10/31/55 gl

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

No. 157 Howard Street
Spokane 4, Washington

RECEIVED
OCT 31 1955

October 26, 1955

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

Re: Docket No. DMEA-1970
(uranium-thorium)
C. E. S. Ballard, et al.
A. B. C. No. 1 Property
Jefferson County, Montana

Dear Mr. Selfridge:

Enclosed is a memorandum by Donald C. Alvord, Geological Survey, discussing the application by the A. B. C. partnership.

As we had anticipated, the pegmatite in question does not appear to be a suitable target for exploration.

We recommend that the application be denied.

By Field Team, Region I, Mn Dist.

A. H. Weissenborn, Mine. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure

cc: DMEA (2)
AMC (2)
Alvord

11-4-55

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

RECEIVED
OCT 31 1955

October 26, 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: Donald C. Alvord, Geologist, U. S. Geological Survey

Subject: Field Examination Report, Docket No. DMEA-3970 (uranium-thorium), C. E. S. Ballard, et al., A. B. C. No. 1 Property, Jefferson County, Montana

Introduction

I examined the property on the afternoon of October 5, 1955. Mr. C. E. S. (Pete) Ballard and Mr. Harold Craig assisted by mucking out portions of the trenches during the later part of the afternoon.

Recommendation

I recommend that the application be denied.

Applicant

A partnership comprising:

C. E. S. Ballard, 1125 Fifth Avenue
Helena, Montana

Gilbert Adams, Townsend, Montana

Harold Craig, 1025 Eighth Avenue
Helena, Montana

DMEA [illegible]
11-4-55
(2000)

Location

The A. B. C. No. 1 property is near the western edge of the NE¼ of sec. 26, T. 9 N., R. 3 W., Montana City unorganized mining district, Jefferson County, Montana. It is about 8.4 miles southeast of Helena along U. S. Highway 91, thence 1,000 feet east of the highway by truck trail.

Property

The partnership owns the A. B. C. No. 1 claim which is an unpatented quartz lode claim recorded in book 48 on page 382 of the

Jefferson County records.

The workings are on a moderately steep west-facing slope at an altitude of about 4,200 feet. The winters in the area are severe and although a road to the property could probably be kept open year round, open pit operation would be impossible from December through March in an average year.

Workings

The workings on the property consist of an access road (navigable by 4-wheel drive vehicles only), approximately 300 feet of dozer scraping and shallow trenching in the vicinity of the pegmatite, and a hand-dug pit 3 feet deep and 5 feet in diameter (see figure).

Geology

The geology of the area in the vicinity of the A. B. C. No. 1 claim is described by J. T. Pardee and F. C. Schrader in "Metalliferous Deposits of the Greater Helena Mining Region, Montana", U. S. Geological Survey Bulletin 842, 1933.

The property is near the northern limits of the Boulder batholith and the country rock is mostly mafic-rich quartz monzonite which grades locally to granodiorite. The most prominent set of joints strikes north to northeast and dips steeply to the northwest. Some of the northwest-trending joints transect both the country rock and the pegmatite. A minor but geomorphically important set of joints strikes northwest and dips steeply either to the north or south. The quartz monzonite is medium grained and rich in mafics, particularly biotite. Near the pegmatite a fine-grained mafic-poor facies intergrades with the normal quartz monzonite. The fine-grained facies locally feathers into the pegmatite, especially at the west end.

A number of steeply-dipping northwest-trending dikes ranging from 3 inches to 3 feet in thickness and up to several hundred feet in length occur in the area. These are mostly alaskitic in composition, and range from aplite to pegmatite in texture. The pegmatite under consideration is more than likely a coarse-grained facies of such an alaskite dike (see figure).

The radioactive material occurs in a northeast-trending pegmatite having an exposed length of 60 feet and a maximum width of 18 feet. This pegmatite consists of three zones of which two were mapped (see figure). A border zone of fine-grained graphic granite, from 1 to 4 inches wide, is present. Its only mafic mineral is sparse, 1/2 to 1 inch in diameter, crystals of biotite that have no noticeable orientation. This border zone was not mapped because of its slight width. The wall zone consists of a 1- to 3-foot wide, medium-grained (crystals 1 to 3 inches in diameter) intergrowth of perthite, quartz, and plagioclase with minor amounts of biotite. The intermediate zone and core(?) consists mostly of coarse-grained

(crystals 2 to 10 inches in diameter) quartz and perthite with minor biotite. The biotite throughout the pegmatite is strongly altered and verges on being vermiculite. Whereas, the quartz in the wall zone is either of the milky or smoky variety, most of the quartz in the intermediate zone is rose colored, particularly in the centralmost part or core(?).

Vein-like masses of black tourmaline, 1 to 8 inches in maximum dimension and made up mostly of slender prisms aggregated in parallel to divergent and radiate arrangements, occur spotily in the wall zone and near the contact between the wall and intermediate zones. These masses usually appear concordant to minor fracture systems in milky to smoky quartz, with occasional acicular penetrations into the quartz walls.

Radioactivity

Scintillator scanning disclosed seven radioactive spots all occurring in the presence of tourmaline veinlets. Not all tourmaline occurrences are radioactive, however. No specific radioactive mineral was detected and to all appearances the radioactivity came from the tourmaline only. Gouge samples representing about 1-foot wide zones were taken from the three most radioactive spots, but because one sample turned out nonradioactive upon examination in the office, only two were assayed. These samples were taken within 5 feet of each other. One assayed 0.03 uranium and 0.60 thorium (assays reported as metallic uranium and thorium); the other, 0.021 uranium and 0.87 thorium. The samples assayed consisted of about 50 percent quartz, 30 percent perthite and 20 percent tourmaline, plus a possible unobserved radioactive mineral.

Applicant's Proposal

The applicant's proposal is specific only to the extent of the statement: " * * * we wish to dig an inclined tunnel into the vein and if it proves to be good, to sink other shafts or tunnels to determine the amount of ore."

Evaluation of Applicant's Proposal

If the A. B. C. No. 1 pegmatite contained sufficient indicated or potential reserves of ore grade, the applicant's proposal, general as it is, would serve as a basis upon which we could build up a DMEA project. However, since those radioactive occurrences observed are too spotily distributed for mining, and even when selectively sampled are not ore grade, there is essentially no chance that this pegmatite will ever become an economic producer of uranium- or thorium-bearing ore. Total production to date consists of about one bushel of samples ranging in radioactivity from .015 milliroentgens (background) to an occasional high of 3.0 milliroentgens. Furthermore, on a basis of the present knowledge of pegmatites in the area, it is

unlikely that the pegmatite constitutes a mass large enough for economic development even if a minable zone were delineated.

Attachment

Distribution:
DMEA (4)
USBM (2)
USGS (SRO)
AEC (2)
Docket
Alvord

Crawford

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

RECEIVED
SEP - 3 1955

August 31, 1955

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

Re: Application for DMEA Assistance
A. B. C. Partnership
Jefferson County, Montana

Dear Mr. Selfridge:

Enclosed are three copies of an application submitted by C. E. S. Ballard for the A. B. C. Partnership.

The application does not present any evidence indicating that this pegmatite contains any more thorium and uranium than other pegmatites. We will not schedule an examination unless requested to do so.

Sincerely yours,

Verne C. Fryklund, Jr.
for A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: USBM (2)

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
SEP - 6 1955

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA 3970
Metal or Mineral Uranium-Thorium
Date Received 9-6-55
Estimated Cost None
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: A Partnership
Gilbert Adams Townsend, Montana
C. E. S. Ballard, 1125-5th. Ave., Helena, Montana
Harold Craig, 1025-8th. Ave., Helena, Montana

(*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 A claim 600 ft. wide and 1500 ft. long in section 26, Township 9 North, Range 3 West in an unorginized mineing district in Jefferson County, Montana. Claim No.73035, Book 48, Page 382. We have Notices of Location on 2 claims of like size to the North and South of above claim.

(*b*) State any mine name by which the property is known. A. B. C. No.1

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Recorded Certificate of Location. Claim No. 73035, Book 48, Page 382

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

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

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

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

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

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

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

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

16—66551-1

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AUG 25 1955
U. S. G. S.
SPOKANE, WASH.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium, Thorium, Quartz Crystals and other rare earth minerals.

