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

Mr. E. Ward Hood
Box 428
Beaver, Utah

Re: Docket No. DMEA-4250 (Uranium)
Hot Spot Claims, et al.
Iron County, Utah

Dear Mr. Hood:

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 some weak uranium mineralization on your property, indicates to us that the probability of disclosing minable ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

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

Sincerely yours,

G. O. Mittendorf

Administrator

WCAnderson/ai 8-10-56
cc to: Docket
Admr.'s Reading File
Operating Committee
Code 700
Mr. Anderson
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

Docket
700 Anderson

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket No.: DMEA-4250

Commodity: Uranium

Applicant: E. Ward Hood
Box 428
Beaver, Utah

Property: Owner of the following unpatented claims:
B & D No. 1 and 2
Hotspot No. 3 and 4
Channel No. 1, 2, and 3
Situated in secs. 12 and 13, T. 36 S., R. 11 W.; and secs. 7 and 18, T. 36 S., R. 10 W., Iron County, Utah

Amount of Application: $9,830.00

Date of Application: Received April 13, 1956

Referred to Region III: May 10, 1956

Field Examination made: June 14, 1956

Field Team Report received: August 3, 1956

Work Proposed: Estimated Costs:

Access road, bulldozer 62.5 hrs @ $12/hr.	$ 750.00	
140 feet of crosscut aidt @ $20/ft.	2,800.00	
Timbering crosscut adit, 80 ft. @ $6/ft.	480.00	
100 ft. of inclined shaft @ $30/ft.	3,000.00	
Timbering inclined shaft, 100 ft. @ $6/ft.	600.00	
Tool and change room	600.00	
Geological service	400.00	
Supervision	1,200.00	
TOTAL		$9,830.00

Excerpts from Field Team Report, M.M. Gilkey, USBM & R.W. Osterstock, USGS, July 25, 1956:

Formations exposed on the property in ascending order are the Lower Triassic Moenkopi, Upper Triassic Shinarump, Upper Triassic Chinle, and Jurassic Navajo. Occurrence of uranium mineralization is confined to the thickened portion of the Shinarump sandstone which is referred to as a channel.

The maximum thickness of this channel is about 30 feet, average being nearer 15 feet, and about 500 feet long. The exposed Shinarump formation consists principally of gray and brown, medium-

grained sandstone, broken by faulting. Considerable carbon trash and gypsum are present within the Shinarump channel. Uranium occurrence is sparse and sporadic.

The Applicant has bulldozed 1,000 feet of trenching along the outcrop of the mineralized Shinarump formation where abnormally high radioactivity was noted. Selected samples taken by the AEC and DMEA showed weak uranium mineralization. Applicant says that this weak mineralization is due to surface leaching and that unleached, commercial grade ore would be found at 80-foot depths. A comparison of radiometric tests and chemical assays shows that uranium is not far out of equilibrium and therefore the indications are that no increase in uranium would be found with depth.

There has been no production of uranium from this property, nor are there any nearby producers. The nearest known producer is the Epsolon property (DMEA-3598), located 20 miles to the south.

Because of the weakness of mineralization in the exposed area and the remote possibility for the discovery of commerical quantities of uranium below the surface outcrop, the field examiners recommended that the application be denied. The Field Team concurred in this recommendation.

Commodity Members' Comments: (Excerpts):

USBM, James Paone, August 14, 1956:

Concurs in the denial based on lack of evidence of surface leaching and over-all weakness of surface mineralization which preclude advisability of additional exploration.

USGS, W. P. Williams, August 22, 1956:

Agrees with the examiners' and Field Team's recommendation for denial of the application in view of the poor uranium production history of the district and the negative results from the Applicant's work.

(con't.)

Rare & Miscellaneous Metals Div., Walter C. Anderson, August 9, 1956:
(Prepared by Anderson for F. L. Knouse)

The Applicant claimed that surface leaching had removed most of the uranium and that an un-leached zone would be found below the outcrop. However, the theory that extensive leaching had taken place, was disproved by comparison of radiometric tests and chemical assays, which indicated that uranium is not far out of equilibrium with its decay products. Moreover, the property lies in an area that has no producing mines within twenty miles. I concur in the Field Team's recommendation that the possibilities for the discovery of commerical amounts of uranium are remote.

Conclusions and Recommendations:

This Division concurs in the Field Team's recommendation that the subject application be denied, as apparently the proposed exploration would not result in the discovery of significant occurrences of uranium ore-bearing material in the Shinarump sandstone.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

8/22/56 gla

IN REPLY REFER TO:

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

August 22, 1956

Memorandum

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

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

Subject: Review of field examination report, DMEA 4250 (uranium)
E. Ward Hood, Hot Spot claims, Iron County, Utah

The field examiners report that although a favorable channel structure appears to be present in Shinarump sediments on the property, mineralization in the outcrop and in bulldozer trenches is very weak. Ore grade material was found in two samples, but the samples appear to be of selected material and are not representative.

The presence of carbon matter in the channel sediments would seem to be a very favorable feature. However, in view of the poor uranium production history of the district and the negative results from the applicant's work, I must agree with the examiners' and Field Team's recommendation for denial of the application.

W. P. Williams

W. P. Williams

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

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W. P. Williams

WPWilliams:jeh
G-8/22/56
cc: Director's reading 4212
Branch reading 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Hosted, 3210 GSA

IN REPLY REFER TO:

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

August 22, 1956

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WASHINGTON 25, D. C.

August 22, 1956

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W. P. Williams

WPWilliams:jch
G-8/22/56
cc: Director's reading 4212
Branch reading 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Kosted, 3210 GSA

8/15/56

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

August 14, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

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

Subject: Report of Examination, Docket DMEA 4250, E. Ward Hood (Hot Spot claims), Iron County, Utah

I have reviewed the report of examination, DMEA Docket 4250, E. Ward Hood, (Hot Spot claims), Iron County, Utah, dated July 25, and received in this office August 10, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The field examiners recommend that the application for exploration assistance be denied because the lack of evidence of leaching near the surface and the overall weakness of the uranium mineralization exposed near the surface preclude the advisability of additional exploration at depth.

We concur in the denial.

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

James Paone
James Paone

RECEIVED
AUG 15 1956

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

August 14, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: James Paone, Bureau of Mines Alternate Member
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AUG 15 1956

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BUREAU OF MINES
WASHINGTON 25, D. C.

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James Paone

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8/7/56

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

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AUG - 3 1956

July 31, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Report of Examination, Docket DMEA 4250 (Uranium) E. Ward Hood, (Hot Spot claims), Iron County, Utah

Enclosed are the original and three copies of an engineering and a geologic report on the subject property.

The examiners believe that lack of evidence of leaching near the surface and the general weakness of the uranium mineralization exposed near the surface preclude the advisability of additional exploration at depth. They recommend that the application be denied. We concur in this recommendation.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
8-6-56
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

TRANSMITTED
JUL 31 1956

RECEIVED
AUG - 3 1956

DMEA
Date Rec'd
JUL 30 1956
BUREAU OF MINES
Denver, Colorado

July 27, 1956

Memorandum

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

From: Stephen R. Wilson

Subject: Docket No. DMEA-4250 (Uranium), E. Ward Hood, Hot Spot claims, Iron County, Utah

Enclosed are the original and 10 copies of an engineering report pertaining to examination of uranium property in Iron County, Utah, owned by E. Ward Hood. The examination was made by M. M. Gilkey with E. W. Gutersteck June 14, 1956. Also enclosed is a copy of the brochure.

The applicant has requested a loan of $5,000 to conduct exploratory work consisting of 140 feet of crosscutting and 100 feet of inclined shaft sinking. A minor amount of access-road construction is also included in the application.

Rocks present in the area of the Hot Spot claims consist of the Moenkopi, Shinarump, and Chinle formations of Triassic age and the Jurassic Navajo sandstone. Sporadic uranium mineralization occurs in a locally thickened section of the Shinarump sandstone. Exposed mineralization is weak. Exploration completed on the property to date consists of approximately 1,000 feet of surface trenching along the mineralized zone. Two shallow pits have also been excavated in the trenched area. The applicant has based his proposed project on the premise that uranium mineralization originally present near the surface has been leached, and an unleached zone may be found by the proposed crosscutting and inclined shaft sinking. Comparison of radiometric tests and chemical assays of near-surface samples indicates that the uranium is not far out of equilibrium with its decay products, and thus it is unlikely that extensive leaching of the uranium has occurred.

The examining engineer believes that lack of evidence of leaching near the surface and the general weakness of the uranium mineralization exposed near the surface preclude the advisability of additional exploration at depth. It is recommended that the applicant's request for Government assistance be denied. I concur with the recommendation of the engineer.

The application was discussed with members of the Atomic Energy Commission in Salt Lake City, Utah.

Stephen R. Wilson

Stephen R. Wilson

Reviewed by
DMEA OPERATING COMMITTEE
8-6-56
(date)

Enclosures
cc: J. F. Shea
J. E. Clemmer

RECEIVED
AUG - 3 1956

TRANSMITTED
JUL 31 1956

E. WARD HOOD
HOT SPOT CLAIMS
IRON COUNTY, UTAH
DMEA-4250
Uranium

Engineering Report

By M. M. Gilkey
Mining Engineer
Bureau of Mines

July 25, 1956

Reviewed by
DMEA OPERATING COMMITTEE
8-6-56
(date)

RECEIVED
AUG - 3 1956

E. WARD HOOD
HOT SPOT CLAIMS
IRON COUNTY, UTAH

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ILLUSTRATIONS

Fig. 1 Location map, E. Ward Hood, Hot Spot claims, Iron County, Utah
Fig. 2 Claim and geologic map, Hot Spot claim group

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SUMMARY

E. Ward Hood applied March 25, 1956 for DMEA assistance in exploring uranium property situated near Cedar City, Iron County, Utah.

Weak uranium mineralization occurs in a steeply east-dipping, thickened section of Shinarump sandstone exposed on the B and D No. 1 claim. Exploratory work done to date consists of about 1,000 feet of surface trenching along the outcropping bed, and excavation of two shallow pits within the trenched area. The applicant believes that leaching has removed the major portion of the uranium originally present near the surface and proposes exploration of the postulated underlying, unleached zone, by 140 feet of crosscutting and 100 feet of inclined shaft sinking.

Total estimated cost of the proposed project is $9,830, a reasonable figure.

Comparison of radiometric tests and chemical assays of near-surface samples indicates that the uranium is not far out of equilibrium with its decay products, and that extensive leaching probably has not occurred.

In view of the lack of evidence of leaching near the surface, and the weakness of mineralization in the exposed area, it appears that exploration at depth is not warranted. It is therefore recommended that the request for Government aid be denied.

INTRODUCTION

E. Ward Hood, P. O. Box 428, Beaver, Utah, submitted an application, dated March 25, 1956, for Government aid in an exploratory project on the Hot Spot, et al., uranium claims near Cedar City, Iron County, Utah. The proposed exploratory work described in the application includes driving a crosscut adit, as well as shaft sinking from the surface. Total estimated cost of the project is $9,830.

The property was examined June 14, 1956, by R. W. Osterstock of the Geological Survey and M. M. Gilkey of the Bureau of Mines. The applicant, E. Ward Hood, accompanied the examining team.

LOCATION AND ACCESSIBILITY

The property is situated in Iron County, Utah, near Cedar City, which has a population of 6,106, and is located on a branch line of the Union Pacific Railroad and U. S. Highway 91. The claims lie in an unorganized mining district in secs. 12 and 13, T. 36 S., R. 11 W., and secs. 7 and 18, T. 36 S., R. 10 W., S.L.B. and M. (fig. 1).

From the Cedar City post office the claim area is reached by driving 1 mile easterly on Utah Highway 14, thence about 300 feet to the left (north) on a dirt road leading up a narrow, dry canyon (fig. 2). From this point a bulldozer road (not shown on fig. 2) has been constructed to the site of the proposed adit, a distance of about 1,200 feet to the northeast.

TOPOGRAPHY AND CLIMATE

The claims lie near the base of the northerly trending Hurricane Cliffs. Altitudes in the area range from 6,000 to 6,900 feet. From 6,000 feet, at the dirt road in the canyon bottom, the surface rises to the east to 6,200 feet at the portal of the proposed adit. Maximum grade on the bulldozer road to the portal is about 20 percent. East of the portal the surface rises more rapidly to 6,900 feet at the top of Red Hill.

The climate is semiarid with vegetation consisting principally of scattered juniper trees. Water may be obtained at Cedar City, about 1 mile to the west. Climatic conditions are favorable for year-round project operation.

