DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMEA ~~DMA~~ Docket No. 2643

DO NOT DETACH THIS SLIP

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

This document has been recorded as

EXPLORATION PROJECT

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

Routing Slip Copies to USBM and USGS. One retained by Region IV.

To:	Code 700, Rm. 4640	Date	8-7-52
To:	Opr. Com	Date	8/20/52
To:	Mittendorf	Date	
To:	Mats & Files	Date	
To:	Ellis Docket	Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

FILE COPY
SURNAME: 200

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

JUN 16 1953

Mr. David P. Shirra
Western Gold Mines, Inc.
P. O. Box 27
Leeds, Utah

Dear Mr. Shirra:

This will acknowledge receipt of your letter dated June 10, 1953 requesting the return of the data filed with your application for exploration assistance, Docket No. 2643.

In answer to your request, these data are returned herewith.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Chief, Operations Control
and Statistics Division

Enclosures
REAdams/meb
6-16-53
cc to: Adm.Reading File
Mails & Files Br.

6-16-53

WESTERN GOLD MINES, INC.
SILVER REEF URANIUM MINES
P. O. BOX 27
LEEDS, UTAH

42 BROADWAY
NEW YORK 4, N. Y.

FIRST NATIONAL BANK BUILDING
CARSON CITY, NEVADA

June 10, 1953.

Mr C. O. Mittendorf, Administrator
D M E A
U S Dept. of the Interior
Washington 25
D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JUN 15 1953

Re: Docket 2643

Dear Sir:

As we have now withdrawn our application for DMEA assistance filed under the above Docket, we would appreciate the return of the data filed with our application and which is now necessary to us in the conduct of our present operations.

We are advised by Mr W.H. King of your Denver office that your office holds three copies of our application and these data which were submitted with them.

Will you therefore kindly return these documents to this office at your early convenience.

With thanks,

Very truly yours,

David P. Shira

Treasurer.

6/4/53 - db

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

224 New Customhouse
Denver 2, Colorado

May 28, 1953

[redacted]

Mr. David P. Shirra, Treasurer
Western Gold Mines, Inc.
P. O. Box 27
Leeds, Utah

Re: Docket DMEA 2643 (Uranium, vanadium)

Dear Mr. Shirra:

This will acknowledge your letter dated May 22, 1953, in which you request that your application for exploration assistance, Docket DMEA 2643, be withdrawn and the application forms returned to you.

Three copies of the application are in the Washington office and we suggest that you write Mr. C.O. Mittendorf, Administrator, DMEA, for these forms. The remaining copy is in our Salt Lake office and we will return it to you after we receive it.

Very truly yours,

W.H. King

W.H. King
Executive Officer, DMEA
Field Team, Region IV

6-4-53

JFS:jp
cc Subject
Chron
COMittendorf
SRWilson
AHKoschmann

6/5/53 - db.

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

224 New Customhouse
Denver 2, Colorado

May 28, 1953

Department of the Interior
Defense Minerals Administration
JUN 1 1953

Memorandum

To: C.O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 2643, Western Gold Mines, Inc. (Uranium)

Enclosed are two copies of a letter from the Western Gold Mines, Inc., requesting that Docket DMEA 2643 be withdrawn. We have accordingly placed the application in our inactive files.

W. H. King
W. H. King

6-5-53

Enclosures

Memorandum

To: Mails & Files

From: Ernest W. Ellis - Rare & Misc. Metals Div.

Subject: Withdrawal of application Docket DMEA-2643
Western Gold Mines, Inc. (Uranium)

Kindly consider application withdrawn as per Applicants' letter of May 28, 1953.

Ernest W. Ellis

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

224 New Customhouse
Denver 2, Colorado

May 28, 1953

Memorandum

To: C.O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 2643, Western Gold Mines, Inc. (Uranium)

Enclosed are two copies of a letter from the Western Gold Mines, Inc., requesting that Docket DMEA 2643 be withdrawn. We have accordingly placed the application in our inactive files.

W. H. King

W. H. King

Enclosures

COPY

WESTERN GOLD MINES, INC.
Silver Reef Uranium Mines
P.O. Box 27
Leeds, Utah

May 22, 1953

Mr. W.H.King
Executive Officer, Region IV
DMEA Field Team
224 New Customhouse Building
Denver 2, Colorado.

Re: DMEA Docket 2643

Dear Mr. King:

With reference to our application for DMEA assistance for our uranium property in Washington County, Utah, filed under the above-mentioned docket, it is now our desire that this application be withdrawn and we would appreciate the return of the data filed along with it.

We have been given assistance in the exploration for uranium by exploration branch of the Atomic Energy Commission, which is the reason for this request that our application with you be withdrawn.

The courtesy and co-operation shown to us in this matter by your office and the Salt Lake office of the USGS has been most gratifying to us and we heartily thank you and them for it.

Cordially yours,

/s/ David P. Shirra

Treasurer

cc-JWHasler, USGS, Salt Lake.
cc-SRWilson, BofM, Salt Lake.
cc-RGBrown, WGM, New York

COPY

WESTERN GOLD MINES, INC.
Silver Reef Uranium Mines
P.O. Box 27
Leeds, Utah

May 22, 1953

Mr. W.H.King
Executive Officer, Region IV
DMEA Field Team
224 New Customhouse Building
Denver 2, Colorado.

Re: DMEA Docket 2643

Dear Mr. King:

With reference to our application for DMEA assistance for our uranium property in Washington County, Utah, filed under the above-mentioned docket, it is now our desire that this application be withdrawn and we would appreciate the return of the data filed along with it.

We have been given assistance in the exploration for uranium by exploration branch of the Atomic Energy Commission, which is the reason for this request that our application with you be withdrawn.

The courtesy and co-operation shown to us in this matter by your office and the Salt Lake office of the USGS has been most gratifying to us and we heartily thank you and them for it.

Cordially yours,

/s/ David P. Shirra

Treasurer

cc-JWHasler, USGS, Salt Lake.
cc-SRWilson, BofM, Salt Lake.
cc-RGBrown, WGM, New York

700

AUG 21 1952

Mr. Ralph O. Brown
Western Gold Mines, Inc.
Box 2
Leeds, Utah

Re: Docket DMEA-2643 (Uranium)
Western Gold Mines, Inc.
Washington County, Utah

Dear Mr. Brown:

The application for assistance in exploring your property in Washington County, Utah, under the above cautioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. Your application has been referred for a field examination to the Executive Officer of Region IV at the following address:

Mr. W. H. King
Executive Officer, Region IV
DMEA Field Team
224 New Customhouse Building
Denver 2, Colorado

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

Sincerely yours,

C. O. Mittendorf

Acting Administrator

Fischmidt/jem
8/19/52
cc to: Adm. Reading File
Docket
Messrs. Ellis
Schmidt
Field Team, Region IV (2)

Mr. W. A. King
Executive Officer, Region IV
DMEA Field Team
24 New Customhouse Building
Denver 2, Colorado

Re: Docket No. -2643 (Uranium)
Western Gold Mines, Inc.
Washington County, Utah

Dear Mr. King:

The captioned application is being referred to you for a Field Team report. There has been enough production of uranium ore from this property to justify a field examination.

It is suggested that since the Atomic Energy Commission and the Geological Survey have examined this property, that the proposed plan of exploration be discussed with Mr. Powell Gilpert of the Geological Survey, and Messrs. Ernest Gordon and Frederick Stuart Jr. of the Atomic Energy Commission at Grand Junction, Colorado.

Since diamond drilling is being successfully used on so many exploration projects, it is not clear why the applicant considers diamond drilling to be useless on this property. The diamond drilling would be comparatively shallow in the area proposed for underground exploration.

It is very difficult to follow the proposed work on the 3 maps accompanying the application. Several important workings mentioned in the application are not shown.

It is suggested that dividing the application into several considered: the first one possibly to drill the Jackpot claims, [illegible], with [illegible] and the outstanding prospective [illegible] and more further work contingent on results from that area.

Since the application does not give any description of the employ of [illegible] or [illegible] this office will be much interested in the recommendation concerning the spacing and number of holes if the wagon drilling campaign is recommended. The number of holes in the proposed application does not check with those shown on the map.

