700

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

FILE COPY
Surname:

AUG - 3 1956

Rear Admiral R. W. D. Woods, U.S.N. (Ret.)
President, Minerals Corporation of America
120 South Tenth Street
Grand Junction, Colorado

Re: Docket No. DMEA-4210 (Uranium)
North Slope and Oral claim groups
Emery County, Utah

Dear Admiral Woods:

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 ore 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

FLKnouse/izm 8-3-56
cc to: Docket
Code 700
Mr. Knouse
Admr.'s Reading File
Operating Committee
DMEA Field Team, Reg. III (2)
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

Docket

700

F Kerr
Ellis

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No: DMEA-4210

Commodity: Uranium

Applicant: Minerals Corporation of America
120 South Tenth Street
Grand Junction, Colorado

Property: Includes two groups of claims - the Oral Group comprised of two full-sized lode claims, in sec. 15, T. 22 S., R. 14 E., S.L.M.&B., and the North Slope Group comprised of four full-sized lode claims in sec. 33, T. 21 S., R. 14 E., S.L.M&B., Emery County, Utah. The claims are as follows: North Slope Nos. 1, 2, 11 and 12 and Oral Nos. 1 and 2. Applicant's property rights are covered by a lease dated Dec. 19, 1956.

Date of Application: March 1, 1956

Proposed Work: A two-stage core and non-core drilling program aggregating 20,000 feet at an overall cost of $53,064.00; Stage 1 consisted of drilling 29 rows of holes parallel to claim end lines, and spaced at 100-foot intervals. The resulting grid being on a 100-foot center-staggered grid. Stage II consisted of drilling offset holes on 50 feet east and west from Stage I holes.

Small scale mining - two open cuts on the North Slope group and one open cut on the Oral group has produced a total of 87.5 tons of uranium-vanadium ore averaging 0.32% U_3O_8 and 0.91% V_2O_5 from small ore pods most of which are in the 1 to 10 ton class, from the uppermost Salt Wash sandstone.

Cost of Proposed Work:

Independent Contracts:

10,000 ft. non-core drilling @ $1/ft.	$10,000.00	
10,000 ft. core drilling @ $3/ft.	30,000.00	
Labor Supervision & Consultants:		
Superintendent 6 mos. @ $525/mo.	3,150.00	
Engineer geologist 6 mos. @ $400/mo.	2,400.00	
Operating Equipment:		
150 hrs. tractor time @ $10/hr.	1,500.00	
Miscellaneous:		
Accounting 6 mos. @ $85/mo.	510.00	
Insurance & payroll taxes 6 mos @ $84/mo.	504.00	
Contingencies 10% of estimated cost	5,000.00	
Total Estimated Cost of Project		$53,064.00
Government Participation @ 75%		$39,798.00

Field Team Report: July 12, 1956 (Joint report by F. M. Byers, USGS, and H. F. Robertson, USBM)

The North Slope and Oral groups of claims are on the east flank of the San Rafael Swell. Both claim groups are largely underlain by the Salt Wash member of the Jurassic Morrison formation. The ore bearing sandstone in the upper part of the sandstone member ranges from 30 to 50 feet in thickness and is marked by cross-bedding on both claim groups. Examination of the property and consideration of available data indicate that the Salt Wash ore bodies in the Oral and North Slope claim groups, though occurring in sandstone that is locally favorable in some aspects, is strongly controlled by festoon crossbedding. Deposits of ore grade material in this area do not contain more than 35 tons each and most contain less than 10 tons. They are too dispersed for economic mining.

The known favorable trend currently being explored on the nearby Pacific Uranium Company property apparently does not extend to the subject claim area. Drilling completed on the Vaughey and Vaughey DMEA-3730 showed negative results.

Denial of the application is recommended. The Field Team concurs with the examiner's recommendations.

Comments of Commodity Specialists:

USGS, N. E. Nelson, August 2, 1956:

Concurs with the recommendation of the field examiners.

USBM, James Paone, July 31, 1956:

The examining team recommends that the application for exploration assistance be denied because the deposits of ore-grade material that may be found in the area do not contain more than 35 tons each and most contain less than 10 tons. They are too dispersed for economic mining.

We concur (with Mr. Joseph O. Hosted) that the application for assistance should be denied.

Rare & Miscellaneous Metals Division, F. L. Knouse, August 3, 1956:

The mining of uranium ore deposits from these two claim groups and exploration drilling for an extension of the ore bodies mined, indicates rather conclusively that additional exploration drilling on the property may discover additional small-erratically spaced, disconnected deposits (chiefly 1 to 10 ton size with an occassional deposit as large as 35 tons) but the aggregate reserves of such deposits are not likely to add a significant quantity for the National Defense Program. Therefore, it is recommended that the application for Government exploration assistance should be denied.

Conclusions:

A review of all our information relative to the proposed project indicates that the probability of making a significant discovery is not sufficiently promising for Government participation. Therefore, the application should be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

8/3/56 gla

IN REPLY REFER TO:

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

RECEIVED
AUG - 3 1956

August 2, 1956

Re: DMEA 4210
Minerals Corp. of America
North Slope and Oral groups
Emery Co., Utah
$53,064.00 - 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 applicant requested assistance in exploring by drilling two groups of claims from which small quantities of uranium ore have been produced. The claims are in the general area of producing mines and properties on which considerable drilling, much of it DMEA assisted, has been done.

Production from the two groups equals:--

North Slope	51.8 tons	0.37% U_3O_8	1.10% V_2O_5
Oral	35.7 "	0.24 "	0.59 "
Total	87.5 "	0.32 "	0.91 "

The ore in the North Slope West mine occurs as small scattered pods. The East mine appears to be mined out. The West and Oral mines are still producing.

