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

Surname copy
Murphy
Ellis
Kiilsgaard
Hedges
Martin

MAR 11 1955

Mr. Jay W. Jacobson, President
Congo Uranium Co.
404 Boston Building
Salt Lake City, Utah

Re: Docket No. DMEA-3493 (Uranium)
Dream Group of claims
Garfield County, Utah

Dear Mr. Jacobson:

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

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

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

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

Sincerely yours,

K. O. Mittendorf (for)

Administrator

FMMurphy/gla
3-10-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Murphy

R.C.B.

DOCKET COPY

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

March 9, 1955

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No. DMEA-3493

Commodity: Uranium

Applicant: Congo Uranium Company
Jay W. Jacobson, President
404 Boston Building
Salt Lake City, Utah

Property: 40-year lease on the "Dream Group" of seven unpatented lode mining claims in the S½ of Sec. 33, T. 33 S., R. 8 E., and the N½ of Sec. 4, T. 34 S., R. 8 E., SLBM, Garfield County, Utah

Date of Application: September 7, 1954

Amount of Application: $92,909.70

Work proposed:
(1) Sinking the present 100-foot inclined shaft an additional 100 feet.
(2) Cutting stations and skip-pockets on the 100 and 200 levels.
(3) Drifting 1500 feet on the 100 and 200 levels.

Field Team Report: Transmitted 2/21/55

Exploration work completed to the date of examination has disclosed a submarginal zone of uranium mineralization in a 100-foot inclined shaft and at the surface in the vicinity of the shaft. Geologic conditions indicate that additional exploration in the area will probably disclose mineralization of the grade now exposed, with little chance that the mineralization will be economic. The Field Team, therefore, recommended that the application be denied.

Geology:

The rocks cropping out on the Dream claims in the immediate vicinity of the mine are the Summerville formation, the Salt Wash and the Brushy Basin members of the Morrison formation, all of Jurassic age.

The claims are located on the steep east-ward dipping flank of the Circle Cliffs anticline. Dips range from 42 degrees to 49 degrees. Bedding dip at the shaft collar is 49 degrees; the dip in the crosscut at the 100-foot level is 43 degrees. No major faults occur near the mine and the rocks are not prominently jointed.

Carnotite mineralization occurs in association with carbonaceous material in a 4-foot bed at the base of the Salt Wash member of the Morrison formation. The shaft follows this mineralized bed.

Commodity Committee Members' Comments:

U. S. Bureau of Mines, J. E. Crawford, March 4, 1955.

Concurs with Field Team that the application should be denied.

U. S. Geological Survey, R. D. Trace, March 7, 1955.

Concurs with Field Team and recommends application be denied.

Comments: "Past exploration strongly suggests that the deposit is too uniformly low in grade, with no suggestion or known reason for an increase, to justify a DMEA project.

Rare and Miscellaneous Metals Division - F. M. Murphy

Ore reserves in the vicinity of the shaft are estimated at 1000 tons averaging 0.10 per cent U_3O_8, or a value of $7.00 per ton of ore (before haulage allowance). The Field Team and also the A.E.C. geologist working in the Circle Cliffs area conclude that a significant discovery is not likely because of the unfavorable character of the host rock. Also, because very little highly radioactive material was found north and south of the shaft, it was concluded that the deposit would not probably improve at depth.

Conclusions and Recommendations:

Work proposed by the Applicant cannot be justified as an economical exploration method. Three or four angled diamond-drill

holes would probably be sufficient to either prove or to show cause for abandonment of this deposit. The cost of such drilling would be less than one-half the amount they plan to spend on their share of the proposed exploration program. This Division concurs with the above and recommends that the subject application should be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis

mmply

3/8/55 gla

IN REPLY REFER TO:

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

Defense Minerals Administration
MAR 8 - 1955

March 7, 1955

Re: DMEA-3493
Congo Uranium Co.
Dream claims
Circle Cliffs area
Garfield Co., Utah
$92,909.70 - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

I concur with the Field Team and recommend that the subject application be denied.

Past exploration strongly suggests that the deposit is too uniformly low in grade, with no suggestion or known reason for an increase, to justify a DMEA project.

R. D. Trace

IN REPLY REFER TO:

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

MAR 8 1955

March 7, 1955

Re: DMEA-3493
Congo Uranium Co.
Brown claims
Circle Cliffs area
Garfield Co., Utah
$98,909.70 - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

I concur with the Field Team and recommend that the subject application be denied.

Past exploration strongly suggests that the deposit is too uniformly low in grade, with no suggestion or known reason for an increase, to justify a DMEA project.

R. D. Trace

RDTrace:hlm
G-3/7/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior

IN REPLY REFER TO:

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

MAR 8 1955

March 7, 1955

Re: DMEA-3493
Congo Uranium Co.
Dream claims
Circle Cliffs area
Garfield Co., Utah
$92,909.70 - Uranium

Memorandum

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R. D. Trace

RDTrace:hlm
G-3/7/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior

IN REPLY REFER TO:

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

March 7, 1955

Re: DMEA-3493
Congo Uranium Co.
Dream claims
Circle Cliff's area
Garfield Co., Utah
$98,909.70 - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

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R. D. Trace

RD/Trace:hlm
G-3/7/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. R. Crawford, 3641 Interior

3/7/55 gh

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

March 4, 1955

Memorandum

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

From: Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket 3493, Congo Uranium Company, Dream claims, Garfield County, Utah

I have reviewed the subject report and have discussed it with Joseph O. Hosted, representative of the Atomic Energy Commission.

We concur with the recommendation of the Field Team that the application involved under the subject docket be denied.

The report has been forwarded to the Chief, Division of Minerals, in accord with the routing slip attached thereto.

John E. Crawford

John E. Crawford

Copy to: Branch of Rare and Precious Metals
Division of Minerals
J. O. Hosted (2)
J. E. Crawford
F i l e s

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

March 4, 1955

Memorandum

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

From: Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket 3493, Congo Uranium Company, Dream claims, Garfield County, Utah

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John E. Crawford

Copy to: Branch of Rare and Precious Metals
Division of Minerals
J. O. Hosted (2)
J. E. Crawford
F i l e s

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

March 4, 1955

Memorandum

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

From: Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket 3493, Congo Uranium Company, Dream claims, Garfield County, Utah

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We concur with the recommendation of the Field Team that the application involved under the subject docket be denied.

The report has been forwarded to the Chief, Division of Minerals, in accord with the routing slip attached thereto.

John E. Crawford

Copy to: Branch of Rare and Precious Metals
Division of Minerals
J. O. Hosted (2)
J. E. Crawford
F i l e s

3/2/55 gla

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

224 New Customhouse
Denver 2, Colorado

February 21, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Report of Examination, DMEA Docket-3493 (Uranium), Congo Uranium Company, Dream claims, Garfield County, Utah

Enclosed are the original and three copies of the report pertaining to the above application.

We recommend that the application for DMEA assistance be denied.

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosure

Reviewed by
DMEA OPERATING COMMITTEE
2-28-55
(date)

TRANSMITTED
FEB 21 1955

FEB 11 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

February 9, 1955

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Region III

From: Stephen R. Wilson

Subject: Docket No. DMEA-3493 (Uranium), Congo Uranium Co., Dream claims, Garfield County, Utah

Enclosed are the original and 10 copies of an engineering report covering examination of the subject property for DMEA loan appraisal. The report was prepared by M. M. Gilkey. Also included are the necessary copies of a separate section, Summary, Conclusions and Recommendations, three copies each of forms 6-803 and 6-993, a copy of the brochure, and a copy of the geologic report. The brochure was transmitted to this office by memorandum from the Executive Officer dated January 18, 1955, subsequent to receipt of initial information on the docket by this office. The geologic report was transmitted by the Executive Officer January 5, 1955, with a request that it be returned.

The applicant has requested a DMEA loan to explore uranium occurrences in the Salt Wash member of the Morrison formation. Exploratory work completed to the date of examination has disclosed a submarginal zone of uranium mineralization in a 100-foot inclined shaft and at the surface in the vicinity of the shaft. Geologic conditions indicate that additional exploration in the area will probably disclose mineralization of the grade now exposed, with little chance that the mineralization will be economic. The examiners, therefore, recommend that the application for loan assistance be denied. I concur with this recommendation.

The subject application was brought to the attention of AEC field personnel, and information concerning the property was obtained from this agency.

Stephen R. Wilson
Stephen R. Wilson

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
2-28-55
(date)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By E. S. Davidson and M. M. Gilkey

Congo Uranium Co., owners of the Dream claims in Garfield County, Utah, has applied for DMEA loan assistance to conduct underground exploratory work. Proposed exploration consists of 100 feet of shaft sinking and 1,500 feet of drifting on two levels.

Rocks exposed in the property area, all Jurassic in age, consist of the Summerville formation, and the Salt Wash and Brushy Basin members of the Morrison formation. Uranium mineralization, consisting chiefly of carnotite, is found in a 4-foot bed near the base of the Salt Wash member. An inclined shaft 100 feet in depth has exposed the bed down dip. Samples taken in the shaft indicate the bed contains below-ore-grade mineralization to the 100-foot level. At the surface a zone of noticeable radioactivity extends approximately 40 feet along the strike in the vicinity of the shaft. No evidence is present to indicate that the intensity of mineralization will increase with depth.

Production from the property to the date of examination totals 8.24 tons of ore with an assay value of 0.16 percent U_3O_8 and 0.37 percent V_2O_5. This ore was hand sorted in sinking the shaft.

The applicant has requested a loan of $92,909.70 for the proposed exploratory project. The examining engineer and geologist do not believe that additional work will disclose mineralization of commercial significance, and therefore recommend that the loan request be denied.

Reviewed by
DMEA OPERATING COMMITTEE

2-28-55
(date)

CONGO URANIUM COMPANY
GARFIELD COUNTY, UTAH
DMEA-3493
Uranium

Engineering Report

By M. M. Gilkey
Mining Engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
2-28-55
(date)

SUMMARY

The Congo Uranium Co. has applied for DMEA assistance in an exploratory project on uranium property in Garfield County, Utah. Approximately 4,000 feet of rim stripping and 100 feet of inclined shaft sinking in the Morrison formation have been accomplished by the company to date.

The property lies on the easterly dipping flank of the Circle Cliffs anticline. Carnotite mineralization occurs in association with carbonaceous material in a 4-foot bed at the base of the Salt Wash member of the Morrison formation. A shaft, inclined at approximately 45 degrees, follows the mineralized bed to a depth of 100 feet. To this depth, the bed varies little as to grade and thickness. The grade, apparently, has not been affected by surface-water leaching. Ore reserves in the vicinity of the shaft are estimated at 1,000 tons averaging 0.10 percent U_3O_8.

Project proposals submitted by the applicant include sinking the shaft an additional 100 feet and drifting a total of 1,500 feet on the 100- and 200-foot levels. Total cost of the project is estimated by the applicant at $92,909.70.

An examination of the property was made by Geological Survey and Bureau of Mines personnel November 9, 1954.

A denial of the applicant's request is recommended as geologic evidence points to the improbability of finding an ore body of commercial grade.

INTRODUCTION

The Congo Uranium Co., 404 Boston Building, Salt Lake City, Utah, has applied for Government aid in an exploratory project at the Dream claim group in Garfield County, Utah. Exploratory work done by the company to date consists of some 4,000 feet of rim stripping along the Salt Wash member of the Morrison formation and 100 feet of inclined shaft sinking in submarginal uranium ore at the base of the Salt Wash. The company now proposes to deepen the shaft to 200 feet and drift a total of 1,500 feet on the 100-foot and 200-foot levels, at a total estimated cost of $92,909.70. Government participation, at 75 percent, would amount to $69,682.28.

The property was examined November 9, 1954, by E. S. Davidson and D. A. Brew of the Geological Survey, and M. M. Gilkey of the Bureau of Mines. R. F. Carlson was present as company representative.

LOCATION, TOPOGRAPHY AND CLIMATE

The property lies in an unsurveyed area a few miles west of the Henry Mountains, in Garfield County, Utah (fig. 1). The approximate location is the S. 1/2 of sec. 33, T. 33 S., R. 8 E., and the N. 1/2 of sec. 4, T. 34 S., R. 8 E., S.L.B. & M. From the Notom Ranch on Utah Highway No. 24, the property is reached by driving south a distance of 27 miles on an unimproved dirt road.

Limited supplies may be purchased at Loa, Utah, approximately 70 miles distant, on Utah Highway No. 24. The distance from Salt Lake City to the property is 270 miles. Uranium ore produced in the area

may be trucked 147 miles to the receiving station at Thompsons, Utah, or 111 miles to Sigurd, Utah, on the Denver and Rio Grande Railroad, for shipment to Vitro Uranium Co. in Salt Lake City.

Topographically, the property is situated in an area of low-to-moderate relief. The sparse vegetation consists principally of scattered juniper trees and sagebrush. Water for all purposes is hauled from the Notom Ranch.

Although mining operations in the area are not severely hampered by weather conditions, travel over the road from the Notom Ranch becomes difficult temporarily during wet periods.

OWNERSHIP AND EXTENT

The property involved in the proposed project includes seven unpatented lode mining claims of the Dream group, the Dream Nos. 1 through 7 (fig. 2). On the applicant's map, the bulldozer stripping along the Salt Wash member of the Morrison formation extends into an eighth claim, one of the Old Burr Trail group. Owners of the claims are LaVar Brown and associates of Loa, Utah, the original locators. The applicant holds the property under a 20-year lease dated May 28, 1954.

The Dream claims are recorded in the County Recorder's Office at Panguitch, Utah, in Book Misc. 17, page 238.

