ALBERT A. LEACH, E. M.
Mining Engineer *and* Geologist

FRANCIS I. LEACH
Mineralogist *and* Radium Technologist

MINES
RADIUM MINES
GOLDEN LINK
PAULINE GROUP
DARHASANA
BISMUTH LODE
ELLANDELL GOLD GROUP
ALHAMBRA AND GOODHOPE

LEACH & LEACH

RARE AND PRECIOUS METAL MINES

LORDSBURG, NEW MEXICO
P. O. Bin U.

PRODUCTS
RADIUM PRODUCTS
URANIUM
GOLD
SILVER
BISMUTH
MOLYBDENUM
NICKEL AND COBALT

Aug. 2, 1952.

DMEA-1294

Dear Mr. Johnson:

Answering your valued favor of July 14, re an Exploration Loan on the Uranium-Radium claims we own in the White Signal District, Grant County, New Mexico --

I am now arranging with contractors to build a residence and a refining plant on my claims and will work these ores on my own capital.

I will keep you informed of the developments.

Very truly yours,

Albert A. Leach E.M.

LIBRARY OF THE MINING
Science Materials Administration
DENVER
AUG 5 1952

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Schmidt
F L Kuoni
Kiser
Butler
Thayer
Stokes
Gilbert
Gormley

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

Mr. Albert L. Leach and
Mrs. Francis Ivan Leach
P. O. Box 1
Lordsburg, New Mexico

Re: Docket DMA-1294 (Uranium)
"California", "Utah", and
"Floyd Collins" Claims
Grant County, New Mexico

Dear Mr. and Mrs. Leach:

Your application for aid in an exploration project docketed as per the above captioned number has been thoroughly reviewed by this Agency.

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

A careful study of your proposal reveals that the probability of disclosing mineable reserves is not considered sufficiently promising to justify Government participation.

We regret that under these circumstances your application for exploration aid to the extent of 90% of $250,000.00 must be denied.

If future work on your property reveals evidence which could materially alter this opinion, please be assured we will be glad to consider a new application.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Administrator

cc 7/14 (for)

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

FLSchmidt/jem
7/1/52
cc to: Adm. Reading File
Docket
Messrs. AJKauffman-1347
APButler-3206 GSA
Ellis Schmidt
Opr. Committee
Field Team, Region IV (2)

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

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

DATE: July 10, 1952

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

SUBJECT: Field Team Report, DMEA Docket 1294 (Uranium), Floyd Collins, Utah, and California Claims, A. A. and F. I. Leach, applicants, White Signal District, Grant County, New Mexico.

I concur with the recommendations of the examining geologist that exploration assistance be denied on the property identified in the subject above.

Arthur P. Butler, Jr.

Copy to: E. Wm. Ellis

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JUL 16 1952

[illegible]
[illegible]
Mr. [illegible]
Miss [illegible]
Mrs. [illegible]
Mrs. [illegible]
Mrs. Muriel

Mr. [illegible]
Miss Levinsky
Mrs. Parker
Mrs. Sullivan
3. Miss Pressler
2. [illegible]
Miss Aberdeen
Mr. Tracen
~~[illegible]~~
Mrs. Hesko
Mrs. Blatcher
Mrs. Finley

Mr. Erle
Mr. Trace
Mr. Hellman
Mrs. Bauer
Mrs. Beelman
Miss Kohn
Mrs. Arnold
Mrs. Reid
Mrs. Barnhouse

Director
Asst. Director

Chief Geologist
Asst. Chief Geologist

IN REPLY REFER TO:

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

Ernest Wm. Ellis, DMEA Member, Uranium Commodity Committee
A. P. Butler, Jr., USGS Member, Uranium Commodity Committee
Field Team Report, DMEA Docket 1294 (Uranium), Floyd Collins, Utah, and California Claims, A. A. and F. I. Leach, applicants, White Signal District, Grant County, New Mexico.

July 10, 1952

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Arthur P. Butler, Jr.

Copy to: E. Wm. Ellis

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JUL 16 1952

6/27/52 - gla

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

224 New Customhouse
Denver 2, Colorado

June 23, 1952

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Final Report, DMA Docket 1294, (Uranium) A. A. and F. I. Leach, Grant County, New Mexico

Enclosed are the original and three copies of the report pertaining to the above application. The brochure is also enclosed.

We recommend that the application for exploration assistance be denied because the claims the applicant proposes to explore are not considered sufficiently promising to justify Government participation.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

W.H.K.
Enc.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
200 New Customhouse
Denver 2, Colo.

June 19, 1952

Memorandum

To : DMEA Field Team, Region IV

From : A. H. Koschmann

Subject: DMA Docket 1294, Floyd Collins, Utah and California Claims (Uranium), A. A. and F. I. Leach, Applicants, Grant County, New Mexico.

Enclosed are the original and 10 copies of the above report by A. F. Shride of the Geological Survey.

It has been recommended that the loan be denied.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (11)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P.O.Box 4126, University Station
Tucson, Arizona

June 17, 1952

Memorandum

To: Field Team, Region IV, Denver, Colorado
Through: Mr. A. H. Koschmann

From: A. F. Shride, Tucson, Arizona

Subject: Final Report, DMA 1294, Floyd Collins, Utah and California Claims (Uranium), A. A. and F. I. Leach, Applicants, Grant County, New Mexico

Enclosed are the original and 10 copies of the above report by A. F. Shride of the Geological Survey.

It is recommended that an exploration loan be denied because (1) the potential ore will probably be in small amounts and sub-commercial in grade, and (2) if geologic factors were favorable it would not be possible to negotiate a technically feasible exploration program.

The brochure is enclosed. Enclosed also is a confidential appraisal of the applicants.

A. F. Shride
Acting District Supervisor
Arizona-New Mexico

Enclosures 12

FLOYD COLLINS, UTAH AND CALIFORNIA CLAIMS
A. A. AND F. I. LEACH
GRANT COUNTY, NEW MEXICO
DMA 1294

URANIUM

Geology

By
A. F. Shride
Geologist, U. S. Geological Survey

FLOYD COLLINS, UTAH AND CALIFORNIA CLAIMS
A. A. AND F. I. LEACH
GRANT COUNTY, NEW MEXICO
DMA 1294

URANIUM

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INTRODUCTION

The Floyd Collins, Utah and California uranium claims in the White Signal Mining District, Grant County, New Mexico are 18.0 miles by highway southwest of Silver City, New Mexico. The Utah claim, which is contiguous with the California claim and in the SE $\frac{1}{4}$, Sec. 22, T. 20 S., R. 15 W., NMPM, is crossed by paved State Highway 180 nine-tenths of a mile west of the settlement of White Signal. The Floyd Collins claim 0.7 miles to the west straddles section line 21 - 22.

The Utah and California claims are patented in the names of Albert A. and Francis I. Leach, the applicants. The applicants have applied for a patent on the Floyd Collins claim. Mr. and Mrs. Leach have mined small amounts of torbenite and autunite from these claims and adjacent properties during the past 20 years and recovered small quantities of uranium salts for incorporation in patent medicine type devices, radioactive face powder, and like products.

The White Signal District has had considerable attention in recent years as a potential uranium-producing area. Uranium has not been produced in commercial quantities from the district, but active prospecting is being done. The Geological Survey at present is carrying out a mapping program as a part of a study of the uranium deposits of the area. Mr. Elliot Gillerman, who is in charge of the Geological Survey work in the White Signal area, accompanied the writer in the field examination, gave advice, and furnished the data on which the following report is based. The writer, however, takes the responsibility for all descriptions and conclusions set forth in this report.

GEOLOGY

The part of the White Signal district that includes the Utah, California, and Floyd Collins claims is underlain by pre-Cambrian granite which is intruded by numerous dikes of diabase or basalt, quartz monzonite, latite, and rhyolite. In the subject claims north-northwest to northwest-trending basic dikes, 1 to 80 feet thick, intrude the medium- to coarse-grained argillized and much fractured pre-Cambrian granite. The rocks are cut by many faults of east to northeast strike. In Section 22 uranium apparently occurs in two habits: (1) in and adjacent to narrow quartz-pyrite veins, at least some of which follow the easterly-trending fault pattern; (2) in and adjacent to the northwest-trending basic dikes of the area. Torbernite is the only uranium mineral identified to date on the subject claims. Considerable oxidation along a persistent vein on the nearby Merry Widow claim (see fig. 1) has been noted in diamond drill core to a depth of 550 feet. Therefore it is not likely that primary uranium minerals will be found in the area except at a depth of several hundreds of feet. It has been suggested that the abnormally high phosphorus content of the basic dikes in the White Signal District has been a significant factor in precipitating the secondary uranium minerals.

The torbernite occurs as tissue-thin films on fracture faces in the granite and is sparsely distributed on the fractures. In much of the zones of greatest radioactivity uranium minerals are not discernible. Radioactivity, and presumably concentrations of torbernite, are greatest in and immediately adjacent to the basic dikes, and along some of the more persistent northwest trending fractures exposed on the claims.

FIGURE 1.- CLAIM MAP SHOWING LOCATION OF FLOYD COLLINS, UTAH, AND CALIFORNIA CLAIMS
(only these claims owned by applicant)

DMA-1294

The mineralized zones are a few inches to a few feet wide. Rare, small pods, a foot or two in diameter, have been known to contain ore assaying as much as 2 percent U_3O_8. The following descriptions summarize the available information on distribution of uranium on the applicants' claims.