OWNERSHIP AND EXTENT

Property involved in the proposed project consists of seven unpatented lode mining claims (fig. 2). The claims are recorded at Parowan, Utah, the county seat of Iron County. Recording data submitted by the applicant are presented below:

Claim	Book	Page	Date
B and D No. 1	N	6	May 1954
B and D No. 2	N	6	May 1954
Hotspot No. 3	0	327	June 1955
Hotspot No. 4	0	328	June 1955
Channel No. 1	Book and page omitted		January 1956
Channel No. 2	Book and page omitted		January 1956
Channel No. 3	Book and page omitted		January 1956

The claims are owned by the applicant, E. Ward Hood.

HISTORY AND PRESENT STATUS

There is no recorded production of uranium ore from the applicant's property; there are no known commercial uranium deposits in the immediate vicinity. The Epsolon property, DMEA-3598, which is situated on the Hurricane fault about 20 miles to the south, has reported production from outcrop workings of 325 tons of ore averaging approximately 0.16 percent U_3O_8.

Work accomplished on the Hot Spot claims to date consists of construction of an estimated 1,200 feet of bulldozer road which provides access to the proposed adit portal, an estimated 1,000 feet of bulldozer trenching along the north-south outcrop of the mineralized Shinarump formation, and two shallow pits within the trenched area. The applicant reports an expenditure of $3,500 in accomplishing this work.

DESCRIPTION OF THE DEPOSITS

The most prominent structural feature of the region is the northeasterly striking Hurricane fault zone, the main strand of which passes about 1 mile west of the applicant's claims. Evidence of subordinate parallel faulting is noted in the claim area. Movement along the faults is generally down to the west.

Formations present in the area of the Hot Spot claim group, in ascending order from west to east, are the Lower Triassic Moenkopi, Upper Triassic Shinarump, Upper Triassic Chinle, and Jurassic Navajo. The Upper Jurassic Carmel formation may be present in the extreme east portion of the area. All strata strike north and dip to the east.

Sporadic uranium mineralization occurs in a locally thickened section of Shinarump sandstone. Average thickness of this "channel" is about 15 to 20 feet, with the maximum thickness about 30 feet. Normal thickness of the Shinarump in the region is 8 to 10 feet. Length of the channel is approximately 500 feet. Dip of the bed is about 45° to the east. The North Pit, shown on figure 2, is at the north end of the channel near the site of the proposed inclined shaft. The South Pit has been excavated near the south end in the vicinity of the proposed adit. The Shinarump formation exposed in the mineralized area consists mainly of gray and brown, medium-grained sandstone, broken by faulting. Carbon trash is present locally. Uranium mineralization seems to be confined to the vicinity of the contact of the Shinarump sandstone with a conformably overlying reddish, sandy shale member of the Chinle formation. The uranium minerals present have not been identified.

Assays of samples taken by the applicant, AEC personnel and DMEA examiners are listed below:

Description	Location	Percent $_eU_3O_8$	Percent $_cU_3O_8$
E. Ward Hood-hand samples		up to 1.00	
AEC-selected sample	(carbon trash) N. pit	0.0216	
AEC-selected sample	laminated gray sandstone, N. pit	.0083	
AEC-selected sample	gray sandstone with carbon, N. pit	.0083	
AEC-selected sample	gray sandstone w/copper, N. pit	.0066	
AEC-selected sample	brown coalified wood, N. pit	.6475	
*AEC-selected sample	location and type unknown, S. pit		0.17
DMEA 1-2' selected chip	top of Shinarump channel, N. pit	.01	.001
DMEA 2-2' selected chip	top of Shinarump channel, N. pit	.02	.016
DMEA 3-2' selected chip	top of Shinarump channel, N. pit	.01	.011
DMEA 4-picked high-grade	same as DMEA 3	.04	.064
DMEA 5-1' selected chip	5' below top of Shinarump, S. pit	.01	.001

*Reported by applicant; not confirmed by AEC.

The applicant believes that the weakness of the uranium mineralization is the result of near-surface leaching, and that unleached, commercial grade ore will be encountered at a depth of about 80 feet. In the above list of DMEA samples, a comparison of radiometric tests with the corresponding

chemical assays shows that the uranium is not far out of equilibrium, thus no increase in uranium content with depth is indicated.

PROPOSED EXPLORATION AND COSTS

The applicant proposes an exploratory program costing an estimated total of $9,830. Time to complete the project is estimated at 12 months from the date of an exploration contract. Individual items of work and estimated costs are listed below:

Driving crosscut adit, 140 feet at $20 per foot --------	$2,800.00
Timbering crosscut adit, 80 feet at $6 per foot --------	480.00
Sinking inclined shaft, 100 feet at $30 per foot -------	3,000.00
Timbering inclined shaft, 100 feet at $6 per foot ------	600.00
Tool and change room ----------	600.00
Geological service ----------	400.00
Supervision ----------	1,200.00
Bulldozing (access road construction) 62.5 hours at $12 per hour ----------	750.00
Total estimated cost of proposed project ----------	$9,830.00

The adit, as proposed, would intersect the east-dipping mineralized bed at approximately 75 feet dip-distance from the surface. The inclined shaft would explore, to a dip-distance of 100 feet, the downward projection of what appears to be the most highly mineralized surface exposure.

The ground in the area of the proposed adit and shaft is broken and altered. It is probable that the entire 140 feet of adit will require supporting timber. Estimated costs for crosscutting and sinking are reasonable.

A D7 Caterpillar would be used for improving the present access road to the adit portal and to construct a new road to the shaft site. A resident of Cedar City has agreed to do this work at the low figure of $12 an hour.

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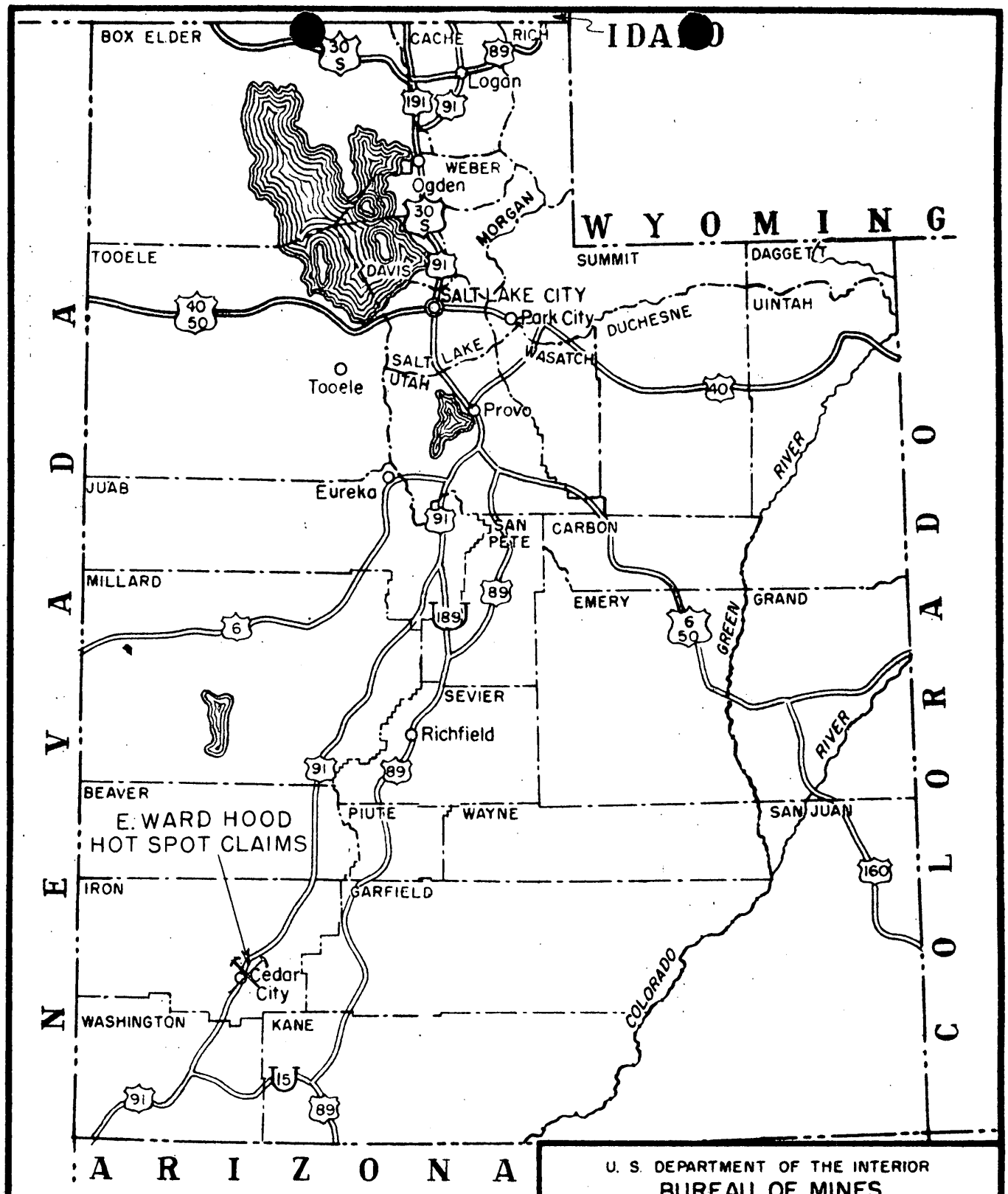
CONCLUSIONS AND RECOMMENDATIONS

Weak uranium mineralization is present on the B and D No. 1 claim of the Hot Spot group, at the outcrop of a thickened section of Shinarump sandstone. Radiometric and chemical assays indicate that the uranium is near equilibrium with its decay products. It is concluded, therefore, that leaching probably has not occurred and that an improvement in grade with depth is not to be expected.

It is recommended that the applicant's request for Government aid be denied.

D. L. Davis of the Salt Lake Exploration Branch of AEC concurs in this recommendation.



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

FIG. 1 DMEA Docket No. 4250

Location Map

E. WARD HOOD, HOT SPOT CLAIMS

IRON COUNTY, UTAH

ENGINEER: M. M. GILKEY	DATE: JULY 20, 1956
TRACED: JULY 20, 1956	
CHECKED:	

MINERAL DEPOSITS
DMEA
RECEIVED
JUL 16 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

RECEIVED
AUG - 3 1956

306 Federal Building
Salt Lake City 1, Utah

TRANSMITTED
JUL 31 1956

July 13, 1956

Memorandum

To: E. H. Kerschman, DMEA Field Team, Region III

DMEA
Date Rec'd.
JUL 16 1956
BUREAU OF MINES
Denver, Colorado

From: R. W. Gaberstock

Subject: DMEA Docket 4390 (Vernham), E. Yard Road, Hot Spot claims, Iron County, Utah

Enclosed are eleven copies of an initial geologic report on the Hot Spot claims, Iron County, Utah, by R. W. Gaberstock (DMEA).

The uranium mineralization at the property appears to be confined to the uppermost beds in a thickened section of the Triassic Shinarump Conglomerate. Sample data reveal that the deposit is too low grade at the surface to be of interest and there is no reason to expect improved grade with depth.

It is recommended that the application for government assistance be denied.

cc: E. R. Wilson

Reviewed by
DMEA OPERATING COMMITTEE

(date)

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HOT SPOT CLAIMS

IRON COUNTY, UTAH

TRANSMITTED
JUL 31 1956

DMEA DOCKET 4250

Initial Geologic Report

By R. W. Osterstock
U. S. Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE

(date)

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ILLUSTRATIONS

Figure 1. Index map of Utah

Figure 2. Claim and geologic map of Hot Spot claims

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SUMMARY

E. Ward Hood applied for government assistance in a proposed uranium exploration program on the Hot Spot claims, Iron County, Utah. The proposed exploration program included 140 feet of drifting and 100 feet of incline, the total cost of which is estimated to be $9,830.

Abnormally high radioactivity is noted in two localities which have been exposed by bulldozer trenching. Both areas are within a thickened section of Shinarump conglomerate which is likened to a channel. Radiometric and chemical analyses of the best zones of mineralization disclose only very weak mineralization with no evidence of surface leaching which might suggest improved grade with depth. A peculiar feature of the deposit is the apparent confinement of the uranium minerals to the uppermost beds of the channel; generally the lowermost beds contain the best deposits.

It is concluded that the deposit does not contain uraniferous material of acceptable grade and therefore it is recommended that the application be denied.

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INTRODUCTION

Mr. E. Ward Hood, Beaver, Utah, applied March 25, 1956 for government assistance in a $9,830.00 program under the Defense Minerals Exploration Administration, Docket DMEA 4250, to explore for uranium ore in the Hot Spot claim area, Iron County, Utah.

A field examination, as requested by the DMEA Region III Field Team, was conducted June 14, 1956 by R. W. Osterstock (USGS) and M. M. Gilkey (USBM). The applicant, E. Ward Hood, accompanied the examiners in the field.

