the Owner's Consent to Lien is attached.

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within 60 days from the date of this contract shall commence work on a project of exploration for[5] kyanite

in or upon the described land; and shall bring the project to completion within a period of 90 days from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay 90 percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $1,260.00, which is 90 percent of $1,400.00, the agreed, estimated total cost of the project in which the Government will participate: *Provided,* That until the Operator's final report and final accounting have been rendered to the Government and any final check or 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 ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

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

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* _____

_____

_____

_____

_____

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

_____ (Operator)

By _____

By _____

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

_____ [CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66329-1

Exhibit "A"

Statement of the Work

The purpose of the exploration project shall be to explore the kyanite-bearing veins on the Spark Plug and Spark Plug No. 1 mining claims. This shall be accomplished by bulldozer trenching on the extensions of veins presently exposed in outcrops and trenches and in other favorable areas located progressively as the bulldozing proceeds, subject to the approval of the DMEA Field Team, Region II.

Trenching shall be done with a D-6 caterpillar tractor, or equivalent, equipped with angle dozer. Trenches shall be to a depth sufficient to remove the topsoil and expose bedrock for inspection and sampling.

Agreed Estimated Costs

Description of Work	Unit	Unit Cost	Maximum No. of Units	Total Cost
Bulldozer trenching	Hour	$12.50	112	$1,400.00

Total Cost of Project $1,400.00

Tractor owned by partner?