HISTORY AND PRODUCTION

The claims were first recorded in January 1954. According to Mr. Carlson, the company representative at the time of the examination, all ore produced on the claims has come from the shaft. By hand-sorting the better material excavated in sinking the shaft to a depth of 100 feet, a total of 8.24 tons of shipping ore was accumulated. This is reported to have assayed 0.16 percent U_3O_8, 0.37 percent V_2O_5, and 7.60 percent $CaCO_3$. In addition, a few tons of lower grade rock has been stockpiled on the dump.

There are no mines producing ores from the Morrison formation in this area.

DESCRIPTION OF THE DEPOSITS

The claims lie on the easterly dipping flank of the Circle Cliffs anticline. Rocks present in the immediate vicinity of the mine are, in ascending order, the Summerville formation and the Salt Wash and Brushy Basin members of the Morrison formation, all of Jurassic age. Dips in the mine area range from 40 to 50 degrees.

Uranium mineralization occurs in a 4-foot bed at the base of the Salt Wash member of the Morrison formation. The Salt Wash is approximately 270 feet thick and consists mainly of medium-grained sandstone interbedded with gray and red mudstone. Carbonaceous material is present in thin, interlaminated clay beds in the ore horizon. Uranium

mineralization in the form of carnotite occurs in association with the carbonaceous material and seems to be fairly evenly distributed from the collar to the bottom of the shaft.

The shaft follows the mineralized unit to a depth of 100 feet. In this distance the easterly dip of the beds decreases from 49 degrees at the portal to 43 degrees at the 100-foot level. Apparently the grade of the ore at and near the surface has not been affected by surface-water leaching, as there is no increase in the uranium content at the bottom of the shaft where the rock is hard and gray. At the surface, comparatively high radioactivity is limited to the vicinity of the shaft where, for a strike distance of about 40 feet, radiometric readings indicate a grade similar to that of the lower 4 feet of material in the shaft, or approximately 0.10 percent U_3O_8.

PRESENT STATUS

The mine workings consist of an 8' x 7' shaft sunk on approximately a 45-degree incline to a depth of 100 feet, and 10 feet of drifting to the north from the bottom of the shaft. Timber in the shaft consists of one set at the collar, several stulls, a slide and ladders. The ground stands well. There has been little sloughing in the shaft during the past several months while the mine has been shut down. The wooden headframe is constructed for temporary use only.

ORE RESERVES

Ore exposed in sinking the 100-foot shaft is too low in grade to be minable. It is estimated that in the immediate vicinity of the shaft there remains 1,000 tons of submarginal ore containing 0.10 percent U_3O_8.

Other radioactive material exposed in bulldozer trenching north and south of the shaft is too low in grade and too limited in extent to warrant further consideration.

PROPOSED EXPLORATION AND COSTS

It is proposed by the applicant to extend the inclined shaft from its present depth of 100 feet to a depth of 200 feet, cut stations and skip pockets at the 100- and 200-foot levels, and drift on both levels a total distance of 1,500 feet north and south from the shaft (fig. 3). Distribution of the drifting footage would depend on information gained as the exploratory work progresses. It should be noted that cutting a skip pocket below the 200-foot level would require approximately 20 feet of additional shaft sinking, or a total of 120 feet of sinking below the 100-foot level.

Time to complete the work is 15 months, as estimated by the applicant. The cost of the proposed work is estimated to be $92,909.70, and Government participation, at 75 percent, is $69,682.28.

From an operational point of view, the proposed work appears to be feasible, inasmuch as the sinking and drifting would probably be done in firm, dry ground. The cost, however, would be high in terms of cost per foot (approximately $58 per foot for 1,600 feet).

Although the "contract labor" cost of sinking, at $24 a foot, and drifting, at $12 a foot, may not be too high, the overall cost becomes excessive when the other items are added. Such items as "explosives" at $5,913, and "one truck driver" at $6,000, are considered to be excessive. Skip pockets may be considered unnecessary for an exploratory project.

The low grade and limited extent of uranium mineralization at the surface, north and south of the shaft, indicates that the drifting is not justifiable geologically. Similarly, as there is no evidence that an improvement in the grade of the ore may be expected with depth, it appears that deepening the shaft is not warranted. Diamond drilling substituted for the proposed sinking and drifting would be a more economical means of exploring the deposit, but drilling does not seem to be warranted in view of the unfavorable geologic conditions.

CONCLUSIONS AND RECOMMENDATIONS

Exploratory work done to date on the Dream claims of the Congo Uranium Co. has exposed a noncommercial uranium deposit about 4 feet

thick by 40 feet in strike length at the surface. The existing shaft reveals that the mineralized bed is quite uniform in grade and thickness to a depth of 100 feet. Surface-water leaching seems to have been an unimportant factor in redistribution of the uranium mineralization.

The estimated cost of the work is considered to be excessive.

It appears improbable that an exploratory project on this property will result in discovery of a commercial ore body. It is recommended, therefore, that the applicant's request for Government assistance be denied.

E. S. Davidson of the Geological Survey and D. Grundy of the Atomic Energy Commission concur in this recommendation.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver 2, Colorado

TRANSMITTED
FEB 21 1955

January 3, 1954

To: DMEA Field Team, Region IV

From: E. N. Harshman

Subject: DMEA Docket 3493, Congo Uranium Company, Dream claims, Garfield County, Utah

Enclosed are 10 copies of a geologic report by E. S. Davidson of the U. S. Geological Survey covering the above docket.

Exploration by the applicant company has resulted in the discovery of a small amount of submarginal ore, a hand-sorted shipment of which contained 0.16% U_3O_8, and 0.37% V_2O_5, and 7.60% $CaCO_3$.

The proposed program of shaft sinking and drifting to explore for bedded deposits of uranium ore is unorthodox and the objectives might be reached at much less cost by a program of diamond drilling.

Davidson concludes that exploration will not lead to the discovery of significant amounts of ore grade material and recommends denial of the application for exploration assistance. His conclusions and recommendations are justified by the data included in his report.

E. N. Harshman

E. N. Harshman
Project Chief

Enclosures (10)

Reviewed by
DMEA OPERATING COMMITTEE
2-28-55
(date)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. BOX 360
GRAND JUNCTION, COLORADO

TRANSMITTED

FEB 21 1955

December 31, 1954

Memorandum

To: E. N. Harshman, DMEA Field Team, Region IV

From: Arnold L. Brokaw, District Supervisor

Subject: DMEA 3493, Congo Uranium Company, Dream claims, Garfield County, Utah

Transmitted herewith are ten copies of a geologic report and accompanying maps by E. S. Davidson, covering a field examination of the above-referenced property.

After field examination Davidson concludes that DMEA assistance for exploring the property be denied. Davidson believes that no significant discovery is likely to result from exploring the property, as the host rock is generally unfavorable for the accumulation of uranium ore deposits. I concur with Davidson's recommendations that DMEA assistance be denied.

The application was brought to the attention of the Exploration Division, Grand Junction Operations Office, U. S. Atomic Energy Commission. The Commission's district geologist in the Circle Cliffs area aided Davidson in examining and evaluating the property.

Enclosures

T. E. Mulholland
For Arnold L. Brokaw

TEM/mlr

Reviewed by
DMEA OPERATING COMMITTEE
2-28-55
(date)

UNITED STATES DEPARTMENT OF THE INTERIOR

DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 3493, Congo Uranium Company, Dream claims, Garfield County, Utah

Uranium

Geologic Report

by

E. S. Davidson
U. S. Geological Survey

December 31,1954

Reviewed by
DMEA OPERATING COMMITTEE
2-28-55
(date)

DMEA 3493

SUMMARY AND RECOMMENDATIONS

The Congo Uranium Company of 404 Boston Building, Salt Lake City, Utah, has applied to the Defense Minerals Exploration Administration for assistance in exploring for uranium ore on the Dream claims Nos. 1 through 7 inclusive, Garfield County, Utah. The applicant proposes 100 feet of shaft sinking and 1,500 feet of drifting on the 100-foot and 200-foot inclined shaft levels. The total cost of this work is estimated by the applicant to be $92,909.70.

The claims were examined on November 9, 1954, by a Region IV Field Team comprising M. M. Gilkey of the U. S. Bureau of Mines, E. S. Davidson, and D. A. Brew of the U. S. Geological Survey. The Field Team was accompanied by R. F. Carlson, a representative of the applicant. The Field Team concluded that exploration of the property is not likely to result in a significant discovery because of the unfavorable character of the host rock and that such exploration, backed by DMEA funds, is not justified. This opinion is also held by the geologist working in the Circle Cliffs area on behalf of the Atomic Energy Commission. Thus, it is recommended that DMEA assistance to explore the property be denied.

The rocks exposed on the Dream claims are the Brushy Basin shale member and the underlying Salt Wash sandstone member of the Jurassic Morrison formation. The Brushy Basin member, about 230 feet thick, is varicolored siltstone and mudstone. The Salt Wash, about 270 feet thick, is composed mainly of light-yellow to gray-white medium-grained sandstone inter-bedded with red to gray siltstones and mudstones.

The bed of economic interest is near the base of the Salt Wash member. It is a very fine-grained carbonaceous sandstone containing uranium and vanadium. The bed has a maximum thickness of four feet and contains 0.10 percent or less of U_3O_8 and less than 0.50 percent V_2O_5 in the interval exposed by the shaft.

INTRODUCTION AND SUMMARY

The Congo Uranium Company, 404 Boston Building, Salt Lake City, Utah, has applied (DMEA Docket No. 3493) to the Defense Minerals Exploration Administration for assistance to explore for uranium ore on the Dream claims Nos. 1 through 7, approximately located (on surveyed land) in the S 1/2 of sec. 33, T. 33 S., R. 8 E., and the N 1/2 of sec. 4, T. 34 S., R. 8 E., Salt Lake Meridian, Garfield County, Utah (figs. 1 and 2). The applicant proposes to do 100 feet of shaft sinking and 1,500 feet of drifting at a total estimated cost of $92,909.70.

The property was examined on November 9, 1954, by a Region IV Field Team made up by M. M. Gilkey of the U. S. Bureau of Mines, and E. S. Davidson and D. A. Brew of the U. S. Geological Survey. The Field Team was accompanied by R. F. Carlson of the Congo Uranium Company. Mr. Carlson is not a principal member of the Congo Uranium Company and I am unable to comment on the general integrity of the company, nor am I familiar with any of their other mining operations.

The Dream claims are in the Henry Mountains mining district, about 25 miles south of Notom, Utah, on an unimproved dirt road. Any ore mined would presumably be trucked to the AEC ore-buying station at Marysvale, Utah, which is 123 miles from Notom, making a total shipping distance of about 150 miles, 50 miles of which is over gravel and dirt roads. These roads are passable all year although the 25 miles from Notom to the Dream claims may be in very poor condition during wet periods.

The applicant is a lessee and copies of the lease have been submitted with the original application.

GEOLOGY

Rock units.--Rocks cropping out on the Dream claims in the immediate vicinity of the mine are the Summerville formation, the Salt Wash, and the Brushy Basin members of the Morrison formation, all of Jurassic age (fig. 2).

Summerville formation.-- The Summerville formation in the area is a red, uniformly bedded siltstone. It is not radioactive in the vicinity of the mine. This formation is not exposed in the shaft, and its upper contact is concealed by overburden in the mine area.

Salt Wash member of the Morrison formation.--The Salt Wash member of the Morrison formation is primarily a medium-grained cross-bedded sandstone interbedded with greenish gray and red mudstone. This unit is about 270 feet thick and is radioactive near the base.

The bed of economic interest is a 4-foot thick very fine- to medium-grained light brown limonite-stained sandstone, evenly interlaminated with one-eighth to one-fourth inch layers of dark carbonaceous clayey material. A 100-foot inclined shaft following this bed has been sunk (fig. 3). Flecks of carnotite $(K_2CUO_2)2(VO_4)2.\ 1\text{-}3H_2O)$ are evenly disseminated on bedding planes in the carbonaceous material. Other uranium-vanadium minerals may be present. The uranium-mineralized bed is coarser-grained near the base and locally is conglomeratic in the lower one foot. this unit is hard and gray at the bottom of the shaft, indicating very little weathering or surface-water leaching. The carnotite-bearing unit is poorly exposed to the north and south of the shaft portal, but radioactivity appears to be intense for only about 50 or 60 feet along the strike in the vicinity of the shaft. (See fig. 3, plan view of surface.) The mineralized bed is exposed in the bulldozer trench 240 feet north of the shaft portal and, at that point, is more sandy than in the shaft. It contains very little carbonaceous material and negligible radioactivity. This unit may be a stream channel filling, but, if so, it is not obvious, and the channel cannot be more than a few feet deep. The bed contains about 0.10 percent U_3O_8 or less as indicated by scintillometer count and radiometric analyses, and less than 0.50 percent V_2O_5. A picked shipment of 8.24 short tons mainly from this bed analyzed 0.16 percent U_3O_8, 0.37 percent V_2O_5, and 7.60 percent $CaCO_3$. Four channel samples for analysis were cut in the shaft from the ore-bearing bed. Two of these samples were analyzed by the Brown laboratory in Grand Junction, Colorado (fig.3).

The sample cut at 22 feet (not shown on figure 3) is somewhat less radioactive than that cut at 47 feet (fig. 3) which analyzed 0.15 percent U_3O_8. The sample at 22 feet probably would analyze about 0.10 percent U_3O_8. The sample cut at 67 feet analyzed 0.08 percent U_3O_8 (fig. 3). A sample cut from the same bed in the face of the crosscut has the same count as the sample cut at 67 feet and so would probably also analyze about 0.08 percent U_3O_8.