Since the reputation of the proposed drilling contractor given in the application would be a matter of concern to us, it would be appreciated if some recommendation were made on this matter in the Field Team report.

Sincerely yours,

L. C. Selfridge
ACTING Chairman, Operating Committee

Fl:Schmidt/jem 8/19/52
cc to: Adm. Reading File
Docket
Messrs. H.D.Keiser-347
A.J.Butler-3206 GSA
Willis Schmidt
Opr. Committee
Field Team, Region IV

C. N. Johnson
Director, Bureau of Mines

D. M. Lemmon
Director, Geological Survey

FILE COPY
SURNAME:

70

Schmidt
Ellis
Johnson
Lemmon
Selfridge

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

AUG 21 1952

Mr. Ralph O. Brown
Western Gold Mines, Inc.
Box 27
Leeds, Utah

Re: Docket DMA-2343 (Uranium)
Western Gold Mines, Inc.
Washington County, Utah

Dear Mr. Brown:

The application for assistance in exploring your property in Washington County, Utah, under the above captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. Your application has been referred for a field examination to the Executive Officer of Region IV at the following address:

Mr. W. A. King
Executive Officer, Region IV
DMEA Field Team
224 New Customhouse Building
Denver 2, Colorado

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

Sincerely yours,

C. O. Mittendorf (for)
8/21

Acting Administrator

FSSchmidt/jem
8/19/52
cc to: Adm. Reading File
Docket
Messrs. ELLIS
Schmidt
Field Team, Region IV (2)

FILE COPY
SURNAME:
700

Schmidt
Fehr
Selbridge
Wellendorf

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

1 1952

Mr. W. A. King
Executive Officer, Region IV
DMA Field Team
924 New Customhouse Building
Denver 2, Colorado

Re: Docket DMA-2643 (Uranium)
Eastern Gold Mines, Inc.
Washington County, Utah

Dear Mr. King:

The captioned application is being referred to you for a Field Team report. There has been enough production of uranium ore from this property to justify a field examination.

It is suggested that since the Atomic Energy Commission and the Geological Survey have examined this property, that the proposed plan of exploration be discussed with Mr. Powell Bilgnert of the Geological Survey, and Messrs. Ernest Gordon and Frederick Stuard Jr. of the Atomic Energy Commission at Grand Junction, Colorado.

Since diamond drilling is being successfully used on so many exploratory projects, it is not clear why the applicant considers diamond drilling to be useless on this property. The diamond drilling would be comparatively shallow in the area proposed for underground exploration.

It is very difficult to follow the proposed work on the 3 maps accompanying the application. Several important workings mentioned in the application are not shown.

It is suggested that dividing the application into phases be considered; the first one possibly to drill the Buckeye Reefs, Area "A", which has had the outstanding productive record and make further work contingent on results from that area.

Since the application does not give any description of the geology of Areas "A" or "B" this office will be much interested in the recommendation concerning the spacing and number of holes if the vapor drilling campaign is recommended. The number of holes in the proposed application does not check with those shown on the map.

Since the reputation of the proposed drilling contractor given in the application would be a matter of concern to us, it would be appreciated if some recommendation were made on this matter in the Field Team report.

Sincerely yours,

S. C. Selfridge 8/21

ACTING Chairman, Operating Committee (WB)

FSSchmidt/jem 8/19/52

cc to: Adm. Reading File
Docket
Messrs. H.D.Keiser-1347
A.P.Butler-3206 GSA
Ellis Schmidt
Opr. Committee
Field Team, Region IV

Concur:

C. V. Johnson (WB)
Member, Bureau of Mines

D. M. Lemmon (WB)
Member, Geological Survey

8/14/52 gla

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

August 12, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

AUG 13 1952

Memorandum

To: Ernest William Ellis, DMEA Member,
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member,
Uranium Commodity Committee

Subject: DMEA Docket 2643, Western Gold Mines, Inc., Leeds, Utah

I have reviewed the application included in the subject docket and discussed it with Robert Schnable, Acting Geological Survey Member.

It is recommended that the application be referred to the field team for investigation and report, with the suggestion that the team consult Mr. Lowell Hilpert, Geological Survey, and Mr. Ernest Gordon, Atomic Energy Commission, Grand Junction, Colo.

It is further recommended that the field team be asked to report specifically as to the merit of (1) the applicant's contention that in the area of proposed underground exploration "diamond drilling has been shown to be useless for determining grade of uranium oxides," and (2) the extensive and costly underground work proposed.

H. D. Keiser

H. D. Keiser

Attachment

8/13/52 gla

IN REPLY REFER TO:
G:TEFCO:APB

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

Memorandum

To: Ernest Wm. Ellis, DMEA Member, Uranium Commodity Committee

AUG 13 1952

From: A. P. Butler, Jr., USGS Member, Uranium Commodity Committee

Subject: Application for exploration assistance, DMEA Docket 2643, Western Gold Mines, Inc., Leeds, Silver Reef Mines, Harrisburg District, Utah

The Geological Survey and the Atomic Energy Commission have examined the property described in the above application and both indicate that ore grade material exists and suggest that further exploration is desirable. Neither, however, concur with the applicant's statement in answer to question 5 b, that "diamond drilling has been shown to be useless for determining grade of uranium oxides in this area."

The proposed underground exploration suggested by the applicant may be unnecessary in view of the success obtained with diamond drilling in other similar areas and I suggest the field team ascertain if diamond drilling is necessarily precluded by the nature of the deposit.

I recommend that the application be submitted to a field team for review and examination to determine whether or not an exploration is warrented and the kind and amount suitable to this deposit. I suggest that the field team consult Frederick Stugard, Jr., Geological Survey and the staff of the Atomic Energy Commission, Grand Junction, Colorado to gain the benefit of knowledge and information that they may have about this property.

for Arthur P. Butler, Jr.

Attachments

Copy to: Ernest Wm. Ellis

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

Not to be filled in by applicant

Docket No. DMEA-2643
Metal or Mineral
Date Received 8-7-52
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Western Gold Mines, Inc., Box 27, Leeds, Utah. Incorporated in the State of Nevada.
President: Ralph G. Brown, 42 Broadway, New York 4, N.Y.
Treasurer: David P. Shirra, 42 Broadway, New York 4, N.Y.
Secretary: Berene Backus, 31, The Crescent, Montclair, N.J.

(*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 supplementary sheet attached.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise lessee and purchaser under contract from Alex Colbath and wife to whom we have paid $45,000. and owe a further $105,000. payable out of 10% royalty with minimum payment guaranteed every 6 months until total is paid.

(*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. Attached hereto: Contract with Alex Colbath and wife.

(*e*) If you own the land, describe any liens or encumbrances on it not applicable.

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

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

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

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

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

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

16—66551-1

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 7 1952

See supplementary sheet attached for answers to questions 4(a) to 4(e), inclusive.

WESTERN GOLD MINES, INC.

5. *The exploration project.*—(*a*) [illegible]te the mineral or minerals for which you w[illegible]o explore Uranium and Vanadium.

(*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. See supplementary sheet attached.

(*c*) The work will start within 30 days and be completed within 24 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. See supplementary sheet attached.

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: Attached.

(*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.). See supplementary sheet attached.

(*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. Attached.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. Attached.

(*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. Attached.

(*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. None.

(*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. Only accounting, workmen's compensation and liability insurance; and payroll taxes; Included above.

(*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 [X] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper. We will pay 10% of all costs in cash, except such allowance as your engineer may give us for use of any equipment of our own.

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 July 30, 1952

WESTERN GOLD MINES, INC.
(Applicant)

By Ralph G. Brown
Ralph G. Brown
President.

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

M F 103 Supplementary
Re: Questions 3(a) and 3(f)

3 (a) State of Utah, Harrisburg Mining District, the following claims:

Patented -	Buckeye	Lode	Lot	USS	No.	54
	Savage	"	"	"	"	59
	Kinner	"	"	"	"	62
	Tecumseh	"	"	"	"	40
	Silver Flat	"	"	"	"	45
	Manhattan	"	"	"	"	67
	Stormy King	"	"	"	"	56
	Coso California	"	"	"	"	65
	Chloride Chief	Lot	No.	50		
	Silver Point	"	"	49		
	Silver Crown	"	"	51		
	Big Hill	"	"	7177		
	Coolidge	"	"	7177		
	Silverman	"	"	7177		
	Silverman No.2	"	"	7177		
	Silverman No. 3	"	"	7177		

Unpatented -	West Buckeye	Lode	Mining	Claim	Book	x-18	Page	124
	Christie No. 2	"	"	"	"	x-18	"	125
	Colonel Walt	"	"	"	"	x-18	"	126
	Colonel Walt No.2	"	"	"	"	x-18	"	127

3 (f) See above: 3 (a)

WESTERN GOLD MINES, INC.