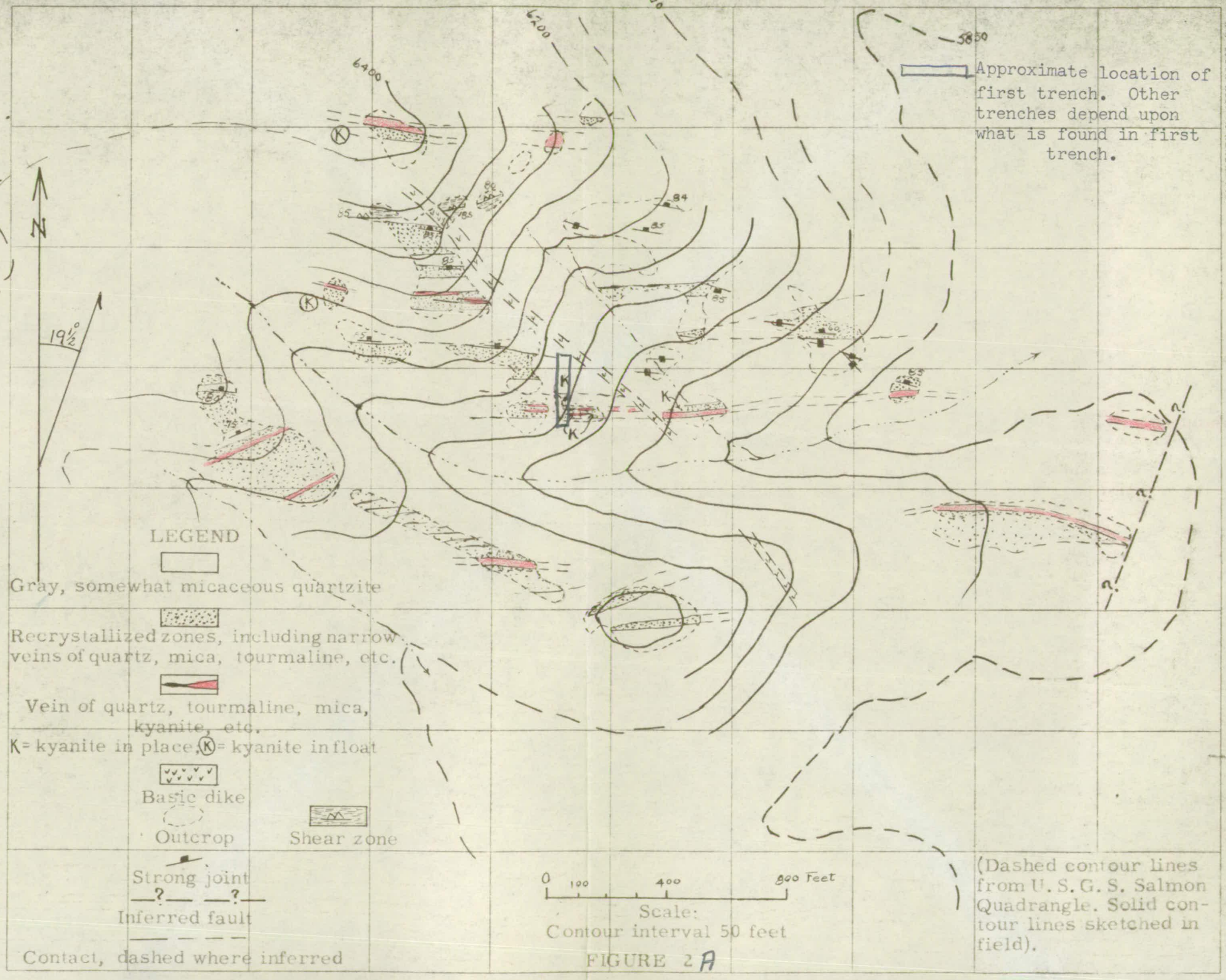

6000
6200
6400
5850
Approximate location of first trench. Other trenches depend upon what is found in first trench.
N
19½°
LEGEND
Gray, somewhat micaceous quartzite
Recrystallized zones, including narrow veins of quartz, mica, tourmaline, etc.
Vein of quartz, tourmaline, mica, kyanite, etc.
K= kyanite in place, (K)= kyanite in float
Basic dike
Outcrop
Shear zone
Strong joint
Inferred fault
Contact, dashed where inferred
0 100 400 800 Feet
Scale:
Contour interval 50 feet
(Dashed contour lines from U. S. G. S. Salmon Quadrangle. Solid contour lines sketched in field).