The applicant infers that the uranium mineralization as exposed by surface trenching represents only the leached remnant and that increased grade will be attained at depth.

DMEA sample data and a sketch map of the property are included in the body of the report.

Location and accessibility

The Hot Spot claim group is in Secs. 12 and 13, T. 36 S., R. 11 W., and Secs. 7 and 18, T. 36 S., R. 10 W., Salt Lake Base and Meridian, in an unorganized mining district, Iron County, Utah (fig. 1), near the base of the northeast trending Hurricane Cliffs. Elevations in the claim area range from 6000 to 7000 feet. Cedar City, Utah, the nearest supply center to the claim area, is on a branch line of the Union Pacific Railroad. The semiarid climate of the region would permit year-round mining operation if such were indicated.

The claim area may be reached by traveling 1.0 miles easterly on oiled road Utah 14 from its intersection with U. S. Highway 91 in downtown Cedar City, Utah, thence turn off to right (north) on a primitive dirt road which leads up the floor of a narrow, dry canyon. The latter road is passable for passenger cars only about 300 feet from Utah 14. A bulldozer trail leads from the end of the road to the site of the proposed adit on the B and D No. 1 claim (fig. 2).

History, production, and development

The seven unpatented claims (B and D Nos. 1 and 2, Hot Spot Nos. 3 and 4, Channel Nos. 1, 2 and 3) comprising the Hot Spot group are held by right of location by the applicant, E. Ward Hood. The various claims have been staked from May, 1954 to January, 1956.

There is no recorded production of uranium ore from the property, nor are there any nearby producing properties.

Carl Johnson (North American Exploration Co., Denver, Colo.) studied the claim area; but his report was not included with the application. Sample data by Olsen (AEC suboffice, St. George, Utah) is included with the application but the exact locations of the sampled areas are not known.

The property, at the date of the DMEA examination, was developed by about 1,000 feet of bulldozer trenching. Within the trenched area two shallow pits have been excavated by bulldozer. A bulldozer trail has been driven to the site of the proposed adit directly below the southernmost of the dozer pits. There are no surface facilities on the property. The applicant reports having expended about $3,500.00 on the property to date.

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GEOLOGY

The Hot Spot claims are underlain by Triassic and Jurassic sediments in an area adjacent to the Hurricane fault system.

A brief description of the rocks exposed in the claim area from oldest to youngest is as follows:

Moenkopi formation (lower Triassic). Only the uppermost members of this formation are exposed in the area, the lower members having been down dropped on the west by the Hurricane fault. Red shaly sandstone and brownish mudstone characterize the upper part of this formation. Well developed crossbedding is a prominent feature of the resistant 30-40 foot thick reddish brown sandstone at the proposed adit site on the B and D No. 1 claim. Thin-bedded shaly mudstone forms the topmost strata.

Shinarump conglomerate (upper Triassic). Unconformably overlies the Moenkopi. Generally grayish to brown, roughly stratified, sandstone and grit, crossbedded locally and contains lenses of reddish mudstone and sandy shale. On the B and D No. 1 claim the Shinarump is exemplified by light tan and brown to gray medium-grained sandstone with a few thin gray sandy shale lenses. Carbon trash is abundant locally (particularly in south pit). The thickened section of Shinarump, as exposed in the bulldozer trench, may be channel filling of a scoured zone in the underlying Moenkopi. This asymmetric channel-like zone, with

a width of about 500 feet, may attain a maximum thickness of 30 feet near the north pit but its average thickness would be nearer 15 feet.

Chinle formation (upper Triassic). Conformably overlies the Shinarump conglomerate. Reddish sandstone, siltstone and shale form the bulk of this formation. Immediately overlying the Shinarump, the Chinle consists of reddish purple sandy shale about 100 feet thick.

Navajo formation (Jurassic). Although positive evidence is lacking, it appears that the generally thick Chinle is thinned in this area. The bright red sandy shale appearing above the purplish sand of the Chinle is lithologically correlative with the Navajo formation. It is known that the contact between these two formations is frequently so gradational in character as to be virtually impossible to identify.

Carmel formation (Upper Jurassic). Although no attempt was made to identify this formation in the field, it is quite likely that at least the lower members are present at the east end of the Channel Nos. 2 and 3 claims. The Carmel is characteristically composed of light gray, thin-bedded marine limestones with reddish calcareous sandstone and siltstone near its base. It rests unconformably on the Navajo.

No igneous rocks are exposed in the immediate claim area; however, Tertiary latites and andesites mantle the sediments 2 or 3 miles to the northeast.

The most prominent structural feature of the region is the northeasterly striking Hurricane fault zone. Though the main strand of the fault passes about one mile west of the claim area, there are numerous subordinate parallel faults at least one of which is only a few hundred feet west of the B and D No. 2 claim (fig. 2). With few exceptions these faults are down on the west. Slickensiding, so common in the harder beds, is indicative of further adjustment.

All of the strata in the claim area strike to the north and show steep to moderate east dips. Approximately one mile to the east H. E. Gregory (Geol. of eastern Iron County, Utah, Utah Geol. and Mineralogical Survey, Bull. 37, 1950, Plate 2) has traced the axial plane of a broad northerly trending syncline, the west flank of which would encompass the claim area.

ORE DEPOSITS

The ore mineralization at the Hot Spot claims appears to be confined to the uppermost beds of a thickened section of Shinarump conglomerate. The light tan to brown and gray, medium-grained sandstone, with a few lenses of gray sandy shale, forms a persistent band on the B and D Nos. 1 and 2 claims (fig. 2). On the B and D No. 1 claim bulldozer stripping has revealed a thickness of this zone ranging from 10 to 30 feet in contrast to its normal thickness in the region of less than 8 feet. The channel zone is underlain by a soft red-brown, fissile, sandy shale which is in turn underlain by a massive, crossbedded medium- to coarse-grained sandstone in the upper Moenkopi.

Within the Shinarump "channel" carbon trash and gypsum are locally abundant. Manganese dendrites are common and some copper stain is noted. Crossbedding and lensing within the channel are both rapid and frequent.

Radiometric inspection of the bulldozer trench reveals two areas of abnormally high radioactivity. Both of these areas have been more thoroughly opened by trenching. The northernmost pit is apparently near the north "feather-edge" of the channel which attains its maximum thickness only a few tens of feet to the south. Nodules composed of concentric gypsum layers contain isolated and infrequent fluorescent material which may be autunite; faint yellowish stains in and around carbonized twigs may be carnotite. No positive identification of the uranium minerals was made. The southernmost pit, above the projection

of the proposed adit, is about 25 feet vertically below the floor of the north pit. There is abundant carbon debris in the walls of the cut, and most of the plus one inch diameter fragments have their long axes oriented E-W or down dip. The light tan medium-grained sandstone again displays faint yellowish colorings (carnotite?) particularly near the carbon debris. A peculiar feature of the mineralization is its apparent confinement to the beds near the top of the channel; this is in sharp contrast to most of the producing properties which have their ore zones near the base of the channels.

Sampling of the pits by the applicant, AEC and DMEA personnel has provided the following results:

Type	Location	$\%_e U_3O_8$	$\%_c U_3O_8$
Hood—Hand samples		up to 1.80	
AEC—Selected Sample	(carbon trash) N. pit	0.0216	
AEC - " "	laminated gray sandstone N. pit	0.0083	
AEC " "	gray sandstone with carbon, N. pit	0.0083	
AEC " "	gray sandstone w/copper N. pit	0.0066	
AEC " "	Brown coalified wood N. pit	0.6475	
*AEC " "	Location and type unknown. N. pit		0.17
DMEA 1 - 2' selected chip	Top of Shinarump channel, north pit	0.01	0.001
DMEA 2 - 2' " "	Top of Shinarump channel, north pit	0.02	0.016
DMEA 3 - 2' " "	Top of Shinarump channel, north pit	0.01	0.011
DMEA 4 - picked high grade	Same as DMEA 3	0.04	0.064
DMEA 5 - 1' selected chip	5' below top of Shinarump, south pit	0.01	0.001

* reported by applicant; not confirmed by AEC

The applicant contends that the eU-cU ratio has become distinctly smaller and nearer equilibrium with increased depth and thus implies near-surface leaching. The 15-foot vertical cut in the north pit is not sufficient to warrant this implication. DMEA sampling gives no indication that the uranium in the surface pits is far out of equilibrium and therefore does not substantiate the leaching hypothesis. Thus, in summary, there is no reason to predicate increased grade with depth.

There are no ore reserves of any classification on the property.

PROPOSED EXPLORATION

The exploration program as proposed by the applicant consists of a 140-foot drift to intercept the projection of the channel from the south pit and a 100-foot incline down the dip of the channel from the north pit. Suggested, but not requested, is 300 feet additional incline and drifting following the initial work.

No counter proposals are offered inasmuch as DMEA participation is not recommended.

CONCLUSIONS AND RECOMMENDATIONS

The Hot Spot claim group contains a thickened section of Shinarump conglomerate which may be likened to a channel. The results of the DMEA field examination have demonstrated that while the channel is probably a persistent feature, its uranium content is too small to be of interest. Chemical and radiometric analyses of samples give no indication of surface leaching which might, by inference, provide an increased grade with depth.

It is concluded that the Hot Spot claim group does not contain uranium material of acceptable grade and it is recommended that the application for DMEA assistance be denied.

This report has been discussed with and approved by D. L. Davis (AEC, Salt Lake Exploration Branch).

8/3/56

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

July 31, 1956

224 New Customhouse
Denver 2, Colorado

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Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Report of Examination, Docket DMEA 4250 (Uranium) E. Ward Hood, (Hot Spot claims), Iron County, Utah

Enclosed are the original and three copies of an engineering and a geologic report on the subject property.

The examiners believe that lack of evidence of leaching near the surface and the general weakness of the uranium mineralization exposed near the surface preclude the advisability of additional exploration at depth. They recommend that the application be denied. We concur in this recommendation.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
8-6-56
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

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AUG - 3 1956
DMEA
Date Rec'd.

TRANSMITTED

JUL 30 1956

[redacted]

JUL 31 1956

BUREAU OF MINES
Denver, Colo.

[redacted]

To: [redacted]

From: [redacted]

Subject: [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Reviewed by
DMEA OPERATING COMMITTEE

[redacted] 8-6-56
(date)

[redacted]

K. WARD HOOD
HOT SPOT CLAIMS
IRON COUNTY, UTAH
DMEA-4250
Uranium

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JUL 31 1956

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Engineering Report

By M. M. Gilbey
Mining Engineer
Bureau of Mines

July 25, 1956

Reviewed by
DMEA OPERATING COMMITTEE
8-6-56
(date)

TRANSMITTED
RECEIVED
AUG - 3 1956

E. WARD HOOD
HOT SPOT CLAIMS
IRON COUNTY, UTAH

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ILLUSTRATIONS

Fig. 1 Location map, E. Ward Hood, Hot Spot claims, Iron County, Utah
Fig. 2 Claim and geologic map, Hot Spot claim group

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SUMMARY

E. Ward Hood applied March 25, 1956 for DMEA assistance in exploring uranium property situated near Cedar City, Iron County, Utah.

Weak uranium mineralization occurs in a steeply east-dipping, thickened section of Shinarump sandstone exposed on the E and D No. 1 claim. Exploratory work done to date consists of about 1,000 feet of surface trenching along the outcropping bed, and excavation of two shallow pits within the trenched area. The applicant believes that leaching has removed the major portion of the uranium originally present near the surface and proposes exploration of the postulated underlying, unleached zone, by 140 feet of crosscutting and 100 feet of inclined shaft sinking.

Total estimated cost of the proposed project is $9,830, a reasonable figure.

Comparison of radiometric tests and chemical assays of near-surface samples indicates that the uranium is not far out of equilibrium with its decay products, and that extensive leaching probably has not occurred.

In view of the lack of evidence of leaching near the surface, and the weakness of mineralization in the exposed area, it appears that exploration at depth is not warranted. It is therefore recommended that the request for Government aid be denied.

INTRODUCTION

E. Ward Hood, P. O. Box 438, Beaver, Utah, submitted an application, dated March 25, 1956, for Government aid in an exploratory project on the Hot Spot, et al., uranium claims near Cedar City, Iron County, Utah. The proposed exploratory work described in the application includes driving a crosscut adit, as well as shaft sinking from the surface. Total estimated cost of the project is $9,830.

The property was examined June 14, 1956, by R. W. Gaterbunk of the Geological Survey and M. M. Gilbey of the Bureau of Mines. The applicant, E. Ward Hood, accompanied the examining team.

LOCATION AND ACCESSIBILITY

The property is situated in Iron County, Utah, near Cedar City, which has a population of 6,106, and is located on a branch line of the Union Pacific Railroad and U. S. Highway 91. The claims lie in an unorganized mining district in secs. 12 and 13, T. 36 S., R. 11 W., and secs. 7 and 18, T. 36 S., R. 10 W., S.L.B. and M. (fig. 1).