(*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 30 days and be completed within don't know 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 August 18, 1955

A. B. C. Partnership
(Applicant)

By E. E. S. Ballard

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

A. B. C. Partnership, C. E. S. Ballard, 1126-5th. Ave.
Helena, Montana

4. (a) We discovered what we thought could be pitch blend at the surface. The deeper we got the heavier, blacker and harder it seemed to get. We sent a sample of it and a sample of two other kinds of rock associated with it to be assayed. (assay inclosed). We beleive if
(b) we go deeper we will find uranium. The thorium is in a vein of tourmaline about two feet wide and has been forced up under great pressure. The thorium is in pockets and is always against a quartz that is clear as glass and harder than any we have seen before. We
(c) are sending a sample of the quartz to you hopeing it will prove to be of commercial value. On one side of the vein is white quartz and granite on the other. We worked a D7 dozer for one day trying to get down on either side but it was too hard. We took of from two to six feet on top and got down about twelve feet on one side but are at least eight feet to one side of the vein.
(d) The claim is about 700 feet from oiled highway. A road is dozed to the diggins. Is about 9 miles from a railroad station and 9 miles from Helena, Montana.
(e) This is a mineing community. Manpower, materials, supplies and equipment are plentiful. There is water within 900 feet of the diggins. Power would have to be other than electrical.

5. (a) We wish to dig an inclined tunnel into the vein and if it proves to be good, to sink other shafts or tunnels to determan the amount of ore.
(d) We plan to do our own work. One partner, Mr. Adams, has had about 15 years mineing experiance and will supervise operations and also labor.

6. (a) None.
(b) $100.00 per week for Mr. Adams who will work all week. The other two partners will work 3 days per week each. Cost for consultants unknown.
(c) We have the necessary hand tools. Will haul water to be used in water liner. The compressor we have in mind will use about $8.00 worth of fuel in 8 hours.
(d) Compressor, rent per month $100.00, Purchase price $5040.00
100 feet of air hose " " " 10.00, " " 58.10
Stopper machine rent per month 70.25 " " 605.00
Blasting " " " " 6.00 " " 59.35
Galvanometer " " " 4.00 " " 22.50

Drill steel 2feet long $3.00
Drill steel 4 feet long 6.00
Drill steel 6 feet long 9.20
Blasting power, ton lots.23.70 S.V.E.
Blasting caps, electric 24.25 per 100
(e) None
(g) Federal income tax per week $2.30
State income tax per week .40
Social Security tax per week 2.00
Federal Unemployment tax per week 3.00
Industrail accident insurance 3.00 per $ 100.00 pay roll

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SEP - 6 1955

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AUG 25 1955
U. S. G. S.
SPOKANE, WASH.

C. E. S. Ballard

A. B. C. Partnership, C. E. S. Ballard, 1125-5th. Ave.
Helena, Montana

6. (h) There is none that I can think of.
7. (a) We will furnish all we can. I don't know if it will be just what is called for in Sec. 7, DMEA No. 1.
(b) We will furnish a mine car and track that is valued at $ 850 new, all the necessary hand tools, a four wheel drive Jeep to do the hauling of supplys and to pull the mine car and two ~~men~~ men for two days a week and keep the books and records. We will also furnish ~~[illegible]~~ material and labor to build a compressor house and anyother buildings necessary.

C. E. S. Ballard

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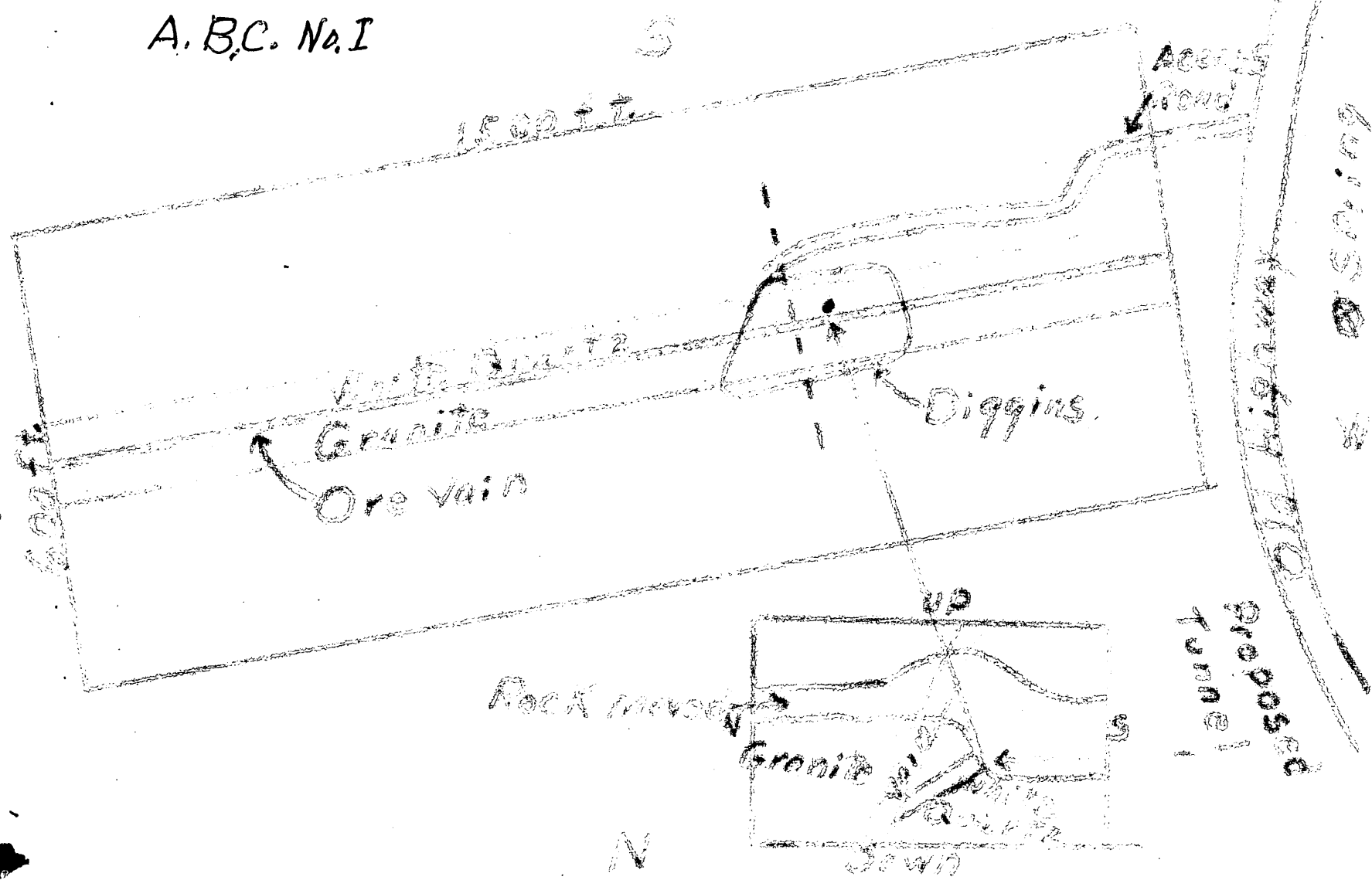
AUG 25 1955
U. S. G. S.
SPOKANE, WASH.

A. B.C. No. I


Access road
Diggins
Granite
Ore vain
up
Rock
N
S
Granite
down
Proposed tunnel

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

1600 East 1st South
Salt Lake City 1, Utah

5/23/55

Everett Ballard
1135 Fifth Ave.
Helena, Montana

Please return

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SEP - 6 1955

RADIOACTIVE SAMPLE REPORT

Sample Reference No. UP-4103-3

Name and Location of Property:

ABC No. 1, Sec.26, T9N, R3W, Jefferson County, Montana

Nature and Analysis of Sample:

No. 1 - A sample of an unidentified rare earth mineral containing lanthanum and thorium in a feldspar.

No. 2 - A sample of pegmatite.

No. 3 - Contains approximately 95% tourmaline and 5% quartz.