Floyd Collins Claim

Uranium mineralization on the Floyd Collins claim is concentrated in and near a basic dike that strikes N. 20° W. and underlies the middle portion of the claim (see fig. 1). The dike is intruded into the pre-Cambrian granite. This dike is displaced horizontally, a few feet to a few tens of feet, by east- and northeast-trending faults. Numerous narrow fractures essentially parallel the dike border or cut the dike at slight angles; probably the localization of torbernite is related to these fractures.

The most intensely mineralized areas obvious from radiometric traverses of the Floyd Collines claim have been exposed by numerous pits and trenches. In addition, a 40 foot deep inclined shaft and a 50-foot drift, from 20 feet below the collar of the shaft, exposes a part of the most radioactive area. In the pits, trenches and workings Geiger counter traverses along a 300-foot length of the basic dike, have shown readings of 2 to 10 times, and exceptionally 40 times, background count (Victorian Model 263-B Counter - background count 2 to 2.5 divisions on 2.0 scale). Eight channel samples taken by Gillerman from two of the most radioactive trenched areas, and from the underground workings have shown equivalent uranium values ranging from 0.012 to 0.196 percent eU. Six of these samples showed less than 0.1 percent eU.

Material selectively picked by Bureau of Mines examiners has been radiometrically analyzed. The range of 4 samples of such material was 0.40 to 2.10 percent equivalent uranium.

Utah and California Claims

In the Utah and California claims, uranium is concentrated in small amounts along northwest-trending basic dikes and fissures. The granite of this area is much fractured and argillized. In a few places minute amounts of sporadically distributed torbernite can be observed on fracture faces in freshly exposed granite.

The most radioactive areas have been explored by 3 shallow shafts and numerous pits and trenches. In addition a road cut, in places as much as 15 feet deep, along State Highway 180 exposes a part of the Utah claim for two-thirds its width. The cores of two diamond drill holes drilled by the applicant on the northern end of the Utah claim have been logged and eU determinations and wet assays of cores and sludges made where warranted by the U. S. Bureau of Mines personnel. The results of Geiger counter traverses by Gillerman are shown on figure 2.

It will be noted from figure 2 that the Geiger counter readings range from 2 to 7 times the background count, and that most of the radioactivity is adjacent to the basic dikes or along the northwest faults. Uranium mineralization in the granite away from these features is very sparse. The known radioactive parts of the Utah and California claims are noted on figure 2 by means of Geiger counter data. It should be emphasized that radioactivity can be noted only where indicated on figure 2; the outcrops between the readings shown are apparently essentially barren

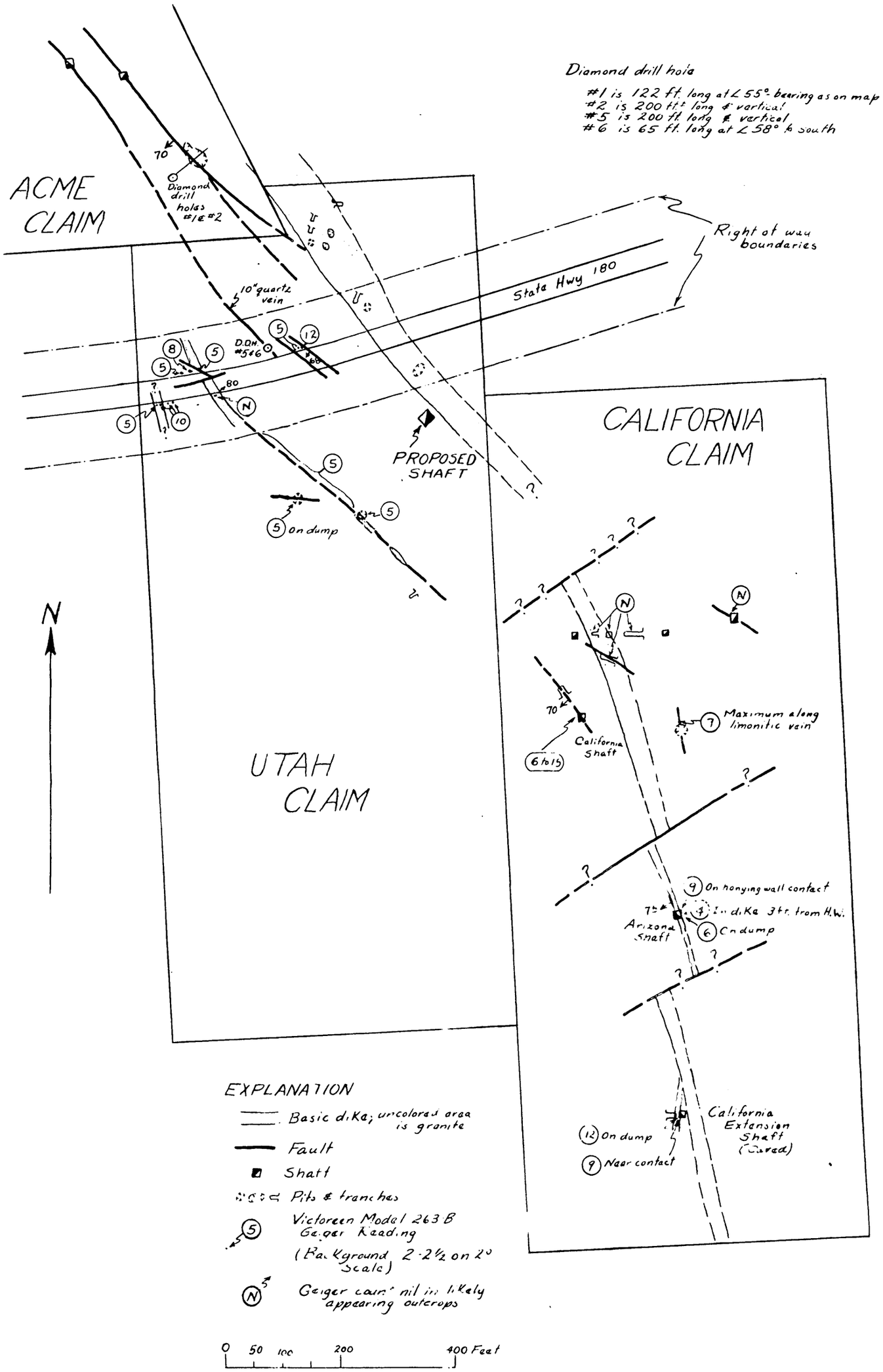

FIGURE 2.- SKETCH GEOLOGIC MAP, UTAH AND CALIFORNIA CLAIMS, GRANT COUNTY, NEW MEXICO

DMA-1294

of radioactive minerals. Gillerman has determined the equivalent uranium content from samples taken at the California shaft (eU of sample is 0.19 percent) and from the California Extension shaft (eU of sample is 0.043 percent). These shafts are in two of the most radioactive zones observed on the claims. Both samples were taken from the dumps of the above workings. The mineralized zone at the California shaft is 3 feet wide. Other comparable widths of radioactive rock were noted only in the vicinity of the basic dikes.

Diamond drill holes 5 and 6, on the north end of the Utah claims, have common collars (see fig. 2). Hole 5 is vertical and 192 feet deep; Hole 6 is 65 feet in length and inclined 58 degrees to the south. Equivalent uranium determinations from cores from Hole No. 5 showed no appreciable radioactivity except in the interval 92.5 to 167 feet (of the 192 feet drilled). From the lithologic descriptions that accompany the log of Hole No. 5 there is a suggestion that this radioactivity is associated with a basic dike. In this interval eU percentages ranged from 0.02 to 0.1. Of the 8 core samples that exhibited radioactivity, four samples contained 0.04 percent eU, and 0.2, 0.06, 0.07, and 0.10 percent eU were determined for one of each of the other four samples. Sludge samples from the equivalent intervals of Hole No. 5 had eU percentages $2\frac{1}{2}$ to 10 times that determined for the cores, therefore quantitative evaluation of uranium content based on data from the sludges may not be valid, especially as no rock samples with comparable consistently high equivalent uranium percentages have been taken from this area. Wet assays of sludges from the interval 95 to 125 feet below the collar of Hole No. 5 showed 0.19 to 0.34 percent U_3O_8, which agrees

closely with the eU determinations. The cores from Hole No. 6 showed appreciable radioactivity only through the following intervals:

Feet below collar of hole	eU Percent
22-32 (8.3 ft. of core recovered	0.03
54-65 (only 1.2 ft. of core recovered)	0.04

Sludge samples from Hole No. 5 gave the following data:

Feet below collar of hole	eU Percent	U_3O_8 Percent (wet analysis
5-10	0.25	(not determined)
50-55	0.12	0.14
55-60	0.012	(not determined)
60-65	0.14	0.17

The remainder of the sludge samples showed only traces of or no radioactivity. Torbernite was the only uranium mineral noted in the cores and sludges from the drill holes.

Date for diamond drill Holes Nos. 1 and 2 on the adjacent Acme claim (see fig. 2) are not available.

PROPOSED EXPLORATION PROGRAM

As the exploration program set forth in the docket is vague, preliminary to examining the Utah and California claims, the writer spent several hours discussing possible exploration programs with Mr. and Mrs. Leach. From this discussion it developed that the applicants have only vague ideas of what they wish to do. However, the following points are clear:

1. The applicants wish no exploration on the Floyd Collins claim. They reluctantly did consider a technically unfeasible exploration shaft at the south end of the claim, but later

discarded the idea. In considering this application, it is probable that an exploration proposal should be entertained only for the best mineralized area on the Collins claim. The applicants forbid consideration of any such exploration, because they wish to preserve this area for the "gouging" of small quantities of torbernite to be used in their patent medicine products.