FIGURE 2 A

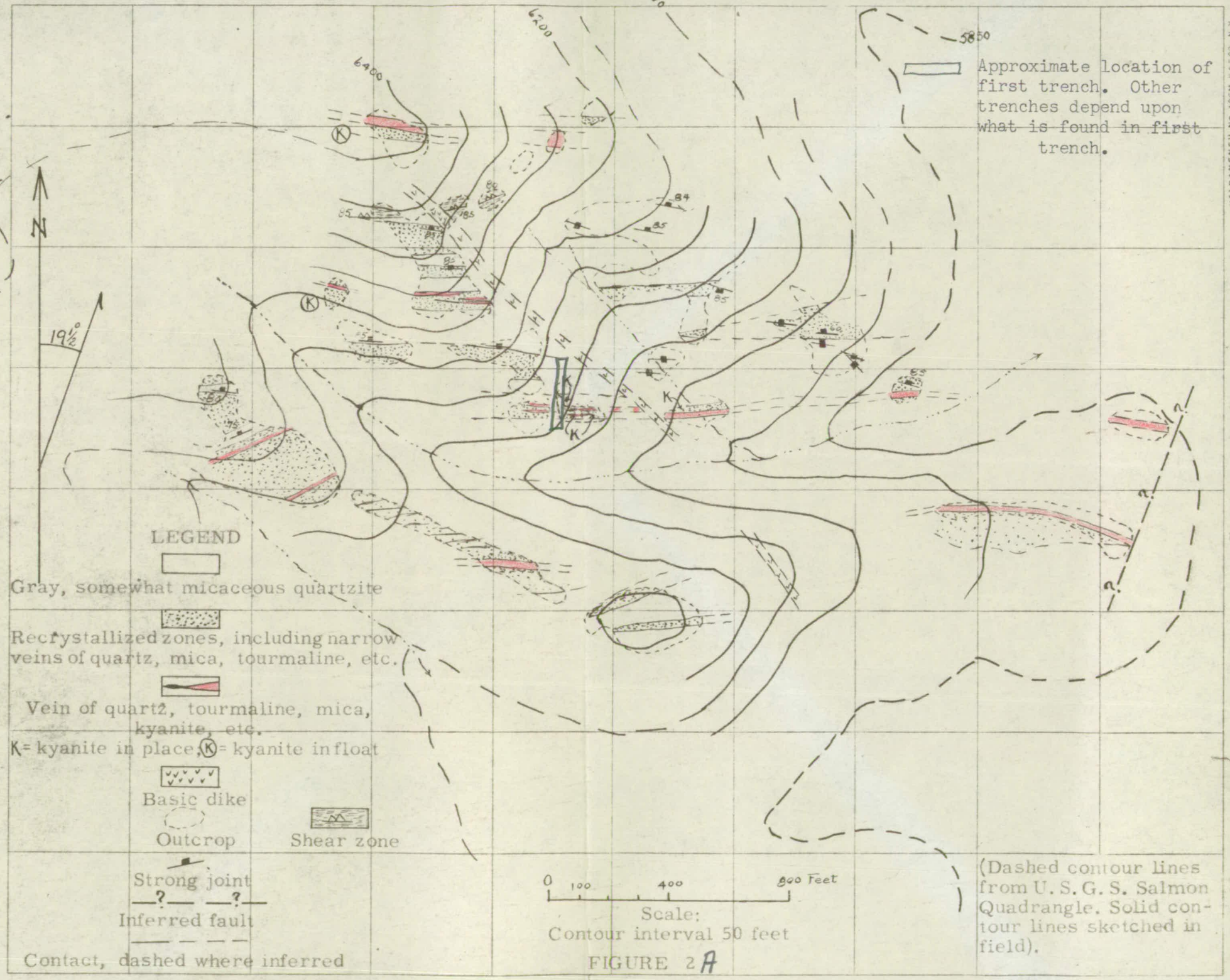


FIGURE 2A

"ALBANENE" NO. 196M K&E CO., N.Y. REG. U.S. PAT. OFF.