In the opinion of the examiners, "the ore bodies in the Salt Wash on the North Slope and Oral groups of claims, though occurring in sandstone that is locally favorable in some aspects, are strongly controlled by festoon crossbedding and are of small size usually containing not more than 35 tons in any ore body and most are less than 10 tons. These ore bodies are sufficiently dispersed so that drilling would have to be on a 25-foot grid in order to find even part of the ore bodies, and when found they would not be significant. The known favorable trend currently being explored on the Pacific Uranium property apparently does not come near the applicant's claims."

The examiners conclude, "The North Slope and Oral groups of claims lie in an area that is favorable in some aspects, but inspection of the property and evaluation of drilling results on nearby properties indicate that the potential ore deposits would be too small and scattered to justify a large expenditure for an exploration program. A pattern of holes on 25-foot centers would be required to reasonably delineate an ore deposit of the size expected on the property."

The examiners and the Field Team recommend denial of the application.

I concur with that recommendation.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

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The ore in the North Slope West mine occurs as small scattered pods. The East mine appears to be mined out. The West and Oral mines are still producing.

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The examiners conclude, "The North Ridge and Oral groups of claims lie in an area that is favorable in some aspects, but inspection of the property and evaluation of drilling results on nearby properties indicate that the potential ore deposits would be too small and scattered to justify a large expenditure for an exploration program. A pattern of holes on 25-foot centers would be required to reasonably delineate an ore deposit of the size expected on the property."

The examiners and the Field Team recommend denial of the application.

I concur with that recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-8/2/56

cc: Director's reading, 4212
Branch reading, 4212
DMRA (3)
Docket file
XXXXX
J. E. Crawford, 3641
J. O. Hosted, 3210

IN REPLY REFER TO:

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

RECEIVED
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The examiners conclude, "The North Slope and Oral groups of claims lie in an area that is favorable in some aspects, but inspection of the property and evaluation of drilling results on nearby properties indicate that the potential ore deposits would be too small and scattered to justify a large expenditure for an exploration program. A pattern of holes on 25-foot centers would be required to reasonably delineate an ore deposit of the size expected on the property."

The examiners and the Field Team recommend denial of the application.

I concur with that recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-8/2/56

cc: Director's reading, 4212
Branch reading, 4212
BMEA (3)
Docket file
XXXXX
J. E. Crawford, 3641
J. O. Hosted, 3210

IN REPLY REFER TO:

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

RECEIVED
AUG - 3 1956

August 2, 1956

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Minerals Corp. of America
North Slope and Oral groups
Emery Co., Utah
$53,064.00 - Uranium

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The examiners conclude, "The North Slope and Oral groups of claims lie in an area that is favorable in some aspects, but inspection of the property and evaluation of drilling results on nearby properties indicate that the potential ore deposits would be too small and scattered to justify a large expenditure for an exploration program. A pattern of holes on 25-foot centers would be required to reasonably delineate an ore deposit of the size expected on the property."

The examiners and the Field Team recommend denial of the application.

I concur with that recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-8/2/56

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
XXXXX
J. E. Crawford, 3641
J. O. Hosted, 3210

8-1-56

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

RECEIVED
AUG - 1 1956

July 31, 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 4210 (Uranium)
Minerals Corporation of America, (North Slope and
Oral groups of claims), Emery County, Utah

I have reviewed the report of examination, DMEA Docket 4210, Minerals Corporation of America, (North Slope and Oral groups of claims), Emery County, Utah, dated July 12 and received in this office July 24, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The examining team recommend that the application for exploration assistance be denied because the deposits of ore-grade material that may be found in the area do not contain more than 35 tons each and most contain less than 10 tons. They are too dispersed for economic mining.

We concur in the recommendation that the application for 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

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

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James Paone

7/30/56

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

RECEIVED
JUL 30 1956

July 26, 1956

224 New Customhouse
Denver 2, Colorado

Admiral R. W. B. Woods
Minerals Corporation of America
P. O. Box 1297
Grand Junction, Colorado

Re: Docket DMEA 4210 (Uranium)
(North Slope and Oral groups)
Emery County, Utah

Dear Admiral:

This will acknowledge receipt of your letter dated July 24, 1956 requesting information on the captioned docket.

The recommendation of the Field Team, Region III, was forwarded to the Washington Office, DMEA, July 17, 1956, and you should soon have their decision as to their final action on your DMEA application.

Very truly yours,

W. M. TRAVER,

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

HMC:ab

cc: Sec. Op. Comm. (2)
Harshman
Docket 4210
Chron.

MINERALS CORPORATION OF AMERICA
P. O. BOX 1297
GRAND JUNCTION, COLORADO
TELEPHONE 4568

July 24, 1956

DMEA
Date Rec'd.
JUL 26 1956
BUREAU OF MINES
Denver, Colorado

Mr. W. M. Traver,
Executive Officer, D.M.E.A.
Field Team, Region III
Defense Minerals Exploration Administration
United States Department of the Interior
224 New Custom House
Denver, Colorado

Dear Mr. Traver:

Re: Docket No. DMEA-4210 (Uranium)
North Slope and Oral Groups
Emery County, Utah

I was retired from the U. S. Navy in 1953, after having been in the service of our government for thirty-four years, and am somewhat acquainted with limitations placed upon you as to numbers and qualification of personnel to perform work assigned. I feel that your office is overloaded with work. At the same time, the properties referred to above are the first properties in the year and one half of our company life that have held strong probability of success for our small company.

Is there anything that can be done to further the consideration being given to our application for government assistance? The Field Team inspection was accomplished May 28, 1956.

