DMEA Form 1

DEFENSE MINERALS EXPLORATION ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMEA Docket No. 4699

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To:	700	Date	3-25-57
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To:	100	Date	4-5-57
To:	225	Date	4-5-57
To:	Legal	Date	4-24-57
To:	130	Date	5-8-57
To:	110	Date	5-10-57
To:	100	Date	5-10-57
To:	225	Date	5-10-57
To:	130	Date	10/4/57
To:	110	Date	10/4/57
To:	100	Date	10-4-57
To:	225	Date	10-4-57
To:	130	Date	10-24-57
To:	110	Date	10-28-57
	225		10-28-57

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DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4699

Application (Denied
(Withdrawn
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
✓ Leases and assignments of leases
✓ Application and attachments
(3) Envelope for maps

Right Side

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
✓ On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order) Interim Summary Reports by W. O. Engineers

Right Side

Operator's Semi-Annual Report for Certified Project, Field Team Interim Reports, Operator's Monthly Report with transmittal, narrative, maps, and Field Team review.

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

9775

TO WHOM IT MAY CONCERN:

I, Rufus Turner, of Basin, Montana, in consideration of one dollar and other good and valuable consideration received, grant an extention of three years with the right to extend for two more years. For this extention of option I am to receive $500.00 on the first day of July, 1957 and $500.00 every six months thereafter for the life of the option. These payments will apply on the purchase price which was $20,000.00.

In addition, any company or person that proves a commercial ore body of uranium during their exploration work of 500 tons estimated to contain .50 U3O8 must pay the unpaid balance of the $20,000.00 within (60) sixty days. They must also carry out the conditions and obligations of a certain agreement made between myself and a W.O.Barette of Conrad, Montana; dated 15th day of July, 1957 on the following described real property situated in the county of Jefferson, State of Montana to wit:

Uranium Quartz Lode Mining Claim, located in T.7n, R 5W, Sec. 16 of the Cataract (unorganized) Mining district.

North Insulator Mining Claim, located in T. 7N, R 5W, Sec. 8 and 9 of the Cataract (unorganized) Mining District.

North Rockerlode Mining Claim T. 7N, R 5W of the Cataract (unorganized) Mining District.

Dated this 17th day of April, 1957 at Basin, Montana.

Sign Rufus Turner

Rufus Turner, Basin, Montana

Witness as to the signature of Rufus Turner.

Sign W. Invararity

W. Invararity

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RECEIVED APR 22 1957
DATE | INITIALS | CODE

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, W.O. SORETTE and THOMAS CLAVIN, well and truly paid by WILLIAM INVERARITY, receipt whereof is hereby acknowledged:

WE, DO HEREBY FOREVER set over, transfer, assign, convey and deliver unto said WILLIAM INVERARITY our full and undivided interest in the claims called TARTAN Nos. 1, 2, 3 and 4, located in Jefferson County, Montana, of the Cataract (unorganized) Mining District.

IN WITNESS WHEREOF we have hereunto set our hand and seal at the City of Calgary, in the Province of Alberta, this 15 day of April, A.D. 1957.

SIGNED, SEALED AND DELIVERED
in the presence of

W Inverarity
Witness

W.O. Sorette
W.O. SORETTE

Thomas Clavin
THOMAS CLAVIN

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RECEIVED APR 22 1957

DATE	INITIALS	CODE

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DATE	INITIALS	CODE

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the undersigned WILLIAM INVERARITY, well and truly paid by GREAT SHIELD URANIUM MINES LTD., receipt of which is hereby acknowledged:

1. WILLIAM INVERARITY hereby sees fit to transfer, set over and assign, convey and deliver unto said GREAT SHIELD URANIUM MINES LTD. a full undivided Seventy-five percent (75%) interest in the claims known as TARTAN Nos. 1, 2, 3 and 4, located in Jefferson County, Montana, of the Cataract (unorganized) Mining District.

2. WILLIAM INVERARITY grants GREAT SHIELD URANIUM MINES LTD. the right to prospect, develop, mine and sell any and all ore, including uranium, on a 75-25% basis, WILLIAM INVERARITY to receive 25% of the net profit from the mining operation. This Agreement and Assignment will be in effect for a minimum of three years (3 years) OR until a formal superceding this agreement Agreement has been made between GREAT SHIELD URANIUM MINES LTD. and WILLIAM INVERARITY, said Agreement should be in effect similar to the Agreement now in effect on Uranium Quartz Lode Mining Claim adjoining the TARTAN Nos. 1, 2, 3 and 4 and SOCIETY GIRL claims 1, 2, 3 claims. Dated Oct 1956 between Gold Syndicate corp and Great Shield Uranium Mines LTD

IN WITNESS WHEREOF the undersigned have set their hand and seal at the City of Calgary, in the Province of Alberta, this 15 day of April, A.D. 1957.

SIGNED, SEALED AND DELIVERED
in the presence of

Witness

Accepted by:

GREAT SHIELD URANIUM MINES LTD.

WILLIAM INVERARITY

A S S I G N M E N T

FOR GOOD AND VALUABLE CONSIDERATION, the undersigned GOLD SYNDICATE CORPORATION, well and truly paid by GREAT SHIELD URANIUM MINES LTD, receipt of which is hereby acknowledged:

1. GOLD SYNDICATE CORPORATION hereby sees fit to transfer, set over and assign, convey and deliver unto said Great Shield ~~Corporation~~ Uranium Mines Ltd. a full undivided seventy-five percent (75%) interest in the claims known as SOCIETY GIRL 1, 2 and 3, located in Jefferson County, Montana, of the Cataract (unorganized) Mining District.

2. GOLD SYNDICATE CORPORATION grants Great Shield Uranium Mines Ltd. the right to prospect, develop, mine and sell any and all ore, including uranium, on a 75-25% basis, Gold Syndicate to receive 25% of the net profit from the mining operation. This Assignment will be in effect for a minimum of three years OR until a formal agreement superceding this agreement has been made between Gold Syndicate and Great Shield Corporation, said agreement should be in effect similar to the agreement now in effect on Uranium Quartz Lode Mining Claim adjoining the Society Girl claims. Dated Oct, 1955 between Gold Syndicate Corp & Great Shield Uranium Mines Ltd.

IN WITNESS WHEREOF the undersigned have set their hand and seal at the City of Calgary, in the Province of Alberta, this _____ day of April, A.D. 1957.

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SIGNED, SEALED AND DELIVERED in the presence of

Witness

GOLD SYNDICATE CORPORATION

GREAT SHIELD URANIUM MINES LTD.

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, we the undersigned, W. O. SORRETTE and THOMAS CLAVIN, well and truly paid by GOLD SYNDICATE CORP., Spokane, Washington, receipt whereof is hereby acknowledged:

WE, DO HEREBY FOREVER set over, transfer, assign, convey and deliver unto said GOLD SYNDICATE CORP. our full and undivided interest in the claims called SOCIETY GIRL One, Two and Three (1, 2 and 3), located in Jefferson County, Montana, of the Cataract (unorganized) Mining District.

IN WITNESS WHEREOF I have hereunto set my hand, W.O. SORRETTE and THOMAS CLAVIN, and seal at the City of Calgary, in the Province of Alberta, this 15 day of April, A.D. 1957.

SIGNED, SEALED AND DELIVERED
in the presence of

W. Inverarity William Inverarity
(Witness as to the signature of
W.O. SORRETTE & THOMAS CLAVIN

W.O. Sorrette
W.O. SORRETTE

Thomas Clavin
THOMAS CLAVIN

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WAIVER AND CONSENT

TO: GREAT SHIELD URANIUM MINES LTD.

WHEREAS I, the undersigned RUFUS TURNER, of Basin, in the State of Montana, one of the United States of America have granted to William C. Sarette an Option to Purchase certain Uranium claims which Uranium claims are described in the said Option and a copy of which Option is attached hereto and marked Exhibit A.

AND WHEREAS I understand that said William C. Sarette has assigned the said Option to Gold Syndicate Corporation.

AND WHEREAS I also understand that the said Gold Syndicate Corporation has made a further Assignment of the said Option to you.

NOW THEREFORE THIS MEMORANDUM WITNESSETH that in consideration of the premises and the covenant by you to spend on the exploration and development of the said Uranium claims the sum of Two Thousand Dollars ($2,000.00) on or before the 31st day of January, A.D. 1957, I, the said undersigned, hereby consent and approve the said Assignment to you.

AND I, the said undersigned, further agree that notwithstanding the terms of the said Option, you shall have the right to stockpile any mineral ore received therefrom and shall have the right to remove it at your discretion.

AND I, the said undersigned, further agree that notwithstanding the terms of the said Option in the event that the said Option is exercised and the sum of Nineteen Thousand Dollars ($19,000.00) or Nineteen Thousand, Five Hundred Dollars ($19,500.00) whichever the case may be becomes payable, I agree that you shall have the right to pay the said amount to the Royal Bank of Canada, Eighth Avenue and Centre Street, Calgary, Alberta, with instructions to the

said Bank to pay the said amount to me when you have advised them that I have furnished you with a good and merchantable title showing you as the registered owner of the said claims free of all or any encumbrances whatsoever.

DATED at the City of , in the State of Montana, this day of October, A.D. 1956.

RUFUS TURNER

(Witness as to the signature of RUFUS TURNER)

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

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March 22, 1957

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

Re: New Application (Uranium)
Great Shield Uranium Mines, Ltd.
Uranium Quartz Lode Mining Claim
Jefferson County, Montana

Dear Mr. Selfridge:

Enclosed are the original and two copies of an application received from Great Shield Uranium Mines Limited, of Toronto, Ontario. They propose to explore the Uranium Quartz Lode mining claim by 2,000 feet of diamond drilling and 500 feet of drifting from existing workings, for a total cost of about $46,000.

The Geological Survey Boulder batholith project men know of this property but have not seen it. AEC representatives have visited the property at least twice. According to Supplement to Preliminary Reconnaissance Report No. B-B-111 dated June 12, 1956, uranium as uraninite occurs in veins containing gold, silver, and galena in a gangue of quartz, pyrite, and arsenopyrite. The uraninite is sooty and accompanies the sulfides in parts of the vein. This is not one of the chalcedony-type deposits which in the past have been unsuccessfully explored.

We are writing the Salt Lake City office of the AEC for their comments.

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

cc: USBM (2)
Geologist
AEC (SLC)
AEC (Butte)

DMEA

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

RECEIVED MAR 14 1957 S. G. S. SPOKANE, WASH.

RECEIVED MAR 25 1957 D.M.E.A.

Not to be filled in by applicant

Docket No. 4699
Metal or Mineral URANIUM
Date Received 3-25-57
Estimated Cost $46,000
Participation (Government %)

$43,960
2M $45,300

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: Great Shield Uranium Mines Limited, head office Suite 35 - 25 Melinda Street, Toronto, Ontario. Please correspond with Calgary office, located at 602-Seventh Ave West, Calgary, Alberta. Wish to contract under Great Shield Uranium Mines Limited.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract See page two, item 3a, Exhibit "A"

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise See page two, Item 3c

(*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 See page two, Item 3.

(*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. See page 3 of attached memo

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

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

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

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

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore See page 4, Item 5.

(*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 8 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)? Yes.

(*b*) How do you propose to furnish your share of the costs?

[X] 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 February 11th, 1957

GREAT SHIELD URANIUM MINES LIMITED,
602-7th Avenue West, Calgary, Alberta.
(Applicant)

By Albert J. Jacobs, pres
Albert J. Jacobs.

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

Item 1. (b) Great Shield Uranium Mines Limited is in the process of registering in the State of Montana.

(c) The names and addresses of officers are:

Albert Joseph Jacobs, President & Director, 906 Crescent Road, Calgary, Alberta.

Peter Charles Jacobs, Vice-President, Director & Promoter, 11615-73rd Avenue, Edmonton, Alberta.

Albert Roberts Bennett, 1014 - 24th Ave., N.W., Director. Calgary, Alberta.

Mary Cecilia Jacobs, Secretary-Treasurer, 906 Crescent Road, Calgary, Alberta.

Warren Armstrong, Director, 208 Glenview Avenue, Toronto, Ontario.

(d) Nil.

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licant's property rights

a) Uranium Quartz Lode mining claim, located in Township 7N, R5W, Section 16 of the Cataract Mining District (unorganized mining district) in Jefferson County, Montana. This is the claim that we intend to prospect and work or develop. In addition to this claim we have Society Girl 1, 2, and 3 and Tartan 1, 2, 3, and 4. On the Uranium Lode mining claimwe have a 75% interest on option from Gold Syndicate Corporation of Spokane, Washington with $20,000.00 to pay Rufus Turner, of Basin, Montana if the option is enforced. We have until December 31st, 1957 to enforce this option, it also has an overriding royalty of 5%.