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION.

MF-103 Supplementary Sheet re Questions 4(a) to 4 (e), inclusive.

4 (a) Prior to acquisition by Western Gold Mines, Inc. in 1947, production of the Silver Reef was limited to the period from 1875 to 1909 and consisted of 7,211,463 ounces of silver, according to B. S. Butler's "Ore Deposits of Utah (1920 - Professional Paper No.111") There has been no other production of silver, to the best of our knowledge; however, in 1950, after discovery of Uranium, Messrs. Frank Willis and Frank Morgan under a sub-lease produced and shipped180 tons of Carnotite ore (Feb. 1950 to Feb. 1952) which contained 889 lbs. of Uranium Oxide, or about .25% and 6222 lbs. of Vanadium Oxide, or about 1.71%. This production has been limited to four claims, namely, Silver Point, Chloride Chief, Silver Crown and Silverman. All these four claims are on that part of the Silver Reef known as the Buckeye Reef. The work to date all consists of shallow workings from which the aforesaid 180 tons of Carnotite ore has been shipped.

Chloride Chief
Silver Point

On Feb. 23rd, 1952 the sub-lease to Willis and Morgan expired, and was not renewed by Western Gold Mines, Inc., which then took back the property and initiated exploration work anew. At present, two explorations projects in this same area are being worked:

(A) A crosscut is being driven to the ore bearing bed above Willis and Morgan's Rex Shaft. From the point of intersection, a raise is planned to prospect the bed to its surface outcrop, a distance of about 225 feet.

(B) The old Doyle shaft and drifts are being de-watered, cleaned out and re-timbered. Western Gold Mines, Inc. plans a crosscut to the ore bed on the Doyle shaft level, and, after intersecting said ore bed, then to raise on this bed to the above mentioned crosscut level in (A) above, a distance of approximately 200 feet. (Please refer to Map No. 2 - scale 1 inch equals 40 feet).

All workings on these four claims above named are easily accessible, and many of the old workings in other areas of the property can be examined. Western Gold Mines, Inc. has a small compressor, a hoist at the Doyle Shaft, and pneumatic jack-hammer in operation.

4 (b) Re: production: See answer to 4 (a)
Re: reserves: No reserves of Uranium yet blocked out.
Some silver reserves are claimed in old reports (e.g. 1920 by Crane) but these are all on the White Reef (not covered in this loan application) except the following dumps which are on the southern part of Buckeye Reef. (The Buckeye Reef constitutes about one-half of the "Silver Reef Mines"; this exploration

M F 103-Supplementary
Re: Question 4.

4 (b) loan application applies only to the Buckeye Reef):

	Tons	Silver	Copper
Stormont Dump (fines)	5000	8.01 oz	-
Last Chance " "	2000	20.08 "	-
Tecumseh " "	3000	12.91 "	-
Bonanza " "	5500	6.10 "	0.55%
Christy Tailings Dump (fines)	120000	4.77	0.25%

Although no tests for Uranium were made by Crane (1920) indications are that U-V minerals are present.

4 (c) Re Geology, Mineralization and Type of Deposit:
See B.S.Butler's "Ore Deposits of Utah (Professional Paper 111)" pp. 582-594 inclusive.
Also, see Frederick Stugard, Jr. January, 1951 USGS Report, "Uranium Resources in the Silver Reef (Harrisburg) District, Washington County, Utah" 1-31 inclusive.

Following are our reasons for wishing to explore, via Wagon Drilling, and by some underground work at depths too deep for Wagon Drilling:

A. Shipments by Willis and Morgan from Pumpkin Point (Chloride Chief, Silver Point, etc. claims) averaged 4.93 pounds per ton and prospects seem good for further ore from these claims and west to, and beyond, U.S.Mining Monument No.1, all of which territory looks promising. This is "Area A", which we would like to wagon drill. See Map.

B. A number of promising specimens have been taken from the Tecumseh, Manhattan, Stormy King, Colonel Walt, Kinner, Savage and West Buckeye claims. (See Map). These claims should be wagon drilled also, we believe. This is "Area B". We hope and expect, in addition to uncovering other Uranium shipping ore like that found at Pumpkin Point, to find that also we have a very large tonnage of low grade Uranium Oxide; because of the silver and copper occurring with it, this low grade can be mined profitably and milled on the property. Our reasons for believing that a large tonnage of this low grade exists follow:-

(1) We understand that yellow Uranium and Vanadium mineral was found in the old American Smelting & Refining shaft where it cut the Buckeye Reef at 418-57 ft. See Map.

(2) On a line southeasterly from this shaft to a point on the Savage claim, a sample was found in May of this year by our Resident Engineer, Mr.Harris B.Salisbury, in the presence of our Mr.Ralph G. Brown, president of the company. This sample was far better than low grade and assayed in our own laboratory:
U_3O_8 0.55%; V_2O_5 5.05%; Ag 8.12 oz; and Cu 3.1%.

(3) Continuing farther along this same line, Autunite has been reported found at the "Gad Shaft". See Butler,

Professional paper 111 - page 591 and Stugard, pages 22 and 23.

(4) A composite of 25 samples taken by Stugard - USGS Report, page 18 - from the Christy Tailings Dump shows uranium .01%, vanadium .07%. All the ores run through this old Christy Mill came from the Buckeye Reef. Since this Dump has been exposed to heavy rains and shows for more than 50 years, it is thought that originally it contained much higher percentages than it now shows, and that the ores from all of the Buckeye Reef contained substantial uranium and vanadium values.

4 (c) C. In view of the above situation, in addition to plans for exploration both by Wagon Drilling and underground work, we have been making metallurgical tests and have now developed a successful ore treatment process for the recovery, not only of uranium and vanadium, but also of the silver and copper. By means of this recovery and then the sale of the silver and copper, we believe that we can profitably mine and treat even relatively low grade uranium and vanadium oxides, and thus produce a desirable concentrate marketable at any licensed government receiving station. This metallurgical research and investigation has been done for us by Mr. Alan Kissock, E.M.

4 (d) The property is readily accessible the year around, being relatively flat, and lies less than 2 miles off U. S. Highway No. 91. The nearest uranium receiving station is at Marysvale, Utah, a distance of approximately 120 miles from Silver Reef. The majority of supplies needed can be obtained within 35 miles or less of the property. Specialized equipment must come from Salt Lake City, a distance of about 300 miles.
A number of small towns and settlements afford ample accommodations for a large crew.

4 (e) The altitude is only about 4,000 feet. Climatic and working conditions make it easy to attract the best manpower available. Supplies and equipment are easily obtained locally or can be shipped by truck from Salt Lake City.
Water is abundant for domestic and industrial use.
Power is supplied by the Southern Utah Power Co. at a reasonable cost.

5 (a) The minerals for which we wish to explore are Uranium and Vanadium.

5 (b) The proposed exploration consists of a number of Wagon Drill holes to be spaced in grid formation at 100 foot intervals, drilled to such depth as to penetrate the ore bearing bed or beds. Our map shows proposed locations in "Area A" of 276 holes of about 80 feet average depth; also 145 holes in "Area B" of about 60 feet average depth.

80' is deep for wagon drilling. R.O.T.

M F 103 - Supplementary
Re: Question 5
Re: Question 6.

5 (b) Underground work is planned as follows: (1) To explore the unworked area of the Tecumseh Buckeye bed by an approach through the old AS&R 3 compartment, 458 feet deep Shaft. This shaft would be rehabilitated to serve two compartments and manway down to water-table at 180 feet. From this point a cross-cut would be driven eastward, above water level, to the Tecumseh bed, about 640 feet. Then exploratory drifting along the bed, South 360 feet toward the Savage Shaft and NNE 1500 feet to a point just North and West of the Hartman Shaft, will follow. This area is too deep to be explored by wagon-drilling. The below water level of the Doyle area warrants exploration by advancing the present winze 100 feet and driving drifts along the bed in each direction for a total of 1,000 feet. In this area which shows good promise, wagon-drilling would be ineffective because of the presence of water, and diamond drilling has been shown to be useless for determining grade of uranium oxides in this area.