Yours very truly,

R. W. D. Woods By J.P.H.

R. W. D. Woods

RWDW/hjl

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

RECEIVED
JUL 30 1956

July 26, 1956

224 New Customhouse
Denver 2, Colorado

Admiral R. W. D. Woods
Minerals Corporation of America
P. O. Box 1297
Grand Junction, Colorado

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Executive Officer, DMEA
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MINERALS CORPORATION OF AMERICA
P. O. BOX 1297 TELEPHONE 4568
GRAND JUNCTION, COLORADO

July 24, 1956

JUL 30 1956

DMEA
Date Rec'd.
JUL 26 1956

BUREAU OF MINES
Denver, Colorado

Mr. W. M. Traver,
Executive Officer, D.M.E.A.
Field Team, Region III
Defense Minerals Exploration Administration
United States Department of the Interior
224 New Custom House
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R. W. D. Woods

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RWDW/hjl

7-24-56

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

RECEIVED
JUL 19 1956

July 17, 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 4210 (Uranium), Minerals Corporation of America, (North Slope and Oral groups of claims), Emery County, Utah

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

The field examiners concur that DMEA drilling on the properties adjoining this property indicates the favorable trend would miss the subject property by a mile or more. 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
7/23/56
(date)

TRANSMITTED

JUL 17 195

MINERAL DEPOSITS
DMEA
RECEIVED
JUN 28 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 360
Grand Junction, Colorado

MINERAL DEPOSITS
DMEA
RECEIVED
JUN 20 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

IN REPLY REFER TO:
DMEA
Date Rec'd.
JUL 13 1956

BUREAU OF MINES
Denver, Colorado
RECEIVED
JUL 19 1956

June 18, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

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

From: J. William Hasler

Subject: Transmittal of report of examination on DMEA docket 4210 (Uranium), Minerals Corporation of America, (North Slope and Oral groups of claims), Emery County, Utah.

The Minerals Corporation of America applied to the Defense Minerals Exploration Administration for aid in the search for uranium on the North Slope and Oral groups of claims which lie some 15 miles southwest of Greenriver, Utah, Emery County, Utah. The application was referred to the field and an examination was made May 26 by Frank M. Byers, Jr., U. S. Geological Survey, and H. F. Robertson, U. S. Bureau of Mines. The examining team was accompanied by Rear Admiral R. W. D. Woods, President of the Minerals Corporation of America and Thomas S. Harper, engineer for the applicant.

The North Slope and Oral groups of claims are on the east flank of the San Rafael Swell. Both groups are underlain largely by the Salt Wash member of the Jurassic Morrison formation. The ore-bearing sandstone in the upper part of the sandstone member ranges from 30 to 50 feet in thickness and it is markedly cross-bedded on both claim groups and contains a few separate conglomerate beds up to 10 feet thick on the North slope group. The ore-bearing sandstone might be regarded as favorable, in that it is commonly 40 feet or more thick; is light gray and contains greenish-gray or gray mudstones, splits and galls. The thickness and color underlying the ore-bearing sandstone was concealed or inaccessible in the field. Thick red mudstone splits, however, were observed to intertongue with the ore-bearing sandstone south of open cuts on the North Slope claim.

Most, if not all, of the uranium ore pods on the N rth Slope and Oral groups are in the 1 to 10-ton class. There has been as much as 35 tons of ore produced from several areas on these groups of claims and, for the most part, production has come from a series of pods.

In section 3, T. 22 S., R. 14 E., the Vaughey and Vaughey property lies roughly midway between the North Slope and Oral groups and slightly to the east. A contract, Idm-E 868, was completed with negative results. The southern boundary of the Pacific Uranium property (DMEA 3928) lies a few hundred feet north of the northeastern part of the area under consideration

Reviewed by
DMEA OPERATING COMMITTEE
7/23/56
(date)

in this application. If the northeasterly favorable trend now being explored under contract Idm-E 926 would extend another mile southwesterly beyond its present known extent, this favorable trend that contains large ore bodies would pass through the North Slope claims. Recent stage I drilling on the Pacific Uranium property, however, indicates that the extent of the favorable trend ends either north of the southern boundary of the Pacific Uranium property or possibly turns southeasterly. In any case this favorable trend would miss the North Slope claims by a mile or more. There are no known favorable trends within three miles of the Oral group.

In summary, the ore deposit on the North Slope and Oral groups are small and localized and are not more than 35 tons in size and usually less than 10 tons and the frequency of occurrences is sufficiently distributed so that they cannot be mined profitably. Because of this erratic occurrence the chances of finding ore bodies of commercial size and grade do not appear encouraging. It is recommended, therefore, that the application for assistance be denied. I concur with the conclusions and recommendations of the examining team.

The Atomic Energy Commission was contacted relative to the appraisal of the properties.

Enclosed are 10 copies of figure 2, as well as the applicant's brochure.

J. William Hasler

J. William Hasler,
Geologist

JWH/mlr

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED

JUL 17 1956

DMEA 4210

Minerals Corporation of America

North Slope and Oral Groups

Emery County, Utah

Uranium

Joint Engineering and Geologic Report

by

F. M. Byers
Geological Survey

H. F. Robertson
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
7/23/56
(date)

July 12, 1956

RECEIVED
JUL 19 1956

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TABLES

1.--Ore production from North Slope and Oral groups of claims 5

ILLUSTRATIONS

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2. Geologic map showing North Slope and Oral claim groups, Minerals Corporation of America, Green River district, Emery County, Utah	9

DMEA 4210

MINERALS CORPORATION OF AMERICA
NORTH SLOPE AND ORAL GROUPS
EMERY COUNTY, UTAH

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JUL 19 1956

INTRODUCTION AND SUMMARY

The Minerals Corporation of America, 120 South Tenth St., Grand Junction, Colorado, applied for Defense Minerals Exploration Administration assistance to explore for uranium on the North Slope and Oral groups of claims in Emery County, Utah. The claims lie about 15 miles southwest of the town of Green River, Utah.

The property was examined on May 28, 1956, by F. M. Byers, geologist, Geological Survey, and H. F. Robertson, mining engineer, Bureau of Mines. The examining team was accompanied by Rear Admiral R. W. D. Woods, president of Minerals Corporation of America, and Thomas S. Harper, engineer for the Corporation.

The applicant proposes an exploration program consisting of 20,000 feet of core and non-core drilling at an over-all cost of $53,064.00. The drilling would be performed in two stages with the second stage consisting of drilling offset holes near favorable first stage holes.