On the Society Girl claims we have a 75% interest, 25% to Gold Syndicate, no royalties, no cash to pay.

On the Tartan claims we have a 75% interest, golden rule royalties 25%.

Society Girl and Tartan claims adjoin the Uranium Lode claim on both ends and one side. See plate.

(b) Nil.

(c) Optionee.

(d) See exhibit (a)

(e) The only encumbrances known is the $20,000.00 to Rufus Turner of Basin, Montana, which is the cash purchase price recited in exhibit (a).

(f) Unpatented claims.
Book numbers recorded.

(i) Turner:
Uranium Lode - Book 48 - Page 216

(ii) Clavin Tom & Wm. O. Sarette
Society Girl - Book 48 - Page 500
" " - 1. Book 48 - Page 501
" " - 2. " " - Page 502

(iii) Tartan - 1. Book 48 Page 503
" - 2. " 48 " 504
" - 3. " 48 " 505
" - 4. " 48 " 506

Item 4. Physical description

(a) See exhibit (b) and (c) (Gerrard and Morris's reports)

This property was bulldozed by the Atomic Energy Commission approximately three years ago, but due to a cave-in 50 feet back from the portel, the Atomic Energy Commission, at that time, abandoned their operation. It was then brought to the attention of Mr. Sarrette and Mr. Inverarity and the caved portion was opened up by Mr. Inverarity and part of the interior of the mine examined. Uranium was found at approximately 100 feet in. The mine was in poor condition and further financing was made by Great Shield Uranium Mines Limited to clear up the mine, build roads suitable for hauling ore, track was laid and a tipple built. Application was made for a permit to ship uranium ore. An attempt has been made and one carload of ore was mined and shipped to Vitro Chemical Corporation, Salt Lake City. Analysis of this car was very poor due to the uranium present being mixed with local rock, due to blasting, and also the veins pinched out at that point. The Company continued tunnelling for another 30 feet and the vein appears to be returning. Due to winter conditions the project was stopped. The mine workings were in good condition and available for examination purposes.

(b) One carload.

(c) See exhibit (b).

(d) The accessable roads to the project -- first eight miles good. Last mile steep grade, but satisfactory for hauling ore in dry weather. Nine miles to railroad at Basin, Montana.

(e) Excellent.

Item 5. Exploration of project

(a) We wish to explore for uranium bearing ores.

(b) This property was examined by Mr. Moane, who was located at the Butte, Montana, Atomic Energy Commission, also by our company geologist, Mr. R. H. Morris. When we commenced mining, we had a three foot vein, which ran 50/100 U_3O_8, see exhibit (b). It is our intention to probe the present lead further by tunnelling, bulldozing and diamond drilling. Mr. Moane and Mr. Morris expressed their beleif that further along the lead the U_3O_8 content will appreciate in value, as in the old dump high grade U_3O_8 ore was found at three separate locations which when assayed showed values of 3.75% U_3O_8.

(c) The work will start May 1st, 1957 and should be completed by the first of December, 1957. 7 mos

(d) William Inverarity, experienced under ground miner, both coal mining and hard rock mining, with mine boss papers for the Province of Alberta. Ten years experience with general construction, diamond drilling and oil well drilling. Practical prospect. Field superintendent Great Shield Uranium Mines Limited. It is the company's intention to contract all work if possible.

Item 6. Estimate of costs

(a) We intend to contract wherever possible.

(b) $1,000.00 per month for company supervisor, which will include all expenses, automobile, hotels, etc. $100.00 per day additional for engineers and geological consultations, plus expenses, estimate three days per month. Other labour to be covered by local contractors. $9,415

(c) Material and supplies to be furnished by the contractors.

(d) -1- Bulldozer equipment to be rented $12.00 per hour--100 hours$1,200.00. Operator to supply everything. $1,200

-2- Diamond drilling equipment, estimate 2,000 feet of hole at $8.00 per foot--$16,000.00. Contractor to supply everything. $16,000

-3- Continue with present tunnel approximately 500 feet at $30.00 per foot--$15,000.00. Contractor to supply everything except mine rails and timber. $15,000

(e) Practically all rehabilitation has been done already, roads, etc. However, $2,000.00 estimate for further cleaning up of the additional old workings prior to hiring contractors for further tunnelling operations. $2,000

(f) New Buildings $500.00. $500

(g) $1,500.00 to cover accounting, workman's compensation, employees liability and initial contingencies and insurance. $1,500

$43,900
Elec. 2% + 1,715
45,615

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DATE	INITIALS	CODE

BASIN, Montana

December 28, 1956

TO WHOM IT MAY CONCERN:

I, RUFUS TURNER of BASIN, Montana, in consideration of $1.00 and other good and valuable consideration received, grant an extention of six months of time to carry out the obligations and conditions under that certain option agreement made between myself and W. O. SORETTE of CONRAD, Montana, dated July 1956 which agreement provides that I grant to W. O. SORETTE of CONRAD, Montana, his heirs and assigns the right and privilege of purchasing on or before the 15th day of July 1957 the following described real property, situated in the County of Jefferson State of Montana to wit:

Uranium Quartz Lode Mining Claim, located in T. 7N, R 5W, Sec. 16 of the Cataract (unorganized) Mining district.
North Insulator Mining Claim, located in T. 7N, R.5W, Sec. 8 & 9 of the Cataract (unorganized) Mining district.
North Rockerlode Mining Claim T. 7N, R5W of the Cataract Mining district.

Attached hereto is copy of the above mentioned Option Agreement.

Rufus Turner (Seal)

WITNESS as to the signature of RUFUS TURNER.

COPY

MEMORANDUM OF AGREEMENT made as of the day of October, A.D. 1956.

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RECEIVED MAR 25 1957

DATE	INITIALS	CODE

BETWEEN:

GOLD SYNDICATE CORPORATION, a Body Corporate with Head Office in the City of Spokane, in the State of Washington, one of the United States of America, (hereinafter referred to as "the Assignor"),

OF THE FIRST PART

- and -

GREAT SHIELD URANIUM MINES LTD., a Body Corporate, with Head Office in the City of Toronto, in the Province of Ontario, (hereinafter referred to as "the Assignee"),

OF THE SECOND PART

WHEREAS during the month of July, A.D. 1956, Rufus Turner granted an Option to William O. Sarette giving him the right to purchase certain Uranium claims referred to in the Option, a copy of which Option is attached hereto and marked Exhibit A and is hereinafter referred to as "said Option".

AND WHEREAS the said William O. Sarette, by an Assignment in writing dated the 17th day of September, A.D. 1956, assigned the said Option to the Assignor and attached hereto and marked Exhibit B is a copy of the said Assignment.

AND WHEREAS the Assignor now wishes to assign the said Option to the Assignee subject to the following terms and conditions.

NOW THEREFORE THIS ASSIGNMENT WITNESSETH that in consideration of the premises and of the mutual covenants, terms and conditions hereinafter set forth, it is agreed by and between the parties hereto as follows:

 COPY

1. THAT the Assignor hereby assigns to the Assignee all its right, title and interest in the said Option, being Exhibit A, and the Uranium claims therein described.

2. THAT the Assignor shall, upon the execution of the Agreement herein, immediately furnish to the Assignee a list containing the names and addresses of all its shareholders.

3. THAT the Assignee shall, on or before the 31st day of January, A.D. 1957, spend for the exploration and development of the said Uranium claims at least the sum of Two Thousand Dollars ($2,000.00).

4. THAT the Assignee shall, within One (1) month after receiving the names and addresses of the shareholders of the Assignor, forward and deliver to the shareholders of the Assignor in total One Hundred Thousand (100,000) shares of its capital stock which shall be allotted and issued as fully paid and non-assessable and which the Assignee shall distribute pro rata among the shareholders of the Assignor.

5. THAT in the event that the Assignee exercises the said Option, it shall, within One (1) month thereafter, allot and issue as fully paid and non-assessable an additional One Hundred Thousand (100,000) shares of its capital stock which shares shall be delivered to a recognized Trust Company with instructions to retain possession of them for a period of Two (2) years and thereafter deliver to the Assignor. It is understood and agreed that during the period of time the said One Hundred Thousand (100,000) shares are held by the Trust Company, the Assignor, when requested by the Board of Directors of the Assignee, shall execute ~~properties~~ PROXIES in favour of a Director of the Assignee named by the Board of Directors of the Assignee.

6. THAT in the further event that the Assignee causes production

 COPY

to be obtained from the said claims and marketed, the Assignee shall pay to the Assignor a royalty of Twenty-five Per Cent (25%) of the net profits received therefrom. The net profits shall be calculated after giving consideration to all mining costs and charges, milling and processing costs, freight on shipment of ore, costs of materials and supplies used in the development of the mine, all charges for labour and overhead expenses, all charges for taxes, each and every royalty payable and such other costs as may be incurred to operate the mine in accordance with good mining practice.

7. THAT the Assignor warrants and represents that the Uranium claims referred to in the said Option are good valid and subsisting claims and that any rentals or other charges or amounts due and owing thereunder to keep the said claims in good standing had been paid until the 15th day of July, A.D. 1957.

8. THAT the Assignor further warrants and represents that it has full power, absolute authority and the legal right to enter the Assignment herein and that the Uranium claims referred to in the said Option are free from all or any encumbrances whatsoever.

9. THAT each of the parties hereto shall execute such further and other documents as may be required to give effect to the Assignment herein.

10. THAT the Assignor when and if requested by the Assignee, shall use its best efforts to assist in the development and marketing of all or any production received from the Uranium claims described in the said Option.

IN WITNESS WHEREOF each of the parties hereto have affixed their respective Corporate Seals duly attested by their proper officers in that

COPY

behalf, all as and of the day and year first above written.

(Gold Syndicate Seal)

GOLD SYNDICATE CORPORATION

Per: /s/ Frank Lilly, Pres.

/s/ B. G. Bonner, Sec.

GREAT SHIELD URANIUM MINES LTD.

Per: /s/ Albert J. Jacobs

(Great Shield Uranium Mines Limited Seal)

/s/ Mary C. Jacobs, Sec-Treas.

COPY

DATED: OCTOBER, A.D. 1956

BETWEEN:

GOLD SYNDICATE CORPORATION

OF THE FIRST PART

- and -

GREAT SHIELD URANIUM MINES LTD.

OF THE SECOND PART

MEMORANDUM OF AGREEMENT

SANFORD & DICKIE
Barristers & Solicitors
Suite 803 Lancaster Bldg.
CALGARY - ALBERTA

EXHIBIT A to memo of [illegible]

OPTION

KNOW ALL MEN BY THESE PRESENTS: One hundred Dollars ($ 100.00)

That I, RUFUS TURNER, a single man, of Basin, Montana, for and in consideration of the sum of ~~Twelve hundred dollars, $1200.00~~, and other good and valuable consideration, in hand paid by WILLIAM O. SARETTE of Conrad, Montana, the receipt of which is hereby acknowledged, do hereby give and grant to the said William O. Sarette, his heirs and assigns, the right and privilege of purchasing on or before the 15th day of July, 1957, the following described real property situated in the County of Jefferson, State of Montana, to-wit:

Uranium Quartz Lode Mining Claim, located in T. 7N., R 5W, Sec. 16 of the Cataract (unorganized) Mining district.
North Insulator Mining Claim, located in T. 7N, R.5W, Sec. 8 & 9 of the Cataract (unorganized) Mining district.
North Rockorlode Mining Claim T. 7N, R5W of the Cataract Mining district.

EXCEPTING therefrom and Reserving to the undersigned, his heirs and assigns, a five per cent & (5%) royalty of all minerals mined.

The total option price forsaid real property (mining claims) is the sum of Twenty Thousand and no/100 Dollars($20,000.00); and in the event the holder or holders of this option shall exercise this option at the above price and terms and within the time above prexcribed, the undersigned agrees to convey and assure said real property to the said William O. Sarette, his heirs and assigns, by good and sufficient Warranty Deed, free and clear of all liens and enturbrances whatsoever; and in such an event, the said amount paid for this option shall be credited upon the said total purchase price.

The undersigned hereby agrees to furnish and deliver to said optionees and up to date certified abstract of title to said real property showing a good and merchantable title therein in the undersigned.

It is agreed that William O. Sarette must pay to Rufus Truner the sum of five hundred dollars ($500.00) on or about January 1, 1957 and is further agreed that the option moneys paid shall be credited upon the said total purchase price.