Radiometric analysis:

No. 1 1.04 ThO_2 equivalent

No. 2 0.008% U_3O_8 "

No. 3 trace " "

[illegible]

Examined by: H. C. Meeves
petrographer

Signed Harold L. Gibbs
Harold L. Gibbs
Metallurgist (General)

A. V. TRENT,
Owner-Manager

GOODALL BROTHERS

ASSAYERS AND METALLURGICAL CHEMISTS

46 SO. MAIN ST., HELENA, MONTANA

TEL. 628
P. O. BOX 537

Date JUN 2 - 1955

UMPIRE ASSAY ..... CONTROL ASSAY ..... HAND SAMPLE .....

ASSAYED FOR: Everett Ballard Calif.

MARKS:

Sample No.	DESCRIPTION	GOLD Ozs. Per Ton	SILVER Ozs. Per Ton	WET LEAD Per Cent	COPPER Per Cent	ZINC Per Cent	IRON Per Cent	INSOL. Per Cent	Li2O Per Cent	Total Value Per Ton
									6.675	

Please return
E. E. S. Ballard
1125 - 5th Ave
Helena, Mont.

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AUG 25 1955
U.S. SPODUMENE

Gold not deducted:
Charges $ 6.00 Paid

GOODALL BROS.
By A. V. Trent

NPCo. C-2419

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

RECEIVED
DEC 27 1955

December 22, 1955

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

Re: Docket No. DMEA-3970 (Uranium-Thorium)
C. E. S. Ballard, et al.
A. B. C. No. 1 Property
Jefferson County, Montana (Denied)

Dear Mr. Selfridge:

Enclosed are two copies of a letter from Ernest E. Thurlow, Atomic Energy Commission, concurring in our recommendation for a denial of the above property.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosure 1 (in dupl.)

cc: USBM (2)
Alvord

UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF RAW MATERIALS
Salt Lake Exploration Branch

	ACTION	NOTED	DATE
Verne al			

ADDRESS REPLY TO:

U. S. Atomic Energy Commission
P. O. Box 2196
Salt Lake City, Utah

AND REFER TO:

SLEB:EET:af

December 13, 1955

RECEIVED
DEC 27 1955

Mr. A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.
South 157 Howard Street
Spokane 4, Washington

Dear Al:

In reply to your letter of October 26, 1955, the A.B.C. #1 claim was recently examined by a geologist of our Butte Sub-Office.

We fully concur with the recommendation of your field team that the application be denied.

Very truly yours,

Ernest E. Thurlow, Chief
Salt Lake Exploration Branch
Division of Raw Materials

cc: Butte Sub-Office, AEC

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DEC 15 1955
U. S.
SPOKANE WASH

12-28-55 - [illegible]

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

RECEIVED
DEC 27 1955

December 22, 1955

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

Re: Docket No. DMEA-3970 (Uranium-Thorium)
C. E. S. Ballard, et al.
A. B. C. No. 1 Property
Jefferson County, Montana (Denied)

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Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosure 1 (in dupl.)

cc: USGM (2)
Alvord

	ACTION	NOTED	DATE
Verner			
al			

UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF RAW MATERIALS
Salt Lake Exploration Branch

ADDRESS REPLY TO:

U. S. Atomic Energy Commission
P. O. Box 2196
Salt Lake City, Utah

AND REFER TO:

SLEB:EET:af

December 13, 1955

RECEIVED
DEC 27 1955

Mr. A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.
South 157 Howard Street
Spokane 4, Washington

Dear Al:

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We fully concur with the recommendation of your field team that the application be denied.

Very truly yours,

Ernest E. Thurlow

Ernest E. Thurlow, Chief
Salt Lake Exploration Branch
Division of Raw Materials

cc: Butte Sub-Office, AEC

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DEC 15 1955
U.S.G.S.
SPOKANE, WASH.

Surname copy

700

Ching
Ellis
Nelson
Geehan
Selfridge
Freeman

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

Mr. C. E. S. Ballard
1125 - 5th Avenue
Helena, Montana

NOV 16 1955

Re: Docket No. DMEA-3970 (Uranium-thorium)
A. B. C. No. 1
Jefferson County, Montana

Dear Mr. Ballard:

Your application for aid in an exploration project and other information available to us in Washington concerning your above-named property have been reviewed.

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 uranium and thorium mineralization on your property, 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 that, under these circumstances, 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

Administrator

cc to: Mr. Gilbert Adams
Townsend, Montana

Mr. Harold Craig
1025 - 8th Avenue
Helena, Montana

MChing/gla
11-15-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Ching
DMEA Field Team, Region I, N.W. District (2)

R.C.S.

MF-800

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 11-15-55

REFERRED TO:

1. Operating Com., Rm. 4459
2. ~~Mr. Mittendorf~~, Rm. 4459
3. Mails & Files, Rm. 4450
4.

FOR:

---- Action	---- Recommendation
---- Approval	---- Record of ----
---- Comment	---- Referring to ----
---- Conference	---- Reply for signature of ----
---- Consideration	---- Rewriting
X Filing	---- Signature
---- Instructions	---- Suggestions
---- Investigation	X Your information
---- Initials	
---- Mailing	
---- Previous correspondence	

REMARKS:

Check (X) before the items needing attention.

Ernest Wm. Ellis
Initials of sender.

gla

GPO 16—63815-1

Ching
Ellis

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

November 15, 1955

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-3970

Commodity: Uranium-thorium

Applicant: C. E. S. Ballard, et al
1125 - 5th Avenue
Helena, Montana

Property: A. B. C. No. 1 claim, Section 26, T. 9 N., R. 3 W., Jefferson County, Montana. Applicant is the owner.

Date of application: August 18, 1955

Amount of application: Not shown

Work Proposed: Sink an incline into the vein and do other sinking and drifting if results are good.

The three partners plan to do all the work, one on full time, the others on part-time basis. Since the amount of work was not given, the total cost could not be estimated.

Field Team Report: October 26, 1955 - Donald C. Alvord, USGS.

The radioactive material occurs in a northeast-trending pegmatite having an exposed length of 60 feet and a maximum width of 18 feet. Scintillator scanning disclosed seven radioactive spots, all occurring in the presence of tourmaline veinlets. Not all tourmaline occurrences are radioactive, however. No specific radioactive mineral was detected and to all appearances the radioactivity came from the tourmaline only. Gouge samples representing about 1-foot wide zones were taken from the three most radioactive spots, but because one sample was non-radioactive upon examination in the office, only two were assayed. These samples were taken within 5 feet of each other. One assayed 0.03 percent uranium

and 0.60 percent thorium (assays report metallic uranium and thorium); the other, 0.02 percent uranium and 0.87 percent thorium.

Since the radioactive occurrences are too spottily distributed for mining and are not ore grade even when selectively sampled, there is essentially no chance that this pegmatite will ever become an economic producer of uranium or thorium ore. Denial of the application is recommended.

Commodity Group comments:

Geological Survey - N. E. Nelson - November 4, 1955.

Notes the Field Team conclusion that the pegmatite in question does not appear to be a suitable target for exploration and concurs with its recommendation of denial of the application.

Bureau of Mines - John E. Crawford - November 9, 1955.

Discussed the report of examination with the AEC representative. The report indicates that radioactivity is confined to tourmaline veinlets, and that radioactive occurrences are too sparsely distributed throughout the deposit and are too low in uranium or thorium content to be of economic significance. Concurs with the conclusions of the Field Team.

Rare and Miscellaneous Metals Division - Michael Ching - November 14, 1955.

The application was quite incomplete, but was referred to the Field Team as the most practical method of securing the required information and arriving at a decision on its merit. Only one man made the examination. However, under the circumstances, this was adequate for the scintillator scanning and sampling required to evaluate the pegmatite on the property. The results indicate that the quality and quantity of uranium and thorium mineralization in the pegmatite are not of economic proportions.

Conclusions and Recommendations:

The proposed project has very little merit. It is recommended that the application be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare & Miscellaneous Metals Division

11/10/55 gla

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

RECEIVED
NOV 10 1955

November 9, 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 3970, C. E. S. Ballard, et al., A. B. C. No. 1 Property, Jefferson County, Montana

I have reviewed the report of examination, DMEA Docket 3970, dated October 26, and received in this office on November 3. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

An examination of the property by the U. S. Geological Survey member of the field examination group indicates that radioactivity in the pegmatite is confined to tourmaline veinlets. It was concluded that the radioactive occurrences are too sparsely distributed throughout the deposit and are of too low a grade in uranium or thorium content to be of economic significance. The field examiner and field team, Region I, therefore recommend that the application for assistance be denied.