The underlying unit ranges from a whitish-gray siltstone to a medium-grained cross-bedded gray sandstone and is very limy. It contains chert nodules about two feet below its upper contact and is more lime-rich in that zone. No carbonaceous material or notable radioactivity was found in this unit.

Above the uranium-mineralized bed is approximately one foot of a gray fine-grained rippled sandstone containing a small amount of carbonaceous material. It is slightly to moderately radioactive.

Overlying the gray fine-grained rippled sandstone is a cross-bedded light yellow medium-grained sandstone which has little carbonaceous material. This sandstone bed is about 25 feet thick and has a few 4 to 5 inch thick interbeds of gray shale, but no notable radioactivity. No abnormal radioactivity was detected in any of the overlying sandstone and mudstone beds of the Salt Wash.

The Brushy Basin member of the Morrison formation consists of varicolored mudstone and siltstone. It is approximately 230 feet thick. No abnormal radioactivity was noted in this unit.

STRUCTURE

The claims are located on the steep eastward-dipping flank of the Circle Cliffs anticline. Dips range from 49° to 42° in the vicinity of the mine. The dip of beds at the shaft portal is 49°; the dip in the crosscut at the 100-foot level is 43°. As shown by the enclosed section of the shaft (fig. 3), the dip is somewhat irregular. No major faults occur near the mine in the shaft and the rocks are not prominently jointed.

ORE RESERVES AND PRODUCTION

A hand-picked shipment 8.24 short tons of rock analyzed 0.16 percent U_3O_8, 0.37 percent V_2O_5 and 7.60 percent $CaCO_3$. This is the only shipment that has been made from the property. About 50 tons of rock averaging 0.10 percent U_3O_8 or less (estimated from scintillometer count) are stockpiled. Another 425 tons of this grade of material may be inferred but it is not minable at the present time. The presence of a large tonnage of higher grade ore is not probable.

Notably radioactive rock near the boundary of claim No. 7 is very limited in extent and thickness, is probably not the same bed as that prospected on claim No. 3, and does not warrant further work.

Inasmuch as very little highly radioactive material is found north and south of the shaft, it seems safe to predict that the deposit probably will not improve in grade with depth. The thickness of the ore-bearing bed is fairly constant in the shaft and does not noticeably thicken down dip.

There are no other mines in the Salt Wash in the area.

PROPOSED EXPLORATION

The applicant proposes to extend the shaft, now 100 feet, to a depth of 200 feet on the incline and to drift a total of 1,500 feet north and south from the 100 and 200-foot levels. The estimated cost is $92,909.70. Included in this cost is rehabilitation of the shaft and purchase of equipment.

CONCLUSIONS AND RECOMMENDATIONS

The deposit does not warrant exploration aid by DMEA funds. While it is not the type of occurrence that a prudent geologist would discard without further information, the chances of finding commercial ore (under present economic circumstances - about 0.25 - 0.30 percent U_3O_8 in this area) are remote, say one chance in ten, or less. The drifting and shaft-sinking proposed by the applicant is completely unjustifiable as an economical exploration technique. The ore-bearing bed is uniformly mineralized, where exposed, and presents a fair-sized drilling target. According to Mr. Gilkey, of the U. S. Bureau of Mines, the ore-bearing bed is competent to core well. Three or four angled diamond-drill holes would probably be sufficient to either prove or to show cause for abandonment of this deposit. It is recommended that financial assistance for either underground work or drilling be completely denied, inasmuch as a certification is unlikely. The applicants could drill the property privately for less than one-half of the amount they plan to spend on their share of the proposed DMEA exploration. Mr. Gilkey, and Mr. D. Grundy of the Atomic Energy Commission, concur in our opinion of this property.

12/22/54 gla

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

224 New Customhouse
Denver 2, Colorado

December 16, 1954

Mr. Jay W. Jacobson, President
Congo Uranium Company
404 Boston Building
Salt Lake City, Utah

Re: DMEA Docket 3493 (Uranium)
Congo Uranium Company, Dream Group of Claims, Henry Mountain Mining District, Garfield County, Utah

Dear Mr. Jacobson:

We hereby acknowledge receipt of your letter requesting the status of the subject application.

Our records indicate that a formal field examination of your property was made by our field examiners on November 9, 1954, and that their reports are in preparation. When these reports have been received and reviewed in this office, they will be forwarded with our recommendations to the Washington DMEA office.

You will be informed directly from Washington of future action regarding your application.

Yours very truly,

W H King

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

RDB:mn

cc: Subject
S.R.Wilson
A.L.Brokaw
A.H.Koschmann
Sec. to the Oper. Comm. (2)
Chron.

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

224 New Customhouse
Denver 2, Colorado

December 16, 1954

Mr. Jay W. Jacobson, President
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You will be informed directly from Washington of future action regarding your application.

Yours very truly,

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

RDB:mn

cc: Subject
S.R.Wilson
A.L.Brokaw
A.H.Koschmann
Sec. to the Oper. Comm. (2)
Chron.

Surname 700

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

Ellis
Kiilsgaard
Hedges
Selbridge
Johnson

OCT 6 1954

Mr. Jay W. Jacobson, President
Congo Uranium Company
404 Boston Building
Salt Lake City, Utah

Re: Docket No. DMEA-3493 (Uranium)
Dream Group of claims
Garfield County, Utah

Dear Mr. Jacobson:

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

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

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

Sincerely yours,

C. O. Mittendorf

Administrator

EWEllis:am
10-5-54
cc to: Admr. Reading File
Docket
Code 700
DMEA Field Team, Region IV(2)

P.G.

Surname 700

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

Ellis
Selfridge
Johnson

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

OCT 6 1954

Re: Docket No. DMEA-3493 (Uranium)
Congo Uranium Company
Dream Group of claims
Garfield County, Utah

Dear Mr. King:

The captioned application is referred to Region IV for a field examination and Field Team recommendation. A copy of the application and supporting data was retained by your office.

Enclosed are copies of memoranda from John E. Crawford dated September 27, and Arthur P. Butler, Jr., dated September 29, 1954, Bureau of Mines and Geological Survey Uranium Commodity Members respectively.

Before writing your report and recommendation it is suggested that you discuss this proposed project with appropriate members of the Atomic Energy Commission and state their reaction in said report.

The total work under the proposed project appears excessive and may even be considered development. Therefore, if a contract is recommended consideration should be given to Mr. Butler's suggestion on drilling in lieu of shaft sinking and drifting. Any revision of the proposed project should be fully discussed with the Applicant.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

J. H. Hedges

Member, Bureau of Mines (GCS)

Thor H. Kiilsgaard

Member, Geological Survey (GCS)

EWEllis:am
10-5-54
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm.3641
A. P. Butler, Jr. Rm.5227
J. O. Hosted, Rm.3210, GSA
Code 700
Mr. Ellis

R.C.S.

10/4/54 gla

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

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

DATE: September 29, 1954

RECEIVED OCT 1 1954

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

8493

SUBJECT: Application, DMEA Docket (Uranium), Congo Uranium Company, 404 Boston Bldg., Salt Lake City, Utah, applicant; Dream and Old Burr Trail groups of claims, Henry Mountains Mining District, T. 34 & 35 S., R. 8 E., unsurveyed, Garfield County, Utah

The applicants have requested assistance to explore for uranium ore in the Morrison formation by sinking 100 feet of shaft and driving 1500 feet of drift at 100 feet and 200 feet down the incline on the shaft. Total cost would be about $92,910.

Comments

According to the mining engineer's report accompanying the application, ore occurs in the base of the Salt Wash member of the Morrison formation at the contact with the underlying Summerville. An assay plan and section submitted with the application suggests that ore grade material occurs nearly continuously along the present inclined shaft and for about 70 feet on one side and 40 feet on the other side of the shaft at the surface. Assuming the validity of the analyses and that the samples are representative, the applicant has exposed commercial ore by his own work. Further exploration is proposed by the applicant and might reveal additional ore. With 100 feet of shaft sinking and 100 feet of drifting on either side of the shaft at the 100 and 200 foot levels, about three to four thousand tons of ore might be found if the presently known mineralized ground extended to the limits of such workings. A similar amount of ore could be explored by 25 drill holes spaced 50 feet apart at a cost of 1/4 to 1/3 the amount requested in the application. The consulting engineer's report states that drilling would be impractical because of the dip of the beds, but I believe serious consideration sould be given to the possibility of drilling instead of the shaft sinking and drifting.

Recommendation

In view of the apparent presence of commercial grade material on the applicant's property, I recommend that the application be referred to the Field Team for review and appraisal of its merits. I believe that the cost of exploration by the applicant's proposal is excessive and suggest that the Field Team consider the feasibility of drilling. I also suggest members of the Field Team consult with the Exploration Branch, Grand Junction Operations Office, U. S. Atomic Energy Commission, for such information as the staff of that office may have with respect to the applicant's property.

Arthur P. Butler, Jr.

Copy to: E. Wm. Ellis (2)

9/27/54 gla

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

September 27, 1954

Memorandum

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

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

Subject: DMEA Docket 3493, Congo Uranium Co., 404 Boston Building, Salt Lake City, Utah

I have reviewed the application included in the subject docket and have discussed it with Joseph O. Hosted, representative of the Atomic Energy Commission.

It is recommended that the application be referred to the Field Team for investigation and report, and that the Field Team be requested to discuss the application with Ernest R. Gordon, Atomic Energy Commission, Grand Junction, Colorado.

John E. Crawford

John E. Crawford

Attachment

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

September 21, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region IV.

DMEA-3493 Congo Uranium Co.

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

Congo Uranium Co.
404 Boston Building
Salt Lake City, Utah

September 21, 1954
Subject: DMEA-3493
Re: Exploration Assistance
Congo Uranium Mine

Gentlemen:

The receipt of your application dated September 7, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3493 and referred to the Rare and Miscellaneous Metals Division.

Kindly refer to in any future correspondence relating to your application.

Sincerely yours,

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

224 New Customhouse
Denver 2, Colorado

September 15, 1954

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Application of Congo Uranium Co. (Uranium), Garfield County, Utah.

Enclosed are two copies of an application for exploration assistance in the amount of $92,909.70 submitted by Congo Uranium Company.

A copy of this application has been sent to Mr. A. P. Butler, Building 21, TEPCO, at the Denver Federal Center.

John F. Shaw
For W. H. King

Enclosures

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

224 New Customhouse
Denver 2, Colorado

September 15, 1954

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Application of Congo Uranium Co. (Uranium), Garfield County, Utah.

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John F. Shaw
For W. H. King

Enclosures

35

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED

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

Not to be filled in by applicant

Docket No. 3493
Metal or Mineral Uranium
Date Received
Estimated Cost $92,910
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Congo Uranium Co.
404 Boston Building
Salt Lake City, Utah

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Seven unpatented mining claims held under forty year lease in Henry Mountain Mining District, Garfield County, Utah. See continuation sheet for details.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee

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

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

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

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

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

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

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

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

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

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 5 days and be completed within 15 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

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

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

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

[X] Money [ ] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated Sept 7, 1954

CONGO URANIUM COMPANY
(Applicant)

By Jay W Jacobson President

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

USDI/DMEA
Form MF-103
Continuation Sheet No.2

Congo Uranium Co.
404 Boston Bldg.
Salt Lake City, Utah

3.(a)

Dream No. 1	lode	mining	claim	(unpatented)
Dream No. 2	"	"	"	"
Dream No. 3	"	"	"	"
Dream No. 4	"	"	"	"
Dream No. 5	"	"	"	"
Dream No. 6	"	"	"	"
Dream No. 7	"	"	"	"
Dream No. 8	"	"	"	"

Comprising 160 acres more or less, located in an unorganized mining district, in unsurveyed territory, approximately Tp. 21 S., Ranges 3 and 4 E.,S.L.M., Garfield County, Utah. (Note: Approximate township determined by straight line projection of Base and Meridian lines on state maps.)

3.(b) Congo Uranium Mine

3.(c) Leased for 40 year period from Darwin Morrel, Harold Elliot, LaMar Ellet and Earl Brown, original locators. Lessors retain 15% royalty interest. Legal opinion of title is appended.

3.(d) Copy of leases and application for lease to AEC,appended.

3.(e) Not applicable.

3.(f) Records description appended.

USDI/DMEA
Form MF-103
Continuation Sheet No.1

Congo Uranium Co.
404 B oston Bldg.
Salt Lake City, Utah

1. (a) (b)

Congo Uranium Company, a Utah Corporation

404 Boston Building

Salt Lake City, Utah

Jay W. Jacobson, President

1. (c) President and Director,

Jay W. Jacobson,
501 Felt Building
Salt Lake City, Utah

Vice-President and Director

R. G. Shaw
4410 Highland Drive
Salt Lake City, Utah

Secretary-Treasurer and Director

Tom Metos
404 Boston Building
Salt Lake City, Utah

Director

A. Reeves
39 Exchange Place
Salt Lake City, Utah

Director

Sid Spencer
404 Boston Building
Salt Lake City, Utah

Congo Uranium Co.
404 B oston Bldg.
Salt Lake City, Utah

4.(a) 4200 lineal feet of stripping of overburden from the outcroppings by bulldozer, to expose the mineralized beddings and the construction of access roads was performed in the spring and early summer of 1954. An inclined prospect shaft now being sunk has reached a total depth of 100 feet. Applicant has performed and paid for all prospecting and exploration work. A total of more than $25,000.00 has been expended to date. The shaft and trenches are open for examination and are readily accessible by automobile.