The applicant concludes that the claim groups warrant exploration since ore has been shipped from the subject property and other nearby deposits. Uranium production in the area is from an upper sandstone bed in the Salt Wash member of the Jurassic Morrison formation.

Examination of the property and consideration of available data indicate that Salt Wash ore bodies on the North Slope and Oral groups,

though occurring in sandstone that is locally favorable in some aspects, is strongly controlled by festoon crossbedding. Deposits of ore-grade material in this area do not contain more than 35 tons each and most contain less than 10 tons. They are too dispersed for economic mining. A grid of drill holes on 25-foot centers would be necessary to locate a significant number of the ore bodies of the expected size.

The known favorable trend currently being explored on the nearby Pacific Uranium Company property apparently does not extend to the subject claim area.

Evaluation of the existing data indicates that DMEA participation in an exploration program on the North Slope and Oral groups of claims is not justified at this time.

Denial of the application is recommended by the examining team.

ACKNOWLEDGMENTS

The examining team was accompanied by Rear Admiral R. W. D. Woods, president of Minerals Corporation of America, and Thomas S. Harper, engineer with the Corporation. Isadore Million, geologist of the Atomic Energy Commission, also accompanied the team to the property and gave helpful information regarding the local geology. Production figures were obtained from the ore reserves section of the AEC, Grand Junction Operations Office.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Oral group comprises two full-sized lode claims in sec. 15, T. 22 S., R. 14 E., Salt Lake Meridian. The North Slope group comprises four full-sized lode claims in sec. 33, T. 21 S., R. 14 E., Salt Lake Meridian, Emery County, Utah.

The claims are reached by traveling 6.6 miles west from Green River, Utah, to State Highway 24; thence 2.1 miles southwesterly on State Highway 24 to a graveled access road; thence 9.7 miles westerly on the access road to the North Slope group of claims. The Oral claims are reached by traveling south 3.5 miles on an improved dirt road from the North Slope group. The Oral group is on the east bank of the San Rafael River. The nearest town and rail shipping point is Green River, Utah, which is on the Denver and Rio Grande Western Railroad, and about 18 miles northeast of the property (fig. 1). The nearest uranium ore-buying station is at Thompson, Utah, about 45 miles from the property.

The property is bordered on the west side by nearly vertical cliffs about 300 feet high, and the surface dips gently eastward to a valley about half a mile wide. Altitudes range from 4,400 to 4,900 feet. Most of the surface is sandstone of the Salt Wash member of the Morrison formation, upon which very sparse vegetation is found.

The climate is hot and dry in the summer, with occasional thunder showers; it is cold in the winter, with about 18 inches annual snowfall. Temperatures range from -10° F. in the winter to 100° F. in the summer. Year round operations are feasible except for short, infrequent periods of severe blizzard conditions during the winter months.