We agree with the conclusions of the Field Team, which reaffirms the results of our review of the application presented in my memorandum of September 19 to you.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached.

John E Crawford
John E. Crawford

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

November 9, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

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John E. Crawford

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

November 9, 1955

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Uranium Commodity Committee, Room 4445

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We agree with the conclusions of the Field Team, which reaffirms the results of our review of the application presented in my memorandum of September 19 to you.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached.

John E. Crawford

11/7/55 ejw

IN REPLY REFER TO:

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

RECEIVED
NOV 4 1955

November 4, 1955

Re: DMEA 3970
A.B.C. Partnership
A.B.C. No. 1 prospect
Jefferson Co., Montana
Uranium - Thorium

Memorandum

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

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report.

The application with no definite program outlined requested assistance in exploring a pegmatite from which specimens of black radioactive material had been taken and submitted to the field office. An examination was recommended in case the samples justified same.

The examiner found that the radioactive material came from narrow 1-foot wide gouge zones and two samples chemically analyzed returned:--

Sample No.	Uranium (Metallic)	Thorium (Metallic)
1	0.03 %	0.60%
2	0.021%	0.87%

The samples consisted of about 50% quartz, 30% perthite and 20% tourmaline. All material showing radioactivity was tourmaline-bearing, but the reverse was not the case.

The examiner concludes that, " . . . it is unlikely that the pegmatite constitutes a mass large enough for economic development even if a minable zone were delineated."

The Field Team concludes that, " . . . the pegmatite in question does not appear to be a suitable target for exploration" and recommends denial of the application.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

RECEIVED
NOV - 4 1955

November 4, 1955

Re: DMEA 3970
A.B.C. Partnership
A.B.C. No. 1 prospect
Jefferson Co., Montana
Uranium - Thorium

Memorandum

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From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report.

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The examiner concludes that, " . . . it is unlikely that the pegmatite constitutes a mass large enough for economic development even if a minable zone were delineated."

The Field Team concludes that, " . . . the pegmatite in question does not appear to be a suitable target for exploration" and recommends denial of the application.

I concur with the recommendation.

NENelson:iml
G-11/4/55
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
J. E. Crawford, 3641; J. O. Hosted, 3210

N. E. Nelson

N. E. Nelson

11/1/55 - glx

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
No. 157 Howard Street
Spokane 4, Washington

RECEIVED
OCT 31 1955

October 26, 1955

Mr. Ernest E. Thurlow
U. S. Atomic Energy Commission
P. O. Box 2196
Salt Lake City, Utah

Re: Docket No. DMEA-3970
(uranium-thorium)
C. E. S. Ballard, et al.
A. B. C. No. 1 Property
Jefferson County, Montana

Dear Ernie:

Enclosed is a copy of an application received from Mr. C. E. S. Ballard on the A. B. C. No. 1 claim in Jefferson County, Montana. Enclosed also are two copies of an examination report recommending denial of the application. Even though we have gone ahead and made our recommendations to Washington, we would appreciate receiving any comments you may have about this property.

Sincerely,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosure

cc: DMEA (2)

USBM (2)
Alvord

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

No. 157 Howard Street
Spokane 4, Washington

RECEIVED
OCT 31 1955

October 26, 1955

Mr. Ernest E. Thurlow
U. S. Atomic Energy Commission
P. O. Box 2196
Salt Lake City, Utah

Re: Docket No. DMEA-3970
(uranium-thorium)
C. E. S. Ballard, et al.
A. B. C. No. 1 Property
Jefferson County, Montana

Dear Ernie:

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Sincerely,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosure

cc: DMEA (2)

DMEM (2)
Alvord

11/7/55 [illegible]

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

RECEIVED
OCT 31 1955

October 26, 1955

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

Re: Docket No. DMEA-3970
(uranium-thorium)
C. E. S. Ballard, et al.
A. B. C. No. 1 Property
Jefferson County, Montana

Dear Mr. Selfridge:

Enclosed is a memorandum by Donald C. Alvord, Geological Survey, discussing the application by the A. B. C. partnership.

As we had anticipated, the pegmatite in question does not appear to be a suitable target for exploration.

We recommend that the application be denied.

By Field Team, Region I, NW Dist.

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

Thomas E Howard
for: Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure

cc: USBM (2)
AEC (2)
Alvord

Received by
DMEA Central [illegible]
11-4-55
(Date)

D.M.E.A.

RECEIVED
OCT 31 1955

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

October 26, 1955

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: Donald C. Alvord, Geologist, U. S. Geological Survey

Subject: Field Examination Report, Docket No. DMEA-3970 (uranium-thorium), C. E. S. Ballard, et al., A. B. C. No. 1 Property, Jefferson County, Montana

Introduction

I examined the property on the afternoon of October 5, 1955. Mr. C. E. S. (Pete) Ballard and Mr. Harold Craig assisted by mucking out portions of the trenches during the later part of the afternoon.

Recommendation

I recommend that the application be denied.

Applicant

A partnership comprising:

C. E. S. Ballard, 1125 Fifth Avenue
Helena, Montana

Gilbert Adams, Townsend, Montana

Harold Craig, 1025 Eighth Avenue
Helena, Montana

Reviewed by
DMEA OPERATING COMMITTEE
11-4-55
(date)

Location

The A. B. C. No. 1 property is near the western edge of the NE¼ of sec. 26, T. 9 N., R. 3 W., Montana City unorganized mining district, Jefferson County, Montana. It is about 8.4 miles southeast of Helena along U. S. Highway 91, thence 1,000 feet east of the highway by truck trail.

Property

The partnership owns the A. B. C. No. 1 claim which is an unpatented quartz lode claim recorded in book 48 on page 382 of the

Jefferson County records.

The workings are on a moderately steep west-facing slope at an altitude of about 4,200 feet. The winters in the area are severe and although a road to the property could probably be kept open year round, open pit operation would be impossible from December through March in an average year.

Workings

The workings on the property consist of an access road (navigable by 4-wheel drive vehicles only), approximately 300 feet of dozer scraping and shallow trenching in the vicinity of the pegmatite, and a hand-dug pit 3 feet deep and 5 feet in diameter (see figure).

Geology

The geology of the area in the vicinity of the A. B. C. No. 1 claim is described by J. T. Pardee and F. C. Schrader in "Metalliferous Deposits of the Greater Helena Mining Region, Montana", U. S. Geological Survey Bulletin 842, 1933.

The property is near the northern limits of the Boulder batholith and the country rock is mostly mafic-rich quartz monzonite which grades locally to granodiorite. The most prominent set of joints strikes north to northeast and dips steeply to the northwest. Some of the northwest-trending joints transect both the country rock and the pegmatite. A minor but geomorphically important set of joints strikes northwest and dips steeply either to the north or south. The quartz monzonite is medium grained and rich in mafics, particularly biotite. Near the pegmatite a fine-grained mafic-poor facies intergrades with the normal quartz monzonite. The fine-grained facies locally feathers into the pegmatite, especially at the west end.

A number of steeply-dipping northwest-trending dikes ranging from 3 inches to 3 feet in thickness and up to several hundred feet in length occur in the area. These are mostly alaskitic in composition, and range from aplite to pegmatite in texture. The pegmatite under consideration is more than likely a coarse-grained facies of such an alaskite dike (see figure).

The radioactive material occurs in a northeast-trending pegmatite having an exposed length of 60 feet and a maximum width of 18 feet. This pegmatite consists of three zones of which two were mapped (see figure). A border zone of fine-grained graphic granite, from 1 to 4 inches wide, is present. Its only mafic mineral is sparse, 1/2 to 1 inch in diameter, crystals of biotite that have no noticeable orientation. This border zone was not mapped because of its slight width. The wall zone consists of a 1- to 3-foot wide, medium-grained (crystals 1 to 3 inches in diameter) intergrowth of perthite, quartz, and plagioclase with minor amounts of biotite. The intermediate zone and core(?) consists mostly of coarse-grained

(crystals 2 to 10 inches in diameter) quartz and perthite with minor biotite. The biotite throughout the pegmatite is strongly altered and verges on being vermiculite. Whereas, the quartz in the wall zone is either of the milky or smoky variety, most of the quartz in the intermediate zone is rose colored, particularly in the centralmost part or core(?).