It is also agreed that the optionee can mine and work these above mentioned claims and properties at any time. Mineral ore may be stockpiled but the optionees cannot remove such ore without the consent of the optinor.

In the event thatthis option to purchase hereby given is not exercised in accordance with the above terms and within the time above prescribed, then and in that event said privilege and option shall thereupon wholly cease, and no longer be of any force or effect whatsoever, and the amount paid for this option shall be retained by the undersigned in full satisfaction and as liquidated damages for holding said real property subject to said option, and said optioned shall immediately return all abstracts of title and surrender this option.

Dated this day of July, 1956

Rufus Turner (SEAL)
OPTIONOR

William O. Sarette (SEAL)
OPTIONEE

STATE OF MONTANA)
County of Jefferson) ss.

On this day of July, 1956, before me, the undersigned, a Notary Public for the State of Montana, personally appeared Rufus Turner, a single man, and William O. Sarette, known to me to be the persons whose names are subscribed to the foregoing instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written

NOTARY PUBLIC for the State of Montana.
Residing at Bozeman, Montana.

ASSIGNMENT OF OPTION

KNOWN ALL MEN BY THESE PRESENTS:

That whereas in July, 1956, RUFUS TURNER, a single man, of Basin, Montana, as Optionor, and WILLIAM O. SARETTE, of Conrad, Montana, as Optionee, made, executed and delivered a certain Option wherein and whereby said Optionor granted to said Optionee the right and option of purchasing on or before the 15th day of July, 1957, the following described real property situated in Jefferson County, Montana, to-wit:

Uranium Quartz Lode Mining Claim, Located in T. 7N., R 5W, Sec. 16 of the Cataract (unorganized) Mining district.
North Insulator Mining Claim, Located in T. 7N., R 5W, Sec. 8 & 9 of the Cataract (unorganized) Mining District.
North Rockerlode Mining Claim T. 7N., R5W of the Cataract Mining district.

Now, therefore, for and other good and valuable consideration in hand paid, the receipt of which is hereby acknowledged, by the undersigned, WILLIAM O. SARETTE, of Conrad, Montana, does hereby sell, transfer, assign and set over to Gold Syndicate Corp., a Corporation of Spokane, Washington, its successers or assigns all his rights, title and interest in, to and under said Option. A copy of which is hereto attached, and it is agreed by all Parties conserned that WILLIAM O. SARETTE reserves a 5% royalty of all minerals mined; PROVIDING, HOWEVER, and this assignment is executed and delivered upon the express condition that said Gold Syndicate Corporation shall duly transfer and deliver to the said WILLIAM O. SARETTE, his heirs and assigns, Two Hundred Thousand (200,000) shares of Treasury stock said corporation.

WITNESS — [illegible] William O. Sarette — ASSIGNOR + OPTIONEE

The above assignment is hereby accepted in accordance with the terms thereof, by the Gold Syndicate Corporation of Spakane, Washington this _ day of August 1956

_____ day of _____ _____, 1956

(CORPORATE SEAL)

GOLD SYNDICATE CORPORATION

ATTEST:

_____
Secretary

By [signature]
PRESIDENT

PROFESSIONAL ENGINEER

Examination & Evaluation
Mining Properties -- Oil Prospects

1932 - 26th Ave. S. W.,
Calgary, Alta.

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RECEIVED MAR 25 1957

DATE	INITIALS	CODE

October 19, 1956.

Mr. A. J. Jacobs,
President,
Great Shield Uranium Mine's Ltd.,
602 - 7th Ave. W.,
Calgary, Alta.

Dear Sir: Preliminary Report on the Uranium Lode Claim (Sec.16 T. 7 N. R. 5W.), Jefferson County, Montana.

1. Conclusion

The uraninite mineralization is confined to a vein ~~of arsenopyrite~~ found within the tunnel on the Uranium Lode Claim, Jefferson County, Montana.

The chemical assays of the ore occurring in the tunnel and on the mine dump show a uranium content up to 3.75% U_3O_8. A mined sample from the vein was shipped to the Vetro Uranium Company who reported the ore to be excellent for treatment and stated that they would buy all the ore shipped. The sample assayed chemically 0.501% uranium which would appear to pay for any mining costs plus transportation, especially when government assistance may be anticipated for mining and hauling. While further work, as recommended, will be necessary in order to determine the ore reserves, the writer recommends the purchase of the property after considering the available data.

2. Location and Accessability

The Uranium Lode Claim is located in section 16, township 7, North, Range 5 West, in Jefferson County, Montana, in what is known as the Basin Mining District of the Greater Helena Region. The claim is reached from Basin, Montana, which lies on the Butte-Helena Highway, by approximately 10 miles of dirt road which is readily accessible by car to within one mile of the claim. The last mile can be traversed by jeep. In respect to the surrounding topographic features, the claim is approximately 3/4 mile northwest of the Eva May mine, approximately one half mile south of Ricker Creek, approximately one half mile west of Cataract Creek and approximately one and one quarter miles northeast of Rocker Peak.

It is estimated that approximately $300.00 of "cat work" would be required to construct a road to the tunnel located on the claim.

3. History

The Basin Mining District was extensively prospected around the turn of the century and very numerous short tunnels may be found on all the mountain slopes, in addition to a number of mines that have been worked sporadically since that time.

H. R. MORRIS

Because of the Granitic intrusives in the area the mineralization carries varying quantities of radioactive elements. A detailed examination of the area was carried out by Mr. Rufus Turner of Basin, Montana, Mr. Turner found considerable radioactive ore on the dump of an old tunnel and gave the claim its present name. Mr. Turner notified the Atomic Energy Commission and the Commission sent a representative to the claim. The Atomic Energy Commission representative collected samples from the tunnel dump and obtained chemical assays as high as 2.05% U_3O_8. Please refer to exhibit "A" which is a photostatic copy of a letter from the United States Atomic Energy Commission.

Following an examination of the claim by the writer, Mr. A. J. Jacobs authorized that some fresh ore be broken out and shipped to the Vitro Uranium Company in Salt Lake City. The company reported the ore to run 0.501% U_3O_8. Please refer to exhibit "B". Furthermore, the company reported to Mr. Inverarity, who was in charge of the mining, that the company considered the ore excellent for treating and that the company would take all the ore shipped. Please refer to exhibit "C".

Mr. Inverarity collected samples from the dump and had them assayed in Helena, Montana, with one chemical assay giving the results of 3.75% U_3O_8.

4. <u>Present Status of the Claim</u>

The tunnel is located on the north slope of the mountain at an elevation of approximatgly 7500 feet and some 800 feet above Rocker Creek. The mountain slope is approximately 20 degrees and is covered by sparce timber. The tunnel was driven approximately 50 years ago and is reported to have a length of 200 feet. Mr. Inverarity cleaned out the mouth of the tunnel and several cave-ins in the first 100 feet of tunnel. However, at a distance of 100 feet from the mouth of the tunnel a large cave-in exists that had not been cleared at the time of the writer's examination.

The tunnel was originally driven on a near vertical talc schist lead, some 2 feet wide, that contains very abundant pyrite crystals and a few arsenopyrite crystals. Approximately 90 feet from the mouth of the tunnel A SIX FOOT CROSSCUT WAS DRIVEN EAST AND IN THIS CROSSCUT OCCurs a 2 feet wide, near vertical, vein of arsenopyrite that is radioactive. It is from this vein that ore was recently mined and shipped to the Vitro Uranium Company in Salt Lake City.

From the strike and dip of the veins it would appear that the arsenopyrite vein and the talc schist should intersect beyond the cave-in somewhere between 100 feet and 200 feet from the mouth of the tunnel. Further it would appear that the uranium content of the arsenopyrite vein should increase with depth as the samples from the top of the mine dump undoubtedly were derived from that portion of the tunnel closest to the end.

5. Geology

The general country rock consists of coarse grey monzonite which has been cut by a series of east-west striking aplite dykes. Within the first 100 feet of the tunnel, however, the country rock consists merely of weathered and altered monzonite with the presence of a mineralized talc schist vein and an arsenopyrite vein. When the tunnel is continued, it should be anticipated that faults and aplite dykes will be encountered, which may or may not displace the arsenopyrite vein depending upon the age relationship; of the arsenopyrite vein, the faults and the aplite dykes.

The presence of uraninite in the arsenopyrite vein at the Uranium Lode Claim was not anticipated in that the uranium occurrences as reported in the "Preliminary Report on the Comet Area Jefferson County, Montana" and "Uranium-Bearing Deposits West of Clancy Jefferson County, Montana" are quite different in origin occurring in brecciated silicified rocks. At very few localities is the uraninite concentration sufficient to allow mining in that the uraninite occurs as pods throughout the brecciated zone.

In the Uranium Lode tunnel preliminary investigation has shown the uranium content to be confined to the arsenopyrite vein which allows for ease in mining. Until the tunnel is cleaned out as to be fully accessable it remains a matter of conjecture as to the size and attitude of the arsenopyrite vein, and the uranium content of the arsenopyrite vein. The presence of high grade ore on the dump (chemical assay of 3.75% U_3O_8, however, would lead one to suspect that the mineralization continues to the end of the tunnel and the content of uranium to increase with depth. It was felt that the ore might present some problem in the extraction of the uranium, but Vitro Uranium Company assures Mr. Inverarity that the ore is excellent for treating. The Vitro Uranium Company have issued ~~xxxix~~ detailed shipping instruction for the ore (Please refer to exhibit "D").

From the examination of the property it is the writer's opinion that the indicated ore reserves are of sufficient quantity and uranium content to justify the purchase of the Uranium Lode Claim.

/6. Recommendations

It is recommended that the following program be enaugurated as soon as possible:

1. Strip the hillside every 100 feet vertically with bulldozer in order to trace the outcrop of the arsenopyrite vein.

H. R. MORRIS

2. Conduct a detailed scintillometer survey over the property in order not only to locate the arsenopyrite vein but to disclose the presence of any further uranium bearing veins.

3. Continue to drive the existing tunnel for a distance of 300 feet beyond the present end of the tunnel, following the arsenopyrite mineralization in order to disclose extent of the arsenopyrite vein and the uranium content.

4. Have a thorough examination of the property after the stripping, scintillometer survey and tunnelling by a competant geologist.

Yours very truly,

(Signed) H. R. Morris

H. R. Morris

Seal here
Professional Engineers
H. R. Morris
Alberta

PROFESSIONAL ENGINEER

Examination & Evaluation
Mining Properties -- Oil Prospects

CERTIFICATE

Re: Preliminary Report on the
Uranium Lode Claim (Sec.16 T. 7N,
R. 5W), Jefferson County, Montana

Report prepared at the request of
Mr. A. J. Jacobs

I, Harry R. Morris, of Calgary, in the Province of Alberta, Consulting Geologist, hereby certify as follows:

a. I reside at Calgary in the Province of Alberta and am by profession a Consulting Geologist.

b. I graduated as a Geological Engineer from the University of British Columbia with a degree of Bachelor of Applied Science in the year 1943. I am a member of the Engineering Institute of Canada, of the Alberta Association of Professional Engineers, and the Alberta Society of Petroleum Geologists.

c. I have no interest directly or indirectly, nor do I expect to have any interest directly or indirectly, in the properties described in the attached report, or in any stocks or securities of Great Shield Uranium Mines Limited.

d. The accompanying report is based, on an examination of the United States Geological Surveys reports on the immediate area, on an examination of the letters on file from the United States Atomic Energy Commission with respect to the aforesaid claim and on a personal examination of the property.

Signed

H. R. Morris

HRM/jvm

October 19, 1956

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Seal here
Professional Engineer
H. R. Morris
Alberta

Exhibit "A"

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

ORIGINAL FILE COPY
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RECEIVED MAR 25 1957

DATE	INITIALS	CODE

March 22, 1955

Address Reply to:
U.S. Atomic Energy Commission,
Butte Suboffice,
P.O. Box 1954,
Butte, Montana.

Refer to: SLEB:LDJ:mf

Mr. William O. Sarette,
Conrad, Montana.

Dear Mr. Sarette:

In reply to your request for information concerning the Commission's knowledge of the property known as the Uranium Claim located in Sec. 16, T. 7 N, R. 5 W, Jefferson County, Montana, owned by Mr. Rufus Turner of Basin, Montana and on which you have taken an option to purchase, we can give you the following information:

1. The radioactivity was discovered first by Mr. Turner and later checked by a member of this organization.

2. Several samples were obtained from the surface dump which were deemed to be of sufficient interest to warrant additional work by the Commission.