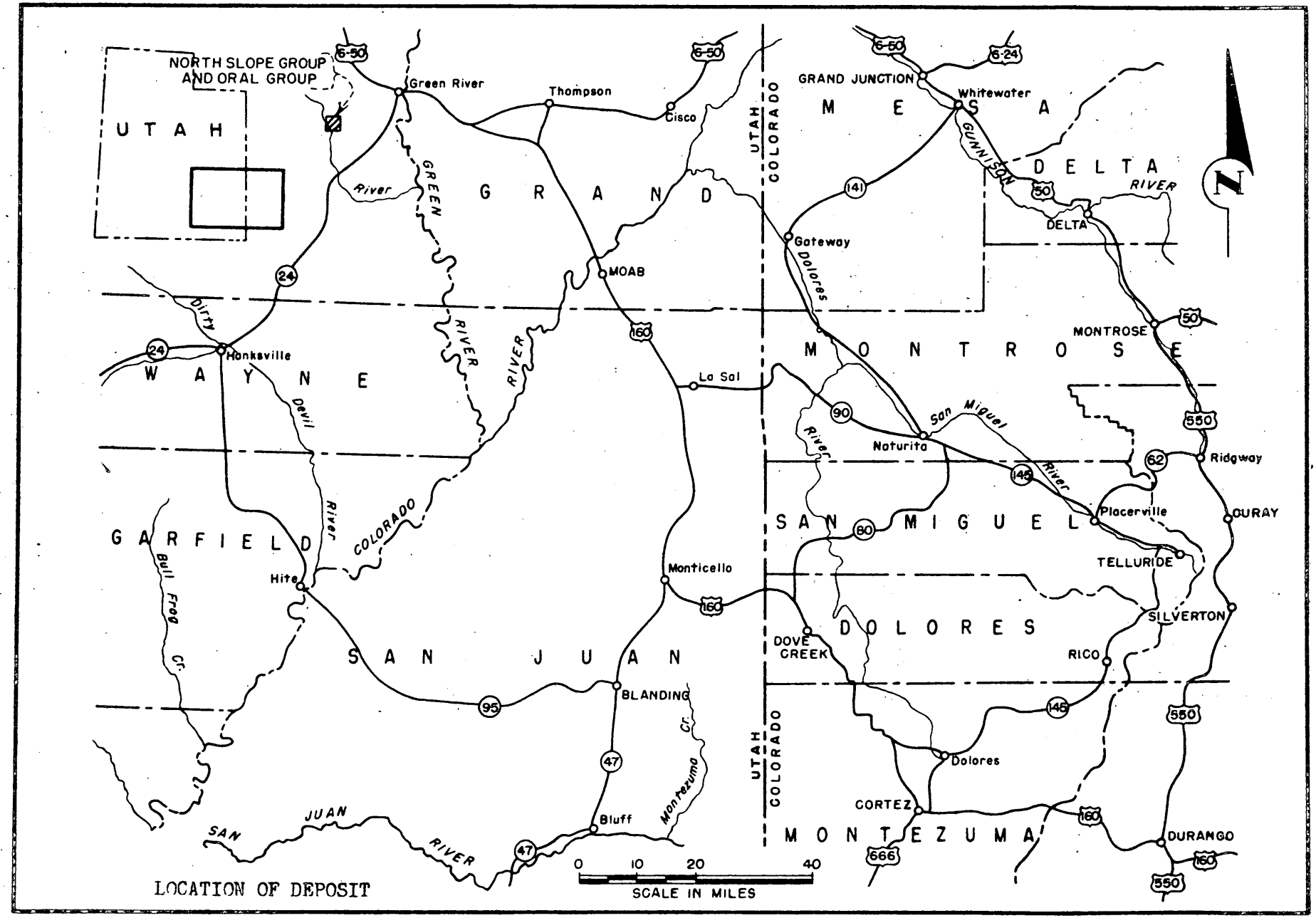


FIGURE 1 - LOCATION MAP OF THE NORTH SLOPE AND ORAL GROUPS OF CLAIMS, EMERY COUNTY, UTAH. MINERALS CORPORATION OF AMERICA. DMEA 4210

Water for drilling and mining in the area would be hauled from the San Rafael River. Domestic water can be obtained at Green River, Utah, and trucked to the area. Labor and supply sources are at Green River and Moab, Utah, or Grand Junction, Colorado, 18, 52, and 138 miles distant, respectively. Operating personnel in this area usually live in house trailers.

HISTORY AND PRODUCTION

The North Slope claims and the Oral claims were located by the lessors during 1951, 1952, and 1953 to cover areas containing rim exposures of uranium ore. Small-scale mining by the owners and lessees has produced a total of 87.5 tons of uranium-vanadium ore assaying 0.32 percent U_3O_8 and 0.91 percent V_2O_5. Production from the two groups of claims is given in table 1.

Table 1.--Ore Production from North Slope and Oral groups of claims.

Claim group	Period	Tons	U_3O_8 (percent)	V_2O_5 (percent)	U_3O_8 (lbs.)	V_2O_5 (lbs.)
North Slope	1953	31.1	0.48	1.37	298.56	852.14
" "	3rd Quarter, 1955	12.0	0.20	0.70	48.00	168.00
" "	1st Quarter, 1956	8.7	0.23	0.89	40.02	154.86
Sub-total		51.8	0.373	1.10	386.58	1,175.00
Oral	4th Quarter, 1949	21.0	0.24	0.57	100.80	239.40
"	3rd Quarter, 1954	3.1	0.28	0.59	17.36	36.58
"	4th Quarter, 1955	3.0	0.35	1.13	21.00	67.80
"	1st Quarter, 1956	8.6	0.19	0.46	32.68	79.12
Sub-total		35.7	0.240	0.592	171.84	422.90
Total		87.5	0.32	0.91	558.42	1,597.90

OWNERSHIP AND EXTENT

The mining claims are leased by Minerals Corporation of America and are recorded at the Emery County Courthouse, Castle Dale, Utah, as follows:

Name of claim	Recording date	Book	Page
North Slope No. 1	September 26, 1951	J-9	579
North Slope No. 2	September 26, 1951	J-9	579
North Slope No. 11	July 25, 1953	J-12	259
North Slope No. 12	July 25, 1953	J-12	260
Oral No. 1	September 8, 1952	J-10	330
Oral No. 2	November 30, 1953	J-13	446

The above data was verified by the examining engineer by inspection of the records. The following instrument which could invalidate part of the applicant's lease if still outstanding was noted in the records.

Recorded May 29, 1952, in book J-56, on page 33:

May 29 1952

On this 29 Day of May We do hereby agree to give Tom Alivezakis one-third interest of North Slope No. 1 and 2 for the sum of Lawyer fees $150.00.

/s/ James W. Jensen

G. Kouris

The above is copied exactly as written by the owners and appears in the Emery County records. No further reference to the instrument was found by the examining engineer. The applicant has not been asked to clarify the matter.

PRESENT STATUS

Exploration and development

Exploration on the North Slope group of four claims consists of two open pits which stripped rim exposures of uranium ore. One of these, the East mine, in the southwestern corner of North Slope No. 11, is apparently mined out. The other open pit, the West mine, in the west-central part of North Slope No. 2, is being stripped at the present time and accounts for all current production. The ore occurs as small, widely scattered pods and is selectively mined. No exploration or development by drilling has been done.

Exploration of the Oral group consists of one open-pit mine on a rim exposure of uranium-vanadium ore. The mineralized zone remaining is about 2 inches thick and 6 feet long. The deposit has been surrounded by jackhammer holes 8 to 12 feet in depth. No extension of the ore was indicated by these holes.

Mining and milling equipment and other facilities

Equipment on the property at the present time consists of one D-6 caterpillar bulldozer, one LeRoi 105 trailer-mounted air compressor, and two jackhammers with all accessories. This equipment is in use at the West mine on North Slope No. 2 claim. No equipment is on the Oral claims.

Project personnel could be housed at a camp sustained on the property by the Operator. Electricity for the camp is generated by gasoline-powered light plants.

GEOLOGY

The North Slope and Oral groups of claims are on the east flank of the San Rafael Swell. Easterly dips on the North Slope group range from 5° to 10° eastward, whereas on the Oral group the beds dip only 1° to 2° eastward. Both claim groups are underlain largely by the Salt Wash member of the Jurassic Morrison formation. The North Slope group contains small resistant cappings of silicified conglomerate of the lowermost part of the Brushy Basin member, which rests on the ore-bearing sandstone of the uppermost Salt Wash.