5 (d) The wagon-drilling exploration will be done under contract to be signed by Minerals Engineering Co. of Grand Junction, Colorado, who are one of the leading firms of the country engaged in this work. Copy of our proposed contract with Minerals Engineering Co. (orally agreed to but not yet signed) is attached hereto. Underground work of sinking and drifting will be done by Western Gold Mines, Inc. under the direction of Harris B. Salisbury. Mr. Salisbury was with Climax Molybdenum Co. at Leadville, Colorado, for seven years, following which he was with Golden Crown Mining Co. at Crown King, Arizona, for five years, as General Superintendent He resigned from this position December 31, 1949 to go with Shattuck-Denn Mining Co., of Humboldt, Arizona, in 1950 and 1951; early in 1952 he joined Western Gold Mines, Inc. in charge of Silver Reef. Regarding the ability of Western Gold Mines to do this work, the company has already drifted in "Area A" into the ore bed just above Willis and Morgan's Rex workings, and is now raising on the ore bed; it has also nearly completed the re-timbering and cleaning out of the old Doyle shaft - see Map No. 2. The Company's experience otherwise has been confined to supervision and exploration work on its subsidiaries' properties in Arizona and Colorado. Its Arizona subsidiary, Golden Crown Mining Co., for the past year, has been engaged in an extensive exploration project on its property adjoining to the North the Iron King mine of Shattuck-Denn Mining Co. This exploration work has included the sinking of a 458 foot vertical shaft (now completed), drifting some 300 feet, and diamond drilling, which is still continuing.

6 (a) Independent contract for 30,780 feet of wagon-drilling by Minerals Engineering Co., of Grand Junction, Colorado (proposed contract attached):

M F 103 - Supplementary
Re: Question 6.

6 (a)

"Area A": 276 holes at 80 ft. average depth	22,080 ft.	
"Area B": 145 holes at 60 ft. average depth	8,750 ft.	
Total.....	30,780 ft.	
Contract cost: 30,780 ft @ 75¢ per ft.	$23,085.00	
Moving charges	600.00	
Surveying and mapping	1,500.00	
Observation, sample checking, and lab. analysis, 4 months @ $1200.00	4,800.00	
Cost of assay lab. materials	1,200.00	
Total.....	$31,185.00	$31,185.00

6 (b)

Estimated labor costs for Crosscutting and Drifting 3500 ft. @ $22.17 per ft. equals $77,595.00 — 77,595.00

2 Hoistman	@ $12.50 ...	$25.00
4 Miners	12.50 ...	50.00
2 Topmen	11.50 ...	23.00
1 Mechanic	15.00 ...	15.00
1 Supervisor	20.00 ...	20.00
Two shifts equals ...		$133.00

at 6 ft. for 2 shifts the cost equals $22.17 per ft.

Estimated labor costs for sinking and incline winze in the Doyle area:
5'x 7' cross section; 100 ft. @ $44.33 per ft. equals — 4,433.00

2 Hoistmen	@ $12.50....	$ 25.00
4 Miners	@ 12.50....	50.00
2 Topmen	@ 11.50....	23.00
1 Mechanic	@ 15.00....	15.00
1 Superviser	20.00....	20.00
Two shifts equals...		$133.00

at 3 ft. advance for 2 shifts the cost equals $44.33 per ft.

6 (c)

Materials and Supplies for Crosscutting & Drifting 3500 ft:

Powder and primers	$ 2.00	per ft.	
Bits and steel	.50	"	
Power for air & pumps	2.00	"	
Timber	2.50	"	
Misc. & repairs	2.50	"	
Total.....	$ 9.50	" for 3500 ft. =	$33,250.00

Materials and Supplies for Sinking Incline Winze, Doyle Area, total of 100 ft. @ $11.50 per ft. = $1,150.00

Powder and primers	$ 2.00	per ft.
Bits and steel	.50	"
Power for air and pumps	3.00	"
Timber (stull, lagging, ladders & skids),	2.50	"
Pipe	1.00	"
Misc. & Repairs	2.50	"
Total.....	$ 11.50	

M F 103 - Supplementary
Re: Question 6.

6 (e) Estimated cost of Rehabilitation A.S.& R. Shaft to a depth of 180 feet. This cost is based on Steel Sets designed for two skip compartments and one manway and service compartment:-

Erecting Head Frame with bins, compressor and full equipment		$11,500.00
Cost of Steel	$24.00a ft.	
Wood lagging	5.00 "	
Power	2.00 "	
Misc.& Repairs	6.00 "	
Labor & Supervision	23.00 "	
	$60.00 "	
180 feet at	$60.00 a ft.	$10.800.00
Total....		$22,300.00

$22,300.00

Total for 6 (a), (b), (c) and (e). $169,913.00

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

Not to be filled in by applicant

Docket No. DMEA-2643
Metal or Mineral
Date Received 8-7-52
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Western Gold Mines, Inc., Box 27, Leeds, Utah. Incorporated in the State of Nevada.
President: Ralph G. Brown, 42 Broadway, New York 4, N.Y.
Treasurer: David P. Shirra, 42 Broadway, New York 4, N.Y.
Secretary: Berene Backus, 31, The Crescent, Montclair, N.J.

(*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 supplementary sheet attached.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise lessee and purchaser under contract from Alex Colbath and wife to whom we have paid $45,000. and owe a further $105,000. payable out of 10% royalty with minimum payment guaranteed every 6 months until total is paid. (*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. Attached hereto: Contract with Alex Colbath and wife.

(*e*) If you own the land, describe any liens or encumbrances on it not applicable.

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

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

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

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

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

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

16—66551-1

See supplementary sheet attached for answers to questions 4(a) to 4(e), inclusive.

WESTERN GOLD MINES, INC.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium and Vanadium.

(*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. See supplementary sheet attached.

(*c*) The work will start within 30 days and be completed within 24 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. See supplementary sheet attached.

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: Attached.

(*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.). See supplementary sheet attached.

(*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. Attached.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. Attached.

(*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. Attached.

(*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. None.

(*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. Only accounting, workmen's compensation and liability insurance; and payroll taxes: Included above.

(*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 [X] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper. We will pay 10% of all costs in cash, except such allowance as your engineer may give us for use of any equipment of our own.

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 July 30, 1952

WESTERN GOLD MINES, INC.
(Applicant)

By Ralph G. Brown
Ralph G. Brown
President.

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

N P 103 Supplementary
Re: Questions 3(a) and 3(f)

3 (a) State of Utah, Harrisburg Mining District, the following claims:

Patented -	Buckeye	Lode	Lot	USS	No. 54
	Savage	"	"	"	" 59
	Kinner	"	"	"	" 62
	Tecumseh	"	"	"	" 40
	Silver Flat	"	"	"	" 45
	Manhattan	"	"	"	" 67
	Stormy King	"	"	"	" 56
	Coso California	"	"	"	" 65

Chloride Chief	Lot	No.	50
Silver Point	"	"	49
Silver Crown	"	"	51
Big Hill	"	"	7177
Coolidge	"	"	7177
Silverman	"	"	7177
Silverman No. 2	"	"	7177
Silverman No. 3	"	"	7177

Unpatented -	West Buckeye	Lode	Mining	Claim	Book	x-18	Page	124
	Christie No. 2	"	"	"	"	x-18	"	125
	Colonel Walt	"	"	"	"	x-18	"	126
	Colonel Walt No. 2	"	"	"	"	x-18	"	127

3 (f) See above: 3 (a)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION.

MF-103 Supplementary Sheet re Questions 4(a) to 4 (e), inclusive.