2. The applicants wish any exploration program on the Utah and California claims to be designed to explore what they believe to be a "large, disseminated deposit" in the granite to the west of the dikes shown on figure 2. This writer and Mr. Gillerman believe that if any exploration were plausible in the Utah-California claims area, it should take into account the localization of uranium near the northwest-trending dikes and faults. At one time Mr. Leach had considered drifting from the California shaft along the main northwest-trending dike to the "proposed" shaft shown on figure 2. This plan was rejected by him in favor of drifting in vague northwesterly and southwesterly directions, an undetermined distance but possibly hundreds of feet, from the bottom of the "proposed" shaft - to be 50 feet, or "maybe" 100 feet deep according to the applicants. If this work were satisfactory (in the opinion of the applicants) a 100-foot drift northwest from the California shaft would be driven, with no particular target in mind. Numerous other proposals were bandied about by the applicants, but eventually the above proposals were the only ones that they would consider.

EXPLORATION POTENTIAL OF THE LEACH PROPERTIES

Exploration may be worthwhile in the best mineralized area on the Floyd Collins claim. However, further discussion of such work is unwarranted because the applicant does not wish exploration on this claim.

The zones that include appreciable amounts of uranium on the Utah and California claims are narrow. Persistence of these zones is expectable only along the northwest-trending basic dikes and fissures, but radiometric traverses of the outcrops strongly suggests that uranium is sporadic in distribution along the favorable trends. Samples taken in the two areas that exhibit the greatest radioactivity, at the California Shaft and California Extension Shaft, contained respectively 0.19 and .043 percent equivalent uranium. The core samples that showed radioactivity from diamond drill holes 5 and 6 contained equivalent uranium contents comparable to the content of surface exposures judging from Geiger counter comparisons. Most of the sludge samples from the diamond drill holes contained eU contents greater than any content known from rock samples collected from the area. As the uranium-bearing zones are narrow and sporadic and with rare exceptions the uranium content of the rock samples taken to date has been less than 0.1 percent U_3O_8, exploration along localizing structures on the Utah and California claims does not seem warranted. Certainly consideration of exploration of the granite, underlying the claims, as a potential disseminated commercial uranium deposit is not justified, because of the infinitesimally small overall uranium content of the granite.

CONCLUSIONS AND RECOMMENDATIONS

The Floyd Collins claim, at the applicants' request, is not considered for exploration. If there were potentiality for exploration on the Utah and California claims - which is not likely because of the low uranium content of the mineralized zones and sporadic distribution of the uranium - a feasible exploration program could not be negotiated with the applicant. Therefore it must be recommended that an exploration loan be denied.

7/5/52

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

224 New Customhouse
Denver 2, Colorado

June 23, 1952

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Final Report, DMA Docket 1294, (Uranium) A. A. and F. I. Leach, Grant County, New Mexico

Enclosed are the original and three copies of the report pertaining to the above application. The brochure is also enclosed.

We recommend that the application for exploration assistance be denied because the claims the applicant proposes to explore are not considered sufficiently promising to justify Government participation.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enc.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
200 New Customhouse
Denver 2, Colo.

June 19, 1952

Memorandum

To : DMEA Field Team, Region IV

From : A. H. Koschmann

Subject: DMEA Docket 1294, Floyd Collins, Utah and California Claims (Uranium), A. A. and F. I. Leach, Applicants, Grant County, New Mexico.

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It has been recommended that the loan be denied.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (11)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951

Reviewed by
DMEA OPERATING COMMITTEE
7-2-52
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P.O.Box 4126, University Station
Tucson, Arizona

June 17, 1952

Memorandum

To: Field Team, Region IV, Denver, Colorado
Through: Mr. A. G. Kosslmann

From: A. F. Shride, Tucson, Arizona

Subject: Final Report, DMA 1294, Floyd Collins, Utah and California Claims (Uranium), A. A. and F. I. Leach, Applicants, Grant County, New Mexico

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A. F. Shride
Acting District Supervisor
Arizona-New Mexico

Enclosures 10

FLOYD COLLINS, UTAH AND CALIFORNIA CLAIMS
A. A. AND F. I. LEACH
GRANT COUNTY, NEW MEXICO
DMA 1294

URANIUM

Geology

By
A. F. Shride
Geologist, U. S. Geological Survey

FLOYD COLLINS, UTAH AND CALIFORNIA CLAIMS
A. A. AND F. I. LEACH
GRANT COUNTY, NEW MEXICO
DMA 1294

URANIUM

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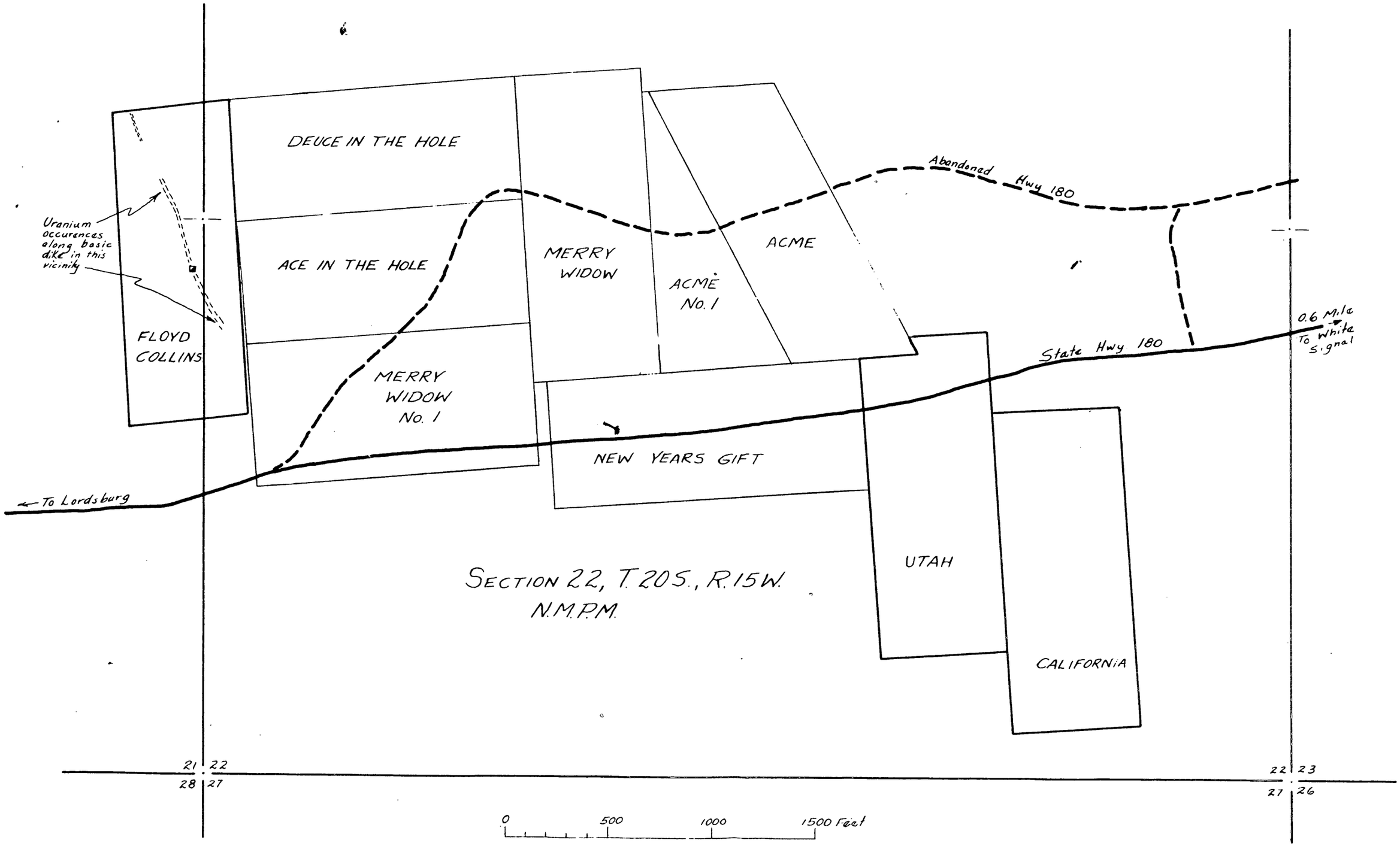

FIGURE 1.- CLAIM MAP SHOWING LOCATION OF FLOYD COLLINS, UTAH, AND CALIFORNIA CLAIMS
(only these claims owned by applicant)

DMA-1294

The mineralized zones are a few inches to a few feet wide. Rare, small pods, a foot or two in diameter, have been known to contain ore assaying as much as 2 percent U_3O_8. The following descriptions summarize the available information on distribution of uranium on the applicants' claims.