The ore-bearing sandstone in the upper part of the Salt Wash member ranges from about 30 to 50 feet in thickness. It is markedly cross-bedded on both claim groups and contains a few pebble conglomerate beds up to 10 feet thick on the North Slope group. Thin beds of pebble conglomerate and sandstone also occur in crossbedded association. The ore-bearing sandstone might be regarded as favorable in that it is commonly 40 feet or more in thickness, is light gray, and contains greenish gray or gray mudstone splits and galls. The thickness and color of the mudstone underlying the ore-bearing sandstone was concealed or inaccessible. Thick red mudstone splits, however, were observed to intertongue with the ore-bearing sandstone south of open cuts on the North Slope claim. In spite of the favorable thickness and color of ore-bearing sandstone, the uranium ore has been localized in festoon-controlled pods ranging from a few hundred pounds to possibly as much as 35 tons. The ore-bearing sandstone of the Salt Wash and in places

the lowermost 10 to 15 feet of the Brushy Basin member underlies about 60 percent of the North Slope claims and about 95 percent of the Oral claims (excluding alluvium); the remaining portion of the applicant's claims is underlain by thin sandstone and mudstone beds of the lower part of the Salt Wash.

Ore deposits

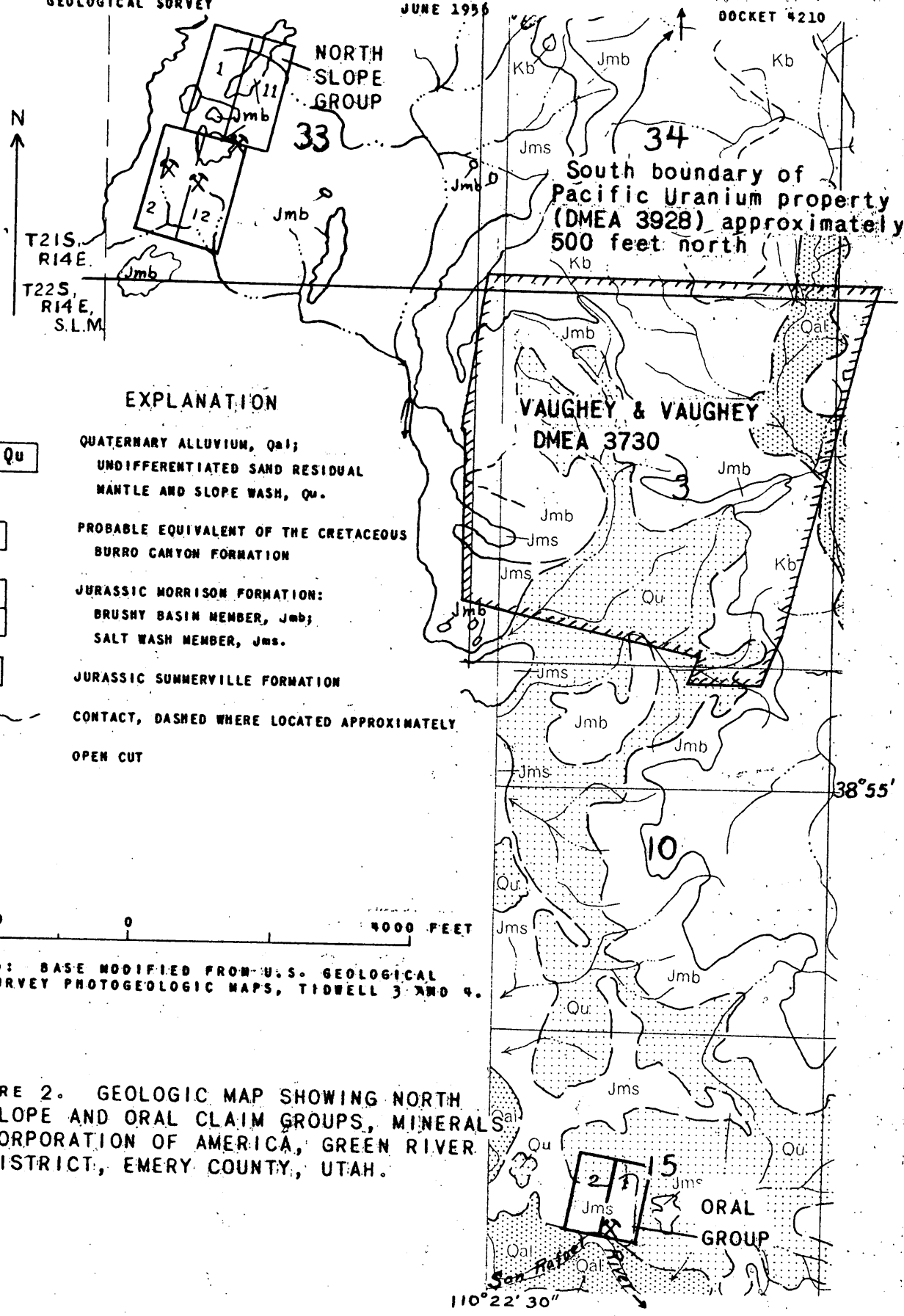
Most, if not all, the uranium ore pods on the North Slope and Oral groups are in the 1- to 10-ton class. Three open cuts from which ore had been mined are on the North Slope group (fig. 2) and one open cut is on the Oral No. 1 claim. These exposures are described to illustrate the size and occurrence of the deposits.

The open cut that straddles the mutual end line of North Slope No. 11 and No. 12 claims is about 100 feet in diameter. The maximum height of the face is about 20 feet, which is the maximum thickness of ore-bearing sandstone exposed. Two small mineralized pods, possibly the low-grade margins of ore mined out, were still exposed at the time of examination. These two mineralized pods had roughly lenticular cross-sections with maximum thicknesses of 2 feet and lengths of 25 and 40 feet, respectively.

The second open cut on the North Slope No. 2 claim (fig. 2) is an irregular composite excavation formed by bulldozing and surface blasting. A short 10-foot adit, used as a powder magazine, is in the cut. The west side of the cut is a sheer Salt Wash cliff capped by 45 to 50 feet of "ore-bearing" sandstone. The rim has been lowered

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
JUNE 1956
DOCKET 4210



Note: BASE MODIFIED FROM U.S. GEOLOGICAL SURVEY PHOTOGEOLOGIC MAPS, TIDWELL 3 AND 4.