4.(b) No shipments have been made from the workings. Small quantity of ore recovered incidental to exploration work is on the dump. Assays of ore recovered and on dump indicate an average of .34% U308. Sampling of outcroppings indicate an average of .19% U308. Assay map appended.

4.(c) The principal geologic feature on the property is the steeply dipping sandstone beddings of the Morrison formation of upper Jurassic age as an escarpment along a pressure ridge. The lower members (Salt Wash) contain considerable organic carbon in the form of semi-petrified wood, leaf mold, and other forest litter, upon and near which the salts of uranium and vanadium are deposited, forming pockets, nodules, and lenses of radio active materials.

4.(c) Local cross faulting, with little displacement, occurs at wide intervals. Mineralization appears to more intense nearthe fault planes. The persistent mineralization for the entire length of exposed bedding, and the continued mineralization to the depth of 100 feet throughout a thickness of from two to four feet of the bedding are factors determining the desire to explore the deposit fully.
(Sketch maps of exposures and present exploration appended).
(Mining report by Chester Peters appended).

4.(d) An unimproved access road extending northward for a distance of 50 miles connects with surfaced and paved Utah Highway 24, through the Capitol Reef National Monument (Wayne Wonderland), from which point it is 100 miles to Sigurd, a station on the D. & R.G. W. R R., or 225 miles to Salt Lake City, Utah.

There is no housing available for personnel within commuting distance.

Mining supplies and materials, except timber must be secured at Salt Lake City,Utah. Timber may be secured from saw mills near Torrey, some 70 miles to the north.

Congo Uranium Co.
404 Boston Bldg.
Salt Lake City, Utah

4 (e) Manpower: Personnel must be recruited in other parts of the state.

Materials: Native timber may be purchased at approximately $80 per M. delivered. Other materials must be secured from the metropolitan centers of the state.

Supplies: Fuel, explosives, lubricants may be secured at Sigurd, Loa, or in the Salt Lake City, area.

Equipment: Heavy equipment may be rented from machinery firms in Salt Lake City.

Water: Water for all purposes must be hauled from Notom Ranch, approximately 50 miles.

Power: Must be generated on site by gasoline or deisel engines.

5 (a) Uranium (and Vanadium)

(b) The proposed exploration: Extend the present 100 foot inclined shaft to depth of 200 feet;
Cut stations and skip pockets at 100 and 200 foot levels;
Extend drifts on 100 and 200 foot levels for a total of 1500 lineal feet to explore beddings exposed by surface stripping.
(Sketch of plans appended)
Final direction and extent of drifts to be determined by conditions as encountered and recommendations by technical advisors.

(c) Work will start within 5 days and be completed within 15 months.

(d) Applicant is newly formed company with six months exploration on the property. No previous history.
Operations will be under direct supervision of Mr. Jay Jacobson, President and Gen. Manager of applicant. Mr. Jacobson has had 25 years successful operation as leaser and operator of various mining ventures. His ability has been demonstrated by successful operations in the Alta region of Utah, and the Goodsprings District in Nevada, and other ventures.

USDI/DMEA
Form MF 103
Continuation Sheet No. 5

Congo Uranium Co.
404 Boston Bldg.
Salt Lake City, Utah

6. Total cost of project		$92,909.70
A. Contract Labor		
Sinking shaft to 200 ft. level		
Labor contract at $24/ft. $	2400.00	
Drifting on 100 & 200 levels		
1500 ft./$12/ft	18000.00	
Stations on 100 & 200 levels		
Labor	1005.00	
Timbering Labor	735.00	
		22,140.00
b. Labor Force Account		
Preparation and rehabilitation		
2 semi-skilled @ $15/shift 30 Da.	900.00	
1 Truck driver @$15/Da. 400 Da.	6000.00	
1 Foreman-direct supervision @$400/Mo.	6000.00	
Engineering services-Fees	3000.00	
		15,900.00
c. Operating materials & supplies		
Mining tools, hand	281.00	
Shop tools, misc.	1066.00	
First aid & safety	192.00	
Lighting fuels(carbide etc.)	225.00	
Fuel Oil-heating	600.00	
Fuel-Power-diesel	900.00	
Fuel-Power-gasoline	1803.50	
Engine oil & Lubricants	234.00	
Mine timber(inc.head frame)	4522.54	
Explosives	5913.00	
Water	900.00	
Mine Rails & acces.	4006.80	
Pipe-comp. air w/fittings	1375.00	
Pipe ventilation	4250.00	
		26,168.84
d. Operating Equipment		
To be purchased		
6" Ventilating Blower	400.00	
8 cf. hoisting skip	450.00	
3/8"cable w/clamps &safety chain	182.32	
3x8 air receiver w/fittings	125.00	
24"Sheave w/bearings	160.00	
Signal system	60.00	
To be rented		
Compressor & Drilling Equip.@$175/Mo.	2625.00	
Hoist & Engine@$90/Mo.	1350.00	
		5,352.32
e. Rehabilitation & Repairs		
Install rails to 100'level-labor	300.00	
Install new collar set-labor	33.30	
		333.30

USDI/DMEA
Form MF103
Contination Sheet No. 6

Congo Uranium Co.
404 Boston Bldg.
Salt Lake City, Utah

6.	f. New Buildings		
	Equipment footings-job	$ 300.00	
	Shaft house & tool shed-job	1130.00	
	Headframe-labor only	213.50	
			$ 11643.50
	g. Miscellaneous		
	Assaying	500.00	
	Accounting & records@$25/Mo.	4500.00	
	Compensation Ins. (Contract)	1660.50	
	SS-OAB-Comp.Ins.(Force acct)	1764.90	
	Reserve for repairs & maint.	1500.00	
	Adm.-phone tolls,travel,etc.	3000.00	
			12925.40
	h. Contingincies		
	Reserve for unseen costs and emergencies @ 10% of estimate. To provide for extra costs of delays from snow, cloudburst, or accidents usually incident to remote desert operations		8446.34

-: LEASE :-

THIS AGREEMENT OF LEASE, made and entered into this 28th day of May, 1954, by and between LaVar Brown and associates (Earl Brown, Darwin Morrell, Leon Ellett), of Loa, Utah, hereinafter referred to as parties of the first part, and the CONGO URANIUM COMPANY, a Utah corporation, with its principal offices at 404 Boston Building, Salt Lake City, Utah, hereinafter referred to as party of the second part.

W I T N E S S E T H

WHEREAS, the parties heretofore have entered into an option agreement with the rider attached thereto wherein said parties of the first part agreed to lease to the party of the second part mining claims as hereinafter described.

NOW THEREFORE, in consideration of the sum of Fifteen-Hundred, ($1,500.00), Dollars in hand, paid the party of the first part by the party of the second part receipt whereof the parties of the first part do hereby acknowledge, and in consideration of the covenants and agreements herein set forth by said parties, to be kept and performed, it is mutually agreed as follows to wit:

1. That the parties of the first part do hereby lease, demise and let unto the party of the second part, its successors and assigns, the following described mining property situated in Garfield County, State of Utah, and recorded in the County Recorder's Office at Panguitch, Utah, as follows:

Dream, recorded in Book Misc. 17, Page 238, January 22, 1954;
Dream No. 1, recorded in Book Misc. 17, Page 238, January 22, 1954;
Dream No. 2, recorded in Book Misc. 17, Page 238, January 22, 1954;
Dream No. 3, recorded in Book Misc. 17, Page 238, January 22, 1954;
Dream No. 4, recorded in Book Misc. 17, Page 238, January 22, 1954;
Dream No. 5, recorded in Book Misc. 17, Page 238, January 22, 1954;
Dream No. 6, recorded in Book Misc. 17, Page 238, January 22, 1954;
Dream No. 7, recorded in Book Misc. 17, Page 238, January 22, 1954;

TO HAVE AND TO HOLD the same unto the said party of the second part, its successors and assigns, for a period of twenty (20) years with an option to renew for an additional twenty (20) years, commencing on the date hereof and expiring on the 30th day of April, 1974, unless sooner forfeited or terminated in the manner herein provided, for the purposes of exploring, prospecting and mining of uranium ore or ores, materials and minerals of all kinds, and with the right to remove, ship, treat, sell and dispose of the same and

retain the proceeds therefrom for the party of the second part's own use, upon the payment to the parties of the first part of the royalties hereinafter set forth.

2. That the party of the second part may enter into and upon said premises and take immediate possession thereof for any purposes of this Lease. All work performed by the party of the second part within the leased premises shall be done in accordance with good mining practice so as to take out the greatest amount of ore possible, with due regard to the development and preservation of the premises as a workable mining property. The party of the second part, in conjenction with the parties of the first part, shall use their best efforts to secure from the Atomic Energy Commission, Grant Junction Operation Office, Grand Junction, Colorado, a lease on all of the tracts of mining claims above described by relocating said lands above described, pursuant to Title 10, Atomic Energy, Chapter 1, Atomic Energy Commission (Domestic Uranium Program Circular 7) Part 60--Domestic Uranium Program, by properly posting "Notice of Lease Application" and filing an application for a lease as provided under the above described Act and rule. That the party of the second part shall install and maintain all workings in a safe condition and shall keep all openings of standard size, thoroughly drained and clear of all loose rock, rubbish and obstructions.

3. That the party of the second part shall pay to the account and credit of the parties of the first part at the State Bank of Wayne, Loa, Utah, fifteen percent (15%) of the net smelter ore receipts received by the party of the second part from the sale of all uranium ores, minerals and metals produced from said premises. In calculating gross ore receipts for the purpose of this agreement, development and haulage allowances payable pursuant to the Atomic Energy Commission's Domestic Uranium Program, Circular 5 Revised, or any further revisions thereof, or equivalent allowances, will be first excluded.

IT IS FURTHER UNDERSTOOD AND AGREED by the parties hereto that in the event said claims here and above mentioned are located on public domain, lands open for mining locations, parties of the first part agreed to pay eighteen percent (18%) of the net smelter ore receipts received by the party of the second part from sale of all uranium ores, minerals and materials

produced on said premises and calculating our receipts for the purpose of this agreement, development and haulage allowances payable pursuant to the Atomic Energy Commission's Domestic Uranium Program, Circular 5 Revised, or any further revisions thereof, or equivalent allowances, will be first excluded.

All such payments be made by the party of the second part on or before the 15th day of each calendar month for all sales by it during the preceeding calendar month. In the event ore is extracted from a portion of the leased premises, wherein the parties of the first part own an interest less than the whole estate therein, then the said royalty on such ore shall be paid to the parties of the first part only in the proportion which the parties of the first part's interest in said portion bears to the said whole and undivided interest.

4. That the party of the second part agrees to work said claims a minimum of twenty-six shifts per month, acts of God, riots, strikes, rebellions and wars notwithstanding.

5. That the party of the second part agrees to pay the rentals required by the Atomic Energy Commission under its Domestic Uranium Program, Circular 7, except the initial rentals which shall be paid by the parties of the first part, and that the parties of the first part will prepare maps satisfactory to said commission, showing the mining claims, or track patterns with courses and distances of the boundary line and so forth, and to pay for the preparation of said maps and survey of said tracks, or mining claims.

IT IS AGREED BY THE PARTY OF THE FIRST PART that they will cooperate to the fullest extent with the party of the second part in the preparation of the "Notice of Lease Applications" and the application for a lease on the above described claims or tracts, and they will do no act or acts which will jeopardize or may jeopardize the title to said tract or tracts.

6. That the party of the second part may install, maintain, replace and remove during the term of this lease agreement any and all drilling equipment, rigs, wagon drills, mining machinery, equipment, tools and facilities which it may desire to use on or in connection with its operations herein on the said premises. Party of the second part shall pay in full for all labor performed upon, or material furnished to the said premises at the instance

or request of the party of the second part, and shall keep the whole thereof free and clear from any and all liens of mechanics or materialmen. The party of the second part shall post and keep posted upon said premises notice to the effect that the same are leased and that the parties of the first part shall not, nor will the said premises be liable for any labor performed upon or materials furnished to the said premises at the instance or request of the parties of the second part.

7. The party of the second part shall at all times comply in all respects with the laws and regulations relating to the performance of such work within the leased premises. The party of the second part shall provide Workmen's Compensation Insurance covering all of its operations upon the premises in the amount and form required by law, and upon request shall submit the policies for such insurance to the parties of the first part for inspection. The party of the second part shall withhold all Social Security and Income Taxes in the manner required by law, and shall make all reports and payments thereof in accordance with the law and regulations affecting the same. The party of the second part shall indemnify and hold the parties of the first part harmless of and from any and all claims, demands or liabilities arising out of or in connection with the operations or activities of the party of the second part hereunder. The party of the second part assumes full and sole responsibility for the operation and direction of the work done under this agreement on the leased premises, and no employee or agent furnished by the party of the second part shall under any circumstances be deemed an employee of the parties of the first part.

8. The party of the second part agrees to pay all taxes levied and assessed upon the leased premises, or any part thereof, including taxes measured on production, and also including taxes levied and assessed on improvements placed upon the leased premises by the party of the second part during the continuance of this agreement, commencing with taxes for the current year, and to make payment thereof as required by the statutes of the State of Utah, so that no default in taxes upon the leased premises shall occur, and to deliver to the parties of the first part upon request the original or duplicate tax receipts for payment made. Should the party of the second part be in possession under this lease for only a portion of a year, the tax for that year shallbe

prorated between the parties of the first part and the party of the second part on the basis of taxes for the last preceding year.

9. The party of the second part shall perform all necessary work requirements as provided for under the Atomic Energy Commission's Domestic Uranium Program, Circular 7, or any revisions thereof, and will prepare the annual report so required at the close of each lease year, listing the work performed under the lease with the Atomic Energy Commission at Grand Junction, Col.