From the Cedar City post office the claim area is reached by driving 1 mile easterly on Utah Highway 14, thence about 300 feet to the left (north) on a dirt road leading up a narrow, dry canyon (fig. 2). From this point a bulldozer road (not shown on fig. 2) has been constructed to the site of the proposed adit, a distance of about 1,200 feet to the northeast.

TOPOGRAPHY AND CLIMATE

The claims lie near the base of the northerly trending Hurricane Cliffs. Altitudes in the area range from 6,000 to 6,900 feet. From 6,000 feet, at the dirt road in the canyon bottom, the surface rises to the east to 6,200 feet at the portal of the proposed adit. Maximum grade on the bulldozer road to the portal is about 20 percent. East of the portal the surface rises more rapidly to 6,900 feet at the top of Red Hill.

The climate is semiarid with vegetation consisting principally of scattered juniper trees. Water may be obtained at Cedar City, about 1 mile to the west. Climatic conditions are favorable for year-round project operation.

OWNERSHIP AND EXTENT

Property involved in the proposed project consists of seven unpatented lode mining claims (fig. 2). The claims are recorded at Parowan, Utah, the county seat of Iron County. Recording data submitted by the applicant are presented below:

Claim	Book	Page	Date
B and D No. 1	E	6	May 1954
B and D No. 2	E	6	May 1954
Hotspot No. 3	O	327	June 1955
Hotspot No. 4	O	328	June 1955
Channel No. 1	Book and page omitted		January 1956
Channel No. 2	Book and page omitted		January 1956
Channel No. 3	Book and page omitted		January 1956

The claims are owned by the applicant, K. Ward Hood.

HISTORY AND PRESENT STATUS

There is no recorded production of uranium ore from the applicant's property; there are no known commercial uranium deposits in the immediate vicinity. The Epsilon property, DMRA-3598, which is situated on the Hurricane fault about 20 miles to the south, has reported production from outcrop workings of 325 tons of ore averaging approximately 0.16 percent U_3O_8.

Work accomplished on the Hot Spot claims to date consists of construction of an estimated 1,200 feet of bulldozer road which provides access to the proposed adit portal, an estimated 1,000 feet of bulldozer trenching along the north-south outcrop of the mineralized Shinarump formation, and two shallow pits within the trenched area. The applicant reports an expenditure of $3,500 in accomplishing this work.

DESCRIPTION OF THE DEPOSITS

The most prominent structural feature of the region is the northeasterly striking Hurricane fault zone, the main strand of which passes about 1 mile west of the applicant's claims. Evidence of subordinate parallel faulting is noted in the claim area. Movement along the faults is generally down to the west.

Formations present in the area of the Hot Spot claim group, in ascending order from west to east, are the Lower Triassic Moenkopi, Upper Triassic Shinarump, Upper Triassic Chinle, and Jurassic Navajo. The Upper Jurassic Carmel formation may be present in the extreme east portion of the area. All strata strike north and dip to the east.

Sporadic uranium mineralization occurs in a locally thickened section of Shinarump sandstone. Average thickness of this "channel" is about 15 to 20 feet, with the maximum thickness about 30 feet. Normal thickness of the Shinarump in the region is 5 to 10 feet. Length of the channel is approximately 500 feet. Dip of the bed is about 45° to the east. The North Pit, shown on figure 2, is at the north end of the channel near the site of the proposed inclined shaft. The South Pit has been excavated near the south end in the vicinity of the proposed adit. The Shinarump formation exposed in the mineralized area consists mainly of gray and brown, medium-grained sandstone, broken by faulting. Carbon trash is present locally. Uranium mineralization seems to be confined to the vicinity of the contact of the Shinarump sandstone with a conformably overlying reddish, sandy shale member of the Chinle formation. The uranium minerals present have not been identified.

Assays of samples taken by the applicant, AEC personnel and DMEA examiners are listed below:

Description	Location	Percent U_3O_8	Percent UO_2
K. Ward Hand-band samples		up to 1.00	
AEC-selected sample	(carbon trash) N. pit	0.0216	
AEC-selected sample	laminated gray sandstone, N. pit	.0083	
AEC-selected sample	gray sandstone with carbon, N. pit	.0083	
AEC-selected sample	gray sandstone w/copper, N. pit	.0066	
AEC-selected sample	brown coalified wood, N. pit	.6475	
*AEC-selected sample	location and type unknown, S. pit		0.17
DMEA 1-2' selected chip	top of Shinarump channel, N. pit	.01	.001
DMEA 2-2' selected chip	top of Shinarump channel, N. pit	.02	.016
DMEA 3-2' selected chip	top of Shinarump channel, N. pit	.01	.011
DMEA 4-picked high-grade	same as DMEA 3	.04	.066
DMEA 5-1' selected chip	5' below top of Shinarump, S. pit	.01	.001

*Reported by applicant; not confirmed by AEC.

The applicant believes that the weakness of the uranium mineralization is the result of near-surface leaching, and that unleached, commercial grade ore will be encountered at a depth of about 50 feet. In the above list of DMEA samples, a comparison of radiometric tests with the corresponding

chemical assays show that the uranium is not far out of equilibrium, then no increase in uranium content with depth is indicated.

PROPOSED EXPLORATION AND COSTS

The applicant proposes an exploratory program costing an estimated total of $9,830. Time to complete the project is estimated at 12 months from the date of an exploration contract. Individual items of work and estimated costs are listed below:

Driving crosscut adit, 140 feet at $20 per foot	$2,800.00
Timbering crosscut adit, 80 feet at $6 per foot	480.00
Sinking inclined shaft, 100 feet at $30 per foot	3,000.00
Timbering inclined shaft, 100 feet at $6 per foot	600.00
Tool and change room	600.00
Geological service	400.00
Supervision	1,200.00
Bulldozing (access road construction) 62.5 hours at $12 per hour	750.00
Total estimated cost of proposed project	$9,830.00

The adit, as proposed, would intersect the east-dipping mineralized bed at approximately 75 feet dip-distance from the surface. The inclined shaft would explore, to a dip-distance of 100 feet, the downward projection of what appears to be the most highly mineralized surface exposure.

The ground in the area of the proposed adit and shaft is broken and altered. It is probable that the entire 140 feet of adit will require supporting timber. Estimated costs for crosscutting and sinking are reasonable.

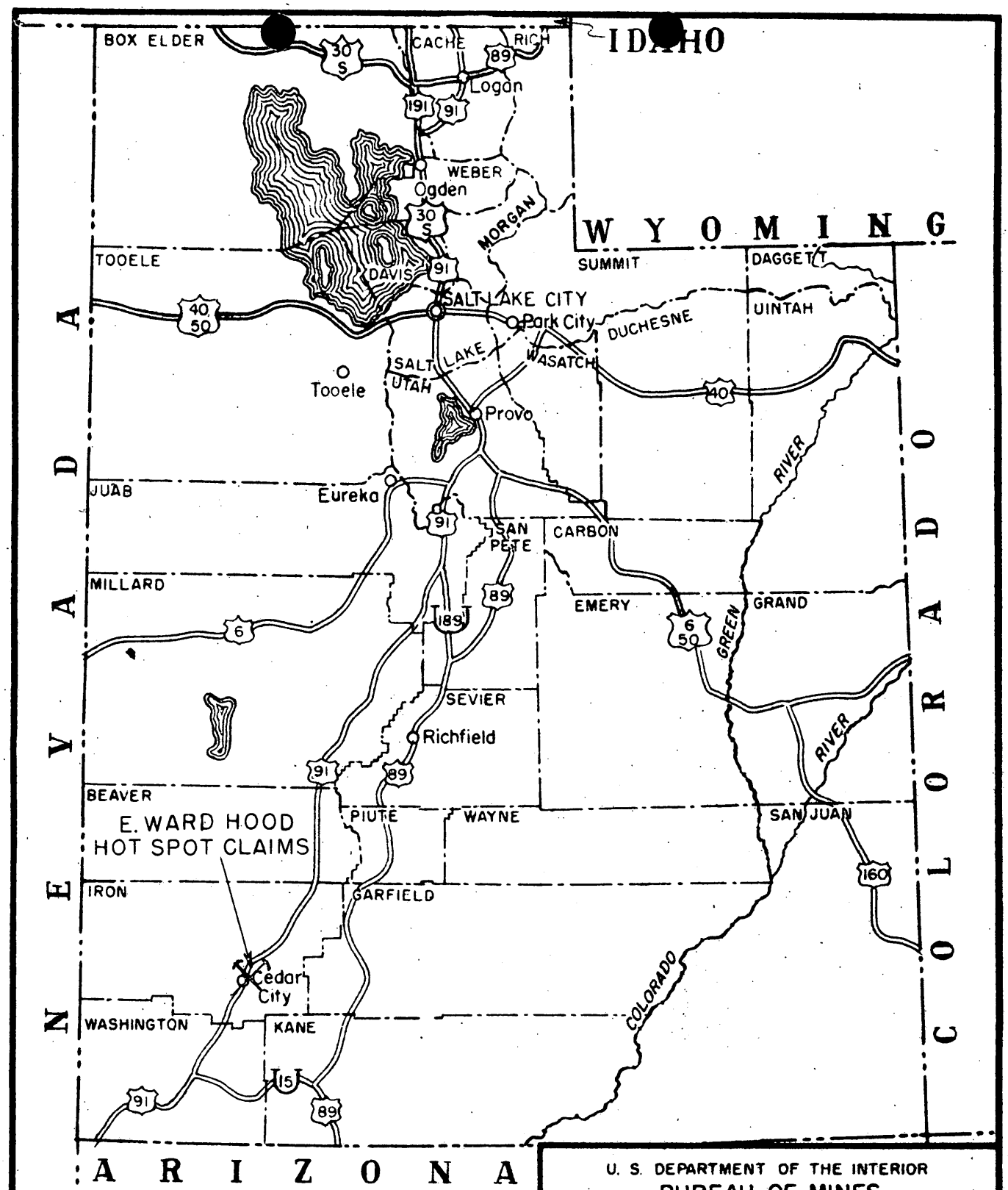
A D7 Caterpillar would be used for improving the present access road to the adit portal and to construct a new road to the shaft site. A resident of Cedar City has agreed to do this work at the low figure of $12 an hour.

CONCLUSIONS AND RECOMMENDATIONS

Weak uranium mineralization is present on the E and D No. 1 claim of the Hot Spot group, at the outcrop of a thickened section of Shinarump sandstone. Radiometric and chemical assays indicate that the uranium is near equilibrium with its decay products. It is concluded, therefore, that leaching probably has not occurred and that an improvement in grade with depth is not to be expected.

It is recommended that the applicant's request for Government aid be denied.

D. L. Davis of the Salt Lake Exploration Branch of AEC concurs in this recommendation.



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

FIG. 1 DMEA Docket No. 4250

Location Map

E. WARD HOOD, HOT SPOT CLAIMS

IRON COUNTY, UTAH

ENGINEER: M. M. GILKEY	DATE: JULY 20, 1956
TRACED: JULY 20, 1956	
CHECKED:	

TRANSMITTED

JUL 31 1956

MINERAL DEPOSITS
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DEN 1956

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[redacted]

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To: [redacted]

From: [redacted]

Subject: [redacted]

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DMEA
Date Rec'd.

JUL 16 1956

BUREAU OF MINES
Denver, Colorado

[redacted]

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cc: [redacted]

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Reviewed by
DMEA OPERATING COMMITTEE
8-6-56
(date)

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ILLUSTRATIONS

Figure 1. Index map of Utah

Figure 2. Claim and geologic map of hot spot claims

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[redacted]

K. Hard Rock applied for government assistance in a proposed uranium exploration program on the Rock Spot claims, Iron County, Utah. The proposed exploration program included 140 feet of drilling and 200 feet of trenching, the total cost of which is estimated to be $9,[redacted].

Abnormally high radioactivity is noted in two localities which have been exposed by bulldozer trenching. Both areas are within a thickness section of Shinarump conglomerate which is likened to a channel. Radiometric and chemical analyses of the hard zones of mineralization displays only very weak mineralization with no evidence of surface leaching which might suggest improved grade with depth. A peculiar feature of the deposit is the apparent enrichment of the uranium minerals to the opposite side of the channel, generally the lowermost side contains the hard deposits.

It is considered that the deposit does not contain uniformous potential of acceptable grade and therefore it is recommended that the application be denied.

INTRODUCTION

Mr. E. Ward Reed, Beaver, Utah, applied March 25, 1956 for government assistance in a $9,850.00 program under the Defense Minerals Exploration Administration, Docket DMEA 4250, to explore for uranium ore in the Red Spot claim area, Iron County, Utah.