Vein-like masses of black tourmaline, 1 to 8 inches in maximum dimension and made up mostly of slender prisms aggregated in parallel to divergent and radiate arrangements, occur spotily in the wall zone and near the contact between the wall and intermediate zones. These masses usually appear concordant to minor fracture systems in milky to smoky quartz, with occasional acicular penetrations into the quartz walls.

Radioactivity

Scintillator scanning disclosed seven radioactive spots all occurring in the presence of tourmaline veinlets. Not all tourmaline occurrences are radioactive, however. No specific radioactive mineral was detected and to all appearances the radioactivity came from the tourmaline only. Gouge samples representing about 1-foot wide zones were taken from the three most radioactive spots, but because one sample turned out nonradioactive upon examination in the office, only two were assayed. These samples were taken within 5 feet of each other. One assayed 0.03 uranium and 0.60 thorium (assays reported as metallic uranium and thorium); the other, 0.021 uranium and 0.87 thorium. The samples assayed consisted of about 50 percent quartz, 30 percent perthite and 20 percent tourmaline, plus a possible unobserved radioactive mineral.

Applicant's Proposal

The applicant's proposal is specific only to the extent of the statement: " * * * we wish to dig an inclined tunnel into the vein and if it proves to be good, to sink other shafts or tunnels to determine the amount of ore."

Evaluation of Applicant's Proposal

If the A. B. C. No. 1 pegmatite contained sufficient indicated or potential reserves of ore grade, the applicant's proposal, general as it is, would serve as a basis upon which we could build up a DMEA project. However, since those radioactive occurrences observed are too spotily distributed for mining, and even when selectively sampled are not ore grade, there is essentially no chance that this pegmatite will ever become an economic producer of uranium- or thorium-bearing ore. Total production to date consists of about one bushel of samples ranging in radioactivity from .015 millircentgens (background) to an occasional high of 3.0 millircentgens. Furthermore, on a basis of the present knowledge of pegmatites in the area, it is

unlikely that the pegmatite constitutes a mass large enough for economic development even if a minable zone were delineated.

Attachment

Distribution:
DMEA (4)
USBM (2)
USGS (SRO)
AEC (2)
Docket
Alvord

Surname 700

Murphy
Ellis
Nelson
Selfridge
Lukon

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

SEP 23 1955

Mr. C. E. S. Ballard
1125 - 5th Avenue
Helena, Montana

Re: Docket No. DMEA-3970 (Uranium-thorium)
C. E. S. Ballard, et al.
A. B. C. No. 1
Jefferson County, Montana

Dear Mr. Ballard:

The application for assistance in exploring the subject property in Jefferson County, Montana, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to the Executive Officer of Region 1, Northwest District, at the following address:

Mr. A. E. Weissenborn
Executive Officer, Northwest District
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

Frank E. Johnson

ACTING Administrator

MChing:FMurphy:am
9-22-55 - 9-23-55

cc to: Admr. Reading File
Docket
Messrs. JECrawford, Rm.3641
THKiilsgaard, Rm.5222
JOHosted, Rm.3210, GSA
Code 700
Mr. Ching
DMEA Field Team, Region I, NW Dist(2)

R.C.B.

Surname 700
Murphy
Ellis
Selfridge
R. G. Ramon

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

SEP 23 1955

Mr. A. E. Weissenborn
Executive Officer, Northwest District
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-3970 (Uranium-thorium)
C. E. S. Ballard, et al.
A. L. C. No. 1
Jefferson County, Montana

Dear Mr. Weissenborn:

The captioned application is referred to Region I Field Team for investigation, a field examination if deemed necessary, and recommendation. A copy of the application was retained by your office.

Enclosed are copies of memoranda from N. E. Nelson, dated September 8, and J. E. Crawford, September 19, 1955, members of the Uranium Commodity Committee.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures

APPROVED:

/s/ Robert W. Geehan

Member, Bureau of Mines

N. E. Nelson

Member, Geological Survey

MChing:FMurphy:am
9-22-55 - 9-23-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5222
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching

R.G.R.

9/20/55 gla

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

RECEIVED
SEP 20 1955

September 19, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

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

Subject: Application for assistance, DMEA Docket 3970, A. B. C. Partnership, Jefferson County, Montana

I have reviewed the attached application, A. B. C. Partnership, DMEA Docket 3970; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The applicant has applied for DMEA assistance in exploring for uranium on a claim 600 feet wide and 1,500 feet long in an unorganized mining district in Jefferson County, Montana, by digging an inclined tunnel into the vein and sinking shafts in mineralized zone to block out the ore. No amount was given for estimated cost.

A letter from A. E. Weissenborn, Executive Officer, DMEA, Region I, states that the application does not present any evidence indicating that this pegmatite contains any more thorium and uranium than other pegmatites. A review of the application corroborates this statement.

We recommend that the application be denied.

John E. Crawford
John E. Crawford

Attachment

9/9/55 gla

IN REPLY REFER TO:

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

RECEIVED
SEP - 9 1955

September 8, 1955

Re: DMEA 3970
Gilbert Adams for
A.B.C. Partnership
Jefferson Co., Mont.
Uranium-Thorium

Memorandum

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

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Application.

The applicants propose sinking an incline on a vein containing black material which may be uranium. Samples have been submitted to the regional office (Spokane), but no report as to the contents has been made.

Referral to the Field Team is indicated and recommended. If the black material is a uranium mineral an examination may be warranted.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

September 8, 1955

Re: DMEA 3970
Gilbert Adams for
A.B.C. Partnership
Jefferson Co., Mont.
Uranium-Thorium

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N. E. Nelson

N. E. Nelson

NENelson:iml
~~EXX~~
G-9/8/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Hosted, 321.0

September 8, 1955

Mr. C. E. S. Ballard
1125 5th Avenue
Helena, Montana

Subject: DMEA 3970
Re: Exploration Assistance
A. B. C. #1

Dear Mr. Ballard:

The receipt of your application dated August 18, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3970 and referred to the Rare & Miscellaneous Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

60932

September 8, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region I N. W. District.

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 I N. W. District.

DMEA - 3970 Gilbert Adams,
C. E. S. Ballard
Harold Craig

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
SEP 6 1955

August 31, 1955

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

Re: Application for DMEA Assistance
A. B. C. Partnership
Jefferson County, Montana

Dear Mr. Selfridge:

Enclosed are three copies of an application submitted by C. E. S. Ballard for the A. B. C. Partnership.

The application does not present any evidence indicating that this pegmatite contains any more thorium and uranium than other pegmatites. We will not schedule an examination unless requested to do so.

Sincerely yours,

Verne C. Fryklund Jr.

Verne C. Fryklund, Jr.
for A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: USBM (2)

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
SEP - 6 1955

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA 3970
Metal or Mineral Uranium-Thorium
Date Received 9-6-55
Estimated Cost None
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: A Partnership
Gilbert Adams Townsend, Montana
C. E. S. Ballard, 1125-5th. Ave., Helena, Montana
Harold Craig, 1025-8th. Ave., Helena, Montana

(*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 A claim 600 ft. wide and 1500 ft. long in section 26, Township 9 North, Range 3 West in an unorginized mineing district in Jefferson County, Montana. Claim No.73035, Book 48, Page 382. We have Notices of Location on 2 claims of like size to the North and South of above claim.

(*b*) State any mine name by which the property is known. A. B. C. No.1

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Recorded Certificate of Location. Claim No. 73035, Book 48, Page 382

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

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

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

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

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

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

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

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

16—66551-1

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5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium, Thorium, Quartz Crystals and other rare earth minerals.

