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FILE COPY
Surname:
Ching
Hess
Gerhon
Kielgaard
Selledge
Johnson

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

Mr. Leon Adams
Monticello, Utah

JUL 10 1956

and

Mr. Edward Saul
Fullerton, California

Re: Docket No. DMEA-4095 (Uranium)
Black Lizzard Property
San Juan County, Utah

Dear Sirs:

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

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

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

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

Sincerely yours,

G. O. Mittendorf

Administrator

MChing/izm 7-5-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
Operating Committee
cc to: Mr. Saul
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3043
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.S.

Docket Copy

Ching
Ellis

July 5, 1956

Summary of Proposed Project

Object: Denial of application for an exploration project

Docket No.: DMEA-4095

Commodity: Uranium

Applicant: Leon Adams and Edward Sal
Monticello, Utah

Property: The application is not clear as to the claims to be included. The following 53 claims are listed under 3(f) of the application: Red Lizzard, Red Lizzard 1 - 7, Red Lizzard 11 - 21, Black Lizzard 3 - 36. The map accompanying the application also includes Red Lizzard 8, 9, 10, 22 and 23, and Black Lizzard 37 - 48. Some drilling is proposed on Red Lizzard 10. The claims are located in secs. 7, 8, 17 and 18, T. 37 S., R. 15 E., and sec. 12, T. 37 S., R. 14 E., S.L.M.&B., San Juan County, Utah. Applicant is the owner.

Date of Application: November 29, 1955

Amount of Application: $98,990.00

Work Proposed: Explore a number of Shinarump channels by plug bit and core drilling 100 holes aggregating 35,000 feet. (Application is inconsistent in estimating total of 25,000 feet in the text and 35,000 feet in the costs.) Estimated costs follow:

4 miles bulldozing @ $1500/mile	$6,000.00
35,000 ft. plug bit & core drilling	80,750.00
Labor, supervision, consultants	9,000.00
Miscellaneous costs	1,240.00
Contingencies	2,000.00
Total	$98,990.00
Government participation @ 75%	$74,242.50

Field Team Report: June 5, 1956. F. M. Byers, Jr., USGS
M. H. SAlsbury, USBM

The potential ore-bearing formation in the area is the Shinarump member of the Chinle formation.

Work completed prior to the application consists of a 25-foot adit and rim stripping on an outcrop, and 8 wagon-drill, 1 non-core and 26 core holes drilled in the vicinity of an exposed channel. Records of the drilling were poorly kept and were of little use in appraising the property, however, the most encouraging hole contained only 1 inch of uraninite-bearing carbonaceous sandstone. A mineralized exposure in the adit contains an estimated .08% eU_3O_8. through a thickness of one foot and along a length of 10 feet across the bottom of the only well-exposed channel. This channel has a scour of only 5 feet in comparison with the 18-foot scour of the ore-bearing Blue Lizard channel about a mile to the southeast (See Docket 3093). The latter channel trends in a northeasterly direction and would not enter the subjedt property except, perhaps, in the extreme easterly section where accessibility is very poor and depth of drilling would be great.

It is concluded that the Shinarump channels on the property, as determined from rim exposures and the results of previous drilling, are shallow and only weakly mineralized. There appears to be little possibility of finding significant channel deposits on the property and it is therefore recommended the application be denied.

Commodity Group Comments:

U. S. Geological Survey, N. E. Nelson, June 19, 1956

Agrees with the examiners' conclusion that there appears to be little possibility of finding significant uranium-bearing channel deposits by the proposed project. Believes that holes drilled in the easternmost part of the property, though deep and of a prospecting nature, might prove interesting. Concurs with the recommendations for denial.

U. S. Bureau of Mines, James Paone, June 21, 1956

Discussed the report of examination with the AEC representative. Concurs in the recommendation that the application be denied because the poor results of the drilling to date and the shallow channel scour indicate that the possibility of finding a uranium ore deposit ~~in~~ remote.

Rare & Miscellaneous Metals Division, Michael Ching, July 5, 1956

The drilling to date and rim exposures, while confined to a comparatively small area of the property, are not encouraging. There is a possibility that the productive Blue Lizard channel might swerve sufficiently, over a distance of 4000 feet, to enter the eastern part of the property, but an exploration project based upon this possibility does not appear to be justified. Denial of the application is in order.

Conclusions and Recommendations:

The chances of making a significant discovery on this property are not good. It is recommended that the application be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

6/22/56 ai

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

June 21, 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, DMEA Docket 4095 (Uranium), Leon Adams and Edward Saul, (Red Lizzard and Black Lizzard claims), San Juan County, Utah

I have reviewed the report of examination, DMEA Docket 4095, Leon Adams and Edward Saul, (Red Lizzard and Black Lizzard claims), San Juan County, Utah, dated June 5, and received in this office June 14. 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 poor results of the drilling to date and the shallow channel scour indicate that the possibility of finding a uranium ore deposit is remote.

We concur in the recommendation that the application for exploration assistance be denied.

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

James Paone

James Paone

RECEIVED
JUN 22 1956

6/20/56 G. S.

IN REPLY REFER TO:

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

RECEIVED
JUN 20 1956

June 19, 1956

Re: DMEA 4095
Leon Adams and Edward Saul,
Red Lizzard and Black
Lizzard claims
San Juan County, Utah
$98,990.00 - Uranium

Memorandum

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

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

Subject: Review of Field Team report.

The applicants requested assistance in exploring by plug and core drilling a large group of claims underlain by Shinarump conglomerate itself underlain unconformably by the Moenkopi formation. The property adjoins the Blue Lizard property one of the better producers in the White Canyon-Red Canyon district.

The applicants have done drilling on the property but no collar elevations were determined and no logs of the holes kept so the information is practically valueless. One hole showed one inch of ore grade material. In addition to the drilling an adit 25 feet long has been driven and rim stripping done. The adit explores a shallow channel. No significant mineralization was met in the adit and the examiners consider the channel fill is too thin, about 5 feet, to be ore bearing.

I agree with the conclusion of the examiners that "There appears to be little possibility of finding significant uranium-bearing channel deposits by the proposed project." Holes drilled on the Red Lizzard, B 7 and R 5 claims, though deep might prove interesting but such drilling would also be prospecting.

I concur with the recommendation of the examiners and the Field Team that the application be denied.

N. E. Nelson

N. E. Nelson

6-18-56

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

June 8, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 4095 (Uranium) Leon Adams and Edward Saul, (Red Lizzard and Black Lizzard claims), San Juan County, Utah

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

The field examiners conclude that there is little possibility of finding a significant amount of uranium ore by the Applicant's proposed program or any alternative exploration program. 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
6-15-56
(date)

MINERAL DEPOSITS
IN REPLY REFER TO:
DMEA
RECEIVED
MAY 18 1956
GEOLOGICAL SURVEY
DENVER, COLORADO
DMEA
Date Rec'd.
JUN 7 1956
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

TRANSMITTED

P. O. Box 300
Grand Junction, Colorado

JUN 6 1956

May 15, 1956

Mem randum

To: Executive Officer, DMEA Field Team, Region III

Through: A. R. Hansmann
J. William Mosier
John F. Shaw

From: F. M. Byers, Jr.