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The most intensely mineralized areas obvious from radiometric traverses of the Floyd Collines claim have been exposed by numerous pits and trenches. In addition, a 40 foot deep inclined shaft and a 50-foot drift, from 20 feet below the collar of the shaft, exposes a part of the most radioactive area. In the pits, trenches and workings Geiger counter traverses along a 300-foot length of the basic dike, have shown readings of 2 to 10 times, and exceptionally 40 times, background count (Victorian Model 203-B Counter - background count 2 to 2.5 divisions on 2.0 scale). Eight channel samples taken by Gillerman from two of the most radioactive trenched areas, and from the underground workings have shown equivalent uranium values ranging from 0.012 to 0.196 percent eU. Six of these samples showed less than 0.1 percent eU.

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In the Utah and California claims, uranium is concentrated in small amounts along northwest-trending basic dikes and fissures. The granite of this area is much fractured and argillized. In a few places minute amounts of sporadically distributed torbernite can be observed on fracture faces in freshly exposed granite.

The most radioactive areas have been explored by 3 shallow shafts and numerous pits and trenches. In addition a road cut, in places as much as 15 feet deep, along State Highway 180 exposes a part of the Utah claim for two-thirds its width. The cores of two diamond drill holes drilled by the applicant on the northern end of the Utah claim have been logged and eU determinations and wet assays of cores and sludges made where warranted by the U. S. Bureau of Mines personnel. The results of Geiger counter traverses by Gillerman are shown on figure 2.

It will be noted from figure 2 that the Geiger counter readings range from 2 to 7 times the background count, and that most of the radioactivity is adjacent to the basic dikes or along the northwest faults. Uranium mineralization in the granite away from these features is very sparse. The known radioactive parts of the Utah and California claims are noted on figure 2 by means of Geiger counter data. It should be emphasized that radioactivity can be noted only where indicated on figure 2; the outcrops between the readings shown are apparently essentially barren

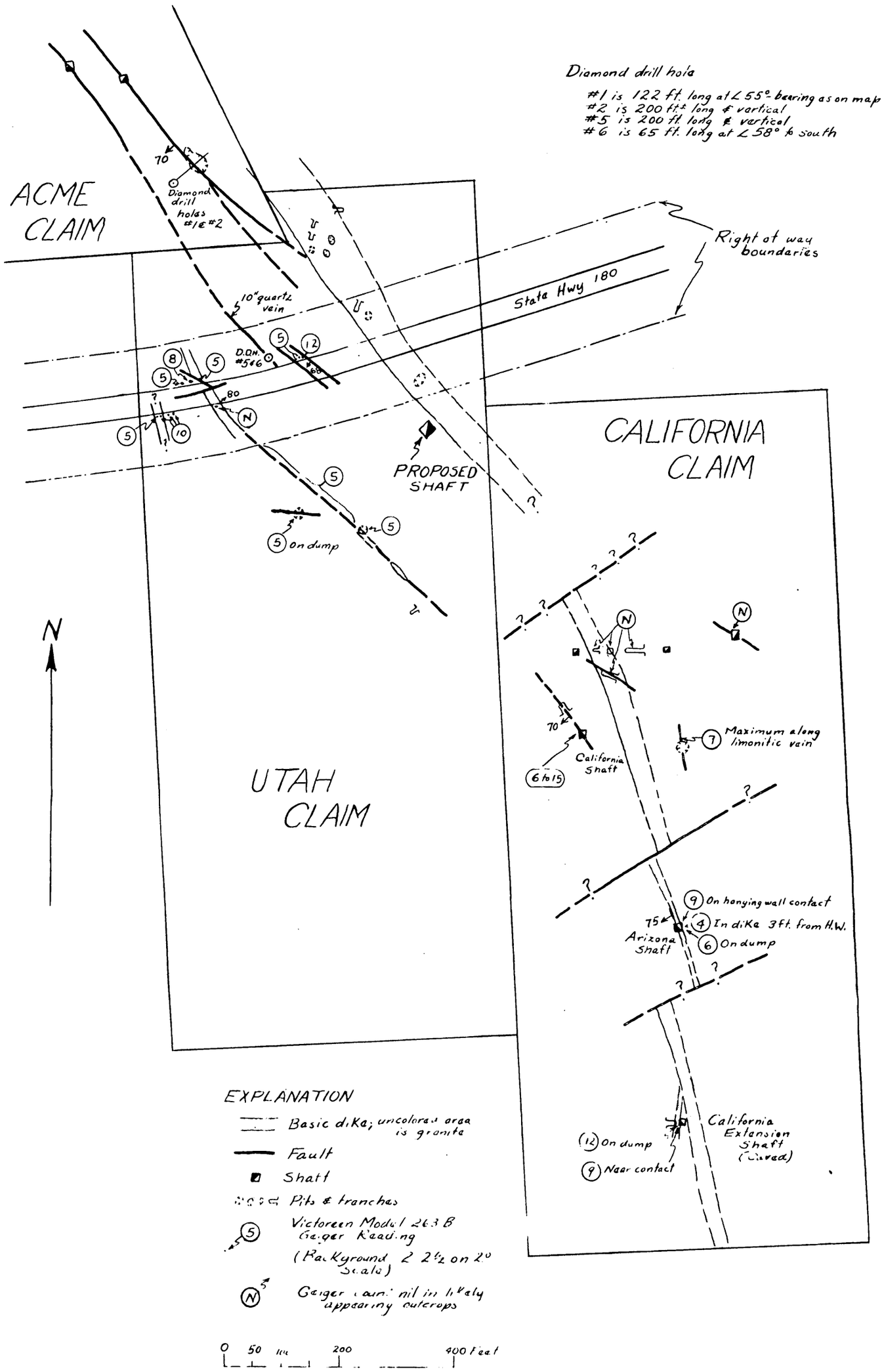

FIGURE 2.- SKETCH GEOLOGIC MAP, UTAH AND CALIFORNIA CLAIMS, GRANT COUNTY, NEW MEXICO

of radioactive minerals. Gillerman has determined the equivalent uranium content from samples taken at the California shaft (eU of sample is 0.19 percent) and from the California Extension shaft (eU of sample is 0.043 percent). These shafts are in two of the most radioactive zones observed on the claims. Both samples were taken from the dumps of the above workings. The mineralized zone at the California shaft is 3 feet wide. Other comparable widths of radioactive rock were noted only in the vicinity of the basic dikes.

Diamond drill holes 5 and 6, on the north end of the Utah claims, have common collars (see fig. 2). Hole 5 is vertical and 192 feet deep; Hole 6 is 65 feet in length and inclined 58 degrees to the south. Equivalent uranium determinations from cores from Hole No. 5 showed no appreciable radioactivity except in the interval 92.5 to 167 feet (of the 192 feet drilled). From the lithologic descriptions that accompany the log of Hole No. 5 there is a suggestion that this radioactivity is associated with a basic dike. In this interval eU percentages ranged from 0.02 to 0.1. Of the 8 core samples that exhibited radioactivity, four samples contained 0.04 percent eU, and 0.2, 0.06, 0.07, and 0.10 percent eU were determined for one of each of the other four samples. Sludge samples from the equivalent intervals of Hole No. 5 had eU percentages 2½ to 10 times that determined for the cores, therefore quantitative evaluation of uranium content based on data from the sludges may not be valid, especially as no rock samples with comparable consistently high equivalent uranium percentages have been taken from this area. Wet assays of sludges from the interval 95 to 125 feet below the collar of Hole No. 5 showed 0.19 to 0.34 percent U_3O_8, which agrees

closely with the eU determinations. The cores from Hole No. 6 showed appreciable radioactivity only through the following intervals:

Feet below collar of hole	eU Percent
22-32 (8.3 ft. of core recovered	0.03
54-65 (only 1.2 ft. of core recovered)	0.04

Sludge samples from Hole No. 5 gave the following data:

Feet below collar of hole	eU Percent	U_3O_8 Percent (wet analysis
5-10	0.25	(not determined)
50-55	0.12	0.14
55-60	0.012	(not determined)
60-65	0.14	0.17

The remainder of the sludge samples showed only traces of or no radioactivity. Torbernite was the only uranium mineral noted in the cores and sludges from the drill holes.

Data for diamond drill Holes Nos. 1 and 2 on the adjacent Acme claim (see fig. 2) are not available.

PROPOSED EXPLORATION PROGRAM

As the exploration program set forth in the docket is vague, preliminary to examining the Utah and California claims, the writer spent several hours discussing possible exploration programs with Mr. and Mrs. Leach. From this discussion it developed that the applicants have only vague ideas of what they wish to do. However, the following points are clear:

1. The applicants wish no exploration on the Floyd Collins claim. They reluctantly did consider a technically unfeasible exploration shaft at the south end of the claim, but later

discarded the idea. In considering this application, it is probable that an exploration proposal should be entertained only for the best mineralized area on the Collins claim. The applicants forbid consideration of any such exploration, because they wish to preserve this area for the "gouging" of small quantities of torbernite to be used in their patent medicine products.

2. The applicants wish any exploration program on the Utah and California claims to be designed to explore what they believe to be a "large, disseminated deposit" in the granite to the west of the dikes shown on figure 2. This writer and Mr. Gillerman believe that if any exploration were plausible in the Utah-California claims area, it should take into account the localization of uranium near the northwest-trending dikes and faults. At one time Mr. Leach had considered drifting from the California shaft along the main northwest-trending dike to the "proposed" shaft shown on figure 2. This plan was rejected by him in favor of drifting in vague northwesterly and southwesterly directions, an undetermined distance but possibly hundreds of feet, from the bottom of the "proposed" shaft - to be 50 feet, or "maybe" 100 feet deep according to the applicants. If this work were satisfactory (in the opinion of the applicants) a 100-foot drift northwest from the California shaft would be driven, with no particular target in mind. Numerous other proposals were bandied about by the applicants, but eventually the above proposals were the only ones that they would consider.