10. In the event of termination of this lease by expiration of the terms hereof, or for any other reason whatever, the party of the second part agrees to surrender the leased premises to the parties of the first part in good condition. The party of the second part, however, shall have the right to remove machinery and equipment placed by it within the leased premises, including track, pipe, receivers and cables, but the party of the second part shall leave all timber, shoots and ladders in place and in good condition. The party of the second part shall have the right to effect the removal of such machinery and equipment prior to the expiration of this lease or within ninety (90) days thereafter. Such machinery or equipment not removed prior to the expiration of said ninety (90) days following termination of the said lease shall be deemed affixed to the leased premises and shall become and remain the property of the parties of the first part.

11. If the party of the second part fails to perform any terms or conditions on the party of the second part to be performed, the party of the first part may give the party of the second part notice in writing, specifying such failure and the party of the second part shall have sixty (60) days thereafter to take steps to remedy such default. Upon failure or refusal of the party of the second part within such sixty (60) day period to take steps to remedy such default, all of the party of the second part's rights hereunder shall terminate.

12. The parties of the first part agree that any profits paid to the Bank by the party of the second part, arising from their reserve royalty or discovery bonus, as a result of the lease obtained from the Atomic Energy Commission, covering the above described mining claims or tracts shall be divided equally, share and share alike, among the parties of the first part hereof.

13. Whenever the time for performance of any act hereunder is limited and the performance hereof is hindered, prevented or delayed by any factor or circumstances beyond the reasonable control of the party obliged to perform and which said party could not have avoided by use of due diligence, then the time for the performance of any such act or obligation shall be extended for a period equal to the extent of such delay.

14. Notices hereunder shall be deemed sufficiently given when deposited in the U.S. Mail, and addressed as follows:

If to Party of the First Part:

LaVar Brown, Loa, Utah
Earl Brown, Loa, Utah
Darwin Morrell, Loa, Utah
Leon Ellett, Loa, Utah

If to Party of the Second Part:

Congo Uranium Company
404 Boston Building
Salt Lake City, Utah

or to such other address as either party may designate by prior written notice.

15. This agreement shall be binding upon and inure to the benefit of the parties hereto, their respective heirs, successors, executors, administrators and assigns.

IN WITNESS WHEREOF, the parties hereto set their hands and seals the date first above mentioned.

/s/ Earl Brown

/s/ Darwin Morrell

/s/ Leon Ellett

Parties of the First Part

CONGO URANIUM COMPANY

By /s/ Jay W. Jacobsen

Party of the Second Part

Attest:

/s/ Tom Metos

STATE OF UTAH)
: ss
COUNTY OF SALT LAKE)

On the ____day of May, 1954, personally appeared before me JAY JACOBSON AND TOM METOS, who being by me duly sworn each for himself did say, he JAY JACOBSON is the President of CONGO URANIUM COMPANY, and that he, the said Tom Metos, is the Secretary of CONGO URANIUM COMPANY, and that the within and foregoing instrument was signed in behalf of said corporation by authority of a resolution of its board of directors and said JAY JACOBSON and TOM METOS each duly acknowledged to me that said corporation executed the same and that the seal affixed is the seal of said corporation.

NOTARY PUBLIC, residing at
Salt Lake City, Utah

My Commission Expires:

_____

Amendment to Paragraph 3 - Royalties:

It is hereby agreed by the lessors and lessees that all described bonuses to be paid by the Atomic Energy Commission, if any, will be divided as follows:

Lessors shall receive 15% of said bonuses
Lessee shall receive 85% of said bonuses,

said bonuses being described by the Atomic Energy Commission, Title 10, Code of Federal Regulations, Part 60, as ammended under Domestic Uranium Program, Section 60.6, Bonuses for initial production on uranium ores from new domestic mines.

CONGO URANIUM COMPANY

By /s/ Jay W.Jacobson
President

Attest:

/s/ Tom Metos
Secretary

TRUE EXTRACT COPY OF MINUTES OF
BOARD OF DIRECTORS HELD ON THE 17th DAY
OF AUGUST, 1954 AT THE OFFICES OF THE COMPANY,
501 Felt Building
Salt Lake City, Utah

President Jacobson presented to the Board a plan whereby additional funds could be procured to more fully develop the Company properties to wit:

Dream Claim Group in the Henry Mountain
District, State of Utah

President Jacobson proposed that a D.M.A. loan be procured from the Federal Government wherefrom said funds could be raised.

Upon motion duly made and seconded, the following resolution was unanimously adopted:

RESOLVED: That additional funds are necessary to further develop Dream Group Company properties and that the President is hereby authorized to negotiate a D.M.A. loan for this purpose.

BE IT FURTHER RESOLVED, that he is further authorized to employ all persons, attorneys and other parties necessary to complete procurement of this loan and that upon completion of negotiations, that he will present the same to this Board.

I hereby certify that the foregoing is a true and exact EXTRACT copy of the Minutes of the Board of Directors of Congo Uranium Company held on the 17th day of August, 1954.

By [signature]
Secretary

COPY

CHESTER M. F. PETERS
Mining Geologist and Engineer
P. O. Box 2262
Salt Lake City 10, Utah

RECEIVED
SEP 17 1954

CONGO URANIUM COMPANY

DREAM CLAIM GROUP IN
HENRY MOUNTAIN DISTRICT
GARFIELD COUNTY, UTAH

- - - - - - -

LOCATION

The claims are located in unsurveyed country and lie approximately in Section 36 of Township 34 South, Range 8 east, or in Township 35 South, Range 8 east in Section 1 or both. There are 14 claims and a fraction, 7 of which are the Dream Claims, the balance are part of the Old Burr Trail group.

The shaft and workings can be reached from Salt Lake City by going down Highway 89 or 91 south to Sigurd, a distance of 160 miles. At Sigurd, Highway 24 is taken to the ranch at Notom which is near the east entrance of Capitol Reefs National Monument, a distance of 84 miles of which 23 miles is gravel road. From Motom to the mine is 27 miles over a dirt road, a total of 271 miles from Salt Lake City.

For ore hauling it would be 147 miles to Thompson's ore buying station through Hanksville, or 111 miles to the railroad at Sigurd for shipment to Vitro in Salt Lake City.

WORKINGS

The workings to date consist of access roads to the campsite on Halls Creek and the shaft, a distance of about a mile from the road to Notom; some 4000 feet of out-crop stripping by bulldozer to the south and 1500 feet to the north; and an inclined shaft 100 feet deep. A drift is being started towards the north to explore the ore body in this direction and it has advanced about ten feet at the time the property was visited.

GEOLOGY

The ore horizon is located at the base of the Salt Wash member of the Morrison formation at the contact with the underlying Summerville formation. In this it is unusual, as the majority of known mineralization in the Salt Wash is found higher up. The deposit lies on the limb of an east dipping monocline which is part of the steeper slope of the anticline forming the Circle Cliffs Swell. The dip of the enclosing beds in the vicinity of the mine is 47 degrees to the east, the strike is north 20 west. It can be expected that this dip will continue for several hundred feet before the dip flattens towards the east.

GEOLOGY, Cont'd

The best mineralization is found at the base of a thin-banded mixed sand and siltstone bed about four feet thick on the average , which lies under the bottom sandstone bed of the Salt Wash and on top of a gray chert bed from one to two feet thick representing the top of the Summerville formation. The thin-banded layers of the bed are composed of alternating sand, silt, clay and carbonaceous material of from 1/16th to 1/4 inch think. There are also occasional thin layers of gypsum intercalated in the bed. The layers are all parallel and show no signs of crossbedding, or of enclosed coarser material which would indicate that they might have been laid down in running water. The bed was undoubtedly laid down in quiet water such as in the bottom of a shallow lake in a depression on the old land surface before the deposition of the Salt Wash sandstones. The carbonaceous material is fine and fragmental, no large pieces were observed, again indicating quiet water with little movement.

It was reported by the miners that gas was present in the workings before better ventilation was installed. This gas made them feel weak and gave them a headache. It doubtless came from the partly decomposed carbonaceous material. No sulfides were observed but small amounts may be present.

The best mineralization is confined to the 18 inches immediately above the chert, but there are notable exceptions. It varies in value from spot to spot, but is distributed comparatively evenly throughout the workings. It does not show either a marked increase or decrease with depth. However, the face reading is higher than average. At about 55 feet from the collar of the shaft a richer section occurs for about 5 to 7 feet. Here the chert appears to be absent or dips downward and the beds are at least 2 feet thicker. There is no reason to believe that the results of recent leaching may indicate an enriched zone at depth, as the highest reported values were found at or just below the surface.

Due to the structure and supposed origin of the deposit, it is impossible to predict the size and extent of the deposit from the present exposures. The surface indications continue with and without mineralization for a distance of 2400 feet to the south where the next mineralized area is exposed for over 300 feet on Dream Number 7 and the adjoining Burr Trail Claims. It is reasonable to assume that a shallow lake deposit would contain barren islands and richer deeper areas. In general, the mineralization could be expected to be more or less uniform with the exception of deeper channels in the lake bottom which would likely be richer. A swampy area such as is indicated may also contain a series of small lakes and connecting sloughs into which former feeder streams discharged their contents.

RECOMMENDATIONS

The upper two and a half feet of the deposit have proven to be below ore grade with the exception of small scattered spots. Generally, the best ore is in a tan stained layer at the base, one foot to eighteen inches

RECOMMENDATIONS, Cont'd

thick, which can be distinguished easily from the gray banded waste material overlying it. In the case of the present face there is a hard limey gray layer which also appears to be of ore grade, separating ore from waste. Mining such a deposit would require close control during blasting operations which would increase the costs. The roof is tan sandstone, but is comparatively soft and grades into the top gray beds. It would be difficult to prevent some dilution during mining.

With the proven extent of the mineralized beds, farther exploration is certainly to be recommended in the hopes that the ore zone will become thicker or extensive enough to allow a cheap mining method to be used.

After the present level has been advanced north and south along the strike sufficiently beyond the shaft area to allow for a free working space in the drift faces, then the shaft should be continued downward to explore the deposit down dip. This should be continued as long as the structure remains favorable and ore in encountered. The drifts from the first level should be continued outward as long as they remain in favorable structure. Should the ore horizon pinch out horizontally, as it will eventually, then drilling from the surface in advance would determine if the structure exists, and would be cheaper than underground prospecting at this first level.

The mineralized area in the vicinity of Dream #7 should be farther investigated by sinking an exploratory shaft in the area showing the highest count to determine if mineable ore exists in this area.

Because of the high dip, a drilling program ahead of the workings from the surface would have limited applicability. Core drilling would give poor results because of the friability of the ore. Drilling could only determine the existence of favorable structure with a certainty.

Ore cars should be installed to facilitate mining and for increased safety of the miners. The hoisting arrangements and headframe should be rebuilt along more acceptable lines for increased safety and efficiency.

The rock contains sufficient clay to become sticky and pack when drilling. A different bit shape may help, if not then more water, or as last resort dry drilling may have to be used. The rock is soft but under present conditions it becomes extremely difficult to drill a hole over a few feet deep.

Since hand mucking is used at the faces, a section of boiler plate laid on the floor would greatly assist shovelling and the separation of ore from waste.

A close sampling program coupled with extensive geiger readings should be inaugurated, both for the geologic information it will reveal and for a close ore control when mining is attempted. The information obtained should be put on an assay map. Unless sorted, the rock from the faces

RECOMMENDATIONS, Cont'd

cannot be classed as ore because of dilution with waste rock under the present conditions.