Subject: DMEA Project 449, (Uranium), Lone Cinder and Reward Group (Red Lizard and Black Lizard claims), San Juan County, Utah.

Transmitted herewith is a joint report on the Red Lizard and Black Lizard claim groups by F. M. Byers, Jr., U. S. Geological Survey, and M. R. Salsbury, U. S. Bureau of Mines. Lone Cinder and Reward Group partners have applied for $242.50 under DMEA. They propose 150 drill holes totaling 2,000 feet of core drilling and 2,000 feet of core drilling to explore for Triassic Shinarump channels on part of the Red Lizard and Black Lizard claims. Part of their proposed exploration is based on a mistaken assumption that the ore producing Blue Lizard channel which lies on the Blue Lizard property to the southeast, extends northwesterly on the applicant's ground.

The applicants have already done considerable drilling in the vicinity of Shinarump outcrops, but no precise elevations were kept on drill holes and collars and drill logs were kept. The drilling, therefore, is inclusive in demonstrating continuity of channels back of the outcrops of the previous drilled to date. We are mineralized through a calcareous [illegible] mineralized exposure at a depth of [illegible] feet on the [illegible] through a calcareous [illegible] feet below the outcrop of the only well exposed channel. This channel has a width of only [illegible] feet in comparison with the 10 to [illegible] feet of the bearing Blue Lizard channel.

Because of the poor results of the drilling to date and the small channel width, the examining team concludes that the possibility of finding a commercial deposit by the applicant's proposed program of exploratory exploration program is remote. They, therefore, recommend that the applicant's for DMEA assistance under Project 449 be denied. I concur with the recommendation of the examining team.

Encl. Two (2) copies of figure 2 and the applicant's structure.

Reviewed by
DMEA OPERATING COMMITTEE
6-15-56
(date)

F. M. Byers, Jr.
F. M. Byers, Jr.
Geologist

FMB:ab
Encl. Three

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DMEA
Date Rec'd.
JUN 7 1956
BUREAU OF MINES
Denver, Colorado

DEFENSE MINERALS EXPLORATION ADMINISTRATION

JOINT REPORT OF EXAMINATION BY EXAMINING TEAM
REGION III

TRANSMITTED
JUN 8 1956

DMEA 4095

LEON ADAMS AND EDWARD SAUL

Red Lizzard and Black Lizzard claims

San Juan County, Utah

Uranium

Joint Engineering and Geologic Report

By

Reviewed by
DMEA OPERATING COMMITTEE
6-15-56
(date)

F. M. Byers, Jr., Geologist
Geological Survey

M. H. Salsbury, Mining Engineer
Bureau of Mines

June 5, 1956

DMEA 4095

LEON ADAMS AND EDWARD SAUL
RED LIZZARD AND BLACK LIZZARD CLAIMS
SAN JUAN COUNTY, UTAH

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ILLUSTRATIONS

Figure — Follows Page

1. Location map, Black Lizzard and Blue Lizard Claims, Leon Adams, San Juan County, Utah, DMEA 4095 3

2. Sketch map showing geology and drill holes on Red Lizzard and Black Lizzard claim groups, Red Canyon, San Juan County, Utah ... 11

TABLES

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1. Production and ore reserves of the Blue Lizard (Red Canyon No. 2) Mine, Red Canyon, San Juan County, Utah (AEC records up to 10/1/55) 6

DMEA 4095

LEON ADAMS AND EDWARD SAUL
Red Lizzard and Black Lizzard Claims
San Juan County,
Utah

INTRODUCTION AND SUMMARY

On December 9, 1955, Leon Adams and Edward Saul, Monticello, Utah, applied for Defense Minerals Exploration assistance to explore for uranium ore on 53 claims of the Red Lizzard and Black Lizzard groups in Red Canyon, San Juan County, Utah. The proposal calls for 29,000 feet of non-core drilling, and 6,000 feet of core drilling in 100 holes at an estimated cost of $98,990.00; Government participation at 75 percent would be $74,242.50.

The property was examined on February 7, 1956 by a DMEA examining team accompanied by Leon Adams and Edward Saul, the partners submitting the application.

The 53 claims were located by Leon Adams in October and November 1954. The applicant states that the Cliff claims, located by Clifford Ewell, and the Ked claims, located by Julian Thomas conflict with some of the applicant's claims, but that the applicant's claims were located first. The extent of the conflicts has not been determined. No location notices for the conflicting claims were found in the field, and no record of them was found in the San Juan County Courthouse by the DMEA engineer.

The property is on the gently dipping west flank of the Monument upwarp, adjoining the Blue Lizard claims which lie to the south and east. The Blue Lizard mine is one of the better producers in the White Canyon-Red Canyon district.

The potential ore-bearing formation in this area is the Shinarump member of the Upper Triassic Chinle formation. The Shinarump member has been deposited unconformably in stream channels cut into the Lower Triassic Moenkopi formation. Commercial ore deposits are found in channel scours filled with Shinarump conglomerates and mudstones.

The more significant ore bodies in the upper Red Canyon and White Canyon mines are found in channel scours greater than 5 feet deep. The Blue Lizard ore bodies are in a channel 400 feet wide with a scour as much as 18 feet. There is at least one exposed channel on the applicant's property, possibly two others; one is tentatively outlined by drilling on the Black Lizzard 9 claim, and another possibly the same channel, is very poorly exposed on the Red Lizzard 18 claim (fig. 2). A possible third channel is claimed by the applicant on the basis of drilling on the Black Lizzard 9 claim. The known channel is less than 100 feet wide with a maximum scour of only 5 feet. The best exposure is on the Red Lizzard 17 claim.

Considerable drilling has been done on the Black Lizzard 8, 9, 10 and 11 claims by the applicant, but no drill logs of hole were made, and an appraisal of the property must be made on the basis of evidence other than that furnished by the applicant.

By comparison with the outcrop and underground exposures at the Blue Lizard mine, the known channel on the applicant's property is narrow and shallow. The mineralization in the channel outcrop on Red Lizzard 17 claim is very weak compared to that which was found in the Blue Lizard outcrop, and uranium-bearing material in the core of one drill hole, while of ore grade, is less than one inch in thickness, with no other mineralization above or below. Contrary to the applicant's assumption, the known productive channel at the Blue Lizard mine trends slightly east of north and is not likely to cross the Black Lizzard and Red Lizzard claims in an area where exploration is feasible.

It is concluded that there is little chance for discovery of significant amounts of ore by the proposed exploration, and denial of the application under DMEA 4095 is recommended.

ACKNOWLEDGMENTS

Data furnished by the applicant included a claim map and a cost estimate with one bid from a drilling contractor. No drill-hole logs were kept on previous drilling and very little data on previous exploration was presented. Very poorly marked cores from previous drilling were available for study. R. J. Cronk, S. J. Goldenstein, and Harry M. Dahl of the Atomic Energy Commission and R. T. Chew III, of the Geological Survey were consulted. AEC report TEIR 7 by Granger and Beroni on the Blue Lizard mine and reports covering the exploration project under DMEA 3093, Contract Idm-E641, were also available.