A field examination, as requested by the DMEA Region III Field Team, was conducted Sept 24, 1956 by R. W. Dubourdieu (DMEA) and H. H. Gilbey (USGS). The applicant, E. Ward Reed, accompanied the engineers in the field.

The applicant informs that the uranium mineralization as exposed by surface trenching represents only the lowest content and that increased grade will be obtained at depth.

DMEA sample data and a sketch map of the property are included in the body of the report.

Location and accessibility

The Bob Lynn claim group is in Secs. 12 and 13, T. 35 S., R. 22 W., and Secs. 7 and 18, T. 35 S., R. 20 W., Salt Lake Base and Meridian, in an unorganized mining district, Iron County, Utah (fig. 1), near the base of the northwest trending Hurricane Cliffs. Elevations in the claim area range from 6000 to 7000 feet. Cedar City, Utah, the nearest supply center to the claim area, is on a branch line of the Union Pacific Railroad. The nearest climate of the region would permit year-round mining operations if such were indicated.

The claim area may be reached by traveling 1.8 miles easterly on state road Utah 14 from the intersection with U. S. Highway 91 in downtown Cedar City, Utah, thence turn off to right (south) on a primitive dirt road which leads up the floor of a narrow, dry canyon. The latter road is passable for passenger cars only about 300 feet from Utah 14. A bulldozer trail leads from the end of the road to the site of the proposed adit on the S and D No. 1 claim (fig. 2).

History, production, and development

The seven unpatented claims (1 and 2 Sec. 1 and 2, Rob Lynk Sec. 3 and 4, Shannah Sec. 1, 2 and 3) comprising the Rob Lynk group are held by right of location by the applicant, R. Lynd Rand. The various claims have been staked from May, 1954 to January, 1956.

There is no recorded production of minerals are from the property, nor are there any nearby producing properties.

Gail Johnson (North American Exploration Co., Tucson, Ariz.) studied the claim group but his report was not included with the application. Sample data by Shaw (AMS Laboratories, Mt. Springs, Utah) is included with the application but the exact locations of the sampled areas are not known.

The property, at the date of the 1954 amendment, was developed by about 1,000 feet of bulldozer trenching. Within the trenched area two shallow pits have been excavated by bulldozer. A bulldozer trail has been driven to the site of the proposed adit directly below the outcroppings of the lower pits. There are no surface facilities on the property. The applicant reports having expended about $5,000.00 on the property to date.

GEOLOGY

The Ash Spur claims are underlain by Triassic and Jurassic sediments in an area adjacent to the Hurricane Fault system.

A brief description of the units exposed in the claim area from oldest to youngest is as follows:

Moenkopi Formation (Lower Triassic). Only the uppermost members of this formation are exposed in the area, the lower members having been down dropped on the east by the Hurricane fault. Red shaly sandstone and brownish sandstone characterize the upper part of this formation. Well developed mudcracking is a prominent feature of the sandstone. High dark thick reddish brown sandstone at the prospect adits site on the 5 and 9 No. 3 claims. Thin-bedded shaly sandstone forms the topmost strata.

Chinarump conglomerate (Upper Triassic). Unconformably overlies the Moenkopi. Generally grayish to brown, roughly stratified, sandstone and grit, crossbedded locally and contains lenses of reddish sandstone and sandy shale. On the 5 and 9 No. 3 claims the Chinarump is complicated by high tan and brown to gray sandstone-pinkish sandstone with a few thin gray sandy shale lenses. Carbon trash is abundant locally (particularly in south pit). The thickness section of Chinarump, as exposed in the bulldozer trench, may be thought filling of a channel zone in the underlying Moenkopi. This apparently channel-like zone, with

a width of about 300 feet, may attain a maximum thickness of 30 feet near the north pit but the average thickness would be nearer 15 feet.

Shale formation (upper Triassic). Tentatively overlies the Skinwump conglomerate. Reddish sandstone, siltstone and shale form the bulk of this formation. Tentatively overlying the Skinwump, the shale consists of reddish purple sandy shale about 200 feet thick.

Rangle formation (Jurassic). Although positive evidence is lacking, it appears that the generally thick shale is thinned in this area. The bright red sandy shale appearing above the purplish red of the shale is lithologically correlatable with the Rangle formation. It is known that the contact between these two formations is frequently so gradational in character as to be virtually impossible to identify.

Summit formation (Upper Jurassic). Although no attempt was made to identify this formation in the field, it is quite likely that at least the lower members are present at the east end of the Summit Pass, 2 and 3 miles. The Summit is characteristically composed of light gray, thin-bedded marine limestones with reddish calcareous sandstone and siltstone near the base. It rests unconformably on the Rangle.

No igneous rocks are exposed in the Sandfish chain area however, Tertiary intrusives and extrusives outcrop the outcrops 2 or 3 miles to the northeast.

The most prominent structural feature of the region is the northeasterly striking Rattlesnake fault zone. Though the main strand of the fault passes about one mile west of the claim area, there are numerous subsidiary parallel faults at least one of which is only a few hundred feet west of the 1 and 2 No. 2 claim (Fig. 2). With few exceptions these faults are down on the west. Silicification, as known in the border hole, is indicative of further alignment.

All of the strata in the claim area strike to the north and then swing to moderate east dips. Approximately one mile to the east E. L. Gregory (Geol. of eastern Iron County, Utah, Utah Geol. and Mineralogical Survey, Bull. 37, 1951, Plate 2) has traced the axial plane of a broad northerly trending syncline, the west flank of which would encompass the claim area.

THE DEPOSITS

The ore mineralization at the Bob Spot claims appears to be confined to the uppermost half of a thickness section of Chinaman conglomerate. The light tan to brown and gray, medium-grained conglomerate, with a few lenses of gray sandy shale, forms a persistent bed on the 2 and 3 fan, 1 and 2 claims (Fig. 2). On the 2 and 3 fan, 1 claim bulldozer stripping has revealed a thickness of this zone ranging from 10 to 20 feet in contrast to the normal thickness in the region of less than 5 feet. The channel zone is underlain by a soft red-brown, fissile, sandy shale which is in turn underlain by a massive, crossbedded medium- to coarse-grained sandstone in the upper Tanbigel.

Within the Chinaman "channel" carbon trash and pyrite are locally abundant. Manganese dendrites are common and some copper stain is noted. Fossilbedding and jointing within the channel are both rapid and frequent.

Reconnaissance inspection of the bulldozer trench reveals two areas of abnormally high radioactivity. Both of these areas have been thoroughly spaced by trenching. The southernmost pit is apparently near the north "footwall-edge" of the channel which attains its maximum thickness only a few tens of feet to the south. Subdue component of scintillation appears largely contain isolated and infrequent fluorescent minerals which may be scheelite. Both pulldozer shales in and around mineralized beds may be scintillic. No positive identification of the uranium minerals was made. The southernmost pit, above the projection

of the proposed edit, in about 35 feet vertically below the floor of the north pit. There is abundant carbon debris in the walls of the cut, and most of the pine and fir diameter fragments have their long axes oriented N-S or down dip. The light tan mudstone-gravel conglomerate again displays faint pollutant colorings (unnoticed) particularly near the carbon debris. A peculiar feature of the silicification in the approach continuously to the hole near the top of the channel; this is in sharp contrast to most of the preceding properties which have their ore zones near the base of the channels.

Sampling of the pits by the applicant, ASE and DNRA personnel has provided the following results

Item	Location	[illegible]	[illegible]
Bank-lined samples		up to 1.[illegible]	
ASE-collected samples	(western trench) N. pit	[illegible]	
ASE - " "	Laminated gray sandstone N. pit	[illegible]	
ASE " "	gray sandstone with carbon, N. pit	[illegible]	
ASE " "	gray sandstone w/fragments N. pit	[illegible]	
ASE " "	brown sandstone vein N. pit	[illegible]	
*ASE " "	Ignimbrite and tuff volcanic, N. pit		[illegible]
DNRA 1 - 2' collected chip	Top of Shinarump channel, south pit	[illegible]	[illegible]
DNRA 2 - 2' " "	Top of Shinarump channel, south pit	[illegible]	[illegible]
DNRA 3 - 2' " "	Top of Shinarump channel, south pit	[illegible]	[illegible]
DNRA 4 - photed high grade	same as DNRA 3	[illegible]	[illegible]
DNRA 5 - 2' collected chip	5' below top of Shinarump, south pit	[illegible]	[illegible]

* reported by applicant; not confirmed by ASE

The applicant contends that the oil-oil noble has lowered directly another and manner equilibrium with increased depth and thus implies non-sudden leaching. The 12-foot variant out in the north pit is not sufficient to warrant this implication. This sampling gives no indication that the wrasion in the southern pits is far out of equilibrium and therefore does not substantiate the leaching hypothesis. Thus, to contrary, there is no reason to preliminate increased grade with depth.

There are no ore reserves of any classification on the property.

PROPOSED EXPLORATION

The exploration program as proposed by the applicant consists of a 240-foot drift to intercept the projection of the channel from the south pit and a 100-foot incline down the dip of the channel from the north pit. Suggested, but not required, is 200 feet additional incline and drifting following the bedrock walls.

No another proposals are offered because of little participation in such requirements.

CONCLUSIONS AND RECOMMENDATIONS

The Ash Spring shale group contains a substantial section of Silurian conglomerate which may be followed to a channel. The re-sults of the Bell Flight examination have demonstrated that while the channel is probably a gravelpack channel, the results received in the south to be of interest. Chemical and mineralogic analyses of samples give no indication of uranium bearing white sands, by inference, gra-vels on Bonneville grade with depth.

It is considered that the Ash Spring shale group does not contain uranium substantial of economic grade and it is recommended that the exploration for this uranium be dropped.

This report has been discussed with and approved by R. J. Davis (AEC, Salt Lake Exploration Branch).

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

RECEIVED
APR 9 - 1956

224 New Customhouse
Denver 2, Colorado

April 6, 1956

4250

Mr. E. Ward Hood
Box 428
Beaver, Utah

Dear Mr. Hood:

This will acknowledge receipt of your application on the D & D No. 1, B & D No. 2, Hot Spot No. 3, Hot Spot No. 4, and Channel Nos. 1, 2, and 3 claims.

Will you please advise the county and state in which these claims are located so that we may continue to process your application.

Yours very truly,

W. M. TRAVER

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

HMC:ab

cc: Subject
Sec. Op. Comm. (2)
Chron.

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

224 New Customhouse
Denver 2, Colorado

April 6, 1956

Mr. E. Ward Hood
Box 428
Beaver, Utah

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Will you please advise the county and state in which these claims are located so that we may continue to process your application.

Yours very truly,

W. M. TRAVER

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

HMC:ab

cc: Subject
Sec. Op. Comm. (2)
Charon.

5/21/56

RECEIVED
MAY 21 1956

May 17, 1956

Memorandum

To: S. R. Wilson

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4850 (Uranium), E. Ward Hood, (Hot Spot claims, et al.), Iron County, Utah

Enclosed please find application on Docket DMEA 4850, E. Ward Hood, Iron County, Utah.

A field examination and suitable report are required. The completed report should be sent directly to the Executive Officer, with a copy of the memorandum of transmittal to this office.

John F. Shaw

Enclosure

cc: W. M. Traver (3)
E. H. Barshman
R. W. Ostenstock
Sec. Op. Com. (2)

RECEIVED
MAY 21 1956

May 17, 1956

Memorandum

To: S. R. Wilson

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4250 (Uranium), E. Ward Hood, (Hot Spot claims, et al.), Iron County, Utah

Enclosed please find application on Docket DMEA 4250, E. Ward Hood, Iron County, Utah.

A field examination and suitable report are required. The completed report should be sent directly to the Executive Officer, with a copy of the memorandum of transmittal to this office.

JOHN F. SHAW
John F. Shaw

Enclosure

cc: W. N. Trawer (3)
E. N. Harshman
R. W. Ostertsteck
Sec. Op Grp (2)

5-18-56

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

May 15, 1956

[illegible] Mew Centenniaus
Denver 2, Colorado

Gentlemen:

For: S. F. Shaw (2) (With brochure)
R. W. Gottenstock

From: Field Team, Region III

Subject: DMEA Docket 4250 (Uranium) R. Hunt Rock, (Hot Spot claims, et al.) Iron County, Utah

Enclosed is the subject application and two sheets of additional information submitted by the Applicant. A field examination and suitable report are requested.

Enclosed for your information is a copy of a letter from the Chairman, Operating Committee dated May 10, 1956 with attached memoranda of review of the application by R. H. Nelson and John H. Crawford.

Will you please return the brochure with your Report of Examination.

DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosures

WMT:ab

cc: Chair. Op. Comm. (2)
Hutchison
Wilson
Docket 4250
Chron.