4 (a) Prior to acquisition by Western Gold Mines, Inc. in 1947, production of the Silver Reef was limited to the period from 1875 to 1909 and consisted of 7,211,463 ounces of silver, according to B. S. Butler's "Ore Deposits of Utah (1920 - Professional Paper No.111)". There has been no other production of silver, to the best of our knowledge; however, in 1950, after discovery of Uranium, Messrs. Frank Willis and Frank Morgan under a sub-lease produced and shipped180 tons of Carnotite ore (Feb. 1950 to Feb. 1952) which contained 889 lbs. of Uranium Oxide, or about .25% and 6222 lbs. of Vanadium Oxide, or about 1.71%. This production has been limited to four claims, namely, Silver Point, Chloride Chief, Silver Crown and Silverman. All these four claims are on that part of the Silver Reef known as the Buckeye Reef. The work to date all consists of shallow workings from which the aforesaid 180 tons of Carnotite ore has been shipped.

On Feb. 23rd, 1952 the sub-lease to Willis and Morgan expired, and was not renewed by Western Gold Mines, Inc., which then took back the property and initiated exploration work anew. At present, two explorations projects in this same area are being worked:

(A) A crosscut is being driven to the ore bearing bed above Willis and Morgan's Rex Shaft. From the point of intersection, a raise is planned to prospect the bed to its surface outcrop, a distance of about 225 feet.

(B) The old Doyle shaft and drifts are being de-watered, cleaned out and re-timbered. Western Gold Mines, Inc. plans a crosscut to the ore bed on the Doyle shaft level, and, after intersecting said ore bed, then to raise on this bed to the above mentioned crosscut level in (A) above, a distance of approximately 200 feet. (Please refer to Map No. 2 - scale 1 inch equals 40 feet).

All workings on these four claims above named are easily accessible, and many of the old workings in other areas of the property can be examined. Western Gold Mines, Inc. has a small compressor a hoist at the Doyle Shaft, and pneumatic jack-hammer in operation.

4 (b) Re: production: See answer to 4 (a)
Re: reserves: No reserves of Uranium yet blocked out.
Some silver reserves are claimed in old reports (e.g. 1920 by Crane) but these are all on the White Reef (not covered in this loan application) except the following dumps which are on the southern part of Buckeye Reef. (The Buckeye Reef constitutes about one-half of the "Silver Reef Mines"; this exploration

M F 103-Supplementary
Re: Question 4.

4 (b) loan application applies only to the Buckeye Reef):

	Tons	Silver	Copper
Stormont Dump (fines)	5000	8.01 oz	-
Last Chance " "	2000	20.08 "	-
Tecumseh " "	3000	12.91 "	-
Bonanza " "	5500	6.10 "	0.55%
Christy Tailings Dump (fines)	120000	4.77	0.25%

Although no tests for Uranium were made by Crane (1920) indications are that U-V minerals are present.

4 (c) Re Geology, Mineralization and Type of Deposit:
See B.S.Butler's "Ore Deposits of Utah (Professional Paper 111)" pp. 582-594 inclusive.
Also, see Frederick Stugard, Jr. January, 1951 USGS Report, "Uranium Resources in the Silver Reef (Harrisburg) District, Washington County,Utah",1-31 inclusive.

Following are our reasons for wishing to explore, via Wagon Drilling, and by some underground work at depths too deep for Wagon Drilling:

A. Shipments by Willis and Morgan from Pumpkin Point (Chloride Chief, Silver Point, etc. claims) averaged 4.93 pounds per ton and prospects seem good for further ore from these claims and west to, and beyond, U.S.Mining Monument No.1, all of which territory looks promising. This is "Area A", which we would like to wagon drill. See Map.

B. A number of promising specimens have been taken from the Tecumseh, Manhattan, Stormy King, Colonel Walt, Kinner, Savage and West Buckeye claims. (See Map). . These claims should be wagon drilled also, we believe. This is "Area B". We hope and expect, in addition to uncovering other Uranium shipping ore like that found at Pumpkin Point, to find that also we have a very large tonnage of low grade Uranium Oxide; because of the silver and copper occurring with it, this low grade can be mined profitably and milled on the property. Our reasons for believing that a large tonnage of this low grade exists follow:-
(1) We understand that yellow Uranium and Vanadium mineral was found in the old American Smelting & Refining shaft where it cut the Buckeye Reef at 418-57 ft.See Map.
(2) On a line southeasterly from this shaft to a point on the Savage claim, a sample was found in May of this year by our Resident Engineer, Mr.Harris B.Salisbury, in the presence of our Mr.Ralph G. Brown, president of the company. This sample was far better than low grade and assayed in our own laboratory:
U_3O_8 0.55%; V_2O_5 5.05%; Ag 8.12 oz; and Cu 3.1%.
(3) Continuing farther along this same line,Autunite has been reported found at the "Gad Shaft". See Butler,

Professional paper 111 - page 591 and Stugard, pages 22 and 23.

(4) A composite of 25 samples taken by Stugard - USGS Report, page 18 - from the Christy Tailings Dump shows uranium .01%, vanadium .07%. All the ores run through this old Christy Mill came from the Buckeye Reef. Since this Dump has been exposed to heavy rains and shows for more than 50 years, it is thought that originally it contained much higher percentages than it now shows, and that the ores from all of the Buckeye Reef contained substantial uranium and vanadium values.

4 (c) C. In view of the above situation, in addition to plans for exploration both by Wagon Drilling and underground work, we have been making metallurgical tests and have now developed a successful ore treatment process for the recovery, not only of uranium and vanadium, but also of the silver and copper. By means of this recovery and then the sale of the silver and copper, we believe that we can profitably mine and treat even relatively low grade uranium and vanadium oxides, and thus produce a desirable concentrate marketable at any licensed government receiving station. This metallurgical research and investigation has been done for us by Mr. Alan Kissock, E.M.

4 (d) The property is readily accessible the year around, being relatively flat, and lies less than 2 miles off U. S. Highway No. 91. The nearest uranium receiving station is at Marysvale, Utah, a distance of approximately 120 miles from Silver Reef. The majority of supplies needed can be obtained within 35 miles or less of the property. Specialized equipment must come from Salt Lake City, a distance of about 300 miles.
A number of small towns and settlements afford ample accommodations for a large crew.

4 (e) The altitude is only about 4,000 feet. Climatic and working conditions make it easy to attract the best manpower available. Supplies and equipment are easily obtained locally or can be shipped by truck from Salt Lake City.
Water is abundant for domestic and industrial use.
Power is supplied by the Southern Utah Power Co. at a reasonable cost.

5 (a) The minerals for which we wish to explore are Uranium and Vanadium.

5 (b) The proposed exploration consists of a number of Wagon Drill holes to be spaced in grid formation at 100 foot intervals, drilled to such depth as to penetrate the ore bearing bed or beds. Our map shows proposed locations in "Area A" of 276 holes of about 80 feet average depth; also 145 holes in "Area B" of about 60 feet average depth.

M F 103 - Supplementary
Re: Question 5
Re: Question 6.

5 (b) Underground work is planned as follows: (1) To explore the unworked area of the Tecumseh Buckeye bed by an approach through the old AS&R 3 compartment, 458 feet deep Shaft. This shaft would be rehabilitated to serve two compartments and manway down to water-table at 180 feet. From this point a cross-cut would be driven eastward, above water level, to the Tecumseh bed, about 640 feet. Then exploratory drifting along the bed, South 360 feet toward the Savage Shaft and NNE 1500 feet to a point just North and West of the Hartman Shaft, will follow. This area is too deep to be explored by wagon-drilling. The below water level of the Doyle area warrants exploration by advancing the present winze 100 feet and driving drifts along the bed in each direction for a total of 1,000 feet. In this area which shows good promise, wagon-drilling would be ineffective because of the presence of water, and diamond drilling has been shown to be useless for determining grade of uranium oxides in this area.