LOCATION, TOPOGRAPHY, AND CLIMATE

The Black Lizzard and Red Lizzard claims are in Red Canyon in secs. 7, 8, 17, 18, T. 37 S., R. 15 E., and sec. 12, T. 37 S., R. 14 E., Salt Lake meridian, San Juan County, Utah (figs. 1 & 2). They are 23 miles from the Atomic Energy Commission camp at the junction of the Red Canyon access road and Utah state Highway 95, a graveled road. It is 48 miles further to Blanding, Utah, and 257 miles to Grand Junction, Colorado, the nearest source of supplies (fig. 1).

The Chinle formation forms a steeply sloping surface over most of the property. A high rather inaccessible mesa to the north and east is topped by the Wingate formation (fig. 2). The topography is rugged and the climate arid. Year-around operation is feasible.

Water for domestic and mining use is hauled from springs and run-off catch-basins. In this isolated region, transportation costs are high, but there are no unusual problems of supply, power, or labor. The nearest ore

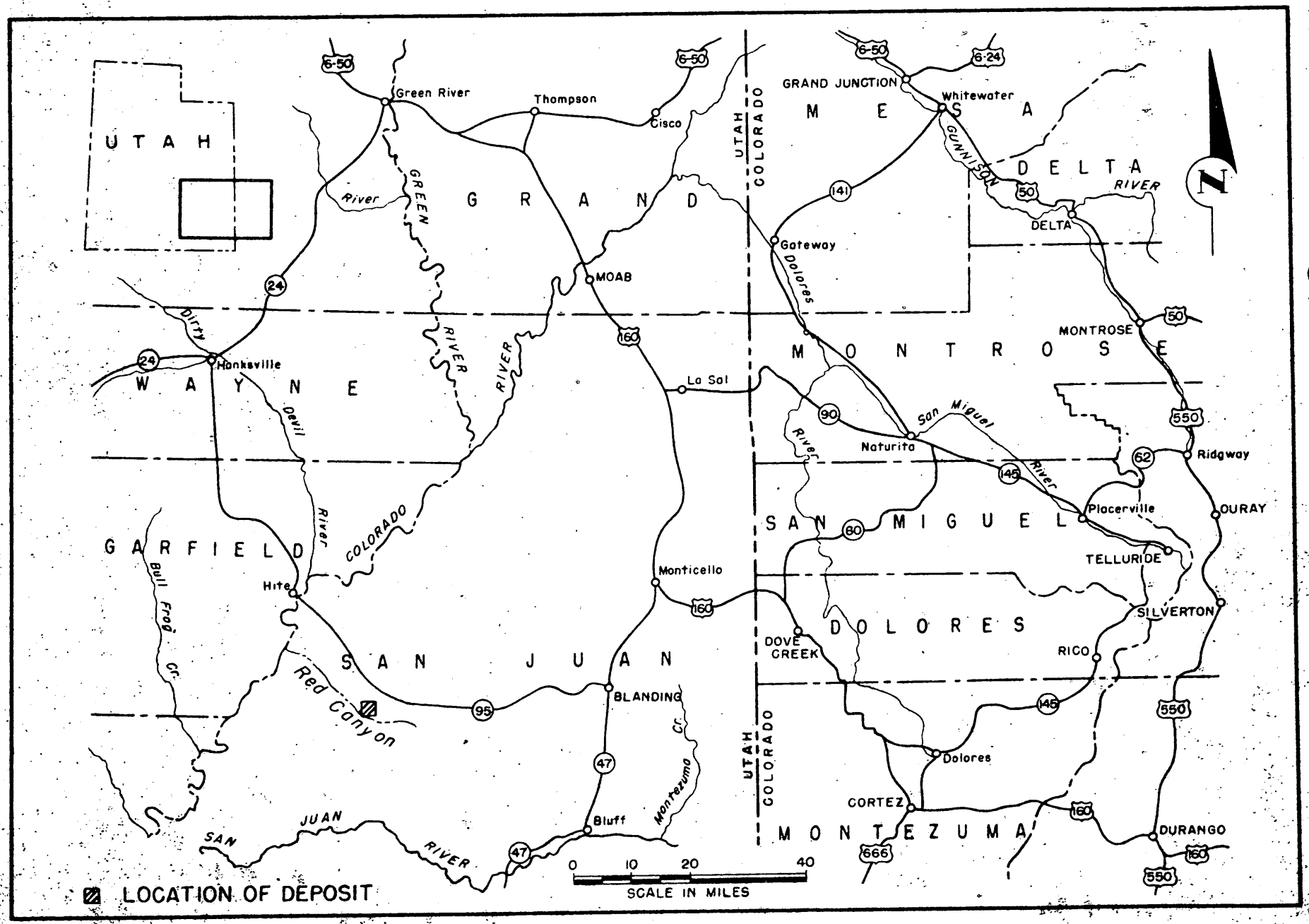


FIGURE 1 - LOCATION MAP, BLACK LIZZARD AND BLUE LIZZARD CLAIMS, LEON ADAMS, SAN JUAN COUNTY, UTAH.
DMEA 4095

buying station is White Canyon, Utah, but shipments are also direct to the treatment plant at Monticello, Utah, a distance of 93 miles from the property.

HISTORY AND OWNERSHIP

Exploration of the Red Canyon area for uranium dates from 1950. The Atomic Energy Commission and private operators have carried on extensive drilling projects in the vicinity of the subject claims, but notably on the Blue Lizard property. There are now many producing mines.

The 34 Black Lizzard and 19 Red Lizzard claims included in the application are on the west and south sides of the Blue Lizard property (fig. 2). They are part of a group of 70 claims (fig. 2) filed by Leon Adams in October and November 1954 at the San Juan County Courthouse, Monticello, Utah. A brief field check did not reveal any irregularities in location procedures. No evidence of conflicting locations was found. However, the applicant stated that the Cliff claims located by Clifford Ewell, and the Ked claims located by Julian Thomas, had been staked over part of his ground at a later date. The extent of the overstaking is unknown because claim corners were not found, and the DMEA examining engineer could not identify any claims in the county records corresponding to the Cliff and Ked claims, It is not believed the later claims are valid.

Following is a summary of recording data on the Black Lizzard and Red Lizzard claims:

Claim	Discovery date	Recorded Book	Recorded Page
Red Lizzard, Red Lizzard Nos. 1, 3, 4, 5, and 6	Oct. 2, 1954	221	269-272
Red Lizzard No. 2	Oct. 29, 1954	221	270
Red Lizzard No. 7	May 1, 1955	315	155
Red Lizzard Nos. 11,12,& 13	Nov. 1, 1954	231	28-29
Red Lizzard No. 14	Nov. 1, 1954	235	355
Red Lizzard Nos.15,16,17,18 & 19	Oct. 16, 1954	231	30-32
Red Lizzard Nos. 20 and 21	Nov. 2, 1954	235	356
Black Lizzard Nos.3 thru 9	Oct. 1, 1954	221	265-268
Black Lizzard Nos.10,11,12& 13	Oct. 16, 1954	231	32-34
Black Lizzard Nos. 14 thru 29	Nov. 2, 1954	235	357-364
Black Lizzard Nos. 30 thru 36	Nov. 3, 1954	235	365-368

One claim, marked Red Lizzard No. 22 on fig. 2 was not listed by the applicant.