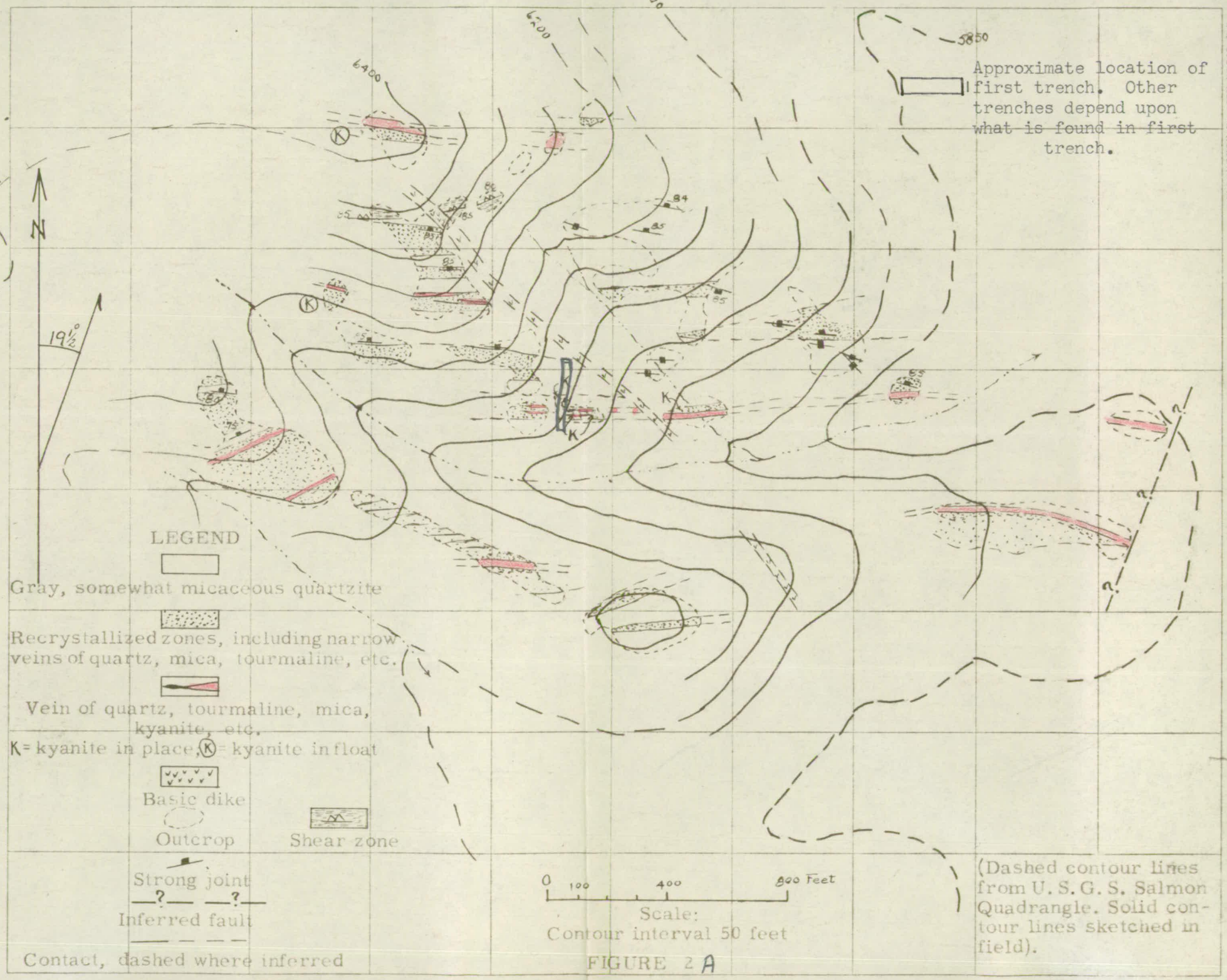


FIGURE 2 A

"ALBANENE" NO. 195M K&E CO., N.Y. REG. U.S. PAT. OFF.