5 (d) The wagon-drilling exploration will be done under contract to be signed by Minerals Engineering Co. of Grand Junction, Colorado, who are one of the leading firms of the country engaged in this work. Copy of our proposed contract with Minerals Engineering Co. (orally agreed to but not yet signed) is attached hereto. Underground work of sinking and drifting will be done by Western Gold Mines, Inc. under the direction of Harris B. Salisbury. Mr. Salisbury was with Climax Molybdenum Co. at Leadville, Colorado, for seven years, following which he was with Golden Crown Mining Co. at Crown King, Arizona, for five years, as General Superintendent He resigned from this position December 31, 1949 to go with Shattuck-Denn Mining Co., of Humboldt, Arizona, in 1950 and 1951; early in 1952 he joined Western Gold Mines, Inc. in charge of Silver Reef. Regarding the ability of Western Gold Mines to do this work, the company has already drifted in "Area A" into the ore bed just above Willis and Morgan's Rex workings, and is now raising on the ore bed; it has also nearly completed the re-timbering and cleaning out of the old Doyle shaft - see Map No. 2. The Company's experience otherwise has been confined to supervision and exploration work on its subsidiaries' properties in Arizona and Colorado. Its Arizona subsidiary, Golden Crown Mining Co., for the past year, has been engaged in an extensive exploration project on its property adjoining to the North the Iron King mine of Shattuck-Denn Mining Co. This exploration work has included the sinking of a 458 foot vertical shaft (now completed), drifting some 300 feet, and diamond drilling, which is still continuing.

6 (a) Independent contract for 30,780 feet of wagon-drilling by Minerals Engineering Co., of Grand Junction, Colorado (proposed contract attached):

M F 103 - Supplementary
Re: Question 6.

6 (a)

"Area A": 276 holes at 80 ft. average depth	22,080 ft.	
"Area B": 145 holes at 60 ft. average depth	8,750 ft.	
Total.....	30,780 ft.	
Contract cost: 30,780 ft @ 75¢ per ft.	$23,085.00	
Moving charges	600.00	
Surveying and mapping	1,500.00	
Observation, sample checking, and lab. analysis, 4 months @ $1200.00	4,800.00	
Cost of assay lab. materials	1,200.00	
Total.....	$31,185.00	$31,185.00

6 (b)

Estimated labor costs for Crosscutting and Drifting 3500 ft. @ $22.17 per ft. equals $77,595.00 — 77,595.00

2 Hoistman	@ $12.50 ...	$25.00
4 Miners	12.50 ...	50.00
2 Topmen	11.50 ...	23.00
1 Mechanic	15.00 ...	15.00
1 Supervisor	20.00 ...	20.00
Two shifts equals ...		$133.00

at 6 ft. for 2 shifts the cost equals $22.17 per ft.

Estimated labor costs for sinking an incline winze in the Doyle area:
5'x 7' cross section; 100 ft. @ $44.33 per ft. equals 4,433.00

2 Hoistmen	@ $12.50....	$ 25.00
4 Miners	@ 12.50....	50.00
2 Topmen	@ 11.50....	23.00
1 Mechanic	@ 15.00....	15.00
1 Superviser	20.00....	20.00
Two shifts equals...		$133.00

at 3 ft. advance for 2 shifts the cost equals $44.33 per ft.

6 (c)

Materials and Supplies for Crosscutting & Drifting 3500 ft:

Powder and primers	$ 2.00	per ft.	
Bits and steel	.50	"	
Power for air & pumps	2.00	"	
Timber	2.50	"	
Misc. & repairs	2.50	"	
Total.....	$ 9.50	" for 3500 ft. =	$33,250.00

Materials and Supplies for Sinking Incline Winze, Doyle Area, total of 100 ft. @ $11.50 per ft. = $1,150.00

Powder and primers	$ 2.00	per ft.
Bits and steel	.50	"
Power for air and pumps	3.00	"
Timber (stull, lagging, ladders & skids),	2.50	"
Pipe	1.00	"
Misc. & Repairs	2.50	"
Total.....	$ 11.50	

M F 103 - Supplementary
Re: Question 6.

6 (e) Estimated cost of Rehabilitation A.S.& R. Shaft to a depth of 180 feet. This cost is based on Steel Sets designed for two skip compartments and one manway and service compartment:-

Erecting Head Frame with bins, compressor and full equipment $11,500.00

Cost of Steel	$24.00a ft.	
Wood lagging	5.00 "	
Power	2.00 "	
Misc.& Repairs	6.00 "	
Labor & Supervision	23.00 "	
	$60.00 "	

180 feet at $60.00 a ft. $10.800.00

Total....$22,300.00 $22,300.00

Total for 6 (a), (b), (c) and (e). $169,913.00

EXPLORATION

Subject: DMEA-2643
Re: Exploration Assistance
Silver Reef Mines
August 8, 1952

Mr. Ralph G. Brown
Western Gold Mines, Inc.
Box 27
Leeds, Utah

My dear Mr. Brown:

This will acknowledge receipt of your application dated July 30, 1952, for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2643 and referred to the Rare and Miscellaneous Metals Division.

Kindly refer to DMEA-2643 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

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

7862

August 8, 1952

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned Docket Number to an application recently submitted from Region IV.

DMEA-2643 - Western Gold Mines, Inc.

ROBERT E. ADAMS

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

DMEA-2643

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

224 New Customhouse
Denver 2, Colorado

August 1, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 7 1952

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Application (Uranium), Western Gold Mines, Inc., Silver Reef Mines, Washington County, Utah

Enclosed are three copies of the application of Western Gold Mines, Inc. in the amount of $169,913. Also attached are copies of the applicant's letter of transmittal and our reply.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

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

224 New Customhouse
Denver 2, Colorado

August 1, 1952

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Application (Uranium), Western Gold Mines, Inc., Silver Reef Mines, Washington County, Utah

Enclosed are three copies of the application of Western Gold Mines, Inc. in the amount of $169,913. Also attached are copies of the applicant's letter of transmittal and our reply.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

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

224 New Customhouse
Denver 2, Colorado

August 1, 1952

Mr. Ralph G. Brown, President
Western Gold Mines, Inc.
42 Broadway
New York 4, New York

Dear Mr. Brown:

This will acknowledge receipt of your application on the Silver Reef Mines, which is being processed.

The Form MF-202 you requested has been replaced by Form MF-203, six copies of which are attached.

Very truly yours,

W. H. King

W. H. King
Executive Officer
DMEA Field Team, Region IV

Enclosure

cc: Sec. Oper. Comm

WESTERN GOLD MINES, INC.
42 Broadway
New York 4, N. Y.

Whitehall 4-6478

Silver Reef Uranium Mines
Office, Leeds, Utah

First National Bank Building
Carson City, Nevada

July 30, 1952

Mr. W. H. King
Defense Minerals Exploration Administration
224 New Custom House Building,
Denver 2, Colorado

Dear Mr. King:

It has taken us some time, since our conversation about June 1st last, to prepare the enlosed Loan Application for $169,913, together with the attached supplementary sheets, schedules, reports and maps.

Mr. Clyde Collins, A.E.C. engineer from Marysville, Utah, has been in touch with our resident engineer in charge, Mr. Harris B. Salisbury, as well as Dr. Donald Everhart, of the New York A.E.C. office. Dr. Everhart has spent a good deal of time on our property, and I am sure that both he and Mr. Collins will recommend favorable action on our Loan Application.

I hope that your shortage of engineers is by now alleviated and that you can soon have one of your men contact our resident engineer, Mr. Salisbury, and go over our Silver Reef property with him. Mr. Salisbury's address is, Box 27, Leeds, Utah, and his telephone in Leeds is Hurricane 2361.

With best wishes,

Yours very truly,

s/ Ralph G. Brown

t/ Ralph G. Brown
President

RGB C
Enclosures

P.S. Would you please send us six copies of Form MF-202 so that we can have our lessor, Alex. Colbath and wife, sign the same in quadruplicate, and forward the same to you.

WESTERN GOLD MINES, INC.
42 Broadway
New York 4, N. Y.

Whitehall 4-6478

Silver Reef Uranium Mines
Office, Leeds, Utah

First National Bank Building
Carson City, Nevada

July 30, 1952

Mr. W. H. King
Defense Minerals Exploration Administration
224 New Custom House Building,
Denver 2, Colorado

Dear Mr. King:

It has taken us some time, since our conversation about June 1st last, to prepare the enlosed Loan Application for $169,913, together with the attached supplementary sheets, schedules, reports and maps.

Mr. Clyde Collins, A.E.C. engineer from Marysville, Utah, has been in touch with our resident engineer in charge, Mr. Harris B. Salisbury, as well as Dr. Donald Everhart, of the New York A.E.C. office. Dr. Everhart has spent a good deal of time on our property, and I am sure that both he and Mr. Collins will recommend favorable action on our Loan Application.