PRESENT STATUS

Exploration and Development

Exploration on the property consists of a 25-foot adit on the Red Lizzard No. 17 claim, rim stripping on the Red Lizzard No. 18, eight wagon-drill holes, 26 core-drill holes, and one non-core hole on the Red Lizzard 15, and Black Lizzard Nos. 8, 9, 10 and 11 claims.

The adit bears N. 78° E. and appears to have been driven at a low angle to a shallow channel in the Shinarump with a width of possibly 100 feet and a maximum scour of 5 feet. Mineralization as determined by radiometric measurements is very weak.

The Shinarump sediments in the outcrop of the Red Lizzard No. 18 claim appear to mark another weakly mineralized shallow channel.

The 26 core-drill holes and the 8 wagon-drill holes were drilled on the Black Lizzard Nos. 9, 10 and 11 claims north and east of the channel on the Red Lizzard No. 17 claim (fig. 2). The applicant did not have drill-hole logs or other records, and described drilling results from memory. Judging by the information given the examining team, technical control of the drilling has been poor.

The poorly marked drill cores were available at the drill sites except certain mineralized sections which had been removed and stored at the applicant's home. However, little could be learned except that one hole penetrated one inch of uraninite-bearing carbonaceous sandstone.

PRODUCTION AND ORE RESERVES

No ore has been produced from the Black and Red Lizzard groups of claims, and there are no ore reserves on the property. There is no producing mine for many miles northwest of the Red and Black Lizzard claims, (see Finch, May 1953, figure 2; Finch, 1955, Map MF 16).

Several other properties, a few miles from the subject claims to the south, on the southwest side of Red Canyon, and to the southeast, on the northeast side of Red Canyon (fig. 1), have produced considerable uranium ore. Of the several mines that have had significant production to the south and southeast, the famous Blue Lizard Mine, owned by Red Canyon Mines, has had the largest production and also lies nearest the Red and Black Lizzard claims of the applicant (see black dot on Finch's 1955 map, MF 16; also Trites, final report, DMEA 3093). The DMEA drifting in 1953-1954 at the Blue Lizard Mine under Contract Idm-E641 resulted in a discovery of 8400 tons of indicated and inferred ore, averaging 0.30 U_3O_8 (Trites, August 1954, final report, DMEA 3093). This DMEA loan was paid back in full on February 5, 1955.

The production and ore reserves of the Blue Lizard Mine, based on AEC records up to October 1, 1955, are given in table 1. It should be noted that the AEC reserves as of October 1, 1954 after completion of the DMEA work, are somewhat higher than those of Trites, because the Red Canyon Mines Company had further enlarged the Blue Lizard workings by crosscutting through a mud bank and discovering another body of ore on the northwest side of the bank.

Table 1. -- Production and ore reserves of the Blue Lizard (Red Canyon No. 2) Mine, Red Canyon, San Juan County, Utah (AEC records up to 10/1/55).

	Production			Indicated Ore		Inferred Ore	
Date	Tons	%U_3O_8	%Cu	Tons	%U_3O_8	Tons	%U_3O_8
5/1/53						a/ 140	0.55
2nd Quarter 1953	18.6	0.22	3.80				
3rd Quarter 1953	160	0.16	0.78				
1st Quarter 1954	91.1	0.08					
2nd Quarter 1954	428	0.42					
7/1/54				400	0.38	880	0.49
3rd Quarter 1954	2,354	0.29	0.70				
10/1/54				8,200	0.29	5,000	0.29
4th Quarter 1954	2,948	0.22		6,460	0.26	5,580	0.26
1st Quarter 1955	3,043	0.20		4,414	0.24	7,208	0.24
2nd Quarter 1955	2,837	0.18		1,577	0.35	7,208	0.24
3rd Quarter 1955	956	0.23	0.72	621	0.53	7,208	0.24
Total 10/55	12,835.7	0.21					

a/ On basis of one ore-bearing hole drilled by Atomic Energy Commission.

GEOLOGY

General features

The Red Lizzard and Black Lizzard claims are on the gently dipping (2 degrees) west flank of the Monument upwarp. The lower Triassic Moenkopi formation is slightly less than 300 feet thick and forms the bottom part of Red Canyon in the area of the property. The overlying Upper Triassic Shinarump conglomerate is lenticular and ranges from a knife edge to about 20 feet in the center of channel scours. The entire Chinle formation in the area is about 700 feet thick, and the overlying Wingate crops out in a near-vertical cliff, 300 feet high.

The applicant states that there is one exposed Shinarump and possibly two others as indicated from drill holes (fig. 2). The easterly-trending or Red Lizzard channel is partly exposed, but the other channels are questionable. The applicant suggested that one of the inferred channels may connect with the channel on the Blue Lizard property and that the Red Lizzard channel connects with his inferred southeast-trending channel about 1,000 feet to the east on the Red Lizzard No. 15 claim (fig. 2).

The possibility that the channel inferred by Mr. Adams might connect with the Blue Lizard channel is remote because the Blue Lizard channel trends N. 20-25° E. (fig. 2). The examining team regards any possible interesection of the two channels on the Red Lizzard and Black Lizzard groups with considerable skepticism, because of the unreliability of the drilling controls and records. If a channel intersection could be demonstrated, there is still the question of whether or not it would be favorable for ore deposition.

The south edge or south pinch-out of the Red Lizzard Shinarump channel is well exposed in a gulch at the northeast corner of Red Lizzard 17 (fig. 2). A poor exposure of possibly the south edge of this channel is at

the northwest corner of Red Lizzard 18. This exposure, however, may be the south bank of another channel. At the northeast corner of Red Lizzard 17 the Shinarump in the middle part of the Red Lizzard Channel is 12 feet thick for a width of about 10 feet as exposed in a short adit (fig. 2). The minimum thickness of Shinarump yet discovered on the north side of the channel, as reported by Mr. Adams, is 7 feet; hence, the known channel scour is locally only 5 feet. The Blue Lizard channel has a scour of 18 feet (Trites, August 1950, p. 3). That the scour of the Red Lizzard channel probably is not much over 5 feet, is shown by the continuity of the uppermost Shinarump northeasterly up the gulch at the south end of Black Lizzard 9 claim (fig. 2) and also by thicker Shinarump in holes, drilled and reported by Mr. Adams. The known channel is therefore rather small and not well defined by the considerable drilling done to date, hence it does not present a favorable trap for ore.

Weak uranium mineralization is confined to the lowermost foot of the Red Lizzard channel across a width of about 10 feet. Carbonized plant or coaly laminae and thin mudstone splits are also in the bottom of the channel and have apparently localized the uranium. The total equivalent uranium content of the 1- by 10-foot exposure was estimated with the aid of a geiger counter to be about 0.08 percent eU_3O_8. Pieces of float from a partly buried outcrop in the corner of Red Lizzard 18 claim were slightly radioactive. The mineralized drill hole on the Black Lizzard 9 claim (fig. 2) is reported by Mr. Adams to contain also about 0.08 percent eU_3O_8. Unlabeled core of another mineralized drill hole on Red Lizzard 15 claim was examined at Mr. Adams' home in Monticello, Utah, and only a few sporadic flakes of weakly uraniferous carbon through an interval of 0.1-foot were observed.