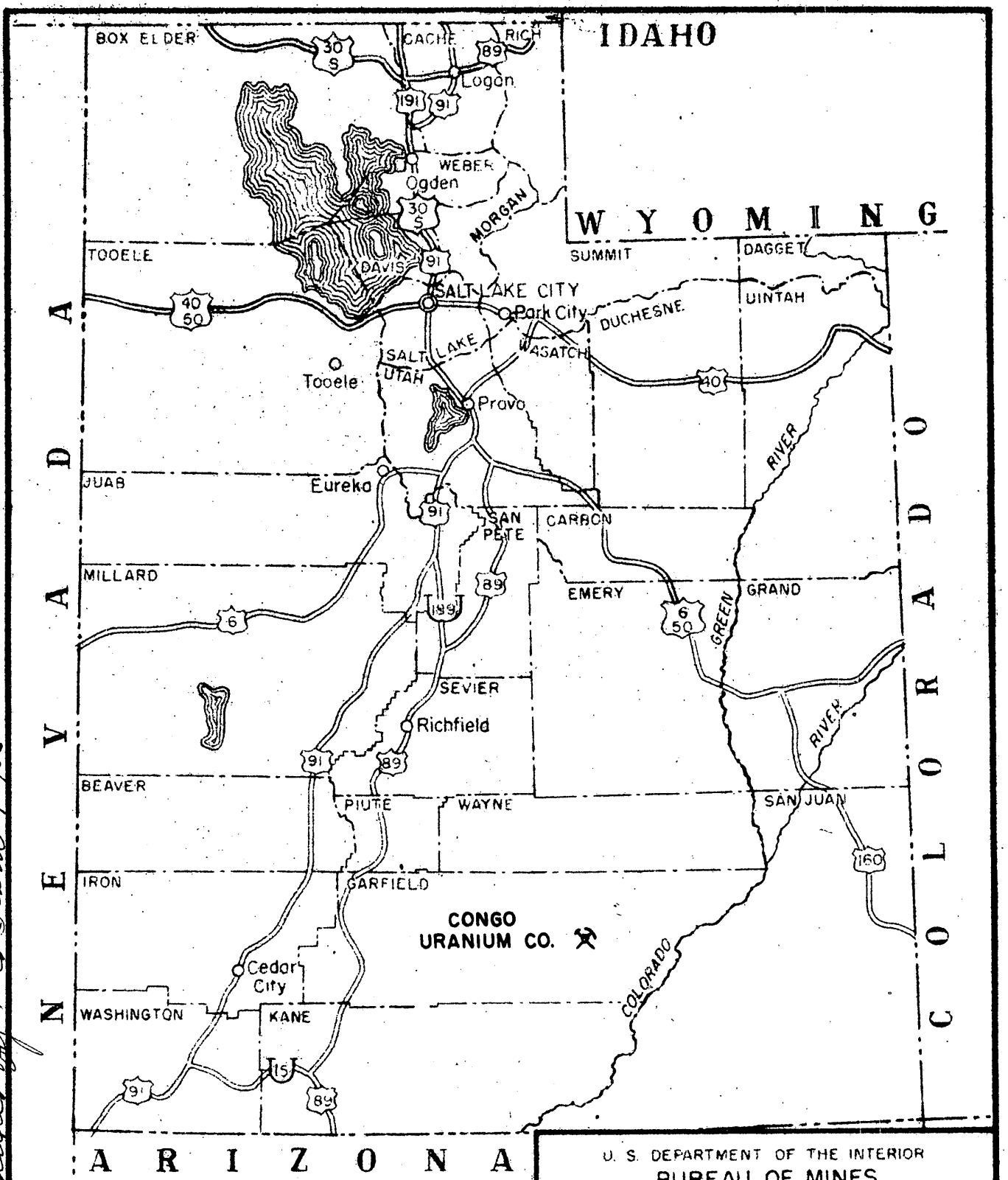
Unless a close check is made of the ore as it is taken out of the shaft, there are good chances that ore may become contaminated with waste and make the entire amount below shipping grade.

Operation costs should be determined so that a cut-off point between ore and waste can be made when mining is attempted. Naturally, development and exploration costs are higher than mining costs will be later on and these cannot be figured closely until more is known about the extent of the deposit and practical rates of extraction figured.

There are good geologic possibilities that this deposit will contain sufficient tonnage with farther exploration to make a good producer. Also, there are better possibilities that richer or thicker ore may be encountered in some zones to sweeten up the entire deposit. As nothing is known about the western Henry Mountain region from other producers in this stratigraphic horizon, there is little to go on for comparison. The deposit is located in a structure resembling some deposits found at the contact of the Shinarump and the Moenkopi, but it has its own peculiarities which justify studying out with farther exploration.

September 7, 1954

/s/ Chester M. F. Peters
B.A. Mining and Geology,
Licensed Mining Eng.
State of Washington



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Fig. 1 DMEA Docket No. 3493

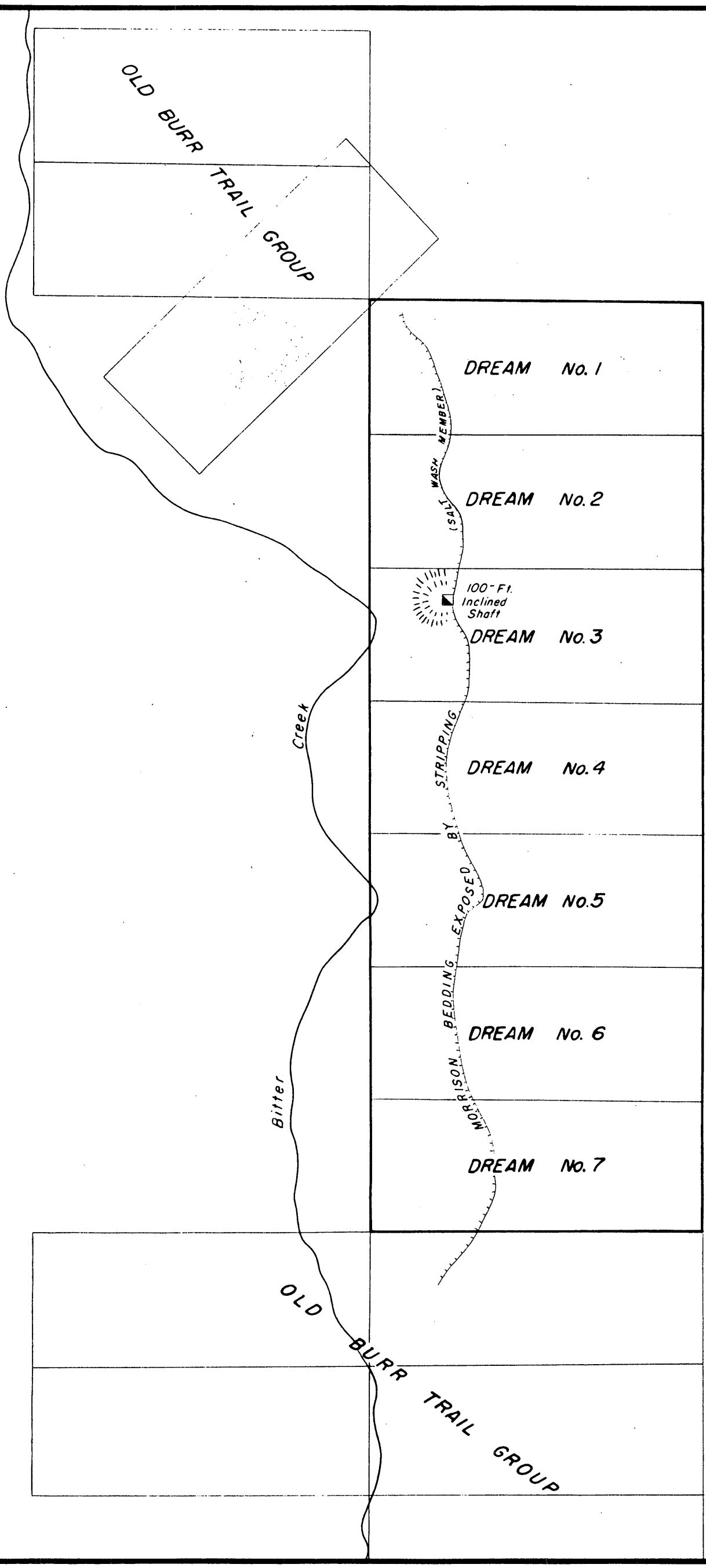
Location Map

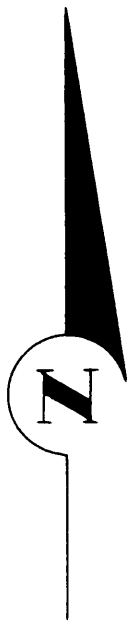
CONGO URANIUM CO.

GARFIELD COUNTY, UTAH

ENGINEER: *Millard M. GILKEY*	DATE: FEB. 3, 1955
TRACED: FEB., 1955; A.P.T.S.	1900 - 316 - E
CHECKED:	

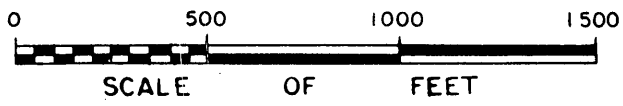
Accompanied Bureau of Mines partial report of exploration transmitted by field team 2/21/55





NOTE

DATA TRACED FROM COMPANY SKETCH PLAT.
NORTH ARROW APPROXIMATE.



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

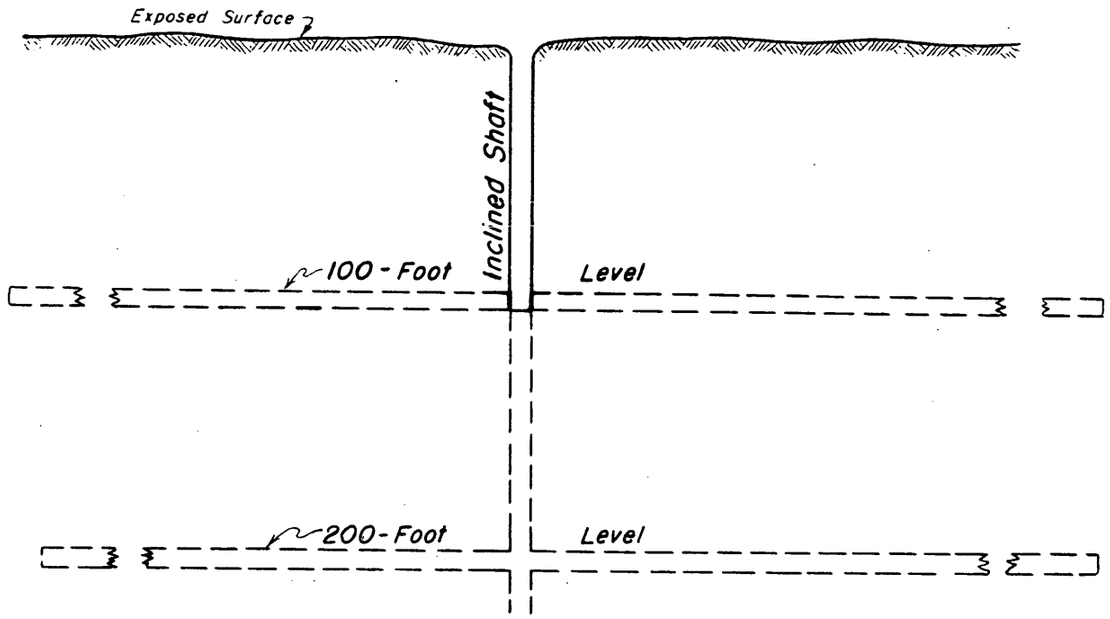
Fig. 2 DMEA Docket No. 3493

Claim Map

CONGO URANIUM CO.

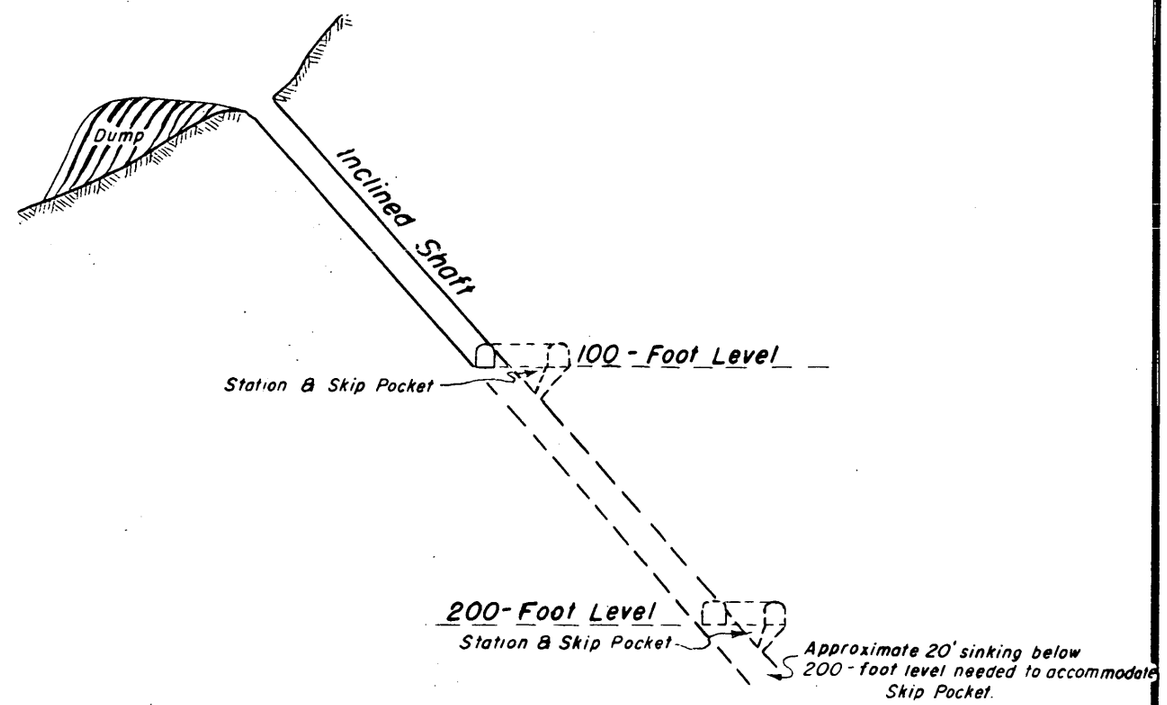
GARFIELD COUNTY, UTAH

ENGINEER: *Millard M. GILKEY*	DATE: FEB. 4, 1955
TRACED: FEB., 1955; A.P.T.S.	1900 - 317 - F
CHECKED:	



Longitudinal Section

Looking West



Cross Section

Looking North

LEGEND

EXISTING INCLINED SHAFT

PROPOSED DRIFTING AND EXTENSION OF INCLINED SHAFT.

NOTE

DATA TRACED FROM COMPANY MAP.

0 50 100 150

SCALE OF FEET

U. S. DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

Fig. 3 DMEA Docket No. 3493

Proposed Exploration

CONGO URANIUM CO.