RECEIVED
MAY 17 1956

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

May 15, 1956

[illegible] New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (2) (With brochure)
R. W. Gutenstein

From: Field Team, Region III

Subject: DMEA Docket 4250 (Uranium) E. Ward Reed, (Hot Spot claims, et al.) Iron County, Utah

Enclosed is the subject application and two sheets of additional information submitted by the Applicant. A field examination and suitable report are requested.

Enclosed for your information is a copy of a letter from the Chairman, Operating Committee dated May 10, 1956 with attached memoranda of review of the application by R. E. Balsam and John E. Crawford.

Will you please return the brochure with your Report of Examination.

DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosures

WMT:ab

cc: Chair. Op. Comm. (2)
Hershman
Wilson
Docket 4250
Chron.

RECEIVED
MAY 17 1956

5-4-56

E. Ward Hood DMEA-4250 Uranium
Beaver, Utah

To Clarify letter of April 23, 1956
DMEA-4250 (Uranium)

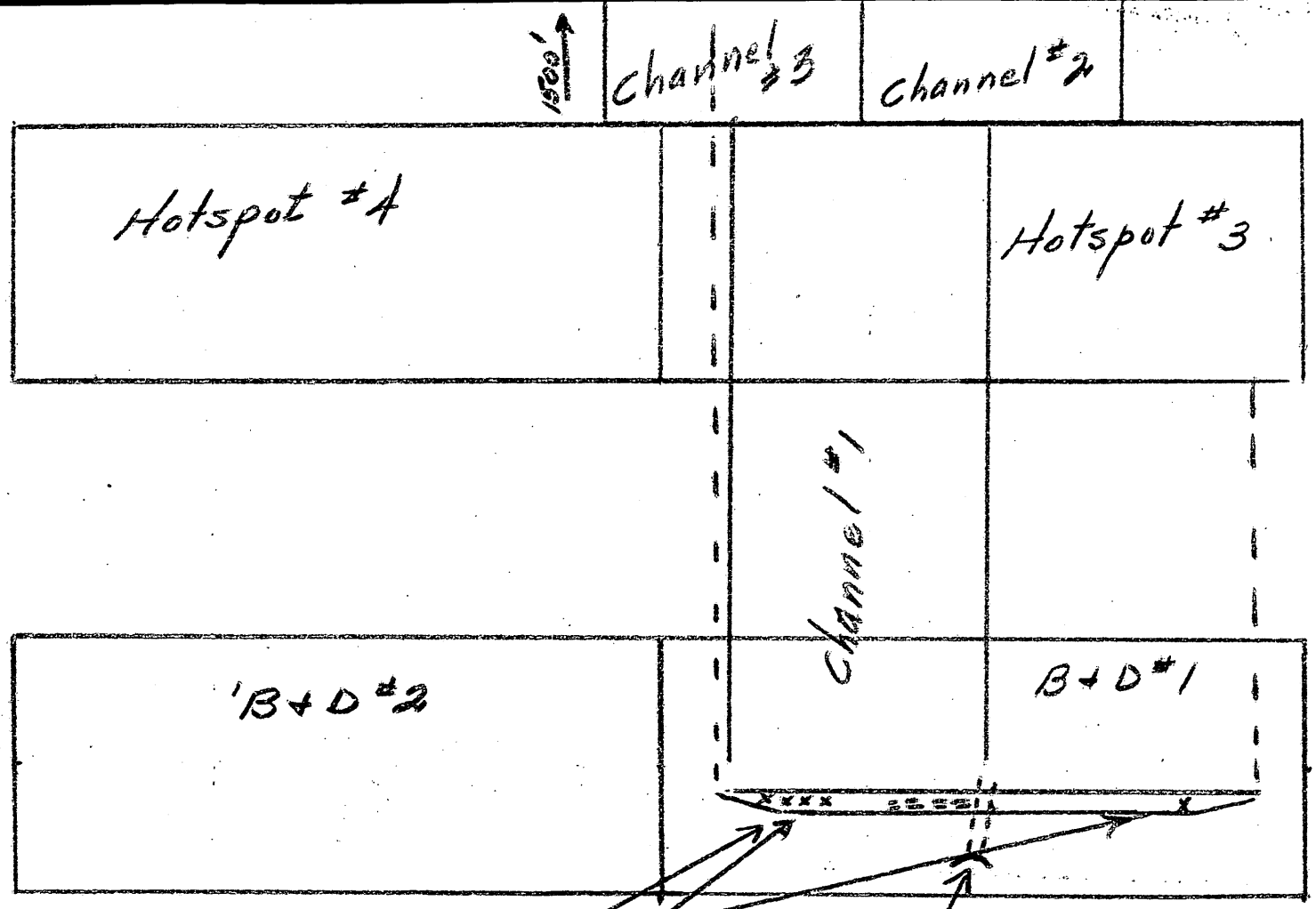
#1. Floyd Moore and Curtis Moore, as mentioned have No legal or recorded tie to these Claims. E. Ward Hood, Owner, merely made verbal deal with these men that if they made available Bulldozer and other equipment to open channel, make roads, etc. that they would receive 1/3 of any Net proceeds from operation of mine.

#3. I do Not have a copy of Geologist Carl Johnson of Denver, Colorado who was on the property for North American Exploration Co. Denver, Colorado.

The AEC Samples analyses are as follows: Assayed 1-16-56 By Olsen - St. George Utah.

	U_3O_8
#1 - Carbon Seam	.0216
#2 - S.S. Laminated Gray Carbon	.0083
#3 - Gray Sand Stone	.0083
#4 - Gray S.S. With Copper	.0066
#5 - Brown Coalified Wood	.6475

RECEIVED
MAY 4 - 1956



Samples assayed taken here

Proposed Incline here

Proposed drift here

E. Wand Head

Beaver, Utah

(Area Not Surveyed)

No. DMEA-4250

700

FILE COPY

Surname:

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

MAY 10 1956

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
22d New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4250 (Uranium)
E. Ward Reed
Hot Spot Claims, et al.
Iron County, Utah

Dear Mr. Traver:

The captioned application is referred to your office for either a field examination and report on the proposed project or your recommendations based on information available to your office.

Enclosed are copies of memoranda dated April 17 and 18, 1956, from Mr. N. E. Nelson, USGS, and Mr. John E. Crawford, BCSM, respectively, relating to the subject project. Also, enclosed is additional information submitted by the applicant consisting of one page and a pencil sketch showing the locations of the mining claims and proposed work.

If the Field Team recommends an exploration program, we will require in addition to the usual information, nine copies of a map showing the mineralized exposures, with sample locations and assay values (shown on Applicant's sketch and any additional samples taken by the examining team) and recommended work, all in relation to the boundaries of the claims.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures:

APPROVED:

/s/ Robert W. Geehan (GCS)
Director, Bureau of Mines

N. E. Nelson (GCS)
Director, Geological Survey

FLKnouse/izm 5-7-56
Cc to: Docket
Code 700
Mr. Knouse
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.C.K.

700

FILE COPY
Surname:
Thomas
Allen
Wilson
Lehan
Gillespie
Knouse

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

MAY 10 1956

Mr. E. Ward Hood
Box 428
Beaver, Utah

Re: Docket No. DMEA-4250 (Uranium)
Hot Spot Claims, et al.
Iron County, Utah

Dear Mr. Hood:

The application for assistance in exploring your property, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to:

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

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

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

FLKnouse/izm 5-7-56
cc to: Docket
Code 700
Mr. Knouse
Admr.'s Reading File
DMEA Field Team, Region III (2)

RCS.

Edward Hood DNEH-4250 Uranium
Gordon Hills

To clarify letter of April 23, 1956
DNEH-4250 (uranium)

#1. Floyd Moore and Curtis Moore, as mentioned have no legal or recorded tie to these claims. Edward Hood, owner, merely made verbal deal with these men that if they made available bulldozer and other equipment to open channel, make roads, etc. that they would receive ⅓ of any net proceeds from operation of mine.

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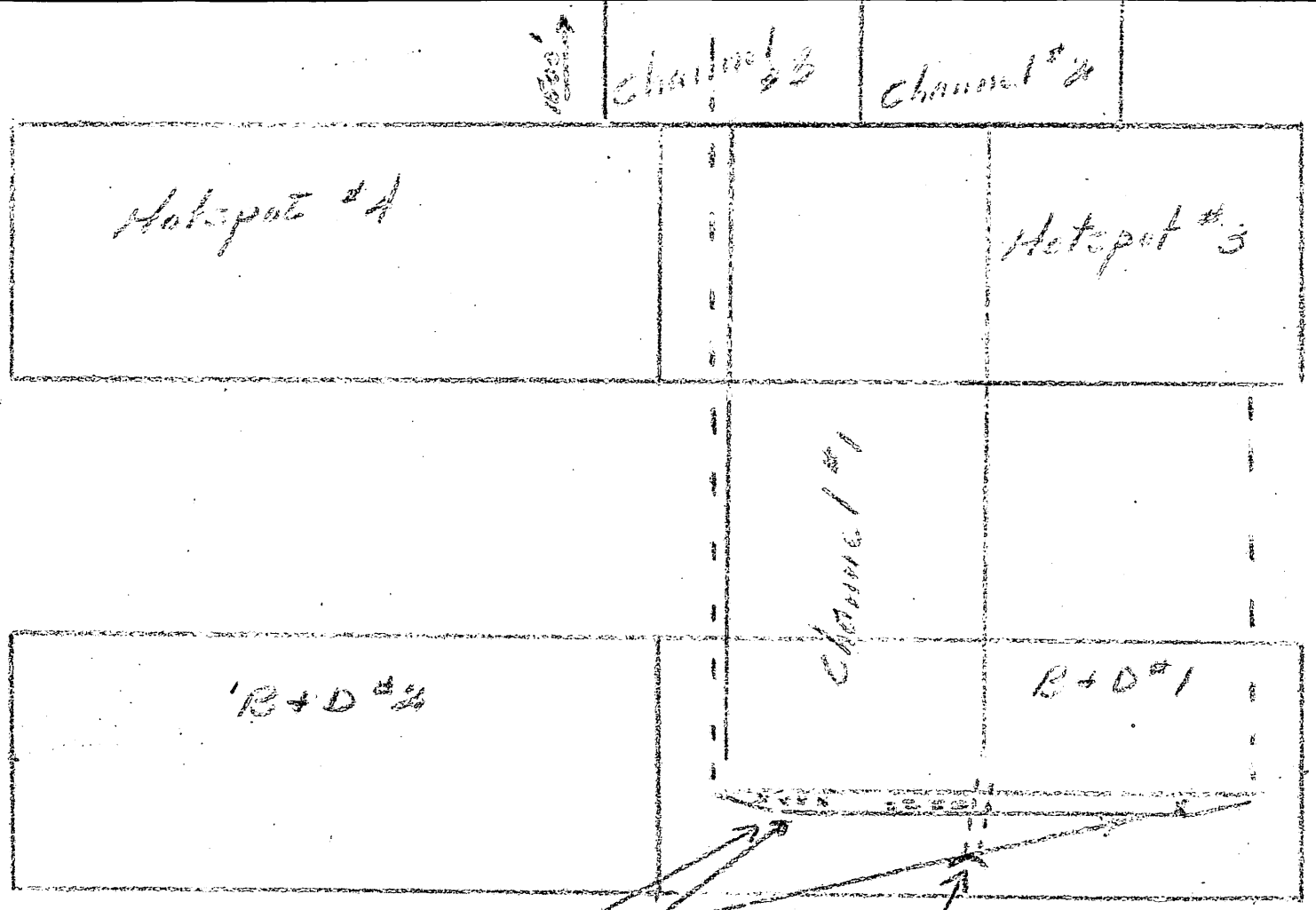
The HEC samples analyses are as follows: [illegible]

RECEIVED
MAY 4 - 1956



Samples recently taken here
Proposed incline here
Proposed drift here

E. Wind Head
Beaver, Utah
(East Side Tunnel)
No Date - 4420

RECEIVED
MAY 4 - 1956

700

FILE COPY
Surname:
F. L. Knouse
Weatherby

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

APR 23 1956

Mr. E. Ward Hood
Box 428
Beaver, Utah

Re: Docket No. DMEA-4259 (Uranium)
Hot Spot Claims, et al.
Iron County, Utah

Dear Mr. Hood:

This is with reference to your application for Government aid to explore the subject property.