One foot of the underlying Moenkopi is altered from brown to greenish-gray beneath the basal mineralized part of the Red Lizzard channel in the vicinity of the adit. At one place near the south edge of the channel a faint green stain was observed which is suggestive of copper carbonate. It should be noted, however, that at the outcrop of the Blue Lizard channel, the Moenkopi is altered through a maximum thickness of 3 feet and copper carbonates are abundant; three out of five samples cut by Granger and Beroni (1950, p. 22) contained 3.88, 6.90, and 9.44 percent of copper, respectively, and one of the other samples, low in copper contained 0.94 percent of U_3O_8. Thus, the mineralized exposures on the Red Lizzard channel are considerably weaker than those on the Blue Lizard channel.

PROPOSED EXPLORATION

The proposed exploration consists of an estimated 29,000 feet of non-core and 6,000 feet of core drilling in 100 holes at an estimated cost of $98,990.00. Government participation at 75 percent would be $74,242.50. Fifty-four holes on 100- and 200-foot centers are planned to supplement and extend the pattern of fences across assumed channel trends.

Three of the 54 holes had been drilled on Red Lizzard 15 claim by the time of the DMEA examination. The fences cover a distance of 1800 feet normal to the purported channel trends.

If previous drilling had yielded usable data, many of the proposed holes would not be needed, because enough information would probably have been obtained to localize the position of any channels. Now, a much wider area must be covered, and the work is essentially prospecting rather than exploration.

A fence of 35 holes on 200-foot centers was laid out around the northwest corner, of the Blue Lizard property to intercept the Blue Lizard channel which might cross into the applicant's property. This work is also prospecting, because the only known significant Blue Lizard channel trends northeasterly and there is no evidence to show that any channel extends from the Blue Lizard into the applicant's property. During the examination the applicant stated that he had decided this part of the exploration proposal was not too worthwhile, and was going to withdraw it.

The remaining 11 holes were not designated and therefore not shown on figure 2. These holes were to be used to delineate further any favorable ground or ore bodies discovered by other drilling.

An alternate exploration plan is not proposed by the examining team.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that the Shinarump channels on the applicant's property, as can be determined from rim exposures and the poorly presented results of previous drilling are shallow and only weakly mineralized.

The poorly mineralized, narrow, shallow channel exposures bear little resemblance to the wider and deeper Blue Lizard channel which is an ore producer in this area. A continuation of the known Blue Lizard channel does not trend toward applicant's property except possibly in the northeast corner under the Wingate cliff. The proposed drilling is therefore essentially prospecting.

The supervision which the applicant planned to furnish for the proposed exploration is not suitable judging from past performance. Adequate technical services for such a project would require better trained, more experienced personnel.

There appears to be little possibility of finding significant uranium-bearing channel deposits by the proposed project, and therefore it is recommended that the application for exploration assistance under DMEA 4095 be denied.

REFERENCES CITED

Finch, W. I., May 1953, Geologic Aspects of the resource appraisal of Uranium deposits in pre-Morrison formations of the Colorado Plateau: U. S. Geological Survey TEI-328 A, 35p.

Finch, W. I., 1955, Preliminary geologic map showing the distribution of uranium deposits and principal ore-bearing formation of the Colorado Plateau Region: U. S. Geological Survey Map MF 16.

Granger, H. C., and Beroni, E. P., 1950, Uranium occurrences in the White Canyon Area, San Juan County, Utah, U. S. Geological Survey TEMR-7, 32 p.

Trites, Albert F., September 1953, DMEA 3093 (Uranium) Red Canyon Mines, Blue Lizard and Red Canyon No. 2 claims, San Juan County, Utah, geological report, 8 p.

Trites, Albert F. Jr., August 1954, DMEA 3093, (Uranium) Red Canyon mines, Blue Lizard and Red Canyon No. 2 claims, San Juan County, Utah, final geologic report, 5 p.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
MAY 1956
DOCKET 4095

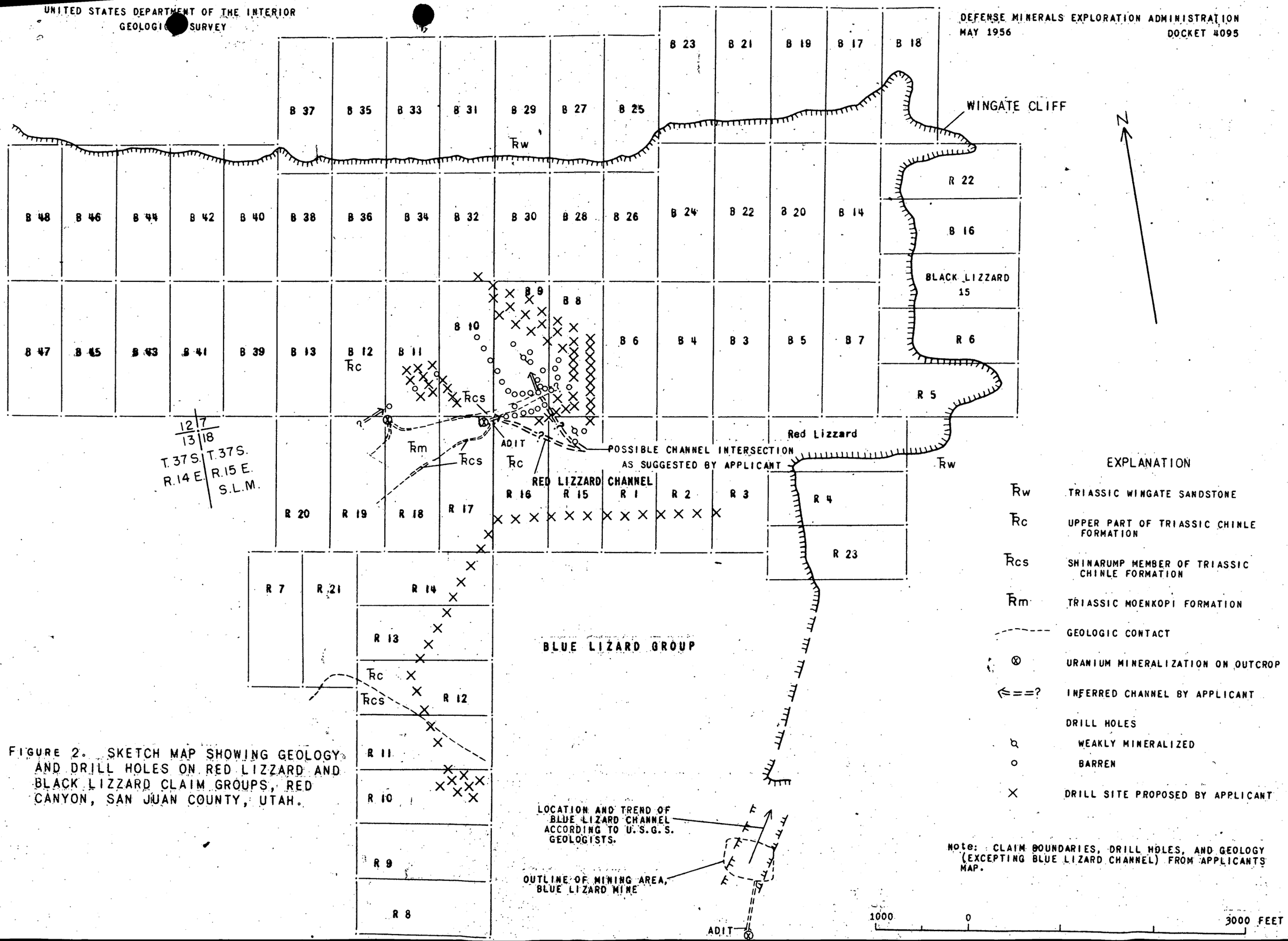


FIGURE 2. SKETCH MAP SHOWING GEOLOGY AND DRILL HOLES ON RED LIZZARD AND BLACK LIZZARD CLAIM GROUPS, RED CANYON, SAN JUAN COUNTY, UTAH.