EXPLORATION POTENTIAL OF THE LEACH PROPERTIES

Exploration may be worthwhile in the best mineralized area on the Floyd Collins claim. However, further discussion of such work is unwarranted because the applicant does not wish exploration on this claim.

The zones that include appreciable amounts of uranium on the Utah and California claims are narrow. Persistence of these zones is expectable only along the northwest-trending basic dikes and fissures, but radiometric traverses of the outcrops strongly suggests that uranium is sporadic in distribution along the favorable trends. Samples taken in the two areas that exhibit the greatest radioactivity, at the California Shaft and California Extension Shaft, contained respectively 0.19 and .043 percent equivalent uranium. The core samples that showed radioactivity from diamond drill holes 5 and 6 contained equivalent uranium contents comparable to the content of surface exposures judging from Geiger counter comparisons. Most of the sludge samples from the diamond drill holes contained eU contents greater than any content known from rock samples collected from the area. As the uranium-bearing zones are narrow and sporadic and with more exceptions the uranium content of the rock samples taken to date has been less than 0.1 percent U_3O_8, exploration along localizing structures on the Utah and California claims does not seem warranted. Certainly consideration of exploration of the granite, underlying the claims, as a potential disseminated commercial uranium deposit is not justified, because of the infinitesimally small overall uranium content of the granite.

CONCLUSIONS AND RECOMMENDATIONS

The Floyd Collins claim, at the applicants' request, is not considered for exploration. If there were potentiality for exploration on the Utah and California claims - which is not likely because of the low uranium content of the mineralized zones and sporadic distribution of the uranium - a feasible exploration program could not be negotiated with the applicant. Therefore it must be recommended that an exploration loan be denied.

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

REGIONAL DIRECTOR'S
OFFICE
REGION IV
JUN 27 1951
BUREAU OF MINES
DENVER, COLORADO

JUN 25 1951

Mr. J. H. East, Jr.
224 New Customhouse Bldg.
Denver 2, Colo.

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Docket No. 1294

Commodity Uranium

Applicant Albert R. Leach & Francis L. Lane
New Mexico

Please expedite the consideration of this application with particular reference to the points raised in the attached "Review."

Very truly yours,

Tom Lyon

Tom Lyon, Chairman
Coordinating Committee

Lowell B. Troon
For Bureau of Mines

Edwin T. McKnight
For Geological Survey

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMA 1294 X

Commodity Uranium

Total Amount 250,000.00

Govt. Participation 90%

1. Name and Address of Applicant Albert A. Leach and Francis I. Leach
P.O. Bin U, Lordsburg, New Mexico

2. Location of Property
White Signal District, Grant County, New Mexico.
Sec. 22, T. 20 S., R. 15 W., N.M.P.M.

3. Mineral or metal Uranium Is it listed in Section 9 of MO-5? Yes

If not, application will be rejected.

4. Geologic probability of discovery -- based on data in application (question #16, 17, 18, 20 and 22). *

Mines or Survey reports, etc., do you rate chances:

a) Good

b) Poor

c) None

d) Don't know --- needs field examination

e) Is there an alternative and favorable project? (If so, attach an explanation) Report of field team is required - see item 17

5. Is the applicant's right to the property clearly stated? (question 5, 6, 7)

6. If applicant is a lessee, is a copy of the lease attached?

Does the lease have sufficient time to run to cover a future productive period?

*Question numbers are those of MF-103

7. Are subordination agreements necessary? _____

a) NF-201? _____

b) NF-202 _____

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower _____

b) Equipment and supplies _____
(question 14 plus general knowledge of availability)

c) Accessibility (question 12) _____

d) Water (question 13) _____

e) Power (question 13) _____

Is a field check needed on any of these points? _____

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4) _____

_____

Is a field check needed on this point? _____

10. Exhibit A. (questions 21 and 22)

a) Is the project adequately described? _____

If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? _____

_____

c) Is the proposed work "exploration" under the definition of Section 8, MD-5? _____

If not, what part of it is? _____

_____

_____

_____

Is this part a worthwhile exploration project? _____

d) Are the cost estimates detailed? _____

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? _____ If so, attach a draft.

e) Are the cost estimates reasonable? _____

f) Should more information be requested from applicant? _____

g) Is a field examination necessary to complete Exhibit A? _____

11. Exhibit B (question 23-d)

a) Is it applicable? _____

b) If so, are sufficient data furnished? _____ If so, attach a draft.

c) Is a field check needed? _____

12. Exhibit C (question 23-e, f and g)

a) Is it applicable? _____

b) Sufficient data? _____ If so, attach a draft.

c) Are rents and charges reasonable? _____

d) Is a field check needed? _____

13. Exhibit D (question 23-a,b)

a) Are there sufficient data? _____

b) Is the schedule adequate for the work proposed? _____

c) Is the schedule excessive for the work proposed? _____

d) Are the proposed wages and salaries reasonable? _____

e) Is a field check needed? _____

14. Exhibit E (question 23-c)

a) Is it applicable? _____

b) Sufficient data? _____

c) Reasonable? _____

d) Field check needed? _____

15. In your judgment, can the proposed work be done in the proposed time? _____

(All exploration must be completed within two years.)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing questions? _____

Under MF 103-16 18 and 22 see applicant's reference to Geological Survey and Bureau of Mines for pertinent data.

Reviewed by: A H Keiser
Geological Survey

Date June 11, 1951

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

224 NEW CUSTOMHOUSE
DENVER 2, COLORADO

Mining Division
Region IV

May 11, 1951

Mr. Albert A. Leach
P. O. Bin U
Lordsburg, New Mexico

Dear Mr. Leach:

In the absence of Mr. J. H. East, Jr., I am replying to your letter of May 8, 1951, regarding uranium on your claims in the White Signal district, Grant County, New Mexico.

In order to get your problem before the proper authorities in Washington, it is suggested that you complete the MF-103 form and sign the certification according to the instructions contained in Form MO-5. For this purpose, you will find enclosed five copies of MF-103.

If the Atomic Energy Commission, Geological Survey, and Bureau of Mines already have sufficient information on uranium in the area, they can determine whether the Government will enter into a contract with you to explore the deposits. If not, they will probably forward the application to the field for further investigation.

I would advise you to supply the information completely and submit it immediately; otherwise, no further action can be taken.

Very truly yours,

Paul T. Allsman
Chief, Mining Division

Enclosures

Cramin

Hosted
and
Kaiser

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. Dma-1294 X

Date received 5/28/51

Participation

Albert A. Leach E. M.
&
Francis Ivan Leach
P. O. Bin U
Lordsburg, New Mexico

Name and address of applicant

Date May 21, 1951

FILL IN THIS BLOCK

Date of application May 21, 1951

Estimated cost $250,000.

Mineral or metal URANIUM

Percentage of Government participation 90%

Location of mine Grant Co., New Mexico

White Signal District

Date of filing MF-100

DMA Docket Number, if available Dma-1294 X

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Husband & wife, informal partnership

*2. If a partnership, state names and addresses of partners. See above

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. See professional summaries attached

*5. Are you the owner or the lessee of the property? Outright owners

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. Not a penny of debt

7. If lessee, attach a copy of the lease and state if it is in good standing. Not

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. Mines idle

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? NO MONEY, see letter to J.H.East Jr, B.of M. Denver

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Patented California & Utah 1903, Floyd Collins 2169

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. Sec. 22, T. 20 S. R. 15 W. N. M. P. M. Same

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

*11. State the present and former names of the property, if any. California, Utah && Floyd Collins

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads. 26miles to Silver City, Blacktop Highway

*13. State source and quantity of water available for operations and its sufficiency at all seasons. Sufficient on Collins State amount of power to be used, rate per hour or other cost, and source. Power line crosses property

*14. Describe any existing useable facilities, equipment, buildings, or structures now on the property that will be devoted to the exploration work. New camp has to be built on Floyd Collins

15. State in detail how the ore could be shipped and how and where milled. See statement of F. I. Leach

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations. See attached letter

(*b*) State briefly the known history and production of adjoining and neighboring properties. Several thousand $

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations. See U.S.G.S. -B. of M.

*17. Production: Mines are idle

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly. See attached letter

(*b*) Submit available maps and assay data. See U. S. G. S.

(*c*) Give estimated tonnage and grade of each class of ore reserves. See letter to Mr. East

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

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? URANIUM

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. See Schedule

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

See letter to Mr. East & U. S. G. S. files

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

All generalized in Schedule

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent. See Schedule.

CERTIFICATION

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

(Name of company)

By Albert A. Leach E. M.
(Signature of authorized official)

May 21st 1951
(Date)

Frances Ivan Leach
(Title) Owners

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

COPY

Lordsburg, N. M.
May 8, 1951.

Mr. J. H. East Jr., Director,
U. S. Bureau of Mines,
Denver, Colorado.

Dear Mr. East:-

I have just received a copy of Order MO 5, in regard to development loans, from Washington, and wish to ask you some questions.