In order that we may continue to process your application, please clarify and furnish the following:

1. Your application states Floyd Moore and Curtis Moore together have 1/3 interest in claims B & D Nos. 1 and 2. In this connection, we will require evidence that you control these claims by furnishing us a copy of a lease, option to purchase, or other instrument;

2. On a map or sketch, drawn to scale, show (a) the location and extent of the mineralized exposures described in the application and on the sketch attached thereto; (b) locations of samples taken with their chemical analyses, and certified assay certificates; and (c) locations of proposed adit drift or crosscut, and incline, all in relation to all the claim boundaries. It would be helpful if the sketch or map shows a tie in to a section corner; and

3. We note that you had a geologist on the property, and also that the AEC took a sample for chemical analyses. If the geologist's report and the results of the sample taken by the AEC are available, this information would be helpful and should be submitted.

You should furnish four copies of the above information to enable us to continue processing your application with a minimum of delay.

FLKnouse/izm 4-23-56

Sincerely yours,

F. L. Knouse
For: Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

cc to: Docket
Code 700
Mr. Knouse
Admr.'s Reading File
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

4-20-56

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

April 18, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

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

Subject: Application for Assistance, DMEA Docket 4250, E. Ward Hood, Iron County, Utah

I have reviewed the attached application, DMEA Docket 4250, E. Ward Hood, Iron County, Utah, dated April 13, and received in this office April 16, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The applicant requested Federal participation to explore for uranium on claims in Iron County, Utah. The proposed work includes 140 feet of drifting, 180 feet of timbering, and 100 feet of inclined shaft. The total estimated cost of the project is $9,830.

It is expected that economic grade material will be found at depth but no geologic evidence is presented in support of this theory. One sample reportedly taken by the AEC assayed 0.17 percent U_3O_8.

We recommend that the application be sent to the field team and that they consult with E. E. Thurlow, Atomic Energy Commission, Salt Lake City, Utah.

John E Crawford
John E. Crawford

Attachment

RECEIVED
APR 1 1 ...

4-18-56

IN REPLY REFER TO:

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

RECEIVED
APR 17 1956

April 17, 1956

Re: DMEA 4250
E. Ward Hood
Hot Spot, etc., claims
Iron Co., Utah
$9,830.00 - Uranium

Memorandum

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

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

Subject: Review of application

The applicant requests assistance in exploring by drifting and incline shaft the down-dip extension of a radioactive outcrop, believed to be that of a Chinle-Shinarump channel.

The propsect is not located, except by county (Iron), but is 1½ miles from a paved road, probably Route 91.

The limited data given in the application indicate radioactive material has been found but no systematic sampling has been done. Leaching is supposed, by the applicant, to have lowered the uranium content of the outcrop material and the work is designed to test the strata, which dip at 45°, at a depth of about 125 feet.

The proposed work consists of:

Drifting 140 feet @ $20.00	$2,800.00
Timbering 80 feet @ $6.00	480.00
Incline 100 feet @ $30.00	3,000.00
Timbering 100 feet @ $6.00	600.00
Tool and change room	600.00
Geological service	400.00
Supervision	1,200.00
Bulldozing	750.00
Total	$9,830.00

The unit costs of drifting and sinking (incline drifting) are lower than usual for the general area.

Referral to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

RECEIVED
APR 17 1956

April 17, 1956

Re: DMEA 4250
E. Ward Wood
Hot Spot, etc., claims
Iron Co., Utah
$9,830.00 - Uranium

A
Memorandum

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

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

Subject: Review of application

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Referral to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

NENelson:btr
G 4/17/56

cc: Director's Reading File (4212) GSA
DMEA (3)
Branch Reading File (4212) GSA
Chron. File
Docket File
John K. Crawford, Rm. 3641
J. O. Hosted, Rm. 3210 GSA

April 16, 1956
Subject: DMEA-4250
Re: Exploration Assistance
B & D, Hot Spot, & Channel Claims

Mr. E. Ward Hood
Box 428
Beaver, Utah

My dear Mr. Hood:

The receipt of your application dated March 25, 1956, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4250 and referred to the Rare & Misc. Metals Division.

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

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

April 13, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

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 III.

DMEA - 4250 E. Ward Hood

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

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

RECEIVED
APR 13 1956

April 10, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Application for DMEA Aid (Uranium), E. Ward Hood, (B & D, Hot Spot, and Channel claims), Iron County, Utah

Enclosed are three copies of the subject application in the amount of $9,830.00. One copy of the application is being retained in our file.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

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

RECEIVED
APR 13 1956

April 10, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Application for DMEA Aid (Uranium), E. Ward Hood, (B & D, Hot Spot, and Channel claims), Iron County, Utah

Enclosed are three copies of the subject application in the amount of $9,630.00. One copy of the application is being retained in our file.

DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA
Date Rec'd. APR 6 1956

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

RECEIVED
APR 13 1956
BUREAU OF MINES

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

Not to be filled in by applicant

Docket No. DMEA-4250
Metal or Mineral Uranium
Date Received 4-13-56
Estimated Cost $9,830.00
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: E. Ward Hood
Box 428
Beaver, 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.

(*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
B & D No. 1; B & D No. 2; Hot Spot No. 3; Hotspot No. 4; Channel No. 1, No. 2, No. 3; Iron County, Utah

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

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

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

(*e*) If you own the land, describe any liens or encumbrances on it None

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

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

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

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

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

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

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

(*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 60 days and be completed within 12 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

☑ Money ☑ Use of equipment owned by you ☐ Other labor, + Supervision

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 March 25, 1956

E Mard Hood
(Applicant)

By

Beaver, Utah

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

E. Ward Hood
Beaver, Utah

NOTES

1. Floyd Moore and Curtis Moore, together have 1/3 interest in claims B & D No.1 and No. 2. (They are owners of a contracting firm, out of Ogden, Utah).

3(f). B & D No. 1 and No.2. Book N Page 6 ——— May 1954
Hotspot No. 3. Book O Page 327 } June 1955
Hotspot No. 4. Book O Page 328 }
Channel No. 1, No. 2, No. 3. January 1956

RECEIVED
APR 13 1956

4.(a) Used bulldozers to expose channel and blasted to aid in doing this. Channel is now accessible by paved road to within 3/4 mile. Can drive to within 1000 feet of it off the highway. Have a "cat" road to channel.

4.(b) Hand samples ranged to 1.80% radiometric.

4.(c) The channel is up to about 40 feet thick and 1000 feet wide in the base of the chinle and shinarump formation. The whole series of formations are thrown up and tip downward at about a 45 or better. There are copper iron and other mineralization along with formation. Much carbonized trash and wood in channel, too.

One geologist we had on the property, explained that on account of the inclination of formation, the elements had leached values out and downward so that a minimum depth of around 80 feet would be needed to get into values not in leaching action. The values we are finding bear this out as they are found under big slabs of sandstone protected from water action.

The A. E. C. took a sampling for chemical assay which went .17% U_3O_8.

4.(d) Practically on paved road 1½ miles from railroad and by paved road 110 miles from buying station at Marysvale, Utah.

4.(e) All supplies, water, and power are within one mile.

5.(b) From a point below, we propose drifting in about 140 feet to intercept channel at a depth of about 125 feet. At another point to follow channel downward and explore up to 100 feet. Then, if indications warrant, to explore another 300 feet of incline and drift in channel.

5.(d) The applicant has had several years experience construction work, some mining and been in the hardware and machinery retailing business ten years. His partners are earth moving contractors. The applicant E. W. Hood can supervise the work.

6. Contract excavation

Initial drift, and Incline.	drift—	140 feet @ 20.00	$2800.00	
	Timber—	80 feet @ 6.00	480.00	
	Incline—	100 feet @ 30.00	3000.00	
	Timber ~~Incline~~	@ 6.00	600.00	
				$6880.00
Tool and Change Room				600.00
Possible Geological Service				400.00
Supervision				1200.00
"Cat" rental @ $12.00 per. Hr. (estimated)				750.00
				$9830.00

TF-103
(Revised April 1952)

DMEA
Date Rec'd. APR 6 1956
Form Approved.
Budget Bureau No. 42-R1035.2.

Crawford 4-16-56

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
APR 13 1956
BUREAU OF MINES
Denver, Colorado

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

Not to be filled in by applicant

Docket No. DMEA-4250
Metal or Mineral Uranium
Date Received 4-13-56
Estimated Cost $9,830.00
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: E/ E. Ward Hood
Box 428
Beaver, 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.

(*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.

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B & D. No. 1; B & D No. 2; Hot Spot No. 3; Hotspot No. 4; Channel No 1, No. 2 and No. 3. Iron County, Utah

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Dated March 25, 1956

E. Mark Hood
(Applicant)

By

Beaver Utah

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E. Ward Hood
Beaver, Utah

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3(b). B & D No. 1 and No. 2. Book F Page 6 — May 1954
Lode set No. 3. Book O Page 327 } June 1955
Lode set No. 4. Book O Page 328 }
Channel No. 1, No. 2, No. 3. January 1956

4.(c) Good bulldozer to open channel and bladed to fill in doing this. Channel is now accessible by gravel road to within 3/4 mile. Can drive to within 1000 feet of it off the highway. Have a "jeep" road to channel.

4.(b) Land supplies ranged to 2.85 millionaire.

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6. Contract exploration

Initial drift, and Incline	drift- 140 feet @ 20.00			(2800.00)
	Slant- 65 feet @ 6.00			390.00
	Incline-100 feet @ 30.00			3000.00
~~Incline Timbering~~		@ 6.00		(600.00)
				(7790.00)
Tool and Change Room				(50.00)
Possible Geologist Service				(50.00)
Supervision				1200.00
"Jeep" rental @ (12.00) per. hr. (estimated)				720.00
				(9810.00)

B & D #1

Top of formation — looking East

Anticline below 200'

Shale

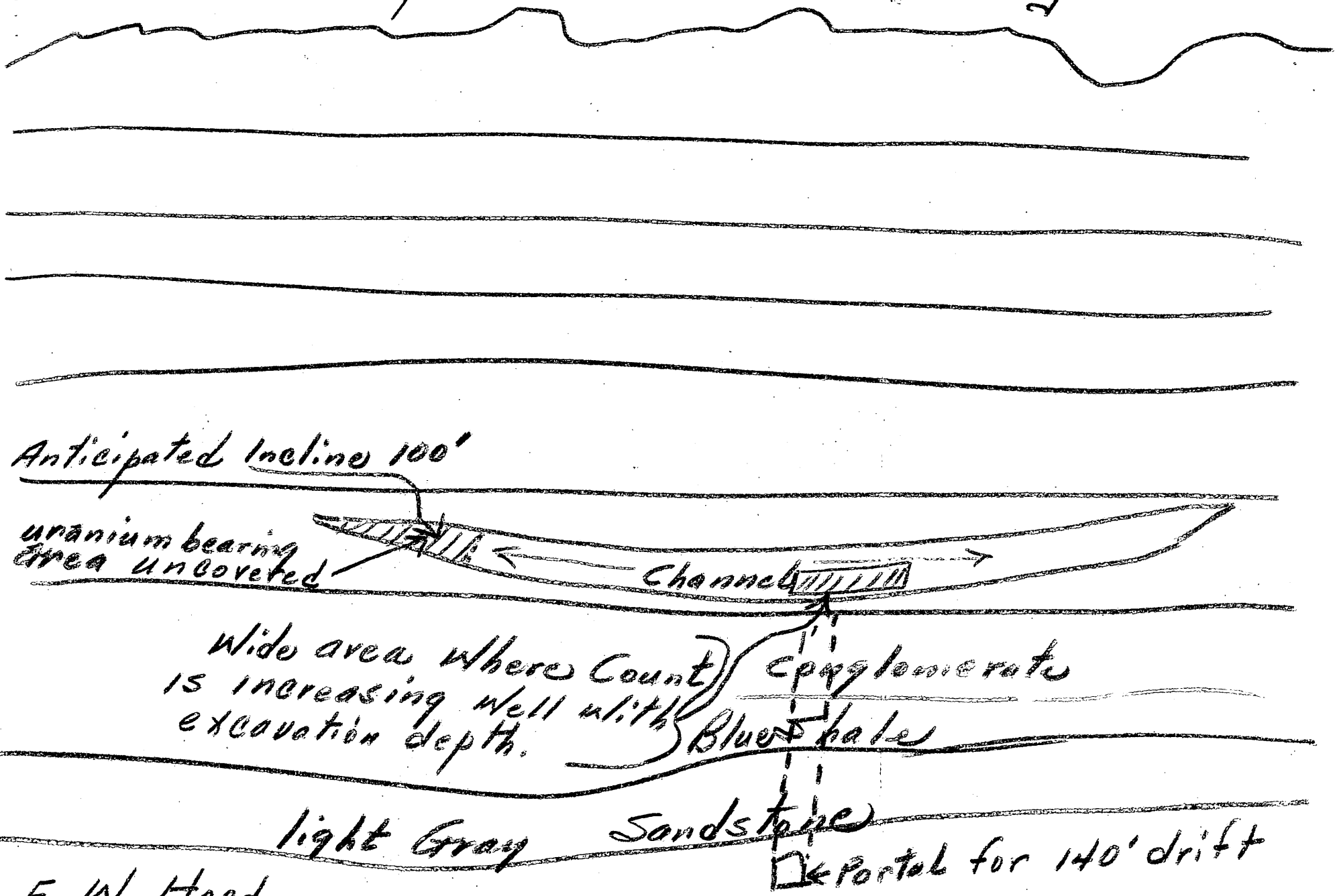
light Gray

E. M. Hood
Denver, Colo

(over)