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

RECEIVED
DEC 29 1955

224 New Customhouse
Denver 2, Colorado

December 27, 1955

Memorandum

To: J. F. Shaw
J. W. Hasler

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4095 (Uranium), Leon Adams, Black Lizzard Property, San Juan County, Utah

Enclosed is a copy of a letter from the Chairman, Operating Committee dated December 22, 1955 and attached memoranda of review of the application by members of the Uranium Commodity Committee.

You have recently been furnished a copy of the subject application

J. W. Townsend

Enclosures
HMC:jy
cc: Docket 4095
Chair. Op. Comm. (2)
Harshman
Chron.

700

Ching
Ellis
Kilgoard
Geehan
Selfridge
Kjelson

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

DEC 22 1955

Mr. Leon Adams
Monticello, Utah
and
Mr. Edward Senl
Fullerton, California

Re: Docket No. DMEA-4095 (Uranium)
Black Diamond Property
San Juan County, Utah

Dear Sirs:

The application for assistance in exploring the subject property under the captioned docket number has been reviewed by the Rare and Miscellaneous Metals Division.

The DMEA Field Team, Region III (Mr. W. M. Traver, Executive Officer), 7th New Customhouse Building, Denver 2, Colorado, will schedule a field examination of your claims in the near future, if it has not already done so.

Any assistance you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

Copy to Mr. Senl

MChing/gla 12-20-55
cc to: Admr.'s Reading File
Docket
Code 700
Mr. Ching
DMEA Field Team, Region III (2)

R.C.S.

Surname copy 700

Ching
Ellis
Kiilsgaard
Selfridge
Hyranon

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

DEC 22 1955

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
22h New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4095 (Uranium)
Leon Adams
Black Lizzard Property
San Juan County, Utah

Dear Mr. Harshman:

This is with reference to your memorandum of December 8 and enclosures, relating to the subject application.

Enclosed are two copies each of memoranda, dated December 16, 1955, from H. D. Keiser, USGS, and N. E. Nelson, USGS.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

MChing/gla
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Ching

APPROVED:

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

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

R.S.S.

12/19/55-gla

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

December 16, 1955

Memorandum

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

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

Subject: Application for assistance, DMEA Docket 4095, Leon Adams, San Juan County, Monticello, Utah

I have reviewed the attached application of Leon Adams, DMEA Docket 4095, dated November 29 and received in this office December 14. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

Inasmuch as the Field Team has already been directed to make an examination of subject property, our comments should be reserved pending the arrival of the Field Team report.

H. D. Keiser

H. D. Keiser

Attachment

12/19/55 glo

IN REPLY REFER TO:

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

RECEIVED
DEC 19 1955

December 16, 1955

Re: DMEA 4095
Leon Adams
Black Lizzard Mine
San Juan Co., Utah
$98,990.00 - Uranium

Memorandum

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

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

Subject: Review of application.

The Field Team tentatively has scheduled an examination of the property.

The applicant requests assistance in exploring by plug and core drilling a large group of claims. The work outlined consists of:--

29,000 feet plug drilling	$61,250.00
6,000 " core "	19,500.00
Bulldozing road	6,000.00
Labor, engineering, consultants	9,000.00
Miscellaneous	1,240.00
Contingencies	2,000.00
	$98,990.00

Work has been done by the applicant consisting of twenty-foot long adit, pit, eight wagon drill holes, diamond drilling (in progress). No minable ore has been developed but mineralization found in adit, pit and drilling, and 4 channels in the Shinarump member are indicated. If persistent on trend for 1,300 feet the productive channel of the Blue Lizzard mine will enter the Black Lizzard group.

I concur with the intention of the Field Team to make an examination of the property.

N. E. Nelson

N. E. Nelson

December 13, 1955
Subject: DMEA-4095
Re: Exploration Assistance
Black Lizard Mine

Mr. Leon Adams
Monticello, Utah

My dear Mr. Adams:

The receipt of your application dated November 29, 1955, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4095 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

December 13, 1955

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 4095 - Leon Adams

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

RECEIVED
DEC 15 1955

December 9, 1955

Memorandum

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

From: Acting Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA _____(Uranium), Leon Adams, Black Lizard Mine, San Juan County, Utah

The above brochure was received in this office on December 9, 1955.

An examination will be made and report prepared by an engineer from the Denver or Grand Junction office.

JOHN F. SHAW
John F. Shaw

cc: 2 w/orig.
E. N. Earnhamm
J. W. Ensler
N. E. Salsbury
J. F. Shaw
Sec. Op. Com (2)

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

RECEIVED
DEC 12 1955

December 8, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman, Operating Committee, DMEA

From: Field Team, Region III

Subject: Application for DMEA Assistance, (Uranium), Leon Adams, Black Lizard Mine, San Juan County, Utah

Enclosed are two copies of the subject application in the amount of $98,990.00. This application was submitted to the Grand Junction office and four copies of their review of the application are attached. Our copy of the application is being forwarded for the use of the engineer examiner.

E. N. Harshman

E. N. Harshman
Acting Executive Officer, DMEA
Field Team, Region III

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MINERAL DEPOSITS
IN REPLY REFER TO:
DMEA
RECEIVED
DEC 7 1955

RECEIVED
DEC 12 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

December 6, 1955

DMEA
DEC 7 1955
BUREAU OF MINES
DENVER, COLORADO

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman
J. F. Shaw

From: J. William Hasler
M. H. Salsbury

Subject: Application of Leon Adams, San Juan County, Monticello, Utah.

I am in receipt of a set of applications from Mr. Leon Adams, San Juan County, Monticello, Utah. Mr. Adams is applying for aid to explore the Black Lizzard property which lies about two miles north of the Blue Lizzard mine in Red Canyon.

Mr. Adams has operated the Posey mine and the Blue Lizzard mine, and there are areas of promising mineralization on the Black Lizzard group of claims. It is recommended that a field examination be made.

We are retaining one copy of the application and sending the other three to you. The examination will be made as soon as possible.

J. William Hasler
J. William Hasler,
U. S. Geological Survey

M. H. Salsbury by JWH
M. H. Salsbury,
U. S. Bureau of Mines

JWH/mlr

Enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA Data Rec'd.
Form Approved.
Budget Bureau No. 42-R1035.2.
DEC 7 1955
BUREAU OF MINES
Denver, Colo.

DEC 12 1955

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-4095
Metal or Mineral Uranium
Date Received 12-12-55
Estimated Cost $98,990.00
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: Leon Adams Edward Saul
Monticello Utah Fullerton Calif.