I hope that your shortage of engineers is by now alleviated and that you can soon have one of your men contact our resident engineer, Mr. Salisbury, and go over our Silver Reef property with him. Mr. Salisbury's address is, Box 27, Leeds, Utah, and his telephone in Leeds is Hurricane 2361.

With best wishes,

Yours very truly,

s/ Ralph G. Brown

t/ Ralph G. Brown
President

RGB C
Enclosures

P.S. Would you please send us six copies of Form MF-202 so that we can have our lessor, Alex. Colbath and wife, sign the same in quadruplicate, and forward the same to you.

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

Not to be filled in by applicant

Docket No. DMEA-2643
Metal or Mineral
Date Received 8-7-52
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Western Gold Mines, Inc., Box 27, Leeds, Utah. Incorporated in the State of Nevada.
President: Ralph G. Brown, 42 Broadway, New York 4, N.Y.
Treasurer: David P. Shirra, 42 Broadway, New York 4, N.Y.
Secretary: Berene Backus, 31, The Crescent, Montclair, N.J.

(*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 supplementary sheet attached.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise. lessee and purchaser under contract from Alex Colbath and wife to whom we have paid $45,000. and owe a further $105,000. payable out of 10% royalty with minimum payment guaranteed every 6 months until total is paid

(*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. Attached hereto: Contract with Alex Colbath and wife.

(*e*) If you own the land, describe any liens or encumbrances on it Not applicable.

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

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

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

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

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

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

16—66551-1

See supplementary sheet attached for answers to questions 4(a) to 4(e), inclusive.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 7 1952

WESTERN GOLD MINES, INC.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you will explore Uranium and Vanadium

(*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. See supplementary sheet attached.

(*c*) The work will start within 30 days and be completed within 24 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. See supplementary sheet attached.

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: Attached.

(*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.). See supplementary sheet attached.

(*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. Attached.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. Attached.

(*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. Attached.

(*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. None.

(*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. Only accounting, workmen's compensation and liability insurance; and payroll taxes; Included above.

(*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 [X] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper. We will pay 10% of all costs in cash, except such allowance as your engineer may give us for use of any equipment of our own.

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 July 30, 1952

WESTERN GOLD MINES, INC.
(Applicant)

By Ralph G. Brown
Ralph G. Brown
President.

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

M F 103 Supplementary
Re: Questions 3(a) and 3(f)

3 (a) State of Utah, Harrisburg Mining District, the following claims:

Patented -	Buckeye	Lode	Lot	USS	No.	54
	Savage	"	"	"	"	59
	Kinner	"	"	"	"	62
	Tecumseh	"	"	"	"	40
	Silver Flat	"	"	"	"	45
	Manhattan	"	"	"	"	67
	Stormy King	"	"	"	"	56
	Coso California	"	"	"	"	65
	Chloride Chief	Lot	No.	50		
	Silver Point	"	"	49		
	Silver Crown	"	"	51		
	Big Hill	"	"	7177		
	Coolidge	"	"	7177		
	Silverman	"	"	7177		
	Silverman No.2	"	"	7177		
	Silverman No. 3	"	"	7177		

Unpatented -	West Buckeye	Lode	Mining	Claim	Book	x-18	Page	124
	Christie No. 2	"	"	"	"	x-18	"	125
	Colonel Walt	"	"	"	"	x-18	"	126
	Colonel Walt No.2	"	"	"	"	x-18	"	127

3 (f) See above: 3 (a)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION.

MF-103 Supplementary Sheet re Questions 4(a) to 4 (e), inclusive.

4 (a) Prior to acquisition by Western Gold Mines, Inc. in 1947, production of the Silver Reef was limited to the period from 1875 to 1909 and consisted of 7,211,463 ounces of silver, according to B. S. Butler's "Ore Deposits of Utah (1920 - Professional Paper No.111"). There has been no other production of silver, to the best of our knowledge; however, in 1950, after discovery of Uranium, Messrs. Frank Willis and Frank Morgan under a sub-lease produced and shipped180 tons of Carnotite ore (Feb. 1950 to Feb. 1952) which contained 889 lbs. of Uranium Oxide, or about .25% and 6222 lbs. of Vanadium Oxide, or about 1.71%. This production has been limited to four claims, namely, Silver Point, Chloride Chief, Silver Crown and Silverman. All these four claims are on that part of the Silver Reef known as the Buckeye Reef. The work to date all consists of shallow workings from which the aforesaid 180 tons of Carnotite ore has been shipped.

On Feb. 23rd, 1952 the sub-lease to Willis and Morgan expired, and was not renewed by Western Gold Mines, Inc., which then took back the property and initiated exploration work anew. At present, two explorations projects in this same area are being worked:

(A) A crosscut is being driven to the ore bearing bed above Willis and Morgan's Rex Shaft. From the point of intersection, a raise is planned to prospect the bed to its surface outcrop, a distance of about 225 feet.

(B) The old Doyle shaft and drifts are being de-watered, cleaned out and re-timbered. Western Gold Mines, Inc. plans a crosscut to the ore bed on the Doyle shaft level, and, after intersecting said ore bed, then to raise on this bed to the above mentioned crosscut level in (A) above, a distance of approximately 200 feet. (Please refer to Map No. 2 - scale 1 inch equals 40 feet).

All workings on these four claims above named are easily accessible, and many of the old workings in other areas of the property can be examined. Western Gold Mines, Inc. has a small compressor, a hoist at the Doyle Shaft, and pneumatic jack-hammer in operation.

4 (b) Re: production: See answer to 4 (a)
Re: reserves: No reserves of Uranium yet blocked out.
Some silver reserves are claimed in old reports (e.g. 1920 by Crane) but these are all on the White Reef (not covered in this loan application) except the following dumps which are on the southern part of Buckeye Reef. (The Buckeye Reef constitutes about one-half of the "Silver Reef Mines"; this exploration

M F 103-Supplementary
Re: Question 4.

4 (b) loan application applies only to the Buckeye Reef):

	Tons	Silver	Copper
Stormont Dump (fines)	5000	8.01 oz	-
Last Chance " "	2000	20.08 "	-
Tecumseh " "	3000	12.91 "	-
Bonanza " "	5500	6.10 "	0.55%
Christy Tailing Dump (fines)	120000	4.77	0.25%

Although no tests for Uranium were made by Crane (1920) indications are that U-V minerals are present.

4 (c) Re Geology, Mineralization and Type of Deposit:
See B.S.Butler's "Ore Deposits of Utah (Professional Paper 111)" pp. 582-594 inclusive.
Also, see Frederick Stugard, Jr. January, 1951 USGS Report, "Uranium Resources in the Silver Reef (Harrisburg) District, Washington County, Utah," 1-31 inclusive.

Following are our reasons for wishing to explore, via Wagon Drilling, and by some underground work at depths too deep for Wagon Drilling:

A. Shipments by Willis and Morgan from Pumpkin Point (Chloride Chief, Silver Point, etc. claims) averaged 4.93 pounds per ton and prospects seem good for further ore from these claims and west to, and beyond, U.S.Mining Monument No.1, all of which territory looks promising. This is "Area A", which we would like to wagon drill. See Map.

B. A number of promising specimens have been taken from the Tecumseh, Manhattan, Stormy King, Colonel Walt, Kinner, Savage and West Buckeye claims. (See Map). These claims should be wagon drilled also, we believe. This is "Area B". We hope and expect, in addition to uncovering other Uranium shipping ore like that found at Pumpkin Point, to find that also we have a very large tonnage of low grade Uranium Oxide; because of the silver and copper occurring with it, this low grade can be mined profitably and milled on the property. Our reasons for believing that a large tonnage of this low grade exists follow:-

(1) We understand that yellow Uranium and Vanadium mineral was found in the old American Smelting & Refining shaft where it cut the Buckeye Reef at 418-57 ft. See Map.

(2) On a line southeasterly from this shaft to a point on the Savage claim, a sample was found in May of this year by our Resident Engineer, Mr.Harris B.Salisbury, in the presence of our Mr.Ralph G. Brown, president of the company. This sample was far better than low grade and assayed in our own laboratory:
U_3O_8 0.55%; V_2O_5 5.05%; Ag 8.12 oz; and Cu 3.1%.