FIGURE 2. GEOLOGIC MAP SHOWING NORTH SLOPE AND ORAL CLAIM GROUPS, MINERALS CORPORATION OF AMERICA, GREEN RIVER DISTRICT, EMERY COUNTY, UTAH.

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several feet by bulldozing and blasting for about 200 feet eastward down the dip of the Salt Wash. One small pod of high-grade ore, possibly a log, is exposed on the uneven floor of the cut over an area about 4 by 6 feet and through a minimum thickness of 1 foot. A second low-grade pod, a maximum of 1 foot thick and 10 feet long, is exposed in the adit. According to Rear Admiral Woods, five of six small ore pods have been mined from this open cut. The claim map submitted by the applicant indicates that 38 tons of ore containing 0.46 percent U_3O_8 have been mined from this cut and 8.8 tons containing 0.24 percent U_3O_8 have been mined from the first-described open cut at the south end of North Slope No. 11 claim. The sum of the two tonnages, 46.8 tons is slightly less than the 51.8 tons of ore reported by AEC records because there was a small production prior to the date when Mineral Corporation of America acquired the property.

A small open cut was excavated near the base of an eastward-facing cliff on the down dip side of ore-bearing sandstone near the mutual side line of North Slope claims Nos. 2 and 12 (fig. 2). This cut extends a few feet into the face of the cliff and exposes a low-grade ore pod about 1-1/2 feet thick and 30 feet long in horizontal extent. The ore is in a carbon-bearing silty sandstone between crossbedded pebble conglomerate and sandstone. This ore occurrence is about 30 feet below the top of the ore-bearing sandstone or 10 to 20 feet stratigraphically below the ore pods currently being mined in the open cut to the west (fig. 2).

The open cut on the Oral No. 1 claim is about 70 feet long, extends 30 feet into the bench of ore-bearing sandstone along the San Rafael River, and has a face about 14 feet high. In the lower part of this face a 2-inch carbonaceous streak of low-grade ore is exposed for possibly 10 feet. Jackhammer holes in the bench 5 to 10 feet behind the verical face in which the ore streak is exposed were barren. According to AEC production records, 35.7 tons of ore came from this open cut; the ore was probably mined from more than one pod.

In sec. 3, T. 22 S., R. 14 E., the Vaughey and Vaughey property (DMEA 3730, fig. 2) lies roughly midway and slightly to the east between the North Slope and Oral groups of claims. Stage I exploration of the Vaughey and Vaughey property under DMEA contract Idm-E 868 was completed on November 14, 1955, with negative results. No ore was penetrated in any of the 22 Stage I holes, and the contract was terminated without drilling Stage II or Stage III holes; no certification of discovery was issued.

The southern boundary of the Pacific Uranium property (DMEA 3928) lies a few hundred feet north of the northeastern part of the area shown in figure 2. If the northeasterly favorable trend now being explored on Pacific Uranium property under contract Idm-E 926 would extend another mile southwesterly beyond its present known extent, this favorable trend that contains large ore bodies (2000 to 12,000 tons) would pass through the North Slope claims. Recent DMEA Stage I drilling on the Pacific Uranium property, however, indicates that the southerly extent of the favorable trend either ends north of the

southern boundary of the Pacific Uranium property or possibly turns southeasterly. In either case this favorable trend would miss the North Slope claims by a mile or more. There are no known favorable trends within 3 miles of the Oral group.

In summary, the ore bodies in the Salt Wash on the North Slope and Oral groups of claims, though occurring in sandstone that is locally favorable in some aspects, are strongly controlled by festoon crossbedding and are of small size usually containing not more than 35 tons in any ore body and most are less than 10 tons. These ore bodies are sufficiently dispersed so that drilling would have to be on a 25-foot grid in order to find even part of the ore bodies, and when found they would not be significant. The known favorable trend currently being explored on the Pacific Uranium property apparently does not come near the applicant's claims.

ORE RESERVES

The Ore Reserves Section of the Atomic Energy Commission currently carries a combined indicated and inferred reserve of about 40 tons of ore containing 0.33 percent U_3O_8 on the North Slope property. This estimate appears high for indicated ore and low for inferred ore. Inasmuch as the expected ore bodies are too small and dispersed to be mined profitably under present price schedules, a geologic guess of the inferred ore potential would probably have little meaning. There are no known reserves on the Oral group.

PROPOSED EXPLORATION

The applicant proposes an exploration program consisting of drilling 29 rows of holes parallel to the end lines of the claims and spaced at 100-foot intervals. Holes in each row would be located at 100-foot centers so that a staggered grid would result. Completion of the above drilling would constitute the first stage of the project. The second stage consists of drilling offset holes 50 feet eastward and 50 feet westward from favorable holes in Stage I. No provision is made to offset northward and southward.

No plan is submitted by the applicant for exploration of the Oral group.

The estimated total cost for the project, consisting of 20,000 feet of core and non-core drilling, is $53,064.00. No revision of the applicant's proposal is offered by the DMEA examining team.

Small, widely dispersed ore deposits are indicated and would require much closer-spaced drilling than can be economically justified.

CONCLUSIONS AND RECOMMENDATIONS

The North Slope and Oral groups of claims lie in an area that is favorable in some aspects, but inspection of the property and evaluation of drilling results on nearby properties indicate that the potential ore deposits would be too small and scattered to justify a large expenditure for an exploration program. A pattern of holes on 25-foot centers would be required to reasonably delineate an ore deposit of the size expected on the property.

DMEA drilling on the properties adjoining the subject property indicates that the southerly extent of favorable ground either stops before reaching the North Slope group or possibly turns southeasterly. Drilling now in progress will give a more definite conclusion regarding the above. In either case the favorable trend would miss the subject property by a mile or more.

The examining team recommends denial of the application for Government aid in exploration of the North Slope and Oral groups of claims.