(*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: The property is in an unsurveyed part of San Juan County Utah, known as the Red Canyon mining district there is a range line that runs through the property as shown by a survey corner on the map.

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

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

(*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 .....

(*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 20 days and be completed within 6 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?

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated Nov. 29, 1955

Leon Adams
(Applicant)

By Leon Adams

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

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

RECEIVED DEC 12 1955

Under (f)

Unpatented Claims - all recorded in Courthouse at Monticello, Utah, San Juan County.

Name of Claim	Discovery Date	Recorded Book	Recorded Page
Red Lizzard	Oct. 2, 1954	221	269
Red Lizzard No. 1	Oct. 2, 1954	221	270
Red Lizzard No. 2	Oct. 29, 1954	221	270
Red Lizzard No. 3	Oct. 2, 1954	221	271
Red Lizzard No. 4	Oct. 2, 1954	221	269
Red Lizzard No. 5	Oct. 2, 1954	221	271
Red Lizzard No. 6	Oct. 2, 1954	221	272
Red Lizzard No. 7	May 1, 1955	315	155
Red Lizzard No. 11	Nov. 1, 1954	231	28
Red Lizzard No. 12	Nov. 1, 1954	231	29
Red Lizzard No. 13	Nov. 1, 1954	231	29
Red Lizzard No. 14	Nov. 1, 1954	235	355
Red Lizzard No. 15	Oct. 16, 1954	231	30
Red Lizzard No. 16	Oct. 16, 1954	231	30
Red Lizzard No. 17	Oct. 16, 1954	231	31
Red Lizzard No. 18	Oct. 16, 1954	231	31
Red Lizzard No. 19	Oct. 16, 1954	231	32
Red Lizzard No. 20	Nov. 2, 1954	235	356
Red Lizzard No. 21	Nov. 2, 1954	235	356
Black Lizzard No. 3	Oct. 1, 1954	221	266
Black Lizzard No. 4	Oct. 1, 1954	221	267
Black Lizzard No. 5	Oct. 1, 1954	221	265
Black Lizzard No. 6	Oct. 1, 1954	221	267
Black Lizzard No. 7	Oct. 1, 1954	221	266
Black Lizzard No. 8	Oct. 1, 1954	221	268
Black Lizzard No. 9	Oct. 1, 1954	221	268
Black Lizzard No. 10	Oct. 16, 1954	231	32
Black Lizzard No. 11	Oct. 16, 1954	231	33
Black Lizzard No. 12	Oct. 16, 1954	231	33
Black Lizzard No. 13	Oct. 16, 1954	231	34
Black Lizzard No. 14	Nov. 2, 1954	235	357
Black Lizzard No. 15	Nov. 2, 1954	235	357
Black Lizzard No. 16	Nov. 2, 1954	235	358
Black Lizzard No. 17	Nov. 2, 1954	235	358
Black Lizzard No. 18	Nov. 2, 1954	235	359
Black Lizzard No. 19	Nov. 2, 1954	235	359
Black Lizzard No. 20	Nov. 2, 1954	235	360
Black Lizzard No. 21	Nov. 2, 1954	235	360
Black Lizzard No. 22	Nov. 2, 1954	235	361
Black Lizzard No. 23	Nov. 2, 1954	235	361
Black Lizzard No. 24	Nov. 2, 1954	235	362

Under (f) Continued

Name of Claim	Discovery Date	Recorded Book	Recorded Page
Black Lizzard No. 25	Nov. 2, 1954	235	362
Black Lizzard No. 26	Nov. 2, 1954	235	363
Black Lizzard No. 27	Nov. 2, 1954	235	363
Black Lizzard No. 28	Nov. 2, 1954	235	364
Black Lizzard No. 29	Nov. 2, 1954	235	364
Black Lizzard No. 30	Nov. 3, 1954	235	365
Black Lizzard No. 31	Nov. 3, 1954	235	365
Black Lizzard No. 32	Nov. 3, 1954	235	366
Black Lizzard No. 33	Nov. 3, 1954	235	366
Black Lizzard No. 34	Nov. 3, 1954	235	367
Black Lizzard No. 35	Nov. 3, 1954	235	367
Black Lizzard No. 36	Nov. 3, 1954	235	368

4. Physical Description

(a) Twenty-foot long adit in channel on Red Lizzard No. 17 and shallow pit on Red Lizzard No. 13 both in uranium-copper mineralization. Light wagon drill holes as shown on map disclosing channels in Shinarump. Two-thousand feet of diamond drilling now in progress, n about 1500 feet completed, disclosing uranium mineralization and chamnel on Black Lizzard No. 9 and channel with pryrite mineralization on Black Lizzard No. 11. No mineable ore developed as yet and no production. All above work was by Leon Adams. Roads are in to the adit, pit, and all drill holes, readily accessable if dry.

(b) None

(c) Uranium deposits in the area are blanket-type bedded deposits in the Shinarump Formation which on the claims is exposed in a rim outcrop but for the most part is covered with Chinle Formation, and at the north and east edges of the property, Wingate Formation. See photogeologic maps of Red canyon or enclosed map which also shows claim pattern, some formational boundaries, uranium outcrops, and drill holes. As shown on this map, there are at least four known outcrops of channels in the Shinarump Formation, the dedimentary features which normally carry the ore deposits in the Red Canyon Area. The claims are adjacent to the large Blue Lizzard mine, the channel of which may extend onto Red Lizzard ground.

(d) The property is about 90 miles from Monticello, Utah, via Utah Highways 47 and 95 to Natural Bridges National Monument, thence by way of Red Canyon Access Road to Red House Spring and the Blue Lizzard Mine, thence about two miles northwest by graded dirt road to the center of the property. Monticello and Blanding (70 miles) are sources of labor , supplies, equipment and services. The nearsest Ore Depot is in White Canyon, about 60 miles.

(e) Manpower, materials, supplies, and equipment available in Blanding, Monticello, and White Canyon. Water available from spring in Red Canyon, about 5 miles from claims. No electric power, all equipment must be gasoline or diesel powered.

5. The Exploration Project (a) Uranium

(b) Refer to attached map. Drilling of vertical holes from surface to cut the Shinarump formation, specifically to delineate channels in the Shinarump where uranium ores are usually found. Channels are exposed at the surface on Red Lizzard 10, 17, and 13, and known from drilling on Black Lizzard 10, also on adjoining Blue Lizzard claims. Except for the channel shown on Black Lizzard 41, all channel outcrops exhibit some radioactivity and low grade uranium mineral-

5. (Cont'd)

ization. Eighty-nine holes shown on the map are located to intersect and delineate the apparent trend of these channels and to discover ore likely to be therein. Holes 1 to 8 are to explore channel on Red Lizzard No. 10; holes 9 to 35 are located to discover and partially delineate the extension of the Blue Lizzard channel; holes 36 to 47 are to further explore the channel evidenced by exposed mineralization on Red Lizzard No. 18 by scours and pyrite noted in drill holes on Black Lizzard No. 11; while holes 48 to 89 are proposed to explore channels exposed on Red Lizzard No. 17 and discovered by drilling on Black Lizzard No. 9. The red-circled hole had about 1 inch of high grade uranium mineralization while nearby holes indicated scouring or channeling. Eleven more holes are proposed for further delineating favorable host rock or ore bodies discovered. Four miles of access road building will be required to service drill sites. Plug bit drilling is proposed through the Chinle Formation, coring in the Shinarump which is ten to thirty feet thick. The 100 holes proposed will average about 250 feet deep for a total project of 25,000 feet of drilling. All radioactive core will be sampled and assayed.