B & D #1

Top of Formation – Looking East



E. W. Hood
Beaver, Utah

(over)

(over)

Looking North B+D #1

West ⟷ East

Vertical ↕ Horizontal

Excavation With Bulldozer

Sandstone

Shale (Blue)

Light Gray

Sandstone

Channel (Yellow)

Sandstone with Pyrite Streaks

Sandstone with Carbonaceous Streaks

Portal for Drift

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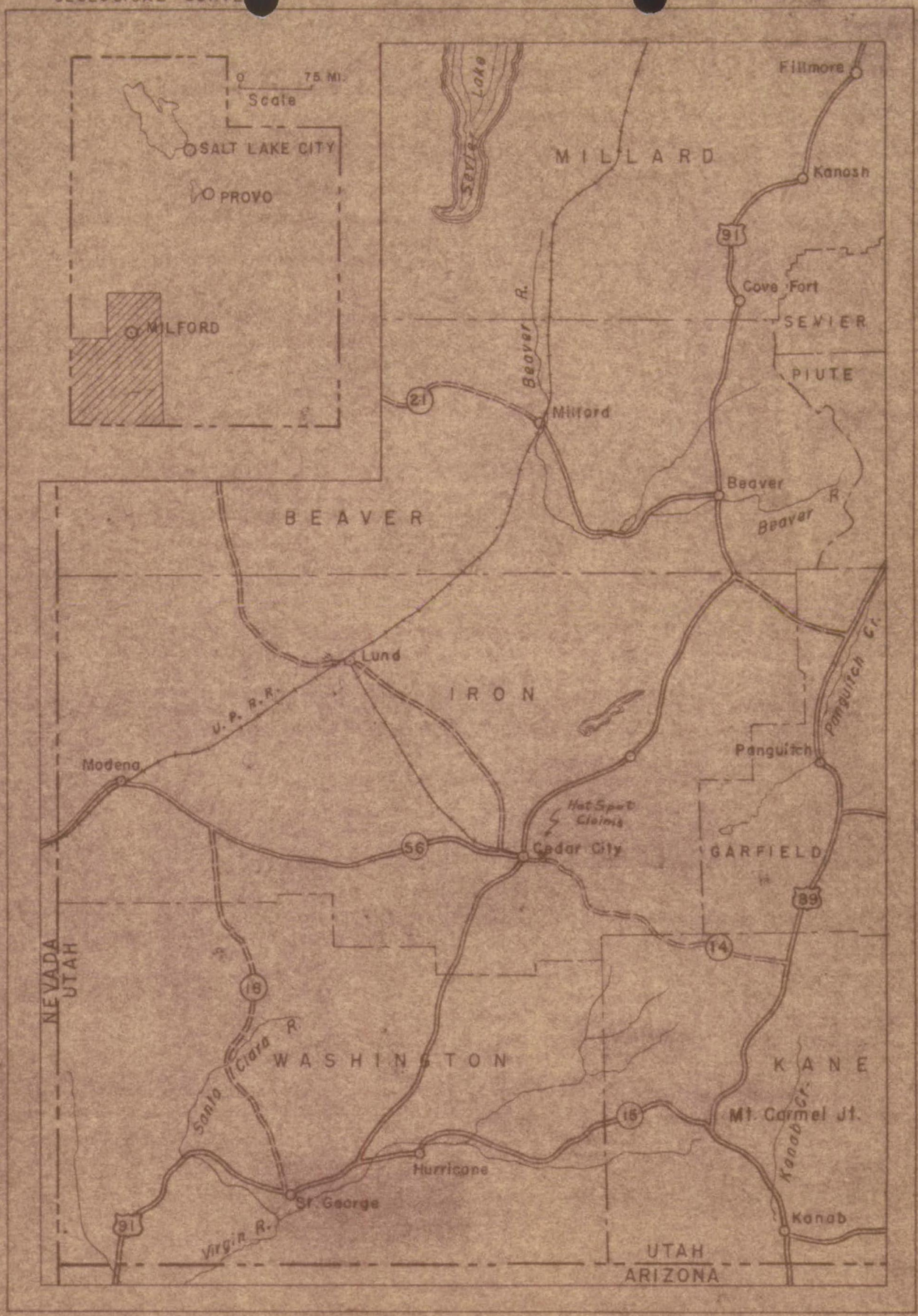

FIG. 1 INDEX MAP OF UTAH

0 5 10 15 20 MILES
Scale

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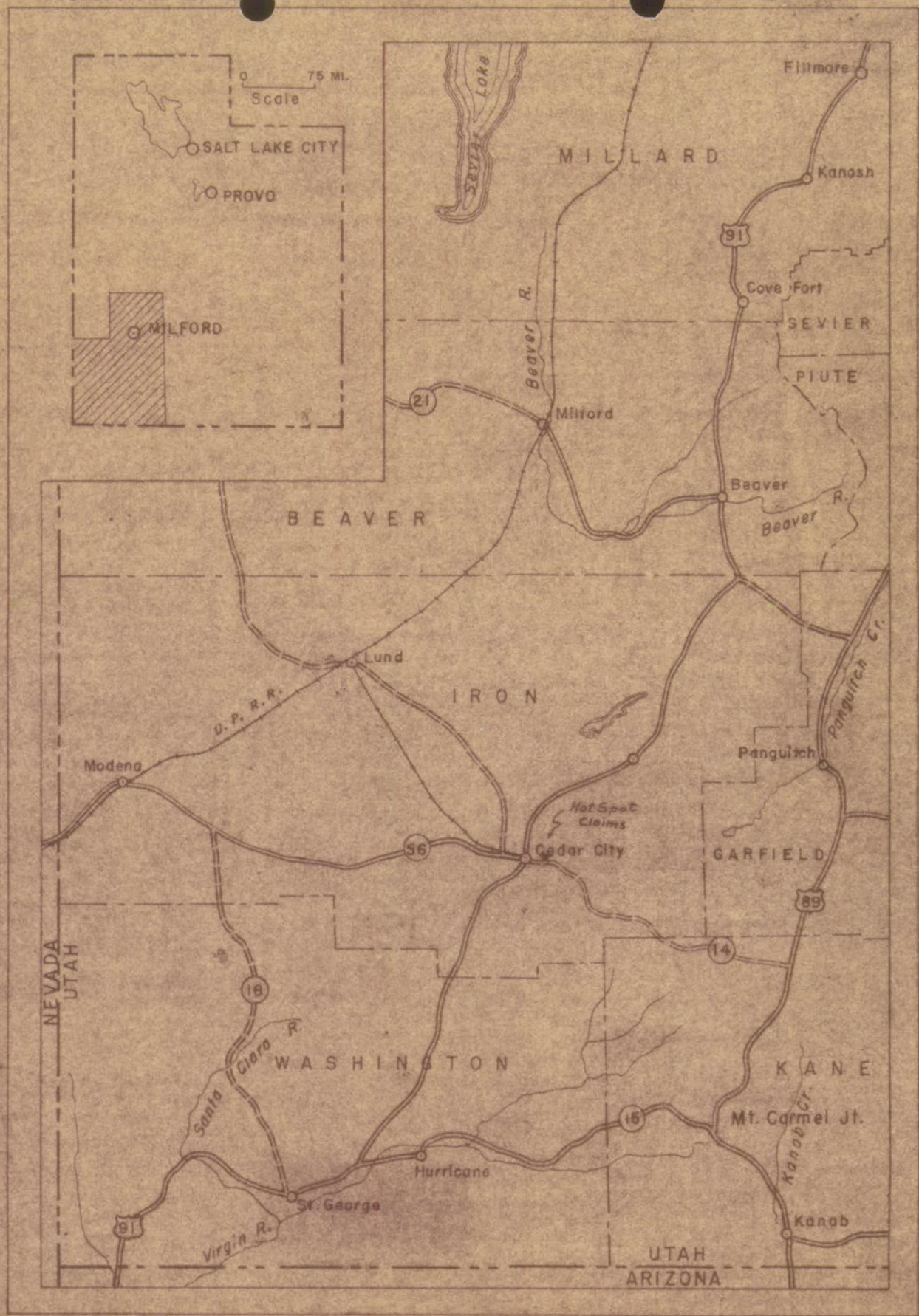

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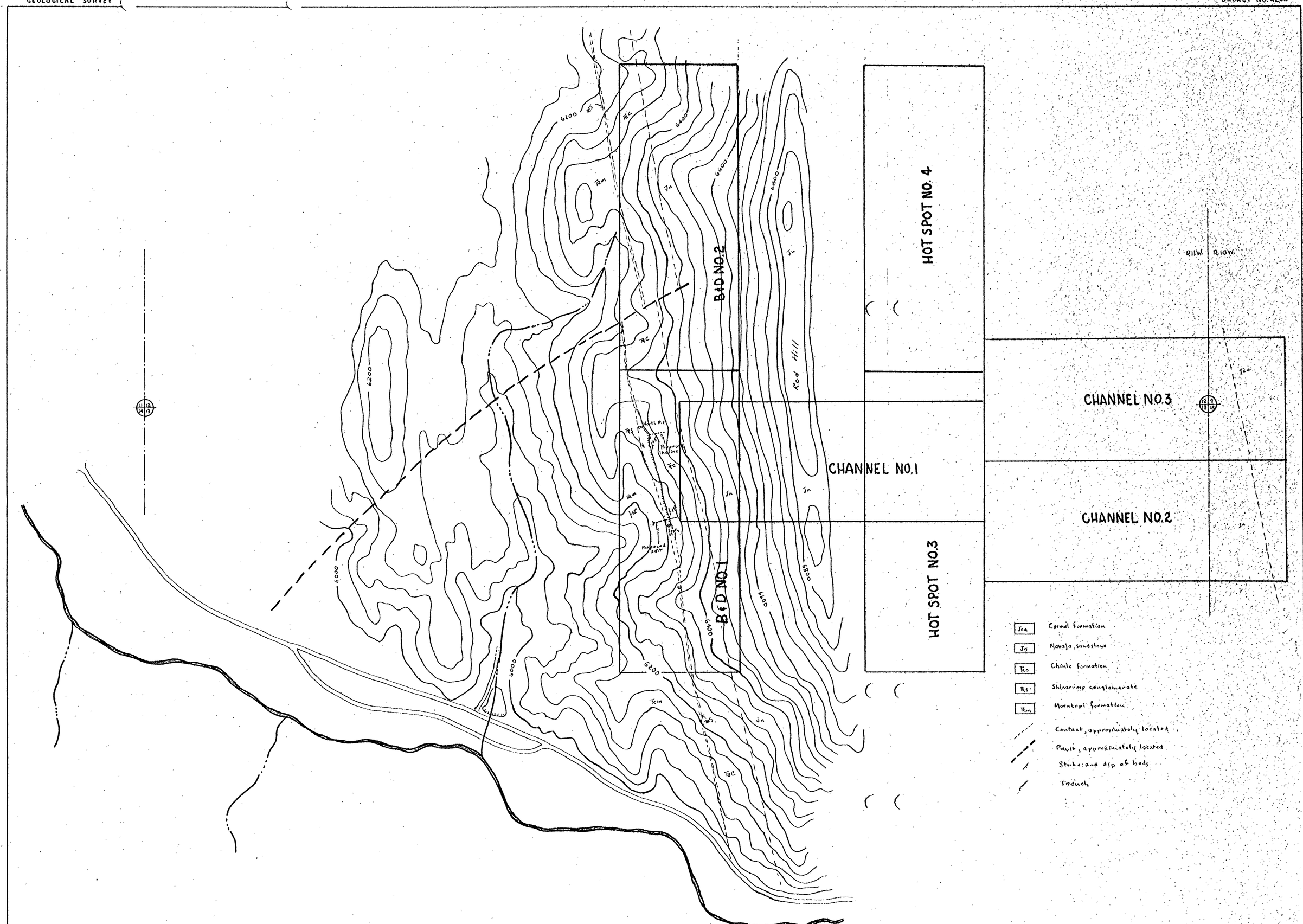

FIG 2.

CLAIM 1 GEOLOGIC SKETCH MAP OF HOT SPOT CLAIM GROUP, IRON COUNTY, UTAH

Contour Interval 40 feet

Regional Geol. office Geography
Topog. by USGS