(3) Continuing farther along this same line, Autunite has been reported found at the "Gad Shaft". See Butler,

Professional paper 111 - page 591 and Stugard, pages 22 and 23.

(4) A composite of 25 samples taken by Stugard - USGS Report, page 18 - from the Christy Tailings Dump shows uranium .01%, vanadium .07%. All the ores run through this old Christy Mill came from the Buckeye Reef. Since this Dump has been exposed to heavy rains and shows for more than 50 years, it is thought that originally it contained much higher percentages than it now shows, and that the ores from all of the Buckeye Reef contained substantial uranium and vanadium values.

4 (c) C. In view of the above situation, in addition to plans for exploration both by Wagon Drilling and underground work, we have been making metallurgical tests and have now developed a successful ore treatment process for the recovery, not only of uranium and vanadium, but also of the silver and copper. By means of this recovery and then the sale of the silver and copper, we believe that we can profitably mine and treat even relatively low grade uranium and vanadium oxides, and thus produce a desirable concentrate marketable at any licensed government receiving station. This metallurgical research and investigation has been done for us by Mr. Alan Kissock, E.M.

4 (d) The property is readily accessible the year around, being relatively flat, and lies less than 2 miles off U. S. Highway No. 91. The nearest uranium receiving station is at Marysvale, Utah, a distance of approximately 120 miles from Silver Reef. The majority of supplies needed can be obtained within 35 miles or less of the property. Specialized equipment must come from Salt Lake City, a distance of about 300 miles.
A number of small towns and settlements afford ample accommodations for a large crew.

4 (e) The altitude is only about 4,000 feet. Climatic and working conditions make it easy to attract the best manpower available. Supplies and equipment are easily obtained locally or can be shipped by truck from Salt Lake City.
Water is abundant for domestic and industrial use.
Power is supplied by the Southern Utah Power Co. at a reasonable cost.

5 (a) The minerals for which we wish to explore are Uranium and Vanadium.

5 (b) The proposed exploration consists of a number of Wagon Drill holes to be spaced in grid formation at 100 foot intervals, drilled to such depth as to penetrate the ore bearing bed or beds. Our map shows proposed locations in "Area A" of 276 holes of about 80 feet average depth; also 145 holes in "Area B" of about 60 feet average depth.

M F 103 - Supplementary
Re: Question 5
Re: Question 6.

5 (b) Underground work is planned as follows: (1) To explore the unworked area of the Tecumseh Buckeye bed by an approach through the old AS&R 3 compartment, 458 feet deep Shaft. This shaft would be rehabilitated to serve two compartments and manway down to water-table at 180 feet. From this point a cross-cut would be driven eastward, above water level, to the Tecumseh bed, about 640 feet. Then exploratory drifting along the bed, South 360 feet toward the Savage Shaft and NNE 1500 feet to a point just North and West of the Hartman Shaft, will follow. This area is too deep to be explored by wagon-drilling. The below water level of the Doyle area warrants exploration by advancing the present winze 100 feet and driving drifts along the bed in each direction for a total of 1,000 feet. In this area which shows good promise, wagon-drilling would be ineffective because of the presence of water, and diamond drilling has been shown to be useless for determining grade of uranium oxides in this area.

5 (d) The wagon-drilling exploration will be done under contract to be signed by Minerals Engineering Co. of Grand Junction, Colorado, who are one of the leading firms of the country engaged in this work. Copy of our proposed contract with Minerals Engineering Co. (orally agreed to but not yet signed) is attached hereto. Underground work of sinking and drifting will be done by Western Gold Mines, Inc. under the direction of Harris B. Salisbury. Mr. Salisbury was with Climax Molybdenum Co. at Leadville, Colorado, for seven years, following which he was with Golden Crown Mining Co. at Crown King, Arizona, for five years, as General Superintendent. He resigned from this position December 31, 1949 to go with Shattuck-Denn Mining Co., of Humboldt, Arizona, in 1950 and 1951; early in 1952 he joined Western Gold Mines, Inc. in charge of Silver Reef. Regarding the ability of Western Gold Mines to do this work, the company has already drifted in "Area A" into the ore bed just above Willis and Morgan's Rex workings, and is now raising on the ore bed; it has also nearly completed the re-timbering and cleaning out of the old Doyle shaft - see Map No. 2. The Company's experience otherwise has been confined to supervision and exploration work on its subsidiaries' properties in Arizona and Colorado. Its Arizona subsidiary, Golden Crown Mining Co., for the past year, has been engaged in an extensive exploration project on its property adjoining to the North the Iron King mine of Shattuck-Denn Mining Co. This exploration work has included the sinking of a 458 foot vertical shaft (now completed), drifting some 300 feet, and diamond drilling, which is still continuing.

6 (a) Independent contract for 30,780 feet of wagon-drilling by Minerals Engineering Co., of Grand Junction, Colorado (proposed contract attached):

M F 103 - Supplementary
Re: Question 6.

6 (a)

"Area A": 276 holes at 80 ft. average depth	22,080 ft.	
"Area B": 145 holes at 60 ft. average depth	8,750 ft.	
Total.....	30,780 ft.	
Contract cost: 30,780 ft @ 75¢ per ft.	$23,085.00	
Moving charges	600.00	
Surveying and mapping	1,500.00	
Observation, sample checking, and lab. analysis, 4 months @ $1200.00	4,800.00	
Cost of assay lab. materials	1,200.00	
Total.....	$31,185.00	$31,185.00

6 (b)

Estimated labor costs for Crosscutting and Drifting 3500 ft. @ $22.17 per ft. equals $77,595.00 — 77,595.00

2 Hoistman	@ $12.50...	$25.00
4 Miners	12.50...	50.00
2 Topmen	11.50...	23.00
1 Mechanic	15.00...	15.00
1 Supervisor	20.00...	20.00
Two shifts equals ...		$133.00

at 6 ft. for 2 shifts the cost equals $22.17 per ft.

Estimated labor costs for sinking an incline winze in the Doyle area:
5'x 7' cross section; 100 ft. @ $44.33 per ft. equals 4,433.00

2 Hoistmen	@ $12.50....	$ 25.00
4 Miners	@ 12.50....	50.00
2 Topmen	@ 11.50....	23.00
1 Mechanic	@ 15.00....	15.00
1 Superviser	20.00....	20.00
Two shifts equals...		$133.00

at 3 ft. advance for 2 shifts the cost equals $44.33 per ft.

6 (c)

Materials and Supplies for Crosscutting & Drifting 3500 ft:

Powder and primers	$ 2.00	per ft.
Bits and steel	.50	"
Power for air & pumps	2.00	"
Timber	2.50	"
Misc. & repairs	2.50	"
Total.....	$ 9.50	" for 3500 ft. = $33,250.00

Materials and Supplies for Sinking Incline Winze, Doyle Area, total of 100 ft. @ $11.50 per ft. = $1,150.00

Powder and primers	$ 2.00	per ft.
Bits and steel	.50	"
Power for air and pumps	3.00	"
Timber (stull, lagging, ladders & skids),	2.50	"
Pipe	1.00	"
Misc. & Repairs	2.50	"
Total.....	$ 11.50	

M F 103 - Supplementary
Re: Question 6.

6 (e) Estimated cost of Rehabilitation A.S.& R. Shaft to a depth of 180 feet. This cost is based on Steel Sets designed for two skip compartments and one manway and service compartment:-

Erecting Head Frame with bins, compressor and full equipment	$11,500.00	
Cost of Steel	$24.00a ft.	
Wood lagging	5.00 "	
Power	2.00 "	
Misc.& Repairs	6.00 "	
Labor & Supervision	23.00 "	
	$60.00 "	
180 feet at	$60.00 a ft.	$10.800.00
Total....	$22,300.00	$22,300.00

Total for 6 (a), (b), (c) and (e). $169,913.00

OUT

No. or Name	Taken By	Date Taken	No. or Name	Taken By	Date Taken	No. or Name	Taken By	Date Taken
Test Litterbox	Hughes	10/15/59						
Affidavit								
2644 Dixon	Box 37	4/4/61						

OUT

No. or Name	Taken By	Date Taken	No. or Name	Taken By	Date Taken	No. or Name	Taken By	Date Taken