(*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 30 days and be completed within don't know 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 [X] Use of equipment owned by you [X] 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 August 18, 1955

A. B. C. Partnership
(Applicant)

By C. E. S. Ballard

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

A. B. C. Partnership, C. E. S. Balaard, 1125-5th. Ave.
Helena, Montana

4. (a) We discovered what we thought could be pitch blend at the surface. The deeper we got the heavier, blacker and harder it seemed to get. We sent a sample of it and a sample of two other kinds of rock associated with it to be assayed. (assay inclosed). We beleive if
(b) we go deeper we will find uranium. The thorium is in a vain of tournoline about two feet wide and has been forced up under great presure. The thorium is in pockets and is always aginst a quartz that is clear as glass and harder than any we have seen before. We
(c) are sending a sample of the quartz to you hopeing it will prove to be of commercial value. On one side of the vain is white quartz and granite on the other. We worked a D7 dozer for one day trying to get down on either side but it was too hard. We took of from two to six feet on top and got down about twelve feet on one side but are at least eight feet to one side of the vain.
(d) The claim is about 700mfeet from oiled highway. A road is dozed to the diggins. Is about 3 miles from a railroad station and 9 miles from Helena, Montana.
(e) This is a mineing community. Manpower, materials, supplies and equipment are plentiful. There is water within 500 feet of the diggins. Power would have to be other than electrical.

5. (a) We wish to dig an inclined tunnel into the vain and if it proves to be good, to sink other shafts or tunnels to determan the amount of ore.
(d) We plan to do our own work. One partner, Mr. Adams, has had about 15 years mineing experiance and will supervise operations and also labor.

6. (a) None.
(b) $100.00 per week for Mr. Adams who will work all week. The other two partners will work 2 days per week each. Cost for consultants unknown.
(c) We have the nessessary hand tools. Will haul water to be used in water liner. The compressor we have in mind will use about $8.00 worth of fuel in 8 hours.
(d)

Compressor, rent per month	$188.00,	Purchase price	$3845.00
100 feet of air hose " " "	16.80,	" "	58.10
Stopper machine rent per month	78.25	" "	665.00
Blasting " " " "	6.00	" "	59.55
Galvanometer " " "	4.00	" "	22.50

Drill steel 2feet long	$5.00
Drill steel 4 feet long	6.00
Drill steel 6 feet long	8.20
Blasting power, ton lots,	23.70 C.W.T.
Blasting caps, electric	24.25 per 100

(e) None
(g)

Federal income tax per week	$2.30
State income tax per week	.40
Social Security tax per week	2.00
Federal Unemployment tax per week	3.00
Industrail accident insurance	8.00 per $ 100000 pay roll

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C. E. S. Ballard

A. B. C. Partnership, C. E. S. Ballard, 1125-5th. Ave.
Helena, Montana

6. (h) There is none that I can think of.
7. (a) We will furnish all we can. I don't know if it will be just what is called for in Sec. 7, DMEA No. 1.
(b) We will furnish a mine car and track that is valued at $ 350 new, all the nessessary hand tools, a four wheel drive Jeep to do the hauling of supplys and to pull the mine car and two ### men for two days a week and keep the books and records. We will also furnish ####### meterial and labor to build a compressor house and anyother buildings nessessary.

C. E. S. Ballard

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U. S. G. S.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

1600 East 1st South
Salt Lake City 1, Utah

5/25/55

Everett Ballard
1125 Fifth Ave.
Helena, Montana

Please return

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RADIOACTIVE SAMPLE REPORT

Sample Reference No. UT-4183-3

Name and Location of Property:

ABC No. 1, Sec. 26, T9N, R3W, Jefferson County, Montana

Nature and Analysis of Sample:

No. 1 - A sample of an unidentified rare earth mineral containing lanthanum and thorium in a feldspar.

No. 2 - A sample of pegmatite.

No. 3 - Contains approximately 95 tourmaline and 5 quartz.

Radiometric analysis:

No. 1 1.34 ThO_2 equivalent

No. 2 0.008 U_3O_8 "

No. 3 [illegible] " "

[illegible] the Federal Bureau of Mines, your [illegible] Region [illegible]. That region is specifically [illegible] your district, and you should submit [illegible] of Mineral Technology, U. S. Bureau [illegible]

Examined by: H. C. Meeves
petrographer

Signed Harold L. Gibbs

Harold L. Gibbs
Metallurgist (General)

A. V. TRENT,
Owner-Manager

GOODALL BROTHERS

ASSAYERS AND METALLURGICAL CHEMISTS

46 SO. MAIN ST., HELENA, MONTANA

TEL. 628
P. O. BOX 537

Date JUN 2 - 1955

UMPIRE ASSAY ____ CONTROL ASSAY ____ HAND SAMPLE ____

ASSAYED FOR: [illegible] Calif.

MARKS:

Sample No.	DESCRIPTION	GOLD Ozs. Per Ton	SILVER Ozs. Per Ton	WET LEAD Per Cent	COPPER Per Cent	ZINC Per Cent	IRON Per Cent	INSOL. Per Cent	[illegible] Per Cent	Total Value Per Ton
									[illegible]	
406	Please return C.E.S. Bullard 1125-5th Ave. Helena, Mont.									

Gold not deducted: [illegible]

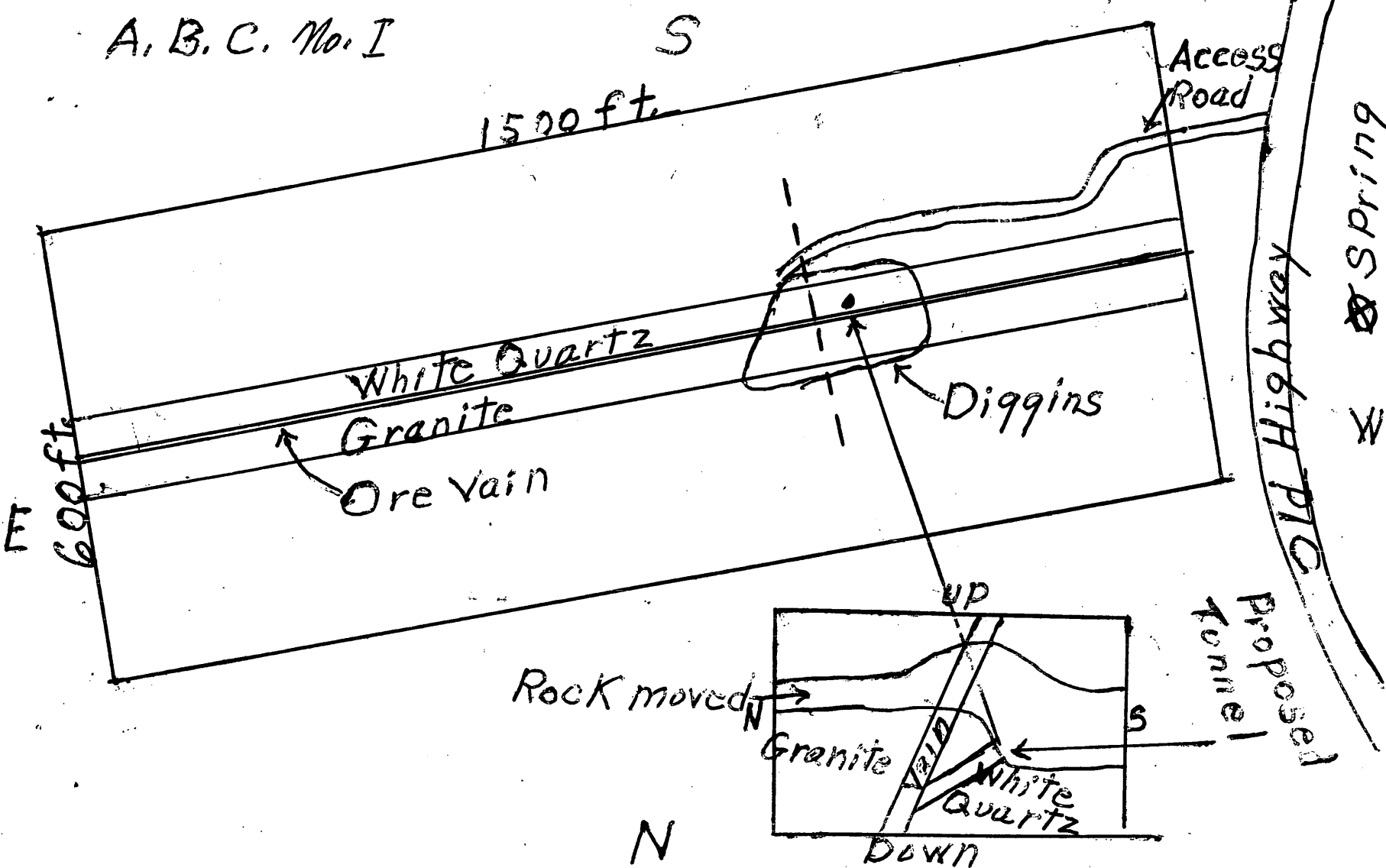
Charges $ [illegible]

GOODALL BROS.