To do so I must briefly outline our situation. We own the patented Utah & California claims and the Floyd Collins claim, now being patented, in the White Signal District, Grant County, N. M. These carry URANIUM as Torbernite in and along felsite dikes, cutting Pre-Cambrian granite. These are referred to as "veins"; 15' wide on the Collins and 2 to 12' on the California for a strike length of 1700'. Also on the Utah, a great rock cut (highway) showed lower grade disseminated Torbernite on fractures in firm but shattered granite extending out for a distance of 500' from the hanging wall of the California vein. A diamond drill hole was put down vertically 200' on the edge of the cut. The Silver City Bureau of Mines engineers split the cores, analysed them and gave us a core and sludge average of 0.15% U_3O_8 from 95 to 125 feet. Another hole from the same location was run under the highway at 60° and stopped at 60' in material showing Torbernite. We have closely co-operated with Storms and Soule of your Silver City office, spending many days in the field and office with them and furnishing much material not elsewhere available. They took two samples from the Floyd Collins of 2.10% & 1.95% U_3O_8 and I gave them 40 lbs. of test material that ran 1.40%. The A. E. C. New York office gave us- selected material from Collins -6.0%; 10 lbs general ore -2.25%; selected from Utah disseminated 0.73%; 10 lbs. from Utah disseminated - 0.46%.

Mr. C. Girard Davidson, Asst. Sec. Dept. of the Interior was kind enough to send me a copy of his Salt Lake City speech, so I can quote direct " Instead, we have two cases, for example, from around Silver City New Mexico, where prospecting by geological and geophysical methods for uranium-bearing ores was hampered by many small claims plastered over the area. As a result, large-scale operations was abandoned." The two cases referred to are the White Signal and Black Hawk Districts. This statement clearly shows the top officials of your Department are well aware of the importance of these deposits and prepared to spend a considerable amount on them.

At present we reside at a gold mine, 10 miles west of White Signal, which we are selling, final payment is due in less than 9 months. We plan then to return to White Signal. I am in touch with Mr. MacPherson, waiting for a definite price on Uranium Oxide - from a study of the new price schedules it should be something over $10.00 per pound.

I think our services, in view especially of our complete familiarity with the deposit, would be worth $5,000. a year apiece or $20,000. for two years. We own a complete mining outfit, tractor, compressor drills etc, a small but complete uranium-radium treatment plant; a very complete laboratory, 4 balances, electroscopes, Geiger, glassware and reagents. Say a total of $25,000. Would you care to put up nine times (90%) this amount to undertake the underground development of the California "vein" and the very large Utah disseminated body? Must the application be made at once?

Signed Albert A. Leach E. M.

SCHEDULE

Proposed Development & Time Required

I. Camp buildings & water system	$ 35,000.
2. Sinking & equipping New Shaft, I00 ft. deep in the disseminated ore body	I00,000.
3. Enlarging & equipping the California Shaft	I5,000.
	I50,000.

All the above would go forward together and be completed in about six months.

---

4. The balance of the funds would be used in drifting in ore and exploring the very large disseminated ore body; about 3,750 feet of drifting. No pumping or timbering.

This work would be governed by the information obtained and would have to be flexible.

All this work would go ahead simultaneously and would require about fifteen months time.

Professional Summary

Francis I. Leach

In the fall of 1919 I discovered Uranium-Radium ores in the White Signal District in Grant County, N. M., in the waste dump of the Merry Widow Mine then owned by Otto Forster and J. Grissom. I brought this to the attention of the Radium Company of Colorado, at that time the largest producer of Radium in the United States. A t that time Dr. Karl Ludwig Kithil, the famous Austrian physicist, was president of the Company. Dr. Kithil was the foremost authority on Radium Deposits and a man of outstanding ability in the field of rare metals. (He was in charge of the U. S. Bureau of Mines operations, under a grant from Dr. James Douglas, that produced the first Radium in the U. S.).

After testing the samples I sent him he came down from Denver to examine these properties. The result of this visit was to negotiat e a lease and option to purchase the mines for a consideration of $50,000. I was placed in charge of development and exploration and during a period of some six months work I opened a fine deposit of Uranium-Radium at the Merry Widow mine and several other mines in the district. I built a camp and put in a small Radium laboratory, but found our costs of production could not compete with newer and richer deposits found in the Belgian Congo of Central Africa, as they were using black slave labor and their costs were extremely low. The project was abandoned (all Radium mines in the U. S. were closed at this same time) and the camp materials sold.

During the years 1921 & 1922 we acquired title to the California and Utah claims which we at once patented. Rich Uranium-Radium ore had been opened to a depth of 85 feet on these claims. We built a camp on the California claim and began the refining and marketing of Radium and Uranium. At this time I received a U. S. Patent on two devices which enabled us to market our product at a profit. One of these devices was known as the Ra-Tor Plac and sold for $100. each. The other was an activator, selling for $750., used for removing birth marks, skin cancers, moles and scars. During the panic of '29 these operations were closed and we turned our attention to another gold-silver property we owned and set up a plant to make gold-silver bullion. We also shipped considerable high grade ore. The ore treated at the plant was bonanza grade, running from $350. to $1700. per ton. Later we sold these mines for $40,000. cash, and have since devoted our time to the management of a great number of mining properties acquired from profits in these operations.

In 1949 we were placed in charge of diamond drilling operations on the Uranium-Radium mines and in a short period of time proved a large tonnage of disseminated Uranium-Radium ore to a value of $6,000,000. at the guaranteed MINIMUM price for Uranium set by the A. E. C. (OLD PRICE SCHEDULE); on our own Utah and the adjoining Acme claim, owned by Mr. A. G. Hill.

Professional Summary

Albert A Leach

I9II - Graduated from Columbia Univ. School of Mines, degree Engineer Mines

I9II - Instructor, Columbia Univ. Summer School

I9II - Mining Engineer, Las Chispas Mine, Sonora, Mexico

I9I2 - Assistant, Geological Department, Cananea Cons. Cop. Co. Mexico

I9I3 - I4 - General Manager, Sonora Exploration& Metals Co., Yaqui River, Sonora, Mexico.

I9I5 - Mining Engineer, Chino Cop. Co.(Kennecott) Santa Rita, N. Mex.

I9I6 - Asst. Geologist, Phelps Dodge Burro Mt. Branch, Tyrone, N. Mex.

I9I6-I920 - Chief Geologist " " " " " "

As Chief Geologist my work was to direct all exploration and development; delimit ore bodies and estimate their tonnage and grade; and keep permanent geological, sampling and tonnage records. I had five men in my own office, and direct supervision of 8 churn drills (48 men) mine sampling crew (I5 men) and two assay offices.

In I92I my wife and I went into the mining business for ourselves and have acquired well over a dozen mines, with recorded productions of $5,000,000; 400,000; 200,000; 100,000; and lesser amounts. We have carried on a general mining business.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA-1294 X

Date received 5/28/51

Participation

Albert A. Leach E. M.
&
Francis Ivan Leach
P. O. Bin U
Lordsburg, New Mexico

Name and address of applicant

Date May 21, 1951

FILL IN THIS BLOCK

Date of application May 21, 1951

Estimated cost $250,000.

Mineral or metal URANIUM

Percentage of Government participation 90%

Location of mine Grant Co., New Mexico

White Signal District

Date of filing MF-100

DMA Docket Number, if available DMA-1294 X

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Husband & wife, informal partnership

*2. If a partnership, state names and addresses of partners. See above

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. See professional summaries attached

*5. Are you the owner or the lessee of the property? Outright owners

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. Not a penny of debt

7. If lessee, attach a copy of the lease and state if it is in good standing. Not

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. Mines idle

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)? NO MONEY, see letter to J.H.East Jr, B.of M. Denver

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Patented California & Utah 1903, Floyd Collins 2169

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. Sec. 22, T. 20 S., R. 15 W., N. M. P. M. Same

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

*11. State the present and former names of the property, if any. California, Utah & Floyd Collins

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, measuring distances and directions and kinds and conditions of roads. 26 miles to Silver City, Blacktop Highway

*13. State source and quantity of water available for operations and its sufficiency at all seasons. State amount of power to be used, rate per hour or other cost, and source. Sufficient on Collins

*14. Describe any existing useable facilities, equipment, buildings, or structures now on the property that will be useful to the exploration work. Power line crosses property

15. State in detail how the ore could be shipped and how and where milled. New camp has to be built on Floyd Collins

*16. History: See statement of F. I. Leach

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations. See attached letter

(*b*) State briefly the known history and production of adjoining and neighboring properties. Several thousand $

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations. See U.S.G.S. -B. of M.

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(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
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(*a*) Describe the ore or mineral deposits briefly. See attached letter

(*b*) Submit available maps and assay data. See U. S. G. S.

(*c*) Give estimated tonnage and grade of each class of ore reserves. See letter to Mr. East

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

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? URANIUM

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. See Schedule

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23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each. All generalized in Schedule

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

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(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

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24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

See Schedule.

CERTIFICATION

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

(Name of company)

By Albert A. Leach E. M.
(Signature of authorized official)

May 21st 1951.
(Date)

Francis Irene Leach.
(Title) Owners

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

COPY

Lordsburg, N. M.
May 8, 1951.

Mr. J. H. East Jr., Director,
U. S. Bureau of Mines,
Denver, Colorado.

Dear Mr. East:-

I have just received a copy of Order NO 5, in regard to development loans, from Washington, and wish to ask you some questions.