7-20-56

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

July 17, 1956

224 New Customhouse
Denver 2, Colorado

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JUL 19 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 4210 (Uranium), Minerals Corporation of America, (North Slope and Oral groups of claims), Emery County, Utah

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

The field examiners concur that DMEA drilling on the properties adjoining this property indicates the favorable trend would miss the subject property by a mile or more. 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
7-23-56
(date)

MINERAL DEPOSITS
DMEA
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JUN 28 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

TRANSMITTED
JUL 17 1956

MINERAL DEPOSITS
IN REPLY REFER TO:
DMEA
RECEIVED
JUN 20 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 360
Grand Junction, Colorado

DMEA
Date Rec'd.
JUL 13 1956

June 18, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

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

BUREAU OF MINES
Denver, Colorado
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JUL 19 1956

From: J. William Hasler

Subject: Transmittal of report of examination on DMEA docket 4210 (Uranium), Minerals Corporation of America, (North Slope and Oral groups of claims), Emery County, Utah.

The Minerals Corporation of America applied to the Defense Minerals Exploration Administration for aid in the search for uranium on the North Slope and Oral groups of claims which lie some 15 miles southwest of Green-river, Utah, Emery County, Utah. The application was referred to the field and an examination was made May 26 by Frank M. Byers, Jr., U. S. Geological Survey, and H. F. Robertson, U. S. Bureau of Mines. The examining team was accompanied by Rear Admiral R. W. D. Woods, President of the Minerals Corporation of America and Thomas S. Harper, engineer for the applicant.

The North Slope and Oral groups of claims are on the east flank of the San Rafael Swell. Both groups are underlain largely by the Salt Wash member of the Jurassic Morrison formation. The ore-bearing sandstone in the upper part of the sandstone member ranges from 30 to 50 feet in thickness and it is markedly cross-bedded on both claim groups and contains a few separate conglomerate beds up to 10 feet thick on the North slope group. The ore-bearing sandstone might be regarded as favorable, in that it is commonly 40 feet or more thick; is light gray and contains greenish-gray or gray mudstones, splits and galls. The thickness and color underlying the ore-bearing sandstone was concealed or inaccessible in the field. Thick red mudstone splits, however, were observed to intertongue with the ore-bearing sandstone south of open cuts on the North Slope claim.

Most, if not all, of the uranium ore pods on the N rth Slope and Oral groups are in the 1 to 10-ton class. There has been as much as 35 tons of ore produced from several areas on these groups of claims and, for the most part, production has come from a series of pods.

In section 3, T. 22 S., R. 14 E., the Vaughey and Vaughey property lies roughly midway between the North Slope and Oral groups and slightly to the east. A contract, Idm-E 868, was completed with negative results. The southern boundary of the Pacific Uranium property (DMEA 3928) lies a few hundred feet north of the northeastern part of the area under consideration

Reviewed by
DMEA OPERATING COMMITTEE
7-23-56
(date)

in this application. If the northeasterly favorable trend now being explored under contract Idm-E 926 would extend another mile southwesterly beyond its present known extent, this favorable trend that contains large ore bodies would pass through the North Slope claims. Recent stage I drilling on the Pacific Uranium property, however, indicates that the extent of the favorable trend ends either north of the southern boundary of the Pacific Uranium property or possibly turns southeasterly. In any case this favorable trend would miss the North Slope claims by a mile or more. There are no known favorable trends within three miles of the Oral group.

In summary, the ore deposit on the North Slope and Oral groups are small and localized and are not more than 35 tons in size and usually less than 10 tons and the frequency of occurrences is sufficiently distributed so that they cannot be mined profitably. Because of this erratic occurrence the chances of finding ore bodies of commercial size and grade do not appear encouraging. It is recommended, therefore, that the application for assistance be denied. I concur with the conclusions and recommendations of the examining team.

The Atomic Energy Commission was contacted relative to the appraisal of the properties.

Enclosed are 10 copies of figure 2, as well as the applicant's brochure.

J. William Hasler

J. William Hasler,
Geologist

JWH/mlr

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

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DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED
JUL 1 7 1956

DMEA 4210

Minerals Corporation of America

North Slope and Oral Groups

Emery County, Utah

Uranium

Joint Engineering and Geologic Report

by

F. M. Byers
Geological Survey

H. F. Robertson
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
7-23-56
(date)

July 12, 1956

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DMEA 4210

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EMERY COUNTY, UTAH

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Examination of the property and consideration of available data indicate that Salt Wash ore bodies on the North Slope and Oral groups,

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Evaluation of the existing data indicates that DMEA participation in an exploration program on the North Slope and Oral groups of claims is not justified at this time.

Denial of the application is recommended by the examining team.

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The claims are reached by traveling 6.6 miles west from Green River, Utah, to State Highway 24; thence 2.1 miles southwesterly on State Highway 24 to a graveled access road; thence 9.7 miles westerly on the access road to the North Slope group of claims. The Oral claims are reached by traveling south 3.5 miles on an improved dirt road from the North Slope group. The Oral group is on the east bank of the San Rafael River. The nearest town and rail shipping point is Green River, Utah, which is on the Denver and Rio Grande Western Railroad, and about 18 miles northeast of the property (fig. 1). The nearest uranium ore-buying station is at Thompson, Utah, about 45 miles from the property.

The property is bordered on the west side by nearly vertical cliffs about 300 feet high, and the surface dips gently eastward to a valley about half a mile wide. Altitudes range from 4,400 to 4,900 feet. Most of the surface is sandstone of the Salt Wash member of the Morrison formation, upon which very sparse vegetation is found.

The climate is hot and dry in the summer, with occasional thunder showers; it is cold in the winter, with about 18 inches annual snowfall. Temperatures range from -10° F. in the winter to 100° F. in the summer. Year round operations are feasible except for short, infrequent periods of severe blizzard conditions during the winter months.