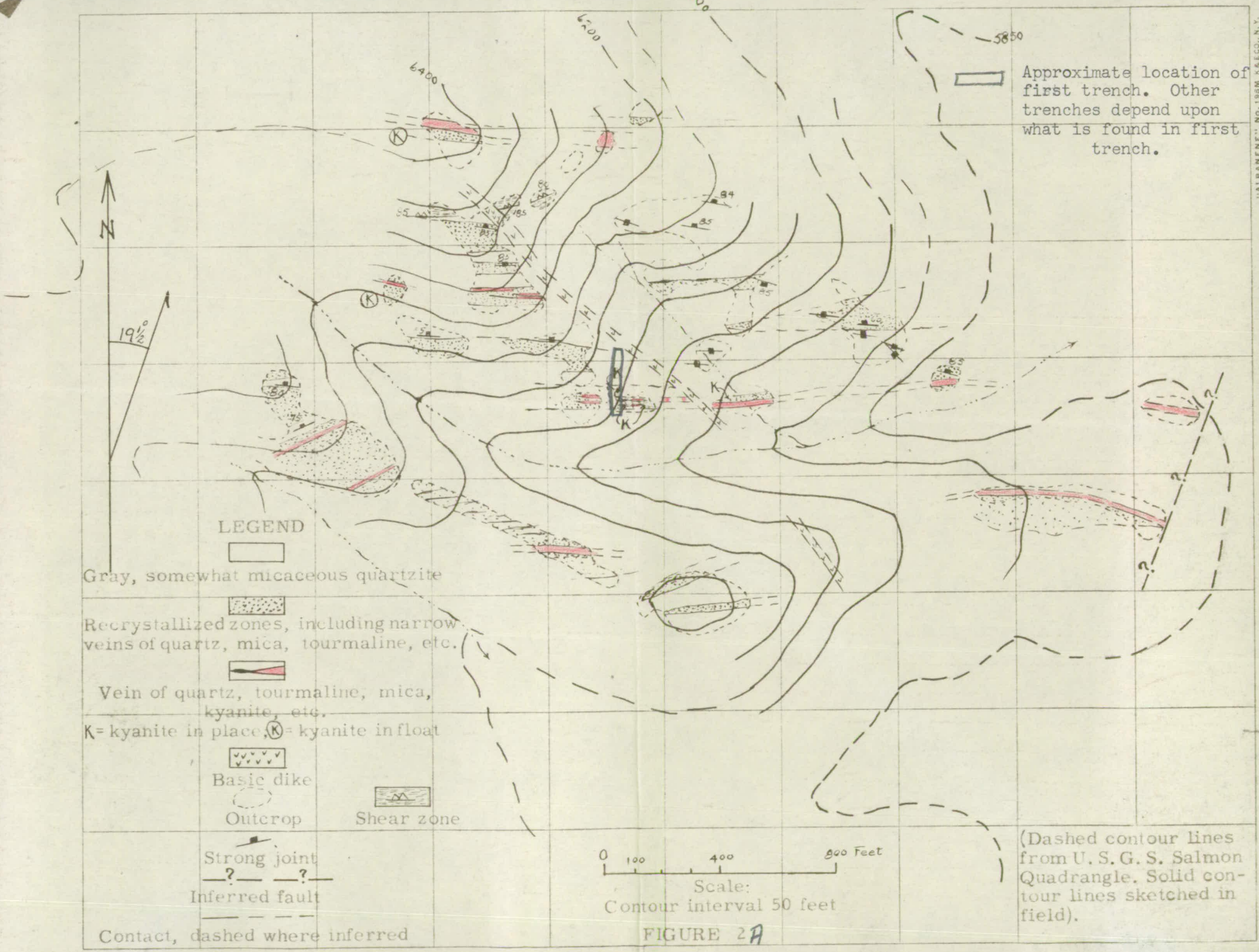

6000
6200
6400
5850
N
19½°
Approximate location of first trench. Other trenches depend upon what is found in first trench.
LEGEND
Gray, somewhat micaceous quartzite
Recrystallized zones, including narrow veins of quartz, mica, tourmaline, etc.
Vein of quartz, tourmaline, mica, kyanite, etc.
K= kyanite in place, (K)= kyanite in float
Basic dike
Outcrop
Shear zone
Strong joint
Inferred fault
Contact, dashed where inferred
0 100 400 800 Feet
Scale:
Contour interval 50 feet
(Dashed contour lines from U. S. G. S. Salmon Quadrangle. Solid contour lines sketched in field).

FIGURE 2A

IN REPLY REFER TO:

G-MD-GHE

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

May 28, 1952

Memorandum

To: L. G. Houk, DMEA, through J. J. Norton, USGS.

From: G. H. Espenshade, USGS.

Subject: DMEA docket 2526: Application for exploration contract for Sparkplug Kyanite prospect, Salmon, Idaho.

I think that some sampling and testing of the kyanite from the Sparkplug deposits should be done before considering the exploratory trenching recommended by J. S. Vhay in his memorandum of April 10, 1952, and by the Region II field team in its memo of May 8, 1952.

From the geologic description of these deposits, I suspect that the kyanite would not meet the chemical and physical specifications for strategic kyanite. However, I recommend that representative samples of a few pounds of the material be taken and sent to the Electrotechnical Laboratories of the Bureau of Mines, Norris, Tennessee for examination and testing. Some estimate of kyanite content in present vein exposure should be made, if possible. It is more appropriate to make these tests now than after spending more money for exploration. If the kyanite is not of strategic grade, then the deposits are of little interest since they seem to be small and have a low kyanite content. The mineral kyanite is not a scarce mineral; it occurs in large amounts at different places in the country, and is currently being produced from large deposits in Virginia and South Carolina, but these concentrates do not fully meet the exacting specifications for strategic kyanite. Small deposits of kyanite aren't worthwhile unless the kyanite is of strategic quality.