(c) The work will start within 30 days and be completed within 12 months from the date of an exploration project contract.

(d) Leon Adams and associates operated the Posey mine in Red Canyon from 1948 to 1953, explored and developed the Blue Lizzard mine from 1949 to present. He, together with a registered mining engineer-geologist, will supervise the project. Sam Smyth, registered mining engineer, has 14 years professional experience, eight of which have been in Colorado Plateau Uranium field as geologist and engineer and mine superintendent on exploration and mining projects.

6. Estimate of Costs

(a) Independent Contracts	
16,000 feet plug drilling @ $2.00	$32,000.00
4,000 feet core drilling @ $3.00	12,000.00
13,000 feet plug drilling @ $2.25	29,250.00
2,000 feet core drilling @ $3.75	7,500.00
35,000 feet of plug and core drilling	80,750.00
4 miles of bulldozing @ $1500/mile	6,000.00
(b) Labor, etc.	
Sampler and rodman one yr. at $6,000 per half year	$3,000.00
Eng. and Geol. consultant, one yr. at $3,000 half yr.	3,000.00
Supervisor, one year at $6,000 half year	3,000.00
(c) Optng. Mtls and Supplies	
100 core boxes @ $1 per box	100.00
100 survey stakes at 5¢ each	5.00
100 sample sacks @ $0.35 each	35.00
(d) Use allowance on vehicle, $50/month for 12 mos.	600.00
(e) None	
(f) None	
(g) Miscellaneous assays, 100 @ $350 per assay	350.00
Workmens compensation, payroll taxes, etc.	150.00
(h) Contingencies	2,000.00
Total	98,990.00

MINERALS ENGINEERING COMPANY
P. O. Box 1951 - Phone 4280
GRAND JUNCTION, COLORADO

November 30, 1955

Mr. Leon Adams
Monticello
Utah

Dear Mr. Adams:

Pursuant to our telephone conversation this morning regarding a bid for drilling a minimum of 30,000 feet of non-core and core drilling on your Black Lizzard Group in the Red Canyon Area, please accept the following as our proposal for this project:

Depth	Price per Foot Non-Core	Price per Foot Core
0-200 feet	$ 2.00	$ 3.00
200-400 feet	2.25	3.75

We bid stand-by time at the rate of $12.00 per hour.

It is understood that we will sustain each and all costs of actual drilling and will operate continuously unless prevented by causes beyond our control.

The above prices might vary at time of drawing contract because of the number of drills you would require at that time.

Very truly yours,

MINERALS ENGINEERING COMPANY

Edson Foster

Edson Foster
Assistant Drill Superintendent

EF/k

Leon A[illegible]s. [illegible]onticello, Utah

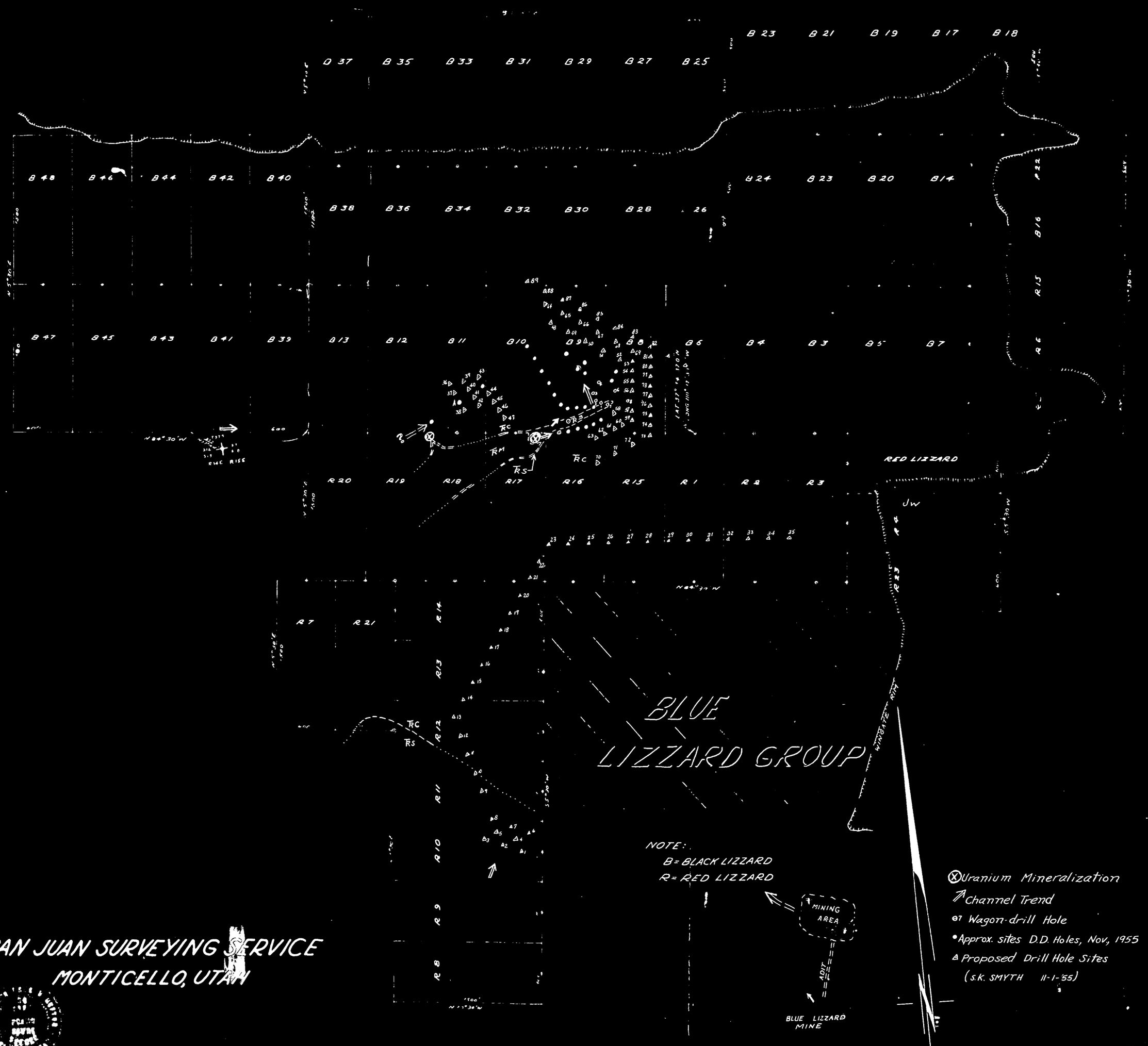
7. (a) Yes
(b) Money and use of equipment (vehicle)

Applicant prepared to furnish 25 percent of cost of project by paying for items b through g and balance necessary in item a of Cost Estimate or other suitable arrangement.

SURVEY OF THE RED & BLACK LIZZARD CLAIMS

IN RED CANYON

JUNE 15, 1955



SAN JUAN SURVEYING SERVICE
MONTICELLO, UTAH