3. Approximately 20 hours of bulldozing work was performed in an attempt to open the old caved mine adit. The portal was opened and the tunnel found to be in fair condition for some 55 feet at which point a second cave of ground was encountered. Due to the inability of the Commission to perform this type of work and since Mr. Turner could not afford to have the work done, the rehabilitation of the property was stopped.

4. Samples obtained from the dump and assayed by the Commission were as follows:

   a. Our samples number F-8501 assayed 0.23% U_3O_8 radiometrically and 2.05% U_3O_8 chemically.

   b. Sample number 2, our number F-1399, ran 1.62% U_3O_8 radiometrically and was not assayed chemically.

   c. Sample number 1 of the dump material assayed 0.074% U_3O_8 radiometrically and was not run chemically.

   d. Sample number 3 of dump material assayed 0.076% U_3O_8 radiometrically and was not run chemically.

In view of the rather high chemical assays in relation to the radiometrically run assays the chance of finding ore grade material was considered to be enhanced, and the above mentioned work was then undertaken.

Yours very truly,
(Signed) Leonard D. Jarrard
Chief, Butte Sub-Office

Exhibit "B"

VITRO URANIUM COMPANY
A division of Vitro Corporation of America

600 West 33rd South Street - Salt Lake City 15, Utah -Ph.7-1501

October 8, 1956

Mr. W. Inverarity,
Ranchotel,
Bolder, Montana.

Dear Mr. Inverarity:

In regard to your recently submitted sample, we now have the results of our lab tests, and we find your sample to assay 0.501 U3O8.

Thank you for your interest.

Yours very truly,

VITRO URANIUM COMPANY,

(Signed) R. E. Coleman, per J.M.B.

R. E. Coleman, Ore Buyer

REC:jmb

FILE COPY
MAR 25 1957
CODE

Exhibit "C"

CANADIAN NATIONAL TELEGRAPHS

J. R. WHITE, GENERAL MANAGER
TORONTO

Standard Time 1956 Oct 15 P.M. 3:23 (20)

GYA083 23--SALT LAKE CITY UTAH 15 223P--

A. J. JACOBS--

1602 7th AVE W--

THE BITHO CO WILL TAKE ALL THE ORE WE HAVE CAN START SHIPPING IMMEDIATELY.

SHOULD BE IN CALGARY TUESDAY OR EXCELLENT FOR TREATING--

BILL

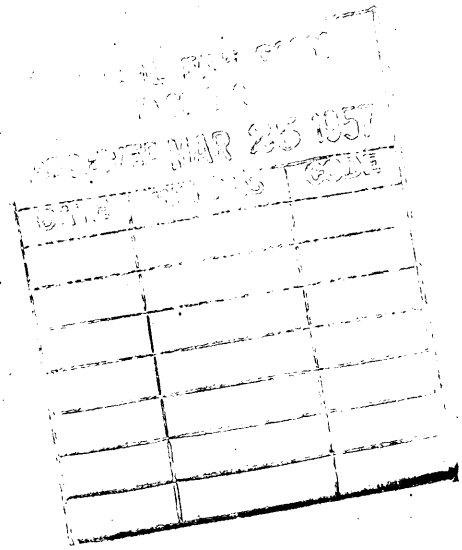

Exhibit "D"

VITRO URANIUM COMPANY
A division of Vitro Corporation of America
600 West 33rd South Street -Salt Lake City -Ph 7-1501

October 18, 1956.

Mr. W. Inverarity,
Great Shield Uranium Company,
327 - 15th Avenue W.,
Calgary, Alberta, Canada,

Dear Mr. Inverarity:

It was a pleasure to talk to you on the phone the other day, and I certainly hope that your new uranium prospect in Montana is successful.

In regard to ore shipments, you should have a minimum of 45 tons per car load and the ore should be shipped in bottom-dump, side-delivery gondola cars. The Bill of Laking should be made to Vitro Uranium Company, Kalunite Spur, Salt Lake City, Utah. On the Bill of Laking you should state, "Stop at Utah Ore Sampling Company, Murray, Utah for sampling in transit." Also, as I suggested, value the ore at the lowest obtainable rate. Also, as I mentioned to you, we will allow you $6.00 per wet ton to defray the cost of hauling provided the ore assays 0.10% U_3O_8 or above. On any car assaying lower than 0.10% U_3O_8, there will be no haulage allowance or payment for ore, and also it will be necessary for you to pay the sampling charges. We will, of course, pay sampling charges if the ore is above the minimum grade figures. For continued ore shipments, we desire that you over all shipping average be approximately 0.25% U_3O_8.

I will certainly be looking forward to receiving your first shipment, and as soon as we have the results I will be in contact with you.

Best Regards.

Yours very truly,

VITRO URANIUM COMPANY,

(Signed) R. B. Coleman

R. B. Coleman
Ore Buyer

RBC:jmb

COPY

Spokane, Washington,
August 23rd, 1956.

Mr. J. Hext,
Gamma Ray Surveys,
809 4th Street West,
Calgary, Alberta.

Dear Sir:

Re: Uranium Prospect - Basin, Montana

On August 21st, 1956, the writer and Mr. Invarerity drove from Boisvert Camp, Lake MacGregor, Montana, to the Uranium prospect, some 46 miles South-West of Helena. The prospect is reached by driving South of Helena, along Highway 91 to Basin, Montana. At Basin the dirt road branches North for 7 miles. Starting from a point some 7 miles South of Helena one encounters a large Granite Botholith and on this Batholite which extends beyond the area of the prospect one is never out of sight of old mines or dumps. From Gopher holes tunneled into the mountain sides. Obviously considerable prospecting and mining has been done in the past with the production of Gold, Silver and Zinc. Near Basin are located several Uranium Health Mines, but only one of these mines is an actual Uranium production. The road from Basin to the prospect passes 2 mines which have complete mills, but at present are inactive.

The prospect consists of 200 feet of tunnel at an elevation of approximately 7500 feet above sea level. The tunnel follows an altered fracture zone in the Mongite granite. The tunnel is completely timbered, but in the 50 years since it was driven, several cave-ins have occurred, one cave-in has been cleared and the tunnel is readily accessable for 100 feet. At this point from the entrance the mineralization changes from atalc shist containing a bundant crystals of tyrite, and arseno pyrite to a 2 foot wide vein of arseno pyrite, with traces of pyrite and uraninite. The change in the mineralization occurs on a 6 foot cross cut, and should either parallel the tunnel or intersect it between the 100 and 200 foot point. A cave-in at this point however prohibits the close examination of the tunnel, from the 100 to 200 foot point.

The renewed interest in the prospect was brought about by a local prospector living in Basin, Montana, who found radioactive ore on the dump. Assays of this material exceeded 2% radium oxide. It is notable that the geiger counter gave only fair reading on the most sensitive scale when passed across the exposed vein in the cross-cut. However when a few inches was pinched off the exposed surface of the vein and the counters passed across the vein the readings were off scale on the second most sensitive scale. This is explainable because of weathering, in that the tunnel is approximately 50 years old, and that this part of the tunnel was filled with water some 5 feet above the floor till recently, when the first cave-in was cleared.

A small amount of water runs from the tunnel carrying with it abundant red mud, (iron oxide). Because of the abundance of arseno pyrite, the writer suggested that a sample be taken spectographed and analyzed for gold and silver. The spectographer analysis (enclosed) but the analysis were disappointing for gold and silver, in that only 0.05 ounces per ton of gold and 0.5 ounces per ton of silver were reported.

Recommendations:

1. On receiptoof the spectograph analysis have the ore assayed for any metal that appears in the analysis, that could be of economic value.

2. Mine two tons of ore and ship it to Salt Lake City. The receipt of the returns would prove conclusively the value of the ore in so far as Uranium content is concerned. If the returns from Salt Lake City shows the ore to be valuable proceed with step 3. It is estimated that the mining of this amount of ore should take no more than five days work for two men, consider that the timbering will be necessary.

3. Have an Engineer geologist map and survey existing tunnels and outcrops after clearing out remaining cave-ins, and if necessary drill three thirty foot diamond drill holes within the tunnel to intersect the arseno pyrite vein. When the cave-ins are cleared it is entirely possible that the arseno pyrite vein intersects the tunnel, and therefore only sampling would be needed.

(a) It should be emphasized at this point a substantial purchase price for the mine is in the offing.

(b) The vein has only been seen and sampled at one point, namely cross-cut, and the extent is not known.

(c) The recoverable uranium oxide is in doubt in spite of the high analysis because of possible mineral associations and milling problems, therefore it is recommended because the prospect has great deal of merit that the value and the extent of the ore be ascertained in order the judge whether the purchase price is equitable.

Yours very trujly,

(Signed) H. R. Morris.

Personal. I would recommend that your representatives be present during this work for reasons I shall outline when I talk to you.

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

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RECEIVED MAR 25 1957

DATE	INITIALS	CODE

SOURCE MATERIAL LICENSE

License No. P-3388

Dated:

Great Shield Uranium Mines Limited
602 Seventh Avenue West
Calgary, Alberta, Canada

Gentlemen:

Pursuant to the Atomic Energy Act of 1954 and Section 40.21 of the Code of Federal Regulations, Title 10 - Atomic Energy, Chapter 1, Part 40 - Control of Source Material, you are hereby authorized to transfer and deliver possession of and title to raw source material from the claims listed in your application for license, reproduced in Schedule A, below, to any person licensed by the Atomic Energy Commission within the limits of his license.

In the events claims other than those listed in Schedule A are to be operated and deliveries made under this license, you are required to notify the Licensing Branch, U. S. Atomic Energy Commission, Washington, D. C., as to the names and locations of such claims, by letter, before deliveries are begun.

This license does not authorize you to receive possession of or title to raw source material from any other person, except samples which are exempt from the governing regulation as set forth in Section 40.11 of the regulation.

Neither this license nor any right under this license shall be assigned or otherwise transferred in violation of the provisions of the Atomic Energy Act of 1954.

This license is subject to the right of recapture or control reserved by Section 108 of the Atomic Energy Act of 1954, and to all of the other provisions of said Act, now or hereafter in effect and to all valid rules and regulations of the U. S. Atomic Energy Commission.

This license shall expire November 1, 1957.

FOR THE ATOMIC ENERGY COMMISSION

Lyall Johnson
Chief, Licensing Branch
Division of Civilian Application

SCHEDULE A

Uranium Lode Claim	Basin Mining Dist., Jefferson Co., Mont.
North Rocker	" " " " " "
North Insulator	" " " " " "
Society Girl 1, 2 & 3	" " " " " "

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/24	Kuegen	700
10/24	Ely	900
10/24	Selfridge	300
10/24	Johnson	110
		~~100~~
		~~310~~
10/29	gb	220
		~~225~~

OCT 28 1957

Mr. Albert J. Jacobs, President
Great Shield Uranium Mines, Limited
602 Seventh Avenue West
Calgary, Alberta
Canada

Re: Docket No. DMEA-4699 (Uranium)
Uranium Quartz Lode, et al., Claims
Jefferson County, Montana

10/28 Yoos (130)
J Williams (130)

Dear Mr. Jacobs:

Your application for aid in an exploration project and other information available to us in Washington concerning the 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 some uranium mineralization on your property, indicates that the probability of disclosing significant ore reserves 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 Exploration Program and for bringing your property to our attention.

Sincerely yours,

Frank E. Johnson (fw)
ACTING Administrator

FLKnouse/izm 10-24-57
cc: Mr. Knouse
Admr.'s Reading File
Operating Committee
DMEA FT Reg. I (2)
THKiilsgaard, 5224

8623

Docket

Kuoque Ellis

October 24, 1957

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket: DMEA-4679

Commodity: Uranium

Applicant: Great Shield Uranium Mines, Limited, a Canadian Corporation Suite 35 - 25 Melina St., Toronto, Canada, also 602 Seventh Avenue West, Calgary, Alberta, Canada

Property: Consists of eight contiguous unpatented lode mining claims in the NW$\frac{1}{4}$ sec. 16, T. 7 N., R. 5 W., MPM&B, Jefferson County, Montana. The claims are Uranium Quartz Lode, Society Girl, Society Girl Nos. 1 and 2, and Tartan Nos. 1, 2, 3, & 4.

Property Rights: In an Agreement, dated October, 1956 the Gold Syndicate Corporation assigned an undivided 75% interest to Applicant in the Uranium Quartz Lode Claim until December 31, 1957. In an instrument, dated April 15, 1957, William Inverarity conveyed to the Applicant an undivided 75% interest in the Tartan Nos. 1, 2, 3, & 4 claims. Also, in an instrument, dated April 1957, Gold Syndicate Corporation conveyed to the Applicant an undivided 75% interest in the Society Girl claims.