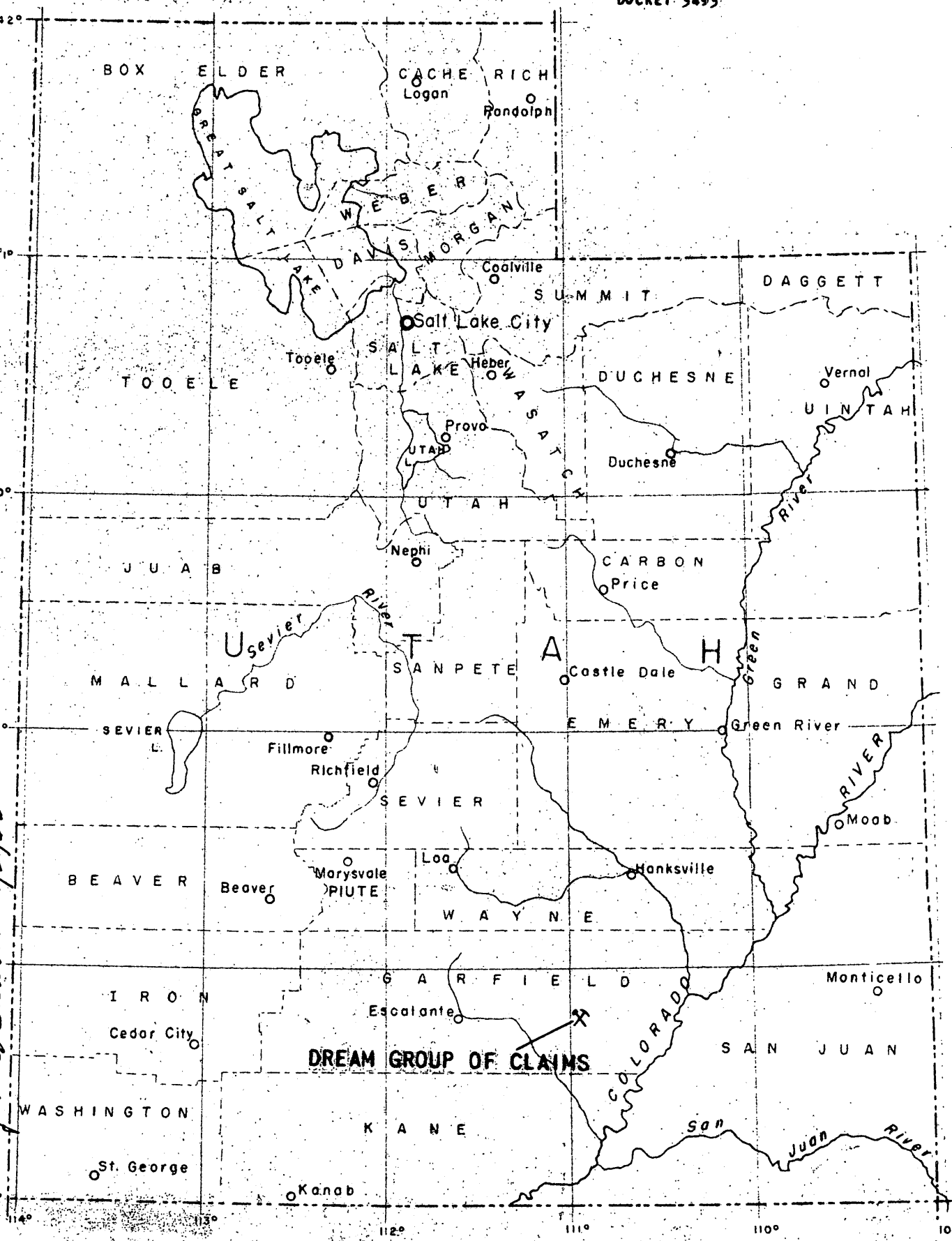
DREAM GROUP

GARFIELD COUNTY, UTAH

ENGINEER: *Millard M. GILKEY*	DATE: FEB. 7, 1955
TRACED: FEB., 1955; A.P.T.S.	1900 - 318 - F
CHECKED:	

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3493



Reconnaissance geologic traverse by Jackson Thirsmuttet by field Jeans 7/21/55

Figure 1. INDEX MAP OF UTAH SHOWING LOCATION OF THE DREAM GROUP OF CLAIMS, CONGO URANIUM CO., GARFIELD COUNTY, UTAH

UNITED STATES DEPARTMENT OF THE INTERIOR
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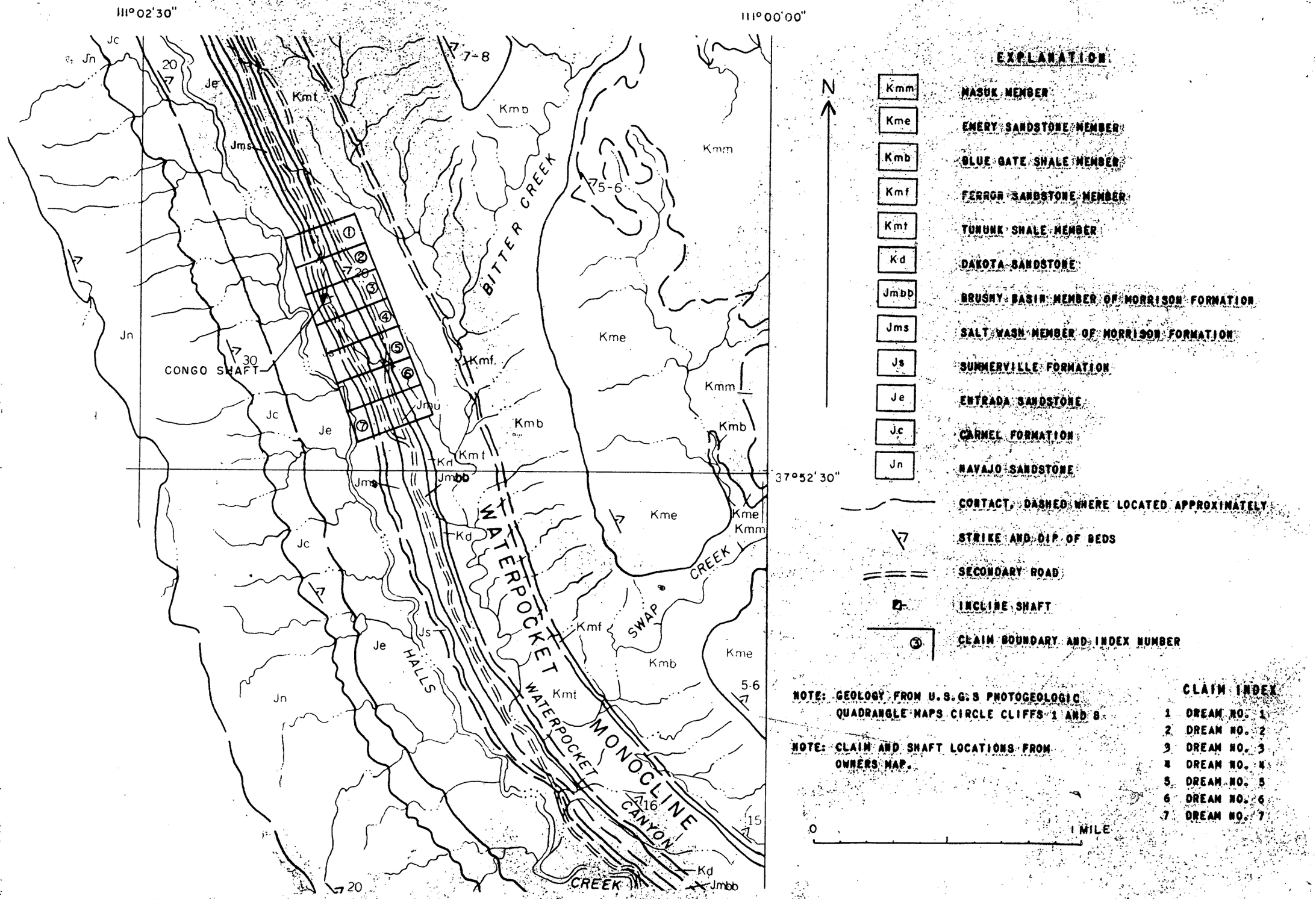


Figure 2. GEOLOGIC MAP SHOWING LOCATION OF THE DREAM GROUP OF CLAIMS, CONGO URANIUM CO. GARFIELD COUNTY, UTAH

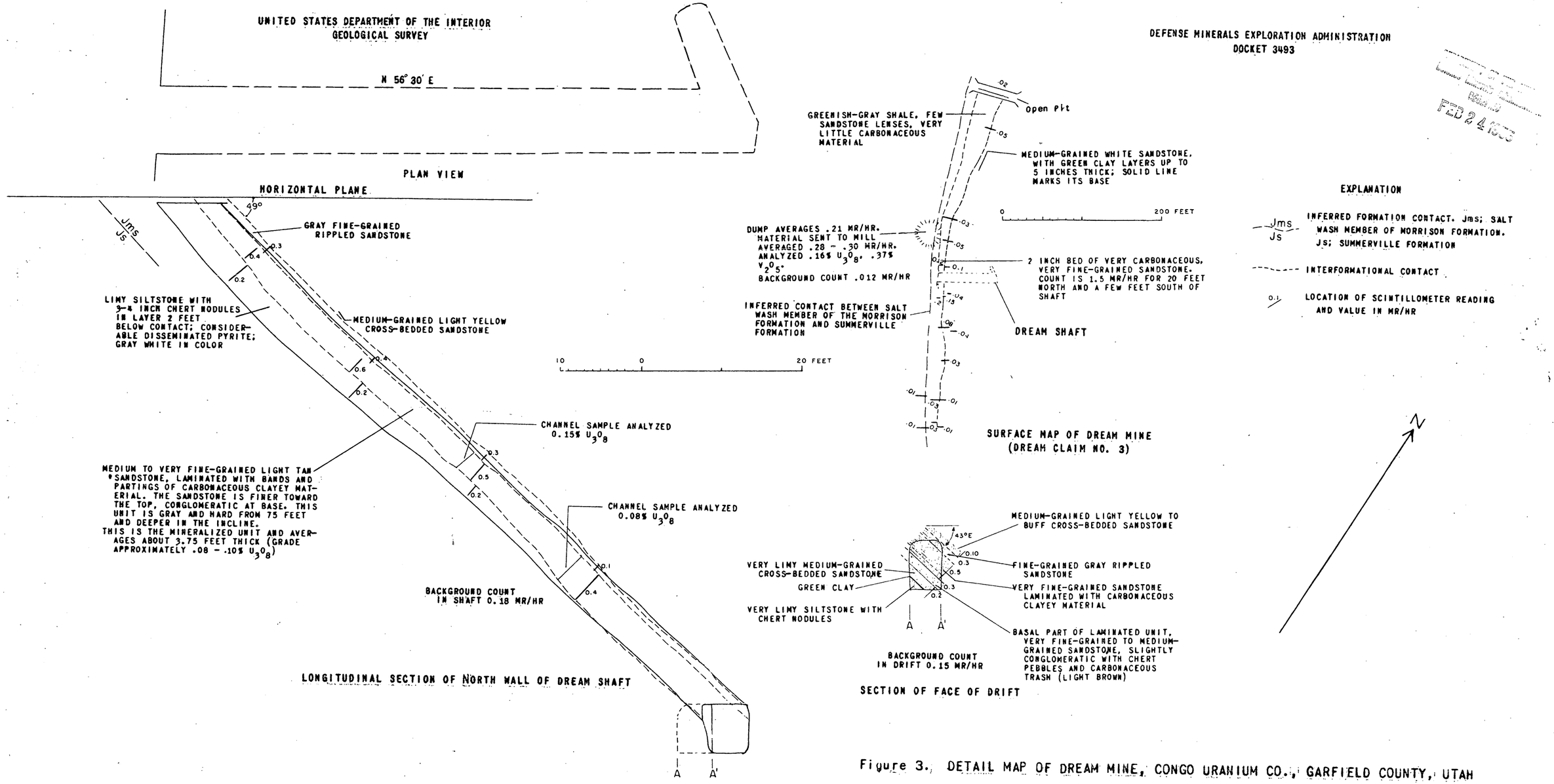
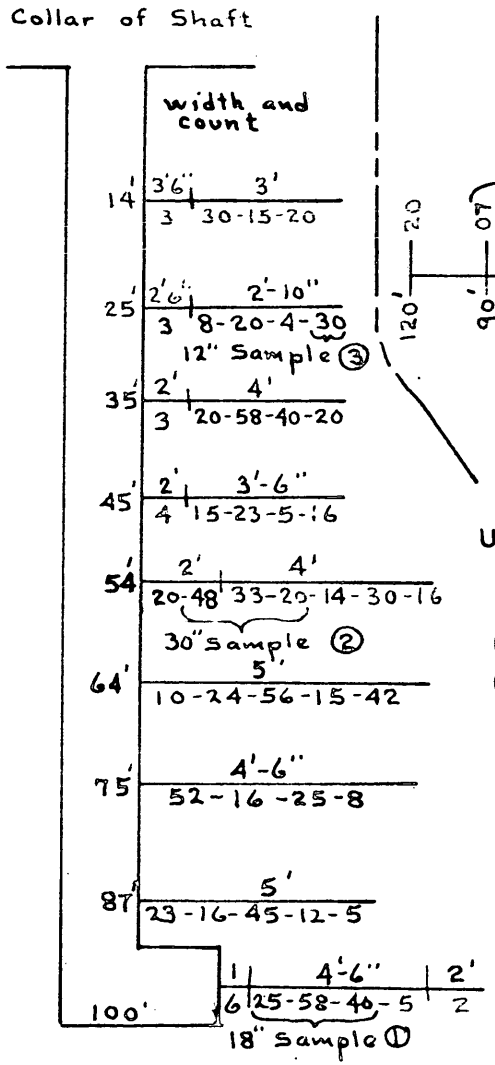
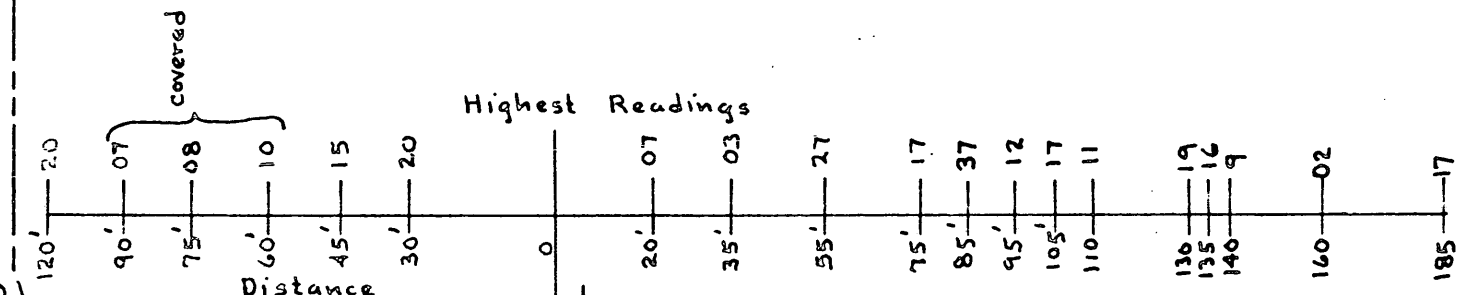


Figure 3. DETAIL MAP OF DREAM MINE, CONGO URANIUM CO., GARFIELD COUNTY, UTAH



Radiometric readings along North wall of shaft. Corrected for background count only. Values approximate one half of readings.