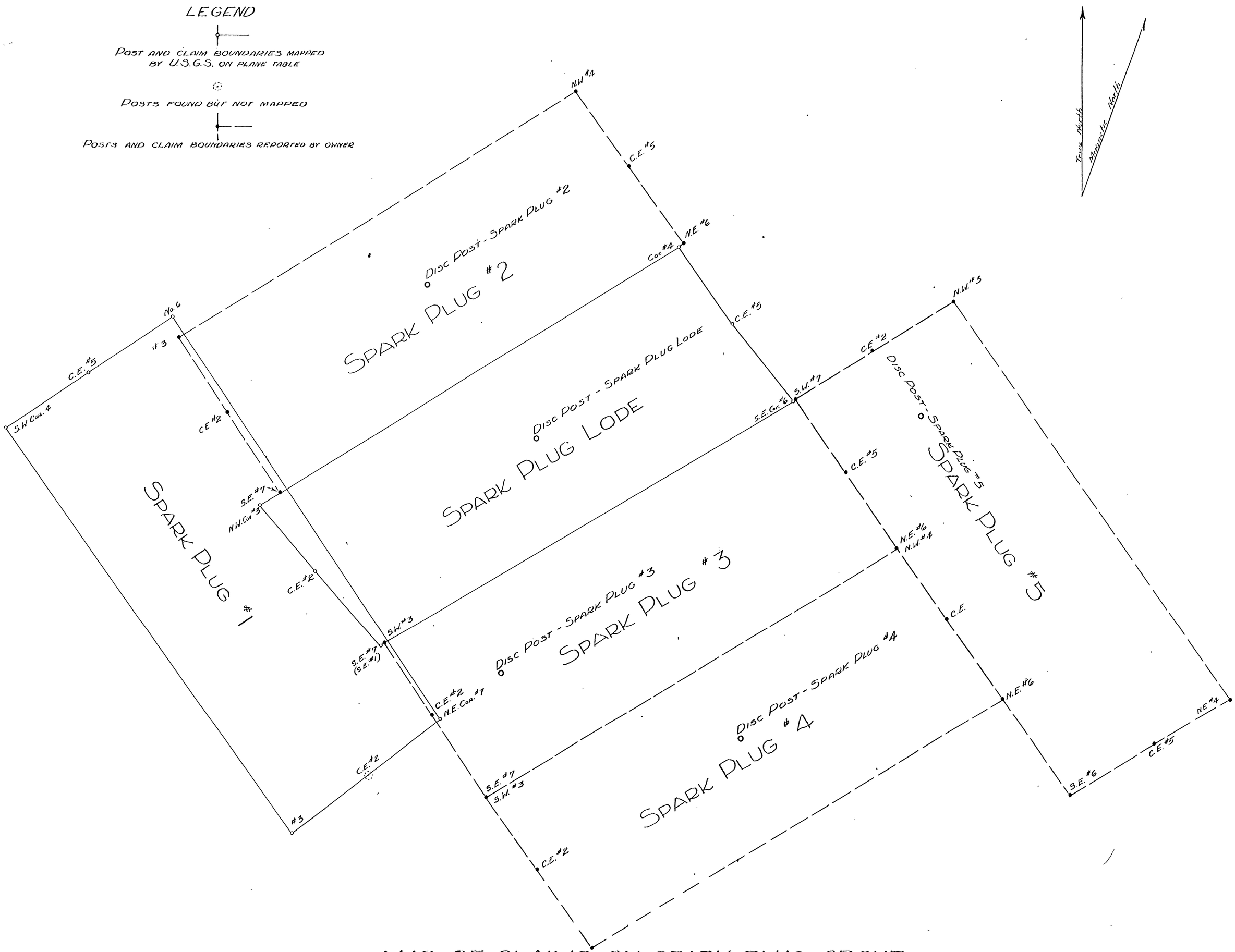
Gilbert H. Espenshade

Gilbert H. Espenshade

GEOLOGICAL SURVEY

OFFICIAL BUSINESS

CHAIRMAN
OPERATING COMMITTEE
DEFENSE MINERALS EXPLORATION ADMINISTRATION
DEPARTMENT OF THE INTERIOR
WASHINGTON 25, D. C.



MAP OF CLAIMS ON SPARK PLUG GROUP