By [illegible]

NPCo. C 2419

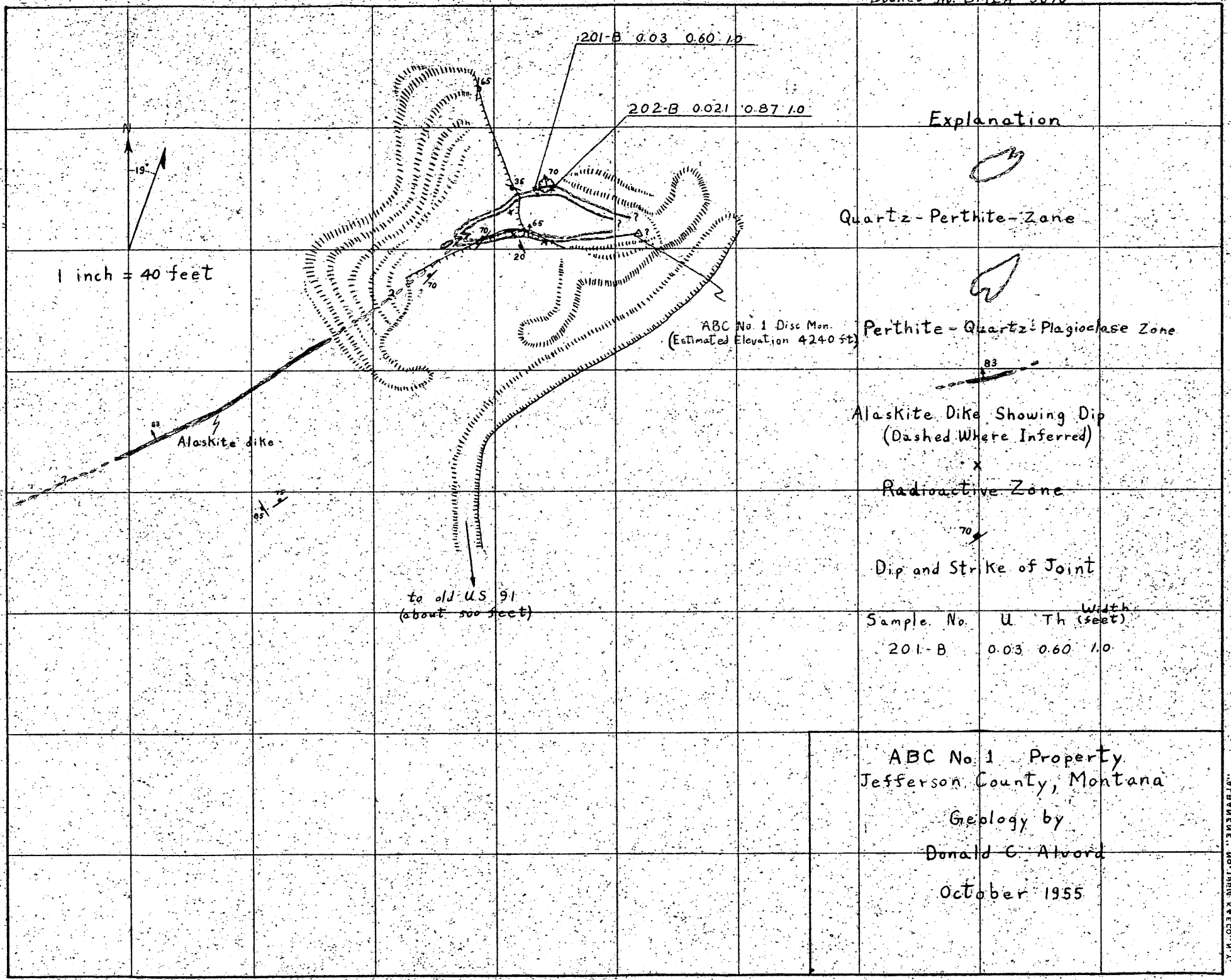
A. B. C. No. I


S
1500 ft.
Access Road
Old Highway
Spring
W
White Quartz
Granite
Ore Vain
Diggins
600 ft.
E
UP
Rock moved
N
Granite
Vein
S
White Quartz
Down
Proposed Tunnel
N

Memo 8-31

DMEA3970

Docket No. DMEA-3970



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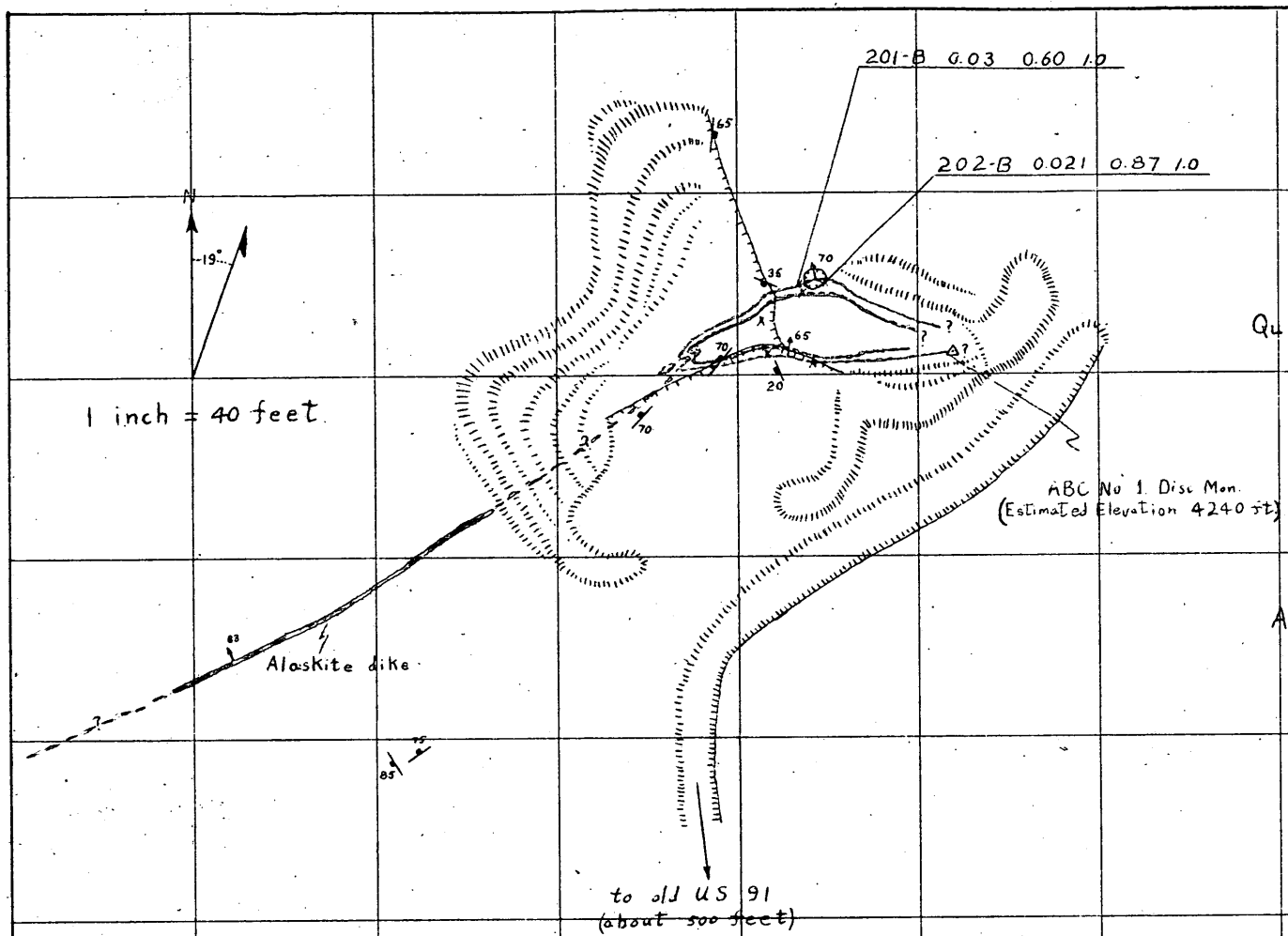
Docket No. DMEA-3970