U.S.B.M. Radiometric Analysis

① 0.12 % U_2O_3

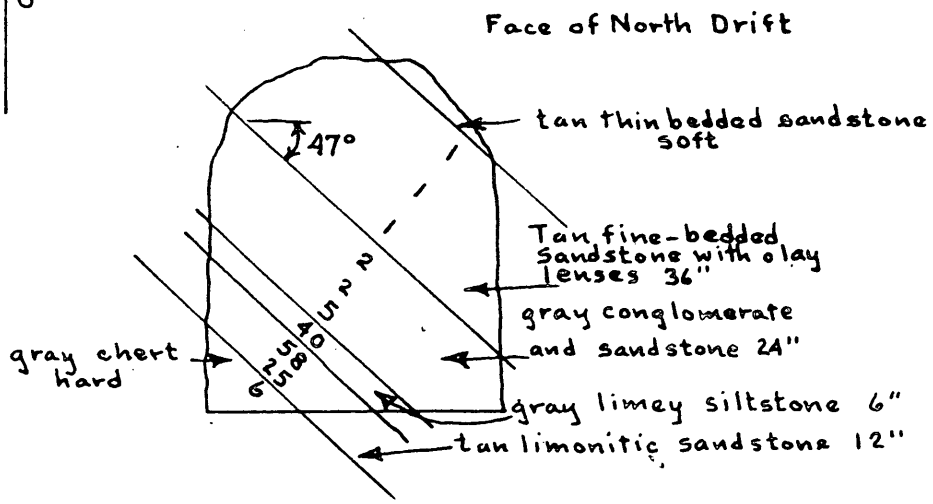
② 0.11 % "

③ 0.09 % "

DREAM 7

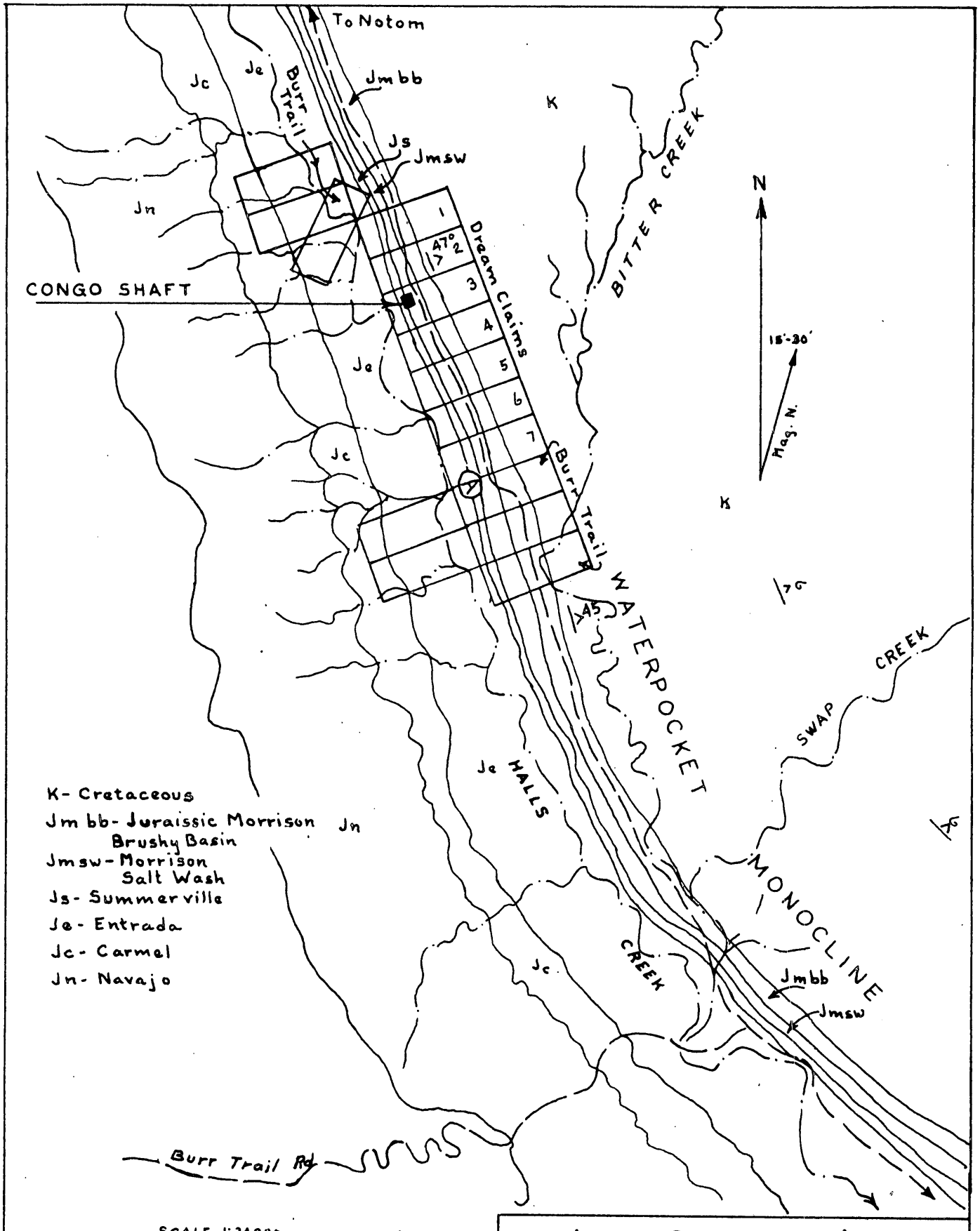
OLD BURR TRAIL GROUP

Radiometric readings on the surface outcrops exposed by stripping ground along base of Salt Wash Morrison Member Width from 6 to 18 inches.



RADIOMETRIC SURVEY DREAM GROUP
CONGO URANIUM COMPANY
PLATE ONE

C.M.F. Peters Mining Geologist 9/2/54

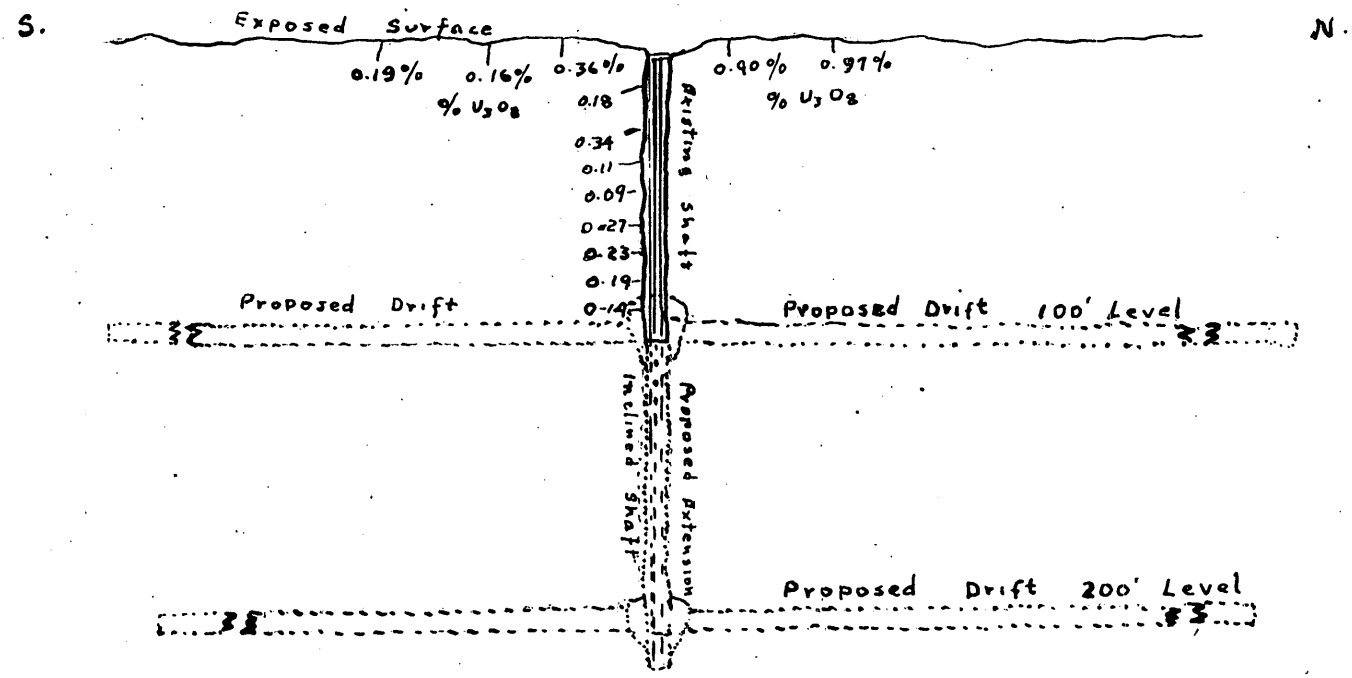


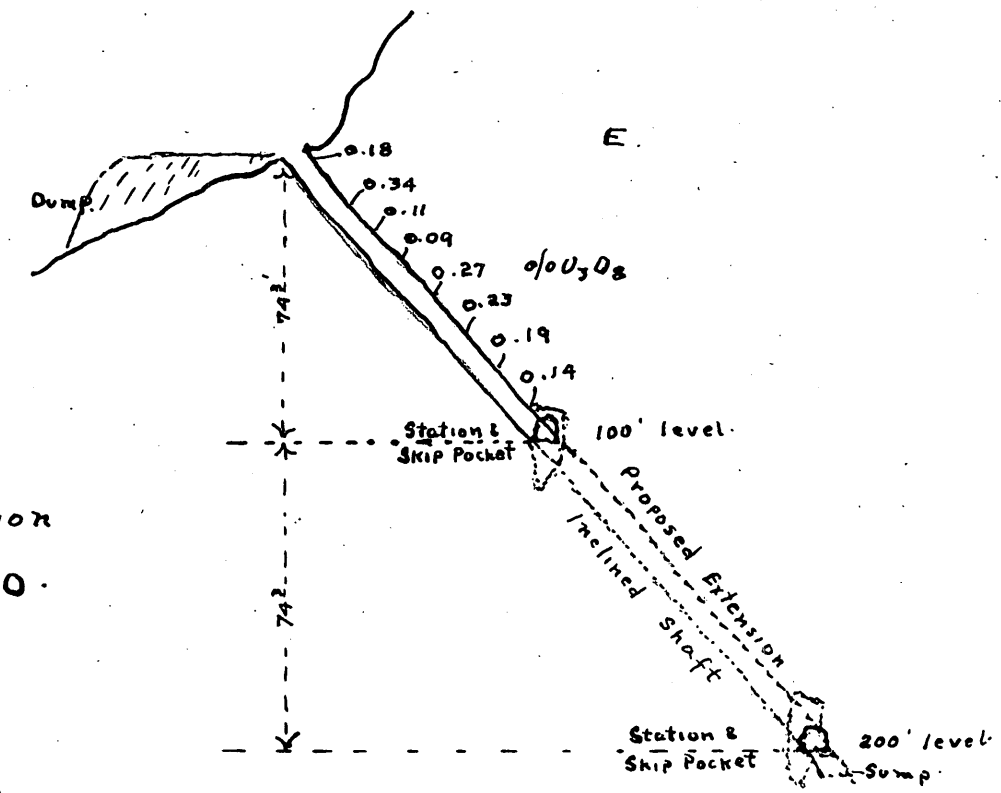
Claim locations approximate
Geology from U.S.G.S. Photogeologic Maps with additions by C.M.F.P

AREAL GEOLOGIC MAP

DREAM GROUP-CONGO URANIUM CO.,
GARFIELD COUNTY, UTAH

C.M.F. Peters-Mining Geologist 8/7/54





Sketch of
Proposed Exploration
Dream Group
CONGO URANIUM CO.
Scale 1" = 50'

OFFICIAL BUSINESS

U. S. Bureau of Mines
420 Custom House
[illegible] Battery Street
[illegible]

Defense Minerals Exploration Administration
[illegible] Building
Washington 25, D. C.