To do so I must briefly outline our situation. We own the patented Utah & California claims and the Floyd Collins claim, now being patented, in the White Signal District, Grant County, N. M. These carry URANIUM as Torbernite in and along felsite dikes, cutting Pre-Cambrian granite. These are referred to as "veins"; 15' wide on the Collins and 2 to 12' on the California for a strike length of 1700'. Also on the Utah, a great rock cut (highway) showed lower grade disseminated Torbernite on fractures in firm but shattered granite extending out for a distance of 500' from the hanging wall of the California vein. A diamond drill hole was put down vertically 200' on the edge of the cut. The Silver City Bureau of Mines engineers split the cores, analysed them and gave us a core and sludge average of 0.15% U_3O_8 from 95 to 125 feet. Another hole from the same location was run under the highway at 60° and stopped at 60' in material showing Torbernite. We have closely co-operated with Storms and Soule of your Silver City office, spending many days in the field and office with them and furnishing much material not elsewhere available. They took two samples from the Floyd Collins of 2.10% & 1.95% U_3O_8 and I gave them 40 lbs. of test material that ran 1.40%. The A. E. C. New York office gave us-selected material from Collins -6.0%; 10 lbs general ore -2.25%; selected from Utah disseminated 0.73%; 10 lbs. from Utah disseminated - 0.46%.

Mr. C. Girard Davidson, Asst. Sec. Dept. of the Interior was kind enough to send me a copy of his Salt Lake City speech, so I can quote direct " Instead, we have two cases, for example, from around Silver City New Mexico, where prospecting by geological and geophysical methods for uranium-bearing ores was hampered by many small claims plastered over the area. As a result, large-scale operations was abandoned." The two cases referred to are the White Signal and Black Hawk Districts. This statement clearly shows the top officials of your Department are well aware of the importance of these deposits and prepared to spend a considerable amount on them.

At present we reside at a gold mine, 10 miles west of White Signal, which we are selling, final payment is due in less than 9 months. We plan then to return to White Signal. I am in touch with Mr. MacPherson, waiting for a definite price on Uranium Oxide - from a study of the new price schedules it should be something over $10.00 per pound.

I think our services, in view especially of our complete familiarity with the deposit, would be worth $5,000. a year apiece or $20,000. for two years. We own a complete mining outfit, tractor, compressor drills etc, a small but complete uranium-radium treatment plant; a very complete laboratory, 4 balances, electroscopes, Geiger, glassware and reagents. Say a total of $25,000. Would you care to put up nine times (90%) this amount to undertake the underground development of the California "vein" and the very large Utah disseminated body? Must the application be made at once?

Signed Albert A. Leach N. M.

SCHEDULE

Proposed Development & Time Required

I. Camp buildings & water system	$ 35,000.
2. Sinking & equipping New Shaft, I00 ft. deep in the disseminated ore body	I00,000.
3. Enlarging & equipping the California Shaft	I5,000.
	I50,000.

All the above would go forward together and be completed in about six months.

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4. The balance of the funds would be used in drifting in ore and exploring the very large disseminated ore body; about 3,750 feet of drifting. No pumping or timbering.

This work would be governed by the information obtained and would have to be flexible.

All this work would go ahead simultaneously and would require about fifteen months time.

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Albert A Leach

1911 - Graduated from Columbia Univ. School of Mines, degree Engineer Mines

1911 - Instructor, Columbia Univ. Summer School

1911 - Mining Engineer, Las Chispas Mine, Sonora, Mexico

1912 - Assistant, Geological Department, Cananea Cons. Cop. Co. Mexico

1913 - 14 - General Manager, Sonora Exploration Metals Co., Yaqui River, Sonora, Mexico.

1915 - Mining Engineer, Chino Cop. Co.(Kennecott) Santa Rita, N. Mex.

1916 - Asst. Geologist, Phelps Dodge Burro Mt. Branch, Tyrone, N. Mex.

1916-1920 - Chief Geologist " " " " " "

As Chief Geologist my work was to direct all exploration and development; delimit ore bodies and estimate their tonnage and grade; and keep permanent geological, sampling and tonnage records. I had five men in my own office, and direct supervision of 8 churn drills (48 men) mine sampling crew (15 men) and two assay offices.

In 1921 my wife and I went into the mining business for ourselves and have acquired well over a dozen mines, with recorded productions of $5,000,000; 400,000; 200,000; 100,000; and lesser amounts. We have carried on a general mining business.

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In the fall of 1919 I discovered Uranium-Radium ores in the White Signal District in Grant County, N. M., in the waste dump of the Merry Widow Mine then owned by Otto Forster and J. Grisson. I brought this to the attention of the Radium Company of Colorado, at that time the largest producer of Radium in the United States. A t that time Dr. Karl Ludwig Kithil, the famous Austrian physicist, was president of the Company. Dr. Kithil was the foremost authority on Radium Deposits and a man of outstanding ability in the field of rare metals. (He was in charge of the U. S. Bureau of Mines operations, under a grant from Dr. James Douglas, that produced the first Radium in the U. S.).

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In 1949 we were placed in charge of diamond drilling operations on the Uranium-Radium mines and in a short period of time proved a large tonnage of disseminated Uranium-Radium ore to a value of $6,000,000. at the guaranteed MINIMUM price for Uranium set by the A. E. C. (OLD PRICE SCHEDULE); on our own Utah and the adjoining Acme claim, owned by Mr. A. G. Hill.

Form MF-103
(April 1951)

U. DEPARTMENT OF THE INTER R
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. Dma - 1294X

Date received 5/28/51

Participation

Albert A. Leach E. M.
&
Francis Ivan Leach
P. O. Bin U
Lordsburg, New Mexico

Name and address of applicant

Date May 21, 1951

FILL IN THIS BLOCK

Date of application May 21, 1951

Estimated cost $250,000.

Mineral or metal URANIUM

Percentage of Government participation 90%

Location of mine Grant Co., New Mexico

White Signal District

Date of filing MF-100

DMA Docket Number, if available Dma - 1294X

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Husband & wife, informal partnership

*2. If a partnership, state names and addresses of partners. See above

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. See professional summaries attached

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9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

NO MONEY, see letter to J.H.East Jr, B.of M. Denver

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

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NOTE.—Sec. 22, as the claims are located. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

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State amount of power to be used, rate per hour or other cost, and source. Power line crosses property

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15. State in detail how the ore could be shipped and how and where milled. See statement of F. I. Leach

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(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations. See attached letter

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(Name of company)

By Albert G. Leach & Wm. Frances Ivan Leach
(Signature of authorized official)

May 21st 1951.
(Date)

Owners
(Title)

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FILE COPY
SURNAME:

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

Bourret
McKnight for
Moore

Docket mailed 6/25/51

June 21, 1951

Mr. Albert A. Leach
P. O. Bin U
Lordsburg, New Mexico

Dear Mr. Leach:

Your application docket DMA-1294 for exploration project in the amount of $250,000.00 has been received by the Minor and Rare Metals Branch of the Supply Division.

Before a decision can be reached on your request we find it is necessary to obtain additional information on your property. Your application therefore is being referred to the office of the Executive Officer of DMA Field team Iv, Mr. J. H. Last., Jr. 224 New Customhouse Building, Denver 2, Colorado, with the request that the needed information be supplied to us.

Yours very truly,

Tom Lyon, Director
Supply Division

WBourret/mh
cc: Adm. Read. File
Strobel
Lyon
Field Team IV
Bourret
Files

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 4126, University Station
Tucson, Arizona

June 17, 1952

Confidential

Memorandum

To: , Field Team, Region IV, Denver, Colorado
Through, Mr. A. H. Koschmann

From: A. F. Shride, Tucson, Arizona

Subject: Confidential Appraisal of the Applicants and Their Intent in Requesting an Exploration Loan (DMA 1294)

Mr. Leach, before 1920, held responsible positions with mining companies and should technically be able to direct an exploration program. However, during the past 30 years he has become obsessed with "crackpot" possibilities for commercializing uranium in the White Signal and adjacent areas to the extent that his judgment in technical matters is to be questioned. In addition final decisions apparently are made by Mrs. Leach, who will override effectively the decisions of her husband is she so desires. Mrs. Leach's ideas on mining subjects and techniques are "weird and wonderful to behold" to say the least.

The Leaches frankly stated that they have no intent of mining uranium or allowing mining fi an exploration project were successful. I seriously doubt that they would consider entering into any exploration contract that did not provide them with a good income. The reason for including the Floyd Collins claim in the application was that they hoped to build a home on that property under the guise of living quarters and assay laboratory for the exploration program. The Leaches also hoped that the exploration program would recover small amounts of torbernite which they could stockpile for use in their patent medicine devices.

Had exploration been warranted I could have recommended exploration only with the proviso that such a program be completely divorced from management by the applicants.

/s/ A. F. Shride

A. F. Shride
Geologist

FILE COPY
SURNAME:

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

June 4, 1951

Messrs. Albert A. and Francis Ivan Leach
P. O. Bin U
Lordsburg, New Mexico

Subject: DMA-1294X
Re: Exploration Loan
California, Utah,
Floyd Collins

Gentlemen:

Receipt is acknowledged of your application and attachments of May 21, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1294X and was referred to Mr. Weston G. Bourret, Acting Chief, Minor and Rare Metals Branch on May 29, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1294X.

Sincerely yours,

LANDON F. STROBEL js

Landon F. Strobel
Executive Secretary

LFSTROBEL:js
cc: Strobel-2
√Files
Bourret
Lyon

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA-1294X

Date received 5/28/51

Participation

Albert A. Leach E. M.
&
Francis Ivan Leach
P. O. Bin U
Lordsburg, New Mexico

Name and address of applicant

Date May 21, 1951

FILL IN THIS BLOCK

Date of application May 21, 1951

Estimated cost $250,000.