Explanation

Quartz-Perthite-Zone

Perthite-Quartz-Plagioclase Zone

Alaskite Dike Showing Dip
(Dashed Where Inferred)

Radioactive Zone

Dip and Strike of Joint

Sample No.	U	Th	Width (feet)
201-B	0.03	0.60	1.0

ABC No. 1 Property
Jefferson County, Montana

Geology by
Donald C. Alvord

October 1955

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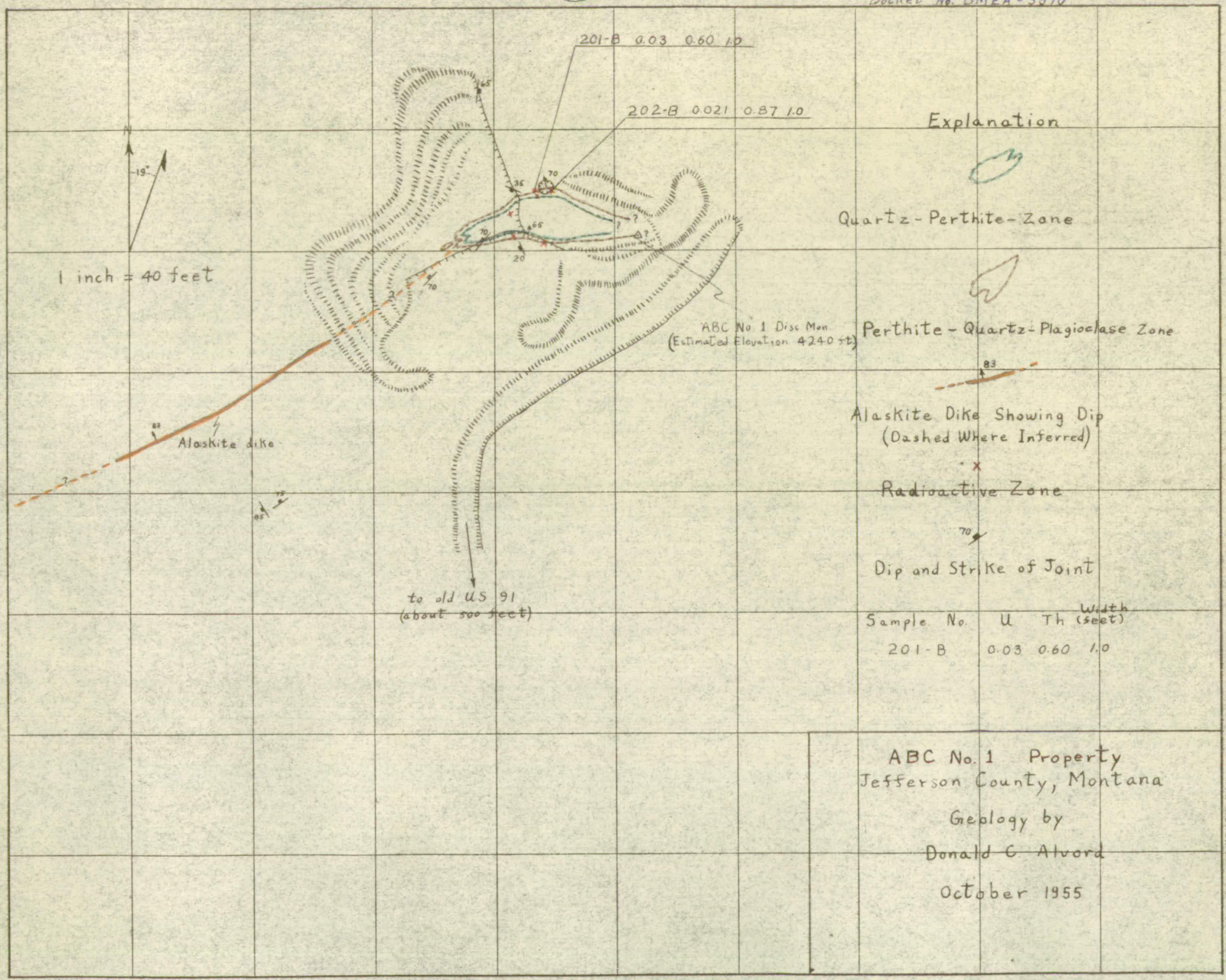

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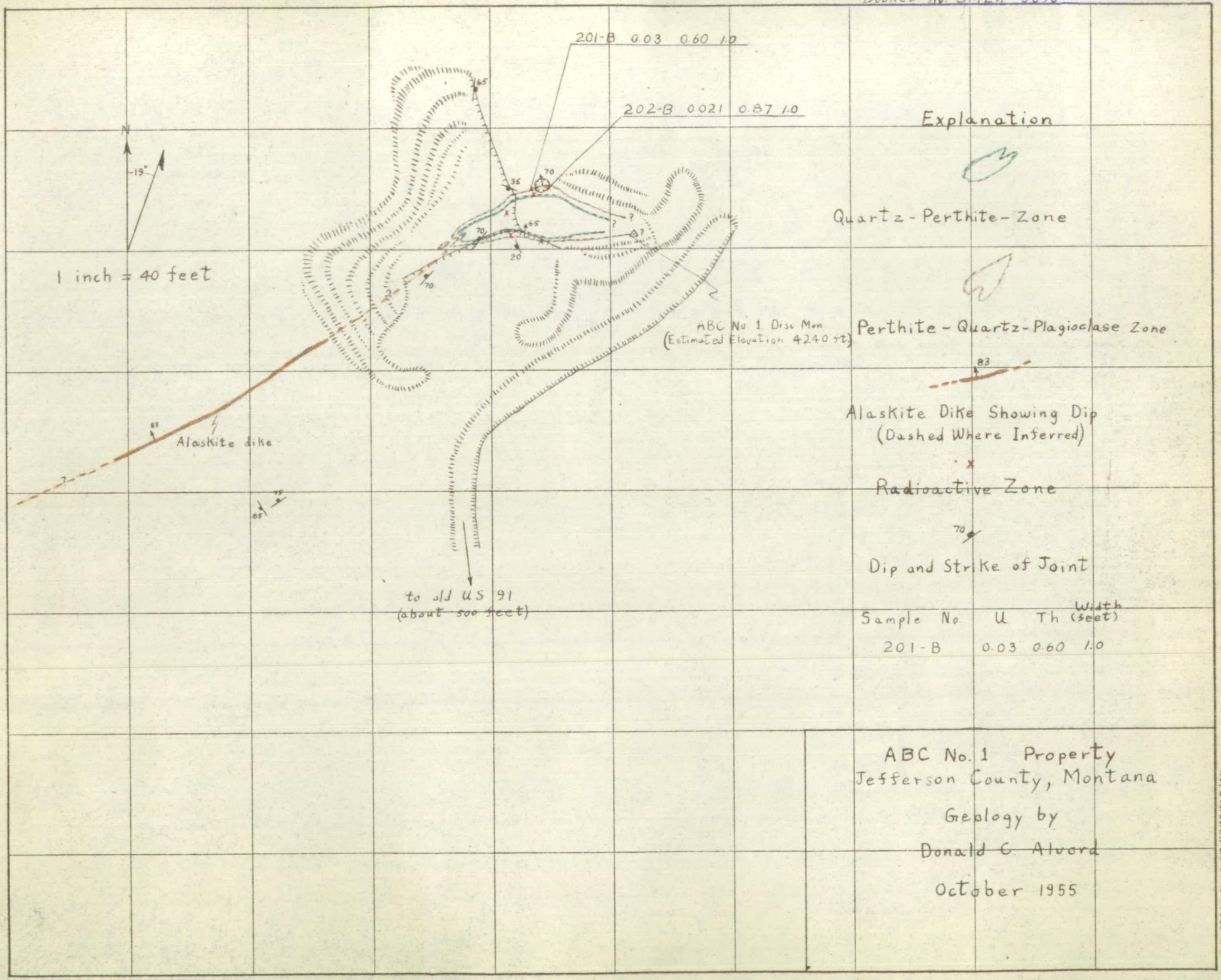
Docket No. DMEA-3970



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