Application Dated: February 11, 1957

Amount of Application: $46,000.00 - detailed estimate $45,615.00

Referred to Region I: May 13, 1957

Field Examination: Attempted July 8, 1957, made September 11, 1957

Field Team Report Received Division: October 22, 1957

Work Proposed: Consisted of 100 hours of bulldozing, 2,000 feet of diamond drilling (core or non-core not specified) and 500 feet of tunneling (at an estimated total cost of $45,615.00) to explore a uranium-bearingvein exposed by a 200-foot adit in the Uranium Quartz Lode claim.

Estimated Cost:

Supervision @ $1,000/mo.	$7,000.00
Consulting engineers, 21 days @ $100/day plus expenses @ $15/day	2,415.00
100 hrs. bulldozing @ $12/hr.	1,200.00
2,000 ft. diamond drilling @ $8/ft.	16,000.00
500 ft. drifting @ $30/ft.	15,000.00
Rehabilitation, old workings	2,000.00
New buildings	500.00
Accounting, payroll taxes, insurance & contingencies	1,500.00

Total Estimated Cost of the Project $45,615.00
Government Participation @ 75% $34,211.25

Field Team Report - dated October 7, 1957, by William C. Prinz, USGS & John A. Bowsher, USBM:

The workings on the Uranium Quartz Lode claim, the objective of the proposed exploration, lie wholly in undivided quartz monzonite and granodiorite. The 200-foot adit is lagged tight and not much can be determined regarding the character of the vein it follows. The AEC reports the main structure is a N.65° W.striking near-vertical shear zone in quartz monzonite. A wide zone of altered rock with gray vein quartz in gash fractures is associated with this shear zone. Some gold, silver, galena, pyrite, and arsenopyrite are also present. The radioactivity along this adit is generally at the background count of 0.05 mr/hr, even though dump material from the adit is reported to have yielded some high U_3O_8 assays. The AEC mining engineer estimated that the uraniferous material on the mine dump probably would not exceed 100 pounds of uranium ore.

The highest radioactivity is found in the small doghole drift south of the main adit. Here the examiners obtained average readings of 0.15 mr/hr with some as high as 0.30 mr/hr. The vein here consists of a zone of altered quartz monzonite with stringers of gray, fine-grained quartz and some pyrite, arsenopyrite, and a trace of chalcopyrite. Some streaks of dark gray, plastic clay, probably gouge, are also present and the AEC reported some sooty uraninite associated with the arsenopyrite. A 2-foot chip sample from the vein at the breast of the doghole assayed chemically 0.016% U_3O_8.

A small sample of the doghole material was sent to Vitro Chemical Company in Salt Lake City that assayed chemically 0.501% U_3O_8. A carload was then shipped that assayed only 0.01% U_3O_8.

Although an area of slightly anomalous radioactivity is found on the property and some high chemical assays reported, the uranium mineralization appears to be spotty and irregular. The chances of finding a significant orebody are slight and at present the property is not more than a prospect. Therefore it is recommended that the application be denied.

Commodity Member's Comments:

USBM, James Paone, October 18, 1957:

Agrees with the Field Team.

USGS, W. P. Williams, October 22, 1957:

"The sporadic and non-persistant nature of the uranium deposits on the property make for a poor target for a DMEA project. I agree with the recommendations of the examining team for denial of the application."

Div. of Rare & Misc. Metals, F. L. Knouse, October 25, 1957:

The sporatic and non-persistant nature of the uranium mineralization indicates the probability of making a significant discovery of uranium

in the target areas does not justify Government aid to explore the property. Therefore, the application should be denied.

Conclusions:

A review of all our information relating to the proposed project indicates the probability of making a significant discovery on the property is not promising. Therefore, the application should be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis, Director
Division of Rare and
Miscellaneous Metals

Admr.'s Reading File

October 24, 1957

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket: DMEA-4679

Commodity: Uranium

Applicant: Great Shield Uranium Mines, Limited, a Canadian Corporation Suite 35 - 25 Melina St., Toronto, Canada, also 602 Seventh Avenue West, Calgary, Alberta, Canada

Property: Consists of eight contiguous unpatented lode mining claims in the NW¼ sec. 16, T. 7 N., R. 5 W., MPM&B, Jefferson County, Montana. The claims are Uranium Quartz Lode, Society Girl, Society Girl Nos. 1 and 2, and Tartan Nos. 1, 2, 3, & 4.

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Application Dated: February 11, 1957

Amount of Application: $46,000.00 - detailed estimate $45,615.00

Referred to Region I: May 13, 1957

Field Examination: Attempted July 8, 1957, made September 11, 1957

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Estimated Cost:

Supervision @ $1,000/mo.	$7,000.00
Consulting engineers, 21 days @ $100/day plus expenses @ $15/day	2,415.00
100 hrs. bulldozing @ $12/hr.	1,200.00
2,000 ft. diamond drilling @ $8/ft.	16,000.00
500 ft. drifting @ $30/ft.	15,000.00
Rehabilitation, old workings	2,000.00
New buildings	500.00
Accounting, payroll taxes, insurance & contingencies	1,500.00

Total Estimated Cost of the Project $45,615.00
Government Participation @ 75% $34,211.25

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A small sample of the doghole material was sent to Vitro Chemical Company in Salt Lake City that assayed chemically 0.501% U_3O_8. A carload was then shipped that assayed only 0.01% U_3O_8.

Although an area of slightly anomalous radioactivity is found on the property and some high chemical assays reported, the uranium mineralization appears to be spotty and irregular. The chances of finding a significant orebody are slight and at present the property is not more than a prospect. Therefore it is recommended that the application be denied.

Commodity Member's Comments:

USBM, James Paone, October 18, 1957:

Agrees with the Field Team.

USGS, W. P. Williams, October 22, 1957:

"The sporadic and non-persistant nature of the uranium deposits on the property make for a poor target for a DMEA project. I agree with the recommendations of the examining team for denial of the application."

Div. of Rare & Misc. Metals, F. L. Knouse, October 25, 1957:

The sporatic and non-persistant nature of the uranium mineralization indicates the probability of making a significant discovery of uranium

in the target areas does not justify Government aid to explore the property. Therefore, the application should be denied.

Conclusions:

A review of all our information relating to the proposed project indicates the probability of making a significant discovery on the property is not promising. Therefore, the application should be denied.

/s/ Ernest Wm. Ellis

Ernest Wm. Ellis, Director
Division of Rare and
Miscellaneous Metals

FLKnouse/izm 10-25-57
cc: Mr. Knouse
Admr.'s Reading File
Operating Committee
Docket (original)

October 24, 1957

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket: DMEA-4679

Commodity: Uranium

Applicant: Great Shield Uranium Mines, Limited, a Canadian Corporation
Suite 35 - 25 Melina St., Toronto, Canada, also
602 Seventh Avenue West, Calgary, Alberta, Canada

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500 ft. drifting @ $30/ft.	15,000.00
Rehabilitation, old workings	2,000.00
New buildings	500.00
Accounting, payroll taxes, insurance & contingencies	1,500.00

Reviewed by
DMEA OPERATING COMMITTEE
10-28-57
(date)

Total Estimated Cost of the Project $45,615.00
Government Participation @ 75% $34,211.25

Field Team Report - dated October 7, 1957, by William C. Prinz, USGS & John A. Bowsher, USBM:

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Commodity Member's Comments:

USBM, James Paone, October 18, 1957:

Agrees with the Field Team.

USGS, W. P. Williams, October 22, 1957:

"The sporadic and non-persistant nature of the uranium deposits on the property make for a poor target for a DMEA project. I agree with the recommendations of the examining team for denial of the application."

Div. of Rare & Misc. Metals, F. L. Knouse, October 25, 1957:

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in the target areas does not justify Government aid to explore the property. Therefore, the application should be denied.

Conclusions:

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/s/ Ernest Wm. Ellis

Ernest Wm. Ellis, Director
Division of Rare and
Miscellaneous Metals

FLKnouse/izm 10-25-57
cc: Mr. Knouse
Admr.'s Reading File
Operating Committee
Docket (original)

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

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 23 1957
IN REPLY REFER TO:

DATE	INITIALS	CODE
10/23	gb	220
"	FOK	700
	Complete	

Memorandum

October 22, 1957

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

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

Subject: Review of Field Examination Report, DMEA 4699 (uranium), Great Shield Uranium Mines, Ltd., Uranium Quartz Lode claims, Jefferson County, Montana.

The examining team report that the possibilities of finding minable ore deposits on the applicant's property are poor. They point out that although an area of slightly anomalous radioactivity is found on the claims, and some high chemical assays have been reported, the uranium minerals are irregular in distribution.

A carload of 'ore' shipped to Vitro Chemical Company assayed only 0.01 percent U_3O_8. A chip sample taken by the examining team assayed chemically 0.016 percent U_3O_8.

The sporadic and non-persistent nature of the uranium deposits on the property makes for a poor target for a DMEA project. I agree with the recommendation of the examining team for denial of the application.

W. P. Williams

W. P. Williams

Official

EXTRA COPY
DMEA
RECEIVED OCT 18 1957

DATE	INITIALS	CODE
10/	C	220
10/21	FLK	700

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

Date October 18, 1957

DMEA Docket No. 4699
DMEA Control No.
Commodity Uranium
Name of applicant Great Shield Uranium Ines, Ltd.
Name of property Uranium Quartz Lode, et al
Location of property Jefferson County, Montana
Estimated cost of project $46,600

Forwarded

To Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From James Paone, Bureau of Mines Member
Uranium Commodity Committee

Subject: Field Team Report
(Applicant, Field Team Leader, etc.)

1. Date of application contact: 10/7/57 2. Date contacted by applicant: 10/17/57

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

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

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

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

7. Explain items marked yes above:

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

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

10. Remarks: (Use back of page if necessary)

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

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 14 1957

DATE	INITIALS	COPY
10/14	C	220
10/18	JB	130
10/21	C	220
[illegible]	C	700
10/22	FLK	700

October 8, 1957

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

Re: Docket No. DMEA-4699 (Uranium)
Great Shield Uranium Mines, Ltd.
Uranium Quartz Lode, et al. claims
Jefferson County, Montana

Dear Mr. Selfridge:

Enclosed are three copies of a memorandum examination report on the subject property by William A. Prinz, Geologist, U. S. Geological Survey, and John A. Bowsher, Mining Engineer, U. S. Bureau of Mines.

A shear zone in quartz monzonite has been explored for 200 feet by an adit. The shear zone contains quartz and small amounts of gold, silver, galena, pyrite and arsenopyrite. Although the Atomic Energy Commission reports two samples from the dump contained 2.80 percent eU_3O_8 (2.05 cU_3O_8) and 1.62 percent eU_3O_8 (no chemical determination) radioactivity along the adit is equal to or slightly above background. In a small doghole from the adit radioactivity was found to be spotty, at places 3 to 6 times background. This doghole appears to be the most likely source of the radioactive material on the dump, which the Atomic Energy Commission estimates to be not more than 100 pounds.

Prinz and Bowsher conclude that the uranium mineralization is spotty and irregular and that the chance of finding a significant ore body is slight. They, therefore, recommend that the application be denied.

The Field Team concurs with the examiners' conclusions and recommendations.

By Field Team, Region I

A. E. Weissenborn 10-18-57
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Thomas E. Howard
Thomas E. Howard, Acting Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2)
USGS (SRO)
AEC (SLC)
Prinz

ON-SITE EXPM

OFFICIAL FILE COPY DMEA RECEIVED OCT 14 1957		
DATE	INITIALS	CODE
10/18	JAB	130
		220

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

October 7, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: William C. Prinz, Geologist, U. S. Geological Survey, and John A. Bowsher, Mining Engineer, U. S. Bureau of Mines

Subject: Field Examination Report, Docket No. DMEA-4699 (Uranium) Great Shield Uranium Mines, Ltd., Uranium Quartz Lode, et al. claims, Jefferson County, Montana

INTRODUCTION

An application for DMEA assistance to explore a uranium property in Jefferson County, Montana was received March 14, 1957 from the Great Shield Uranium Mines, Ltd. The applicant proposes to explore the property with 100 hours of bulldozing, 2,000 feet of diamond drilling, and 500 feet of drifting at an estimated cost of $46,600. Government participation at 75 percent would be $34,950.

J. A. Bowsher, Mining Engineer, U. S. Bureau of Mines, and R. D. Sample and W. C. Prinz, Geologists, U. S. Geological Survey attempted an examination of the property July 8, 1957, accompanied by Mr. Batterman, Basin, Montana, company miner, and Rufus Turner, also of Basin, optioner. At this time, clearing of an adit on the property was not complete and the uranium-bearing portion of the vein was inaccessible. After two months had elapsed without hearing from the applicant regarding the accessibility of the property, Bowsher and Prinz stopped in Basin on September 10, 1957 while enroute from Helena to Butte. Neither Batterman nor Turner could be found, but Batterman's son stated that the clearing work had been completed. Bowsher and Prinz returned to Basin September 11 and an examination of the property was made.

Arthur E. Granger, Manager, Salt Lake Area Office, Atomic Energy Commission, was asked to comment on this application and information he supplied in a letter to A. E. Weissenborn, Executive Officer, dated April 19, 1957, will be referred to later in this report.

Reviewed by
DMEA OPERATING COMMITTEE
10-18-57
(date)

SUMMARY AND RECOMMENDATIONS

The applicant's property lies within the Boulder batholith (Cretaceous) and contains a shear zone which strikes N. 65° W. and dips steeply north. Gold, silver, and galena in a quartz, pyrite, and arsenopyrite gangue are found in this zone. In a small doghole drift adjacent to the main structure, there is some radioactivity and some uranium mineralization. However, the uranium mineralization is weak and spotty and the chances of making a significant discovery are poor. Therefore, it is recommended that the application be denied.

LOCATION AND ACCESSIBILITY

The main workings on the applicant's property are about 9¼ miles by road north of Basin, Montana in the NW¼ sec. 16, T. 7 N., R. 5 W., Jefferson County, Montana. It is in the Cataract Creek Mining District (unorganized). The property can be reached by the following route (pl. 1): Turn north on the Cataract Creek road from Highway 91 just east of Basin. At 4.4 miles from the highway, the road forks; take the right fork and continue past the old Eva May mine which is about 7.2 miles north of the highway. At 0.6 mile north of the Eva May mine, turn left, ford Cataract Creek, and follow the steep Jeep trail for 1.5 miles to the property. Cataract Creek road from the highway to the Eva May mine is easily passable by passenger car; from the Eva May mine to the Great Shield mine road it is passable by passenger car if caution is used as in many places the road has a high center. The 1.5 miles of Jeep trail from the Cataract Creek road to the property is passable only to 4-wheel drive vehicles with high clearance. The Jeep trail to the mine would probably be impassable during the winter months and after a heavy rain.

APPLICANT

The applicant, Great Shield Uranium Mines, Ltd., is a Canadian corporation with home offices in Toronto, Ontario, Canada. Work on the property included in this application is being handled through their Calgary office which is located at 602 Seventh Avenue West, Calgary, Alberta.

PROPERTY RIGHTS

The applicant has an interest in eight contiguous unpatented claims in the area. On the Uranium Lode claim, the claim in which he proposes to explore, he has a 75 percent interest on an option to buy and has until December 31, 1957 to exercise this option. He also has 75 percent interest in the Society Girl, Society Girl No. 1 and No. 2, and in the Tartan Nos. 1, 2, 3, and 4 claims. Those claims are recorded as follows:

Claim	Book	Page
Uranium Lode	48	216
Society Girl	48	500
Society Girl No. 1	48	501
Society Girl No. 2	48	502
Tartan No. 1	48	503
Tartan No. 2	48	504
Tartan No. 3	48	505
Tartan No. 4	48	506

The applicant does not state where these claims are recorded but probably it is in the Jefferson County clerk's office in Boulder, Montana.

DESCRIPTION OF PROPERTY

The applicant's property lies on a steep slope west of Cataract Creek and south of Rocker Creek at an altitude of about 7,500 feet. The only workings on the property consist of a 200-foot adit, now lagged tight, and a small deghole crosscut and drift south from the main adit about 100 feet from the portal (Fig. 1). The deghole drift has above background radioactivity and is open for inspection.

HISTORY

The main adit was driven about 50 years ago on a silver-gold-lead vein. Several years ago, Rufus Turner, a prospector from Basin, found radioactive material on the dump and the adit was partially opened by the Atomic Energy Commission. Later, the applicant cleared the adit back for about 100 feet and drove the small crosscut and drift south in search of uranium ore. They shipped one carload from this area about a year ago but it is reported to have assayed only 0.01 percent U_3O_8. They completed rehabilitation of the main adit during the summer of 1957.

GEOLOGY

The following description of the regional geology is taken from:

Becraft, G. E., Pinckney, D. M., and Rosenblum, S., 1957, Geology and mineral deposits of the Jefferson City quadrangle, Montana: unpublished preliminary manuscript, U. S. Geological Survey.

The property considered in this report lies in the Boulder batholith about midway between Helena and Butte, Montana. The Boulder batholith is Late Cretaceous in age, is intrusive into the Elkhorn Mountain volcanics (upper Cretaceous), and is overlain unconformably by Tertiary volcanics. These three groups of igneous rocks are all acidic and all have essentially the same composition. The batholith has been the subject of a recent detailed study by U. S. Geological Survey geologists who have subdivided its rocks into various groups based mainly on textural and color differences. In sec. 16, T. 7 N., R. 5 W., the section in which the applicant's property is located, Becraft, Pinckney, and Rosenblum have mapped Boulder batholith rocks consisting of undivided quartz monzonite and granodiorite (fig. 1, on), and medium-grained, light-gray quartz monzonite and granodiorite with a distinct reddish tint (fig. 1, mla). Both of these rock types form part of the Main Stage of the batholith. In addition, they have mapped several small dikes or blebs of alaskite from the Late Stage of the batholith, and two patches of Pleistocene glacial material.

The workings on the Uranium Lode claim lie wholly in undivided quartz monzonite and granodiorite (fig. 1, on). The 200-foot adit is lagged tight and not much can be determined regarding the character of the vein it follows. However, according to the Atomic Energy Commission, Supplement to Preliminary Reconnaissance Report B-3-111 dated June 12, 1956, the main structure is a N. 65° W.-striking, near-vertical shear zone in quartz monzonite. A wide zone of altered rock with gray vein quartz in flash fractures is associated with this shear zone. Some gold, silver, galena, pyrite, and arsenopyrite are also present. The examining team found that the radioactivity along this adit is generally at the background count of 0.05 MR/hr, even though dump material from the adit is reported to have yielded some high U_3O_8 assays. Assays of some of the dump material as reported by the Atomic Energy Commission are as follows:

% U_3O_8	
Radiometric	Chemical
2.80	2.05
1.62	not determined
0.074	not determined
0.076	not determined

The applicant reported that one sample from the dump assayed chemically 3.75 percent U_3O_8. However, in his letter to A. E. Weissenborn, A. E. Grunger mentioned that an Atomic Energy Commission mining engineer estimated that the uraniferous material on the dump probably would not exceed 100 pounds of uranium ore.

The highest radioactivity is found in the small deghole drift south of the main adit. Here, the examining team obtained average readings of 0.15 MR/hr with some as high as 0.30 MR/hr, and the Atomic Energy Commission reports counts to 1.0 MR/hr (Suppl. PRR E-B-111). The vein here consists of a zone of altered quartz monzonite with stringers of gray, fine-grained quartz and some pyrite, arsenopyrite, and a trace of chalcopyrite. Streaks of dark gray, plastic clay, probably gouge, are also present and the AEC reported some sooty uraninite associated with the arsenopyrite. This zone strikes N. 65° W. and dips 70° N.

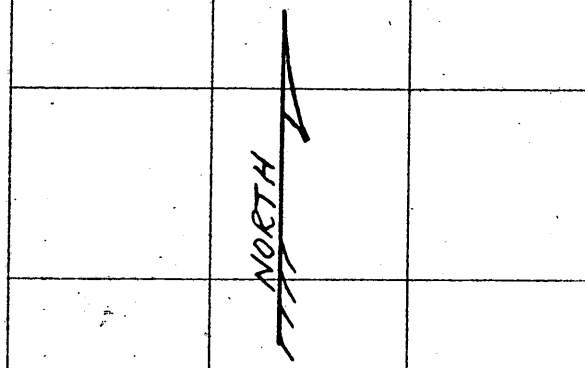
The applicant sent a small sample from the deghole drift area to Vitro Chemical Company in Salt Lake City for testing and Vitro reported that it assayed chemically 0.501 percent U_3O_8 and was easy to treat. A carload was then shipped to Vitro, but according to Mr. Granger's letter to Weissenborn, this lot assayed only 0.01 percent U_3O_8. The examining team collected a 2-foot chip sample (No. 815) from this vein at the breast of the deghole drift and it assayed chemically 0.016 percent U_3O_8.

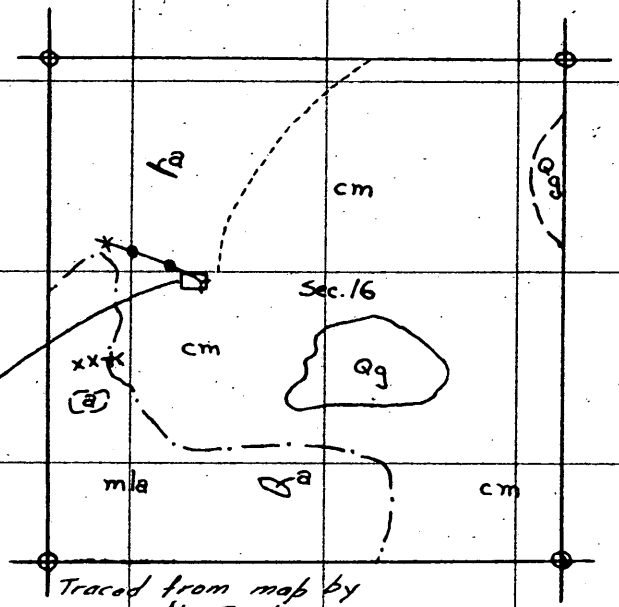
From the data available, it appears that the uranium mineralization is spotty and not persistent, and the size of the deposit is small and of low average grade.

CONCLUSIONS AND RECOMMENDATIONS

Although an area of slightly anomalous radioactivity is found on the property and some high chemical assays have been reported, the uranium mineralization appears to be spotty and irregular. The chances of finding a significant ore body are slight and at the present the property is not much more than a uranium prospect. Therefore, it is recommended that the application be denied.

Attachments 2
Distribution:
DMEA (3)
USBM (5)
USGS(SRO)
AEC, Salt Lake
Docket
Prinz





Traced from map by Becraft, Pinckney, and Rosenblum.

Geologic Map of Sec. 16, T.7N., R.5W. Jefferson Co., Mont.

1000 0 1000 2000 3000 feet

EXPLANATION

Pleist. { Qg - Glacial deposits

Cretaceous { a - Alaskite. Late stage Boulder Batholith

cm - undivided quartz monzonite and granodiorite Main Stage, Boulder Batholith

mla - quartz monzonite and granodiorite, medium grained, light gray with reddish brown tint. Main Stage, Boulder Batholith.

Quartz vein

Contact

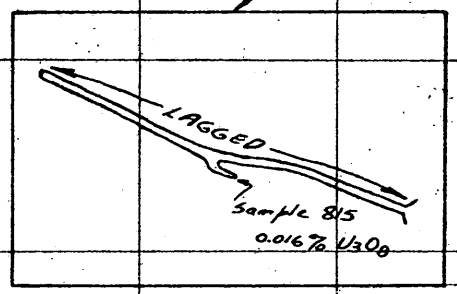
Gradational contact

Contact, approximately located

x Test pit

Coved portal

Jeep trail



Sketch Map adit on the Uranium Lode Claim Great Shield Mines, Ltd.

50 0 100 200 feet

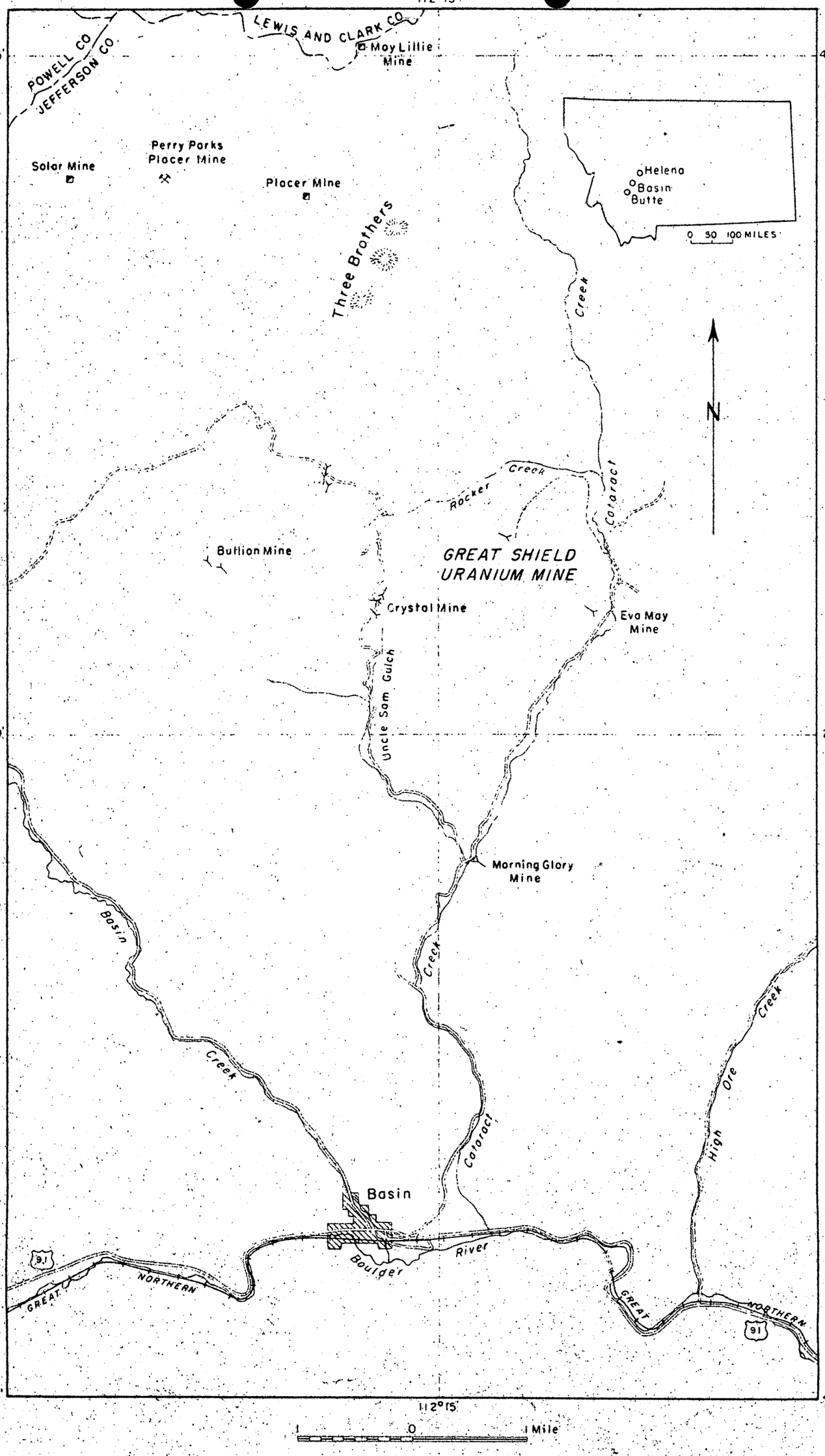
W.C. Prinz, Oct., 1957

Figure 1

"ALBANENE" NO. 1080M K&E CO., N.Y. REG. U.S. PAT. OFF.
J. A. Gendron Co., Spokane

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 14 1957

DATE	INITIALS	CODE



INDEX MAP SHOWING LOCATION OF GREAT SHIELD URANIUM MINE

SEC. 16, T.7N., R.5W., JEFFERSON COUNTY, MONTANA

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DATE	INITIALS	CODE

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D M E A
RECEIVED OCT 14 1957

DATE	INITIALS	CODE

UNITED STATES
ATOMIC ENERGY COMMISSION
SALT LAKE [illegible]
[illegible] SOUTH W[illegible]
SALT L[illegible]

[illegible] MEMORANDUM [illegible]

[illegible] Wei[illegible]
[illegible] Office, [illegible]
Field Team, Region [illegible], [illegible] Dist.
South 16[illegible] Howard Str[illegible]
[illegible], [illegible]

Re: [illegible] application (uranium)
Great Shield Dr. Mines, Ltd.
Uranium Quartz Lode cls.
Jefferson County, Montana

[illegible]

[illegible] wish to offer comments on the subject proposal [illegible] the [illegible] accessibility of the underground workings at the time of the preliminary field investigation and lack of surface outcrops. [illegible] claim points not mentioned in Field Notebook are offered for your information.

It is reported by Vitro that the sorted ore received from this property averaged 0.01 percent U_3O_8. Also, a Commission mining engineer who visited the property reports (oral communication) the uraniferous material present in the dump, which reportedly an [illegible] total 300 feet of drifting, would probably not exceed 100 pounds of uranium ore. Due to the remoteness of the property from a haulage system, a high-assay grade would have to be maintained on ground [illegible] for an economical mining operation.

The occurrence is similar to other base metal-uranium [illegible] in the Boulder batholith (Butte, Gray Eagle, and Lost Girl [illegible]) [illegible] diamond drilling [illegible] proven highly [illegible] [illegible] of the structures [illegible] [illegible] and giving assurance of the well being [illegible]

[illegible]

Although we have presented more or less adverse considerations, the property does have some encouraging geologic indications (see PRR B-B-111) and perhaps extensive drifting would disclose a small tonnage of ore-grade material.

Very truly yours,

Arthur E. Granger
Manager
Salt Lake Area Office

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D.E.R.A.
RECEIVED OCT 14 1957
DATE | INITIALS | CODE

RECEIVED
APR 22

ATOMIC ENERGY COMMISSION
SA[illegible]
222 SOUTH [illegible]
SALT LAKE [illegible]

IN REPLY REFER TO: SLAO:AEG:af

April 19, 1957

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

Re: New application (uranium)
Great Shield Ur. Mines, Ltd.
Uranium Quartz Lode cls.
Jefferson County, Montana

Dear Al:

It is difficult to offer comments on the subject proposal due to the limited accessibility of the underground workings at the time of the preliminary field investigation and lack of surface outcrops. However, a few points not mentioned in PRR B-B-111 are offered for your consideration.

It is reported by Vitro that the carload lot received from this property assayed 0.01 percent U_3O_8. Also, a Commission mining engineer who visited the property reports (oral communication) the uraniferous material present in the dump, which represents an estimated 300 feet of drifting, would probably not exceed 100 pounds of uranium ore. Due to the remoteness of the property from a buying station a high-assay grade would have to be maintained on shipped material for an economical mining operation.

The occurrence is similar to other base metal-uranium deposits in the Boulder batholith (Sylvan, Grey Eagle, and Lone Eagle) where exploratory diamond drilling did not prove highly successful. The altered nature of the structures prevented core recovery except in fresh rock and caving conditions of the drill holes prevalent in the critical zones necessitated immediate radiometric probing while the drill was on location.

Although we have presented more or less adverse considerations, the property does have some encouraging geologic indications (see PRR B-B-111) and perhaps extensive drifting would disclose a small tonnage of ore-grade material.

Very truly yours,

Arthur E. Grenger
Manager
Salt Lake Area Office

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DMEA
RECEIVED OCT 14 1957

DATE	INITIALS	CODE

RECEIVED
APR 22 1957

UNITED STATES
ATOMIC ENERGY COMMISSION
SALT LAKE AREA OFFICE
222 SOUTH WEST TEMPLE ROOM 10
SALT LAKE CITY, UTAH

IN REPLY REFER TO: SLAO:AEG:mf

April 10, 1957

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

Re: New application (uranium)
Great Shield Ur. Mines, Ltd.
Uranium Quartz Lode cls.
Jefferson County, Montana

Dear Al:

It is difficult to offer comments on the subject proposal due to the limited accessibility of the underground workings at the time of the preliminary field investigation and lack of surface outcrops. However, a few points not mentioned in FRR B-R-111 are offered for your consideration.

It is reported by Vitro that the carload lot received from this property assayed 0.01 percent U_3O_8. Also, a Commission mining engineer who visited the property reports (oral communication) the uraniferous material present in the dump, which represents an estimated 300 feet of drifting, would probably not exceed 100 pounds of uranium ore. Due to the remoteness of the property from a buying station a high-grade sample would have to be maintained on shipped material for an economical mining operation.

The occurrence is similar to other base metal-uranium deposits in the Boulder batholith (Sylvan, Grey Eagle, and Lone Eagle) where exploratory diamond drilling did not prove highly successful. The altered nature of the structures prevented core recovery except in fresh rock and caving conditions of the drill holes prevalent in the critical zones necessitated immediate radiometric probing while the drill was on location.

Although we have presented more or less adverse considerations, the property does have some encouraging geologic indications (see PRR B-B-111) and perhaps extensive drilling would disclose a small tonnage of ore-grade material.

Very truly yours,

[illegible]
Assistant Manager
Manager
Salt Lake Area Office

EXTRA COPY
DMEA
RECEIVED [illegible] 1957

DATE	[illegible]	CODE

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/4	Knouse	700
10/4	GCS	130
	Johnson	116
"	Chatterdon	100
10/7	B	220
		700

OCT 4 1957

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

Re: Docket No. DMEA-1699 (Uranium)
Great Shield Uranium Mines, Ltd.
Uranium Quartz Lode, et al., Claims
Jefferson County, Montana

Dear Mr. Weissenborn:

Please advise the status of the subject application that was referred on May 13, 1957, to Region I for investigation, a field examination, and recommendations.

Sincerely yours,

George C. Selfridge
(By ...)
Chairman, Operating Committee

APPROVED:

Frank D. Lamb
(By ...)
Member, Bureau of Mines

W. P. Williams
(By ...)
Member, Geological Survey

FLKnouse/izm 10-4-57
cc: Mr. Knouse
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5-8	Ellis	700
5/10	Selfridge	130
	Yopes	
	Kilcoyne	
5/10	Knouse	110
8	Mittendorf	100
5/14	JCW	220
		700

MAY 13 1957

Mr. Albert U. Jacobs, President
Great Shield Uranium Mines, Limited
602 Seventh Avenue West
Calgary, Alberta
Canada

Re: Docket No. DMEA-4699 (Uranium)
Uranium Quartz Lode, et al., Claims
Jefferson County, Montana

Dear Mr. Jacobs:

The application for assistance in exploring your claims, 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 for a field examination to:

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

The Regional Office will contact you at the earliest opportunity in regard to your project.

Sincerely yours,

C. O. Mittendorf (fwv)

Administrator

EWEllis/izm 5-8-57
cc to: Mr. Knouse
Admr.'s Reading File
DMEA FT Reg. I, NW District (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5-8	Ellis	700
5-8	Selfridge	130
5/10	Johnson	110
"	Rutledge	100
		220

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

MAY 13 1957

Re: Docket No. DMEA-4699 (Uranium)
Great Shield Uranium Mines, Ltd.
Uranium Quartz Lode, et al., Claims
Jefferson County, Montana

Dear Mr. Weissenborn:

The subject application is being referred to you for investigation, a field examination, and recommendations.

Enclosed are memoranda, dated March 27, and April 2, 1957, by James Paone, USBM, and M. B. Nelson, USGS, respectively, relating to the application. Also enclosed is a second copy of the application for the use of the Field Team.

If a project is recommended, we will require Consent to Lien and Subordination Agreements signed by the following parties: Rufus Turner, W. O. Sarette, Gold Syndicate Corporation, and William Inverarity. Accordingly, there are enclosed four sets of seven each of these documents for the proper signatures; one copy is for the agreement signer and the original and five copies in each set are to be forwarded to this office.

While some of the adit is caved, apparently the radioactive arsenopyrite vein is opened up for inspection.

Sincerely yours,

George C. Selfridge
(By esf)
Chairman, Operating Committee

Enclosures
APPROVED:

P. F. Yopes
(By esf)
Member, Bureau of Mines

Thor H. Kiilsgaard
(By esf)
Member, Geological Survey

EWEllis/izm 5-8-57
cc to: Mr. Knouse
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

DOCKET COPY

MAY - 7 1957

Memorandum

To: The Administrator, DMEA
Attention: Chief, Rare and Miscellaneous Metals Division

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-4669, Great Shield Uranium Mines, Ltd. (Uranium)

As requested in a memorandum dated April 22, 1957, from Mr. Ellis, we have reviewed the documents in the subject file concerning the Applicant's land interests.

1. The Uranium Queen claim was optioned July 1956 from Rufus Turner to William O. Zeretta, option expiring in July 1957. This agreement reserves a 5 percent royalty to Turner and did not permit sales of ore. In an instrument dated September 17, 1956, Zeretta assigned the Option Agreement to Gold Syndicate Corporation, reserving a 5 percent royalty. In an agreement dated October 1956, Gold Syndicate assigned to the Applicant, reserving a 25 percent interest in the net profits. In an agreement dated October 1956, Turner granted the Applicant the right to sell ore and to purchase the land. In an instrument dated December 28, 1956, Turner extended the option date 6 months (to January 15, 1958). In an instrument dated April 17, 1957, Turner granted a further extension of 3 years and the right to extend for an additional two years. (While this agreement does not identify the option clearly, it no doubt refers to the one described above.)

In view of the foregoing, the following Consents to Lien and Subordination Agreements will be required, and the prepared forms are attached:

Agreement of Rufus Turner for the royalty reserved and for his reversionary interest.

Agreement of W. O. Zeretta for the royalty reserved to him.

Agreement of Gold Syndicate for the net profit reservation.

2. In an instrument dated April 15, 1957, William Kennedy assigned to the Applicant 75 percent interest in the inventions [illegible] and 41 and [illegible] the related rights [illegible] of these pages [illegible] and [illegible] agreement [illegible] entitling this agreement [illegible] "[illegible]" covering a 25 percent interest in the new profits.

A copy of this and subsidiaries [illegible] William Kennedy is required for the 25 percent new profit interest referred to [illegible].

3. In an instrument dated April 1957, Gold Synthetics Corporation assigned to the Applicant 75 percent interest in the Kennedy Gold Claims 1, 2 and 3 as recently the same [illegible] claims described under item 2 above. Gold Synthetics Corporation assigned these claims by an instrument dated April 15, 1957, from Kenny Church and W. G. Kennedy but no recordation of interest appears in such instrument.

A copy of this and subsidiaries Agreement of Gold Synthetics Corporation is required for the 25 percent interest in the new pending patents to it.

J. L. Hoffund

J. L. Hoffund
Acting Associate Solicitor

Attachments

HOffund:/ed
Copy to: Solicitor's Docket (2)
✓ DMA Docket
R. V. Gilfs
R. P. Boyer
R. E. Baker
chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/24	Knouse	700

April 22, 1957

Memorandum

To: Associate Solicitor
Division of Mineral Resources

From: Ernest Wm. Ellis, Chief
Rare and Miscellaneous Division

Subject: Docket No. DMEA-4699 (Uranium)
Great Shield Uranium Mines, Ltd.
Uranium Quartz Lode, et al., Claims
Jefferson County, Montana

You are referred to our letter dated April 5, to the Applicant, the Applicant's letter dated April 20, 1957 and attachments thereto, and other agreements in the file relating to the Applicant's interest in the land referred to in our letter dated April 5, i.e., Uranium Quartz Lode, Society Girl Nos. 1, 2, and 3, and Tartan Nos. 1, 2, 3, and 4 Claims.

Please determine if the Applicant has sufficient interest in the land for the purpose of a DMEA contract. If there is insufficient interest in the land controlled by the Applicant, please write the necessary letter to the Applicant, for the signature of the Administrator, requesting the desired information.

Should the Applicant have sufficient control of the land for a contract, please draft the necessary copies of a Consent to Lien and Subordination Agreement which shows the names of the parties that should sign the document.

Ernest Wm. Ellis

Ernest Wm. Ellis

FLKnouse/dlm 4-24-57
Admr's Reading File

8623

GREAT SHIELD URANIUM

MINES LIMITED

TELEPHONE 64345

602 - 7TH AVENUE WEST
CALGARY, ALBERTA

April 20th, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED APR 22 1957

DATE	INITIALS	CODE
4/22	C	220
"	Kwame	700

Ernest Wm. Ellis, Chief,
Rare & Miscellaneous Metals Division,
United States Department of the Interior,
Defense Minerals Exploration Administration,
WASHINGTON 25, D. C.

Dear Sir: RE: Docket No. DMEA-4699 (~~Uranium~~)
Uranium Quartz Lode, et al.
Claims, Jefferson County,
Montana.

Further to your letter of April 5th, 1957, we are enclosing herewith four copies of an extension of the option from Rufus Turner for five years, dated the 17th of April 1957,

A document dated October 1956 signed by Rufus Turner by which he now gives us the right to ship ore from the Uranium Quartz Lode property in Montana,

Four copies of an assignment re Society Girl Claims 1, 2 and 3, dated April 15th, 1957,

Four copies of an assignment re Tartan Claims Nos. 1, 2, 3 and 4, dated April 15th, 1957,

Hoping these meet with your requirements, I am,

GREAT SHIELD URANIUM
MINES LIMITED,

Albert J. Jacobs

Albert J. Jacobs,
President.

AJJ:LEH
ENC.

BUREAU OF MINES
WASHINGTON, D. C.
APR 22 8 45 AM '57

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4-5	Knouse	700
4-5	Ellis	700
"	[illegible]	100
"	Mitterdorf	100
4/8	C	220
		700

APR 5 - 1957

Mr. Albert J. Jacobs, President
Great Shield Uranium Mines, Ltd. (Applicant)
602 Seventh Avenue West
Calgary, Alberta
Canada

Re: Docket No. DMEA-4699 (Uranium)
Uranium Quartz Lode, et al., Claims
Jefferson County, Montana

Dear Mr. Jacobs:

Please furnish the following information so that we can continue to process your application:

Your company holds the Uranium Quartz Lode mining claims, on which you propose to do the major part of the exploration work, by means of an Option to purchase until December 31, 1957, at which time a $20,000.00 payment is due. This Option prohibits the sale of any ore produced from the property without the consent of the optionor.

It is the policy of the Defense Minerals Exploration Administration that an applicant requesting exploration aid must have control of the land for at least a two-year period with the right to extend the period for at least an additional three years. Also, it must have the right to mine and sell any ore found on the land. You are, therefore, requested to obtain an amendment to the Option conferring such rights on Great Shield Uranium Mines Limited.

In addition, it is stated in the application that "Great Shield" has a 75 percent interest in the adjoining three Society Girl and three Tartan claims. You should furnish evidence of your interest in these claims, e.g., lease, assignment, or other documents that recites this interest.

Kindly forward four copies of the documents indicated above so that your application can be processed with a minimum of delay.

FLKnouse/gla/izm
4-5-57
cc to: Mr. Knouse
Admr.'s Reading File
THKiilsgaard, 5224
DMEA FT Reg. I, NW Dist. (2)

Sincerely yours,

SIGNED

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

8623

IN REPLY REFER TO:

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

April 2, 1957
Re: DMEA 4699
Great Shield Uranium Mines
Uranium Quartz Lode , etc.
Jefferson County, Montana
$46,000 - Uranium

Memorandum

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

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

Subject: Review of application

The applicant requests assistance in exploring an arsenopyrite-bearing vein in an old gold mine.

The A.E.C., after dump sampling, did bulldozing on the property and opened the portal of an adit. The applicant rehabilited part of the adit and made a carload shipment of material to Vitro Uranium Company. The grade of the shipment is not given, but probably was lower than expected.

The proposed work consists of adit rehabilitation bulldozing to trace the vein, drifting on the vein, and diamond drilling.

Referral of the application to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

OFFICIAL FILE COPY
DMEA
RECEIVED APR 3 1957

DATE	INITIALS	CODE
4/3	C	220
"	~~Extra~~	700
	Known	
	Comments	
	Complete	

OFFICIAL FILE COPY DMEA RECEIVED MAR 28 1957		
DATE	INITIALS	CODE
3/29	C	220
"	Ellis	700

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

Date March 27, 1957

DMEA Docket No. 4699
DMEA Contract No.
Commodity Uranium
Name of applicant Great Shield Uranium Mines
Name of property Uranium Quartz Lode Mining Cl.
Location of property Jefferson Co., Montana
Estimated cost of project $46,000

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: James Paone, Bureau of Mines Alternate Member
Uranium Commodity Committee

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

1. Application received: 2/11/57. 2. Date received by reviewer: 3/26/57

3. Previous parties on this property known to reviewer: Yes ☐ No ☐

4. Previous work on nearby properties known to reviewer: Yes ☐ No ☐

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

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

7. Explain items marked yes above:

8. Factors meriting special consideration:
- a. Position ☐
- b. Geology ☐
- c. Influence of Mineralization ☐
- d. Geology ☐
- e. Proposed exploration method ☐
- f. Alternate exploration method ☐
- g. Costs ☐
- h. _____ ☐

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

10. Remarks: (Use back of page if necessary)

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
Washington 25, D. C.

March 25, 1957.

Great Shield Uranium Mines, Ltd.,
602 Seventh Avenue West,
Calgary, Alberta.

Subject: DMEA 4699.
Re: Exploration Assistance.

Gentlemen:

Your application for exploration assistance, dated February 11, 1957, submitted to our office at Spokane, Washington, has been assigned Docket Number DMEA 4699 and referred to the Rare & Miscellaneous Metals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Chief
Operations Control and
Statistics Division

Copy to: Region I. N.W.

3571

GREAT SHIELD PROPERTIES
LOCATED JEFFERSON COUNTY
MONTANA U.S.A.

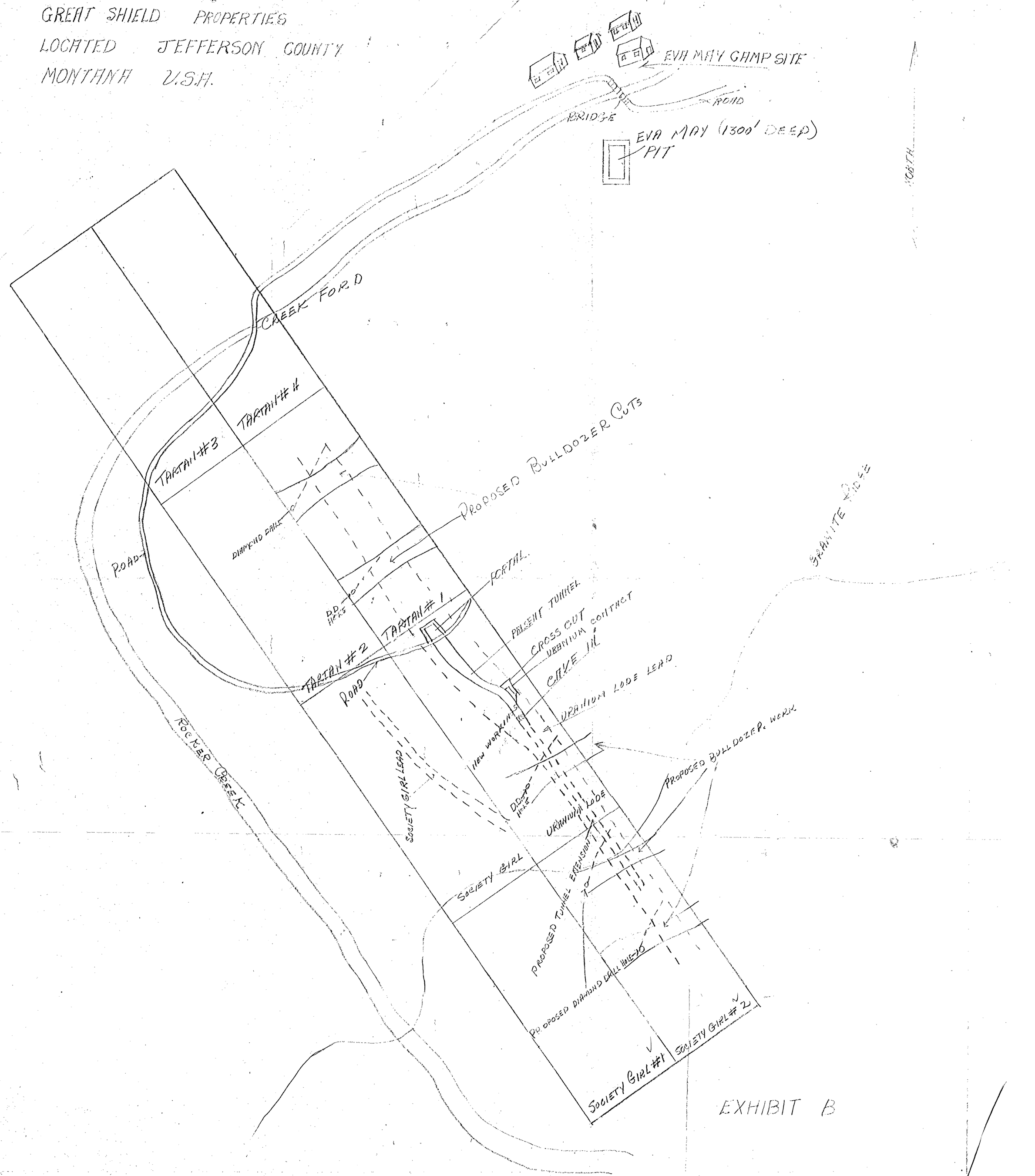

EXHIBIT B