Mineral or metal URANIUM

Percentage of Government participation 90%

Location of mine Grant Co., New Mexico

White Signal District

Date of filing MF-100

DMA Docket Number, if available DMA-1294X

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Husband & wife, informal partnership

*2. If a partnership, state names and addresses of partners. See above

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. Not

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. See professional summaries attached

*5. Are you the owner of the property? Outright owners

6. If owner, state what claims, liens, or encumbrances, if any, are on the property. Not a penny of debt

7. If lessee, attach a copy of the lease and state if it is in good standing. Not

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. Mine is idle

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

NO MONEY, see letter to J.H.East Jr, B.of M. Denver

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Patented California & Utah 1903. Floyd Collins 2169

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

NOTE.—Sec. 22, T. 20 S., R. 15 W., N. M. P. M. So State. The only obligation required by the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any. California, Utah & Floyd Collins

*12. State, in detail, the location of the property with reference to towns, railroads, roads, trails, shipping points, connecting distances and directions and kinds and conditions of roads. 26 miles to Silver City, Blacktop Highway

*13. State source and quantity of water available for operations and its sufficiency at all seasons. Sufficient on Collins

State amount of power to be used, rate per hour or other cost, and source. Power line processes property

*14. Describe any existing useable facilities, equipment, buildings, or structures now on the property to the exploration work. New camp has to be built on Floyd Collins

15. State in detail how the ore could be shipped and how and where milled. See statement of F. I. Leach

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations. See attached letter

(*b*) State briefly the known history and production of adjoining and neighboring properties. Several thousand

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations. See U.S.G.S. -B. of M.

*17. Production: Mines are idle

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly. See attached letter

(*b*) Submit available maps and assay data. See U. S. G. S.

(*c*) Give estimated tonnage and grade of each class of ore reserves. See letter to Mr. East

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

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? URANIUM

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. See Schedule

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

See letter to Mr. East & U. S. G. S. files

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each. All generalized in Schedule

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

See Schedule.

CERTIFICATION

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

(Name of company)

By Albert A. Leach E.M.
(~~Signature of authorized official~~)

May 21st 1951.
(Date)

Francis Ivan Leach
(~~Title~~) Owners

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

P. O. Bin U
May 8, 1951.

Mr. J. H. East Jr., Director,
U. S. Bureau of Mines,
Denver, Colorado.

Dear Mr. East:-

I have just received a copy of Order MO 5, in regard to development loans, from Washington, and wish to ask you some questions.

To do so I must briefly outline our situation. We own the patented Utah & California claims and the Floyd Collins claim, now being patented, in the White Signal District, Grant County, N. M. These carry Uranium as Torbernite in and along felsite dikes, cutting Pre-Cambrian granite. These are referred to as "veins"; 15' wide on the Collins and 2 to 12' on the California for a strike length of 1700'. Also on the Utah, a great rock cut (highway) showed lower grade disseminated Torbernite on fractures in firm but shattered granite extending out for a distance of 500' from the hanging wall of the California vein. A diamond drill hole was put down vertically 200' on the edge of the cut. The Silver City Bureau of Mines engineers split the cores, analysed them and gave us a core and sludge average of 0.15% U_3O_8 from 95 to 125 feet. Another hole from the same location was run under the highway at 60° and stopped at 60' in material showing Torbernite. We have closely co-operated with Storms and Soule of your Silver City office, spending many days in the field and office with them and furnishing much material not elsewhere available. They took two samples from the Floyd Collins of 2.10% & 1.95% U_3O_8 and I gave them 40 lbs of test material that ran 1.40%. The A. E. C. New York office gave us- selected material from Collins - 6.0%; 10 lbs general ore-2.25%, selected from Utah disseminated 0.73%- 10 lbs. from Utah disseminated- 0.46%.

Mr. C. Girard Davidson, Asst. Sec. Dept. of the Interior was kind enough to send me a copy of his Salt Lake City speech, so I can quote direct " In stead, we have two cases, for example, from around Silver City New Mexico, where prospecting by geological and geophysical methods for uranium-bearing ores was hampered by many small claims plastered over the area. As a result, large-scale operation was abandoned." The two cases referred to are the White Signal and Black Hawk Districts. This statement clearly shows the top officials of your Department are well aware of the importance of these deposits and prepared to spend a considerable amount on them.

At present we reside at a gold mine , 10 miles west of White Signal, which we are selling, final payment is due in less than 9 months. We plan to then return to White Signal. I am in touch with Mr. MacPherson, waiting for a definite price on Uranium Oxide - from a study of the new price schedules it should be something over $10.00 per pound.

I think our services, in view especially of our complete familiarity with the deposit, would be worth $5,000. a year apiece or $20,000. for two years. We own a complete mining outfit, tractor, compressor drills etc, a small but complete uranium-radium treatment plant, a very complete laboratory, 4 balances, electroscopes, Geiger, glassware and reagents. Say a total of $25,000. Would you care to put up nine times (90%) this amount to undertake the underground development of the California "vein" and the very large Utah disseminated body? Must the application be made at once?

SCHEDULE

Proposed Development & Time Required

1. Camp buildings & water system	$ 35,000.
2. Sinking & equipping New Shaft, 100 ft. deep in the disseminated ore body	100,000.
3. Enlarging & equipping the California Shaft	15,000.
	150,000.

All the above would go forward together and be completed in about six months.

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4. The balance of the funds would be used in drifting in ore and exploring the very large disseminated ore body; about 3,750 feet of drifting. No pumping or timbering.

This work would be governed by the information obtained and would have to be flexible.

All this work would go ahead simultaneously and would require about fifteen months time.

Professional Summary

Albert A Leach

1911 - Graduated from Columbia Univ. School of Mines, degree Engineer Mines

1911 - Instructor, Columbia Univ. Summer School

1911 - Mining Engineer, Las Chispas Mine, Sonora, Mexico

1912 - Assistant, Geological Department, Cananea Cons. Cop. Co. Mexico

1913 - 14 - General Manager, Sonora Exploration& Metals Co., Yaqui River, Sonora, Mexico,

1915 - Mining Engineer, Chino Cop. Co.(Kennecott) Santa Rita, N. Mex.

1916 - Asst. Geologist, Phelps Dodge Burro Mt. Branch, Tyrone, N. Mex.

1916-1920 - Chief Geologist " " " " " "

As Chief Geologist my work was to direct all exploration and development; delimit ore bodies and estimate their tonnage and grade; and keep permanent geological, sampling and tonnage records. I had five men in my own office, and direct supervision of 8 churn drills (48 men) mine sampling crew (15 men) and two assay offices.

In 1921 my wife and I went into the mining business for ourselves and have acquired well over a dozen mines, with recorded productions of $5,000,000; 400,000; 200,000; 100,000; and lesser amounts. We have carried on a general mining business.

Professional Summary

Francis I. Leach

In the fall of 1919 I discovered Uranium-Radium ores in the White Signal District in Grant County, N. M., in the waste dump of the Merry Widow Mine then owned by Otto Forster and J. Grisson. I brought this to the attention of the Radium Company of Colorado, at that time the largest producer of Radium in the United States. A t that time Dr. Karl Ludwig Kithil, the famous Austrian physicist, was president of the Company. Dr. Kithil was the foremost authority on Radium Deposits and a man of outstanding ability in the field of rare metals. (He was in charge of the U. S. Bureau of Mines operations, under a grant from Dr. James Douglas, that produced the first Radium in the U. S.).

After testing the samples I sent him he came down from Denver to examine these properties. The result of this visit was to negotiat e a lease and option to purchase the mines for a consideration of $50,000. I was placed in charge of development and exploration and during a period of some six months work I opened a fine deposit of Uranium-Radium at the Merry Widow mine and several other mines in the district. I built a camp and put in a small Radium laboratory, but found our costs of production could not compete with newer and richer deposits found in the Belgian Congo of Central Africa, as they were using black slave labor and their costs were extremely low. The project was abandoned (all Radium mines in the U. S. were closed at this same time) and the camp materials sold.

During the years 1921 & 1922 we acquired title to the California and Utah claims which we at once patented. Rich Uranium-Radium ore had been opened to a depth of 85 feet on these claims. We built a camp on the California claim and began the refining and marketing of Radium and Uranium. At this time I received a U. S. patent on two devices which enabled us to market our product at a profit. One of these devices was known as the Ra-Tor Plaq and sold for $100. each. The other was an activator, selling for $750., used for removing birth marks, skin cancers, moles and scars. During the panic of '29 these operations were closed and we turned our attention to another gold-silver property we owned and set up a plant to make gold-silver bullion. We also shipped considerable high grade ore. The ore treated at the plant was bonanza grade, running from $350. to $1700. per ton. Later we sold these mines for $40,000. cash, and have since devoted our time to the management of a great number of mining properties acquired from profits in these operations.

In 1949 we were placed in charge of diamond drilling operations on the Uranium-Radium mines and in a short period of time proved a large tonnage of disseminated Uranium-Radium ore to a value of $6,000,000. at the guaranteed MINIMUM price for Uranium set by the A. E. C. (OLD PRICE SCHEDULE); on our own Utah and the adjoining Acme claim, owned by Mr. A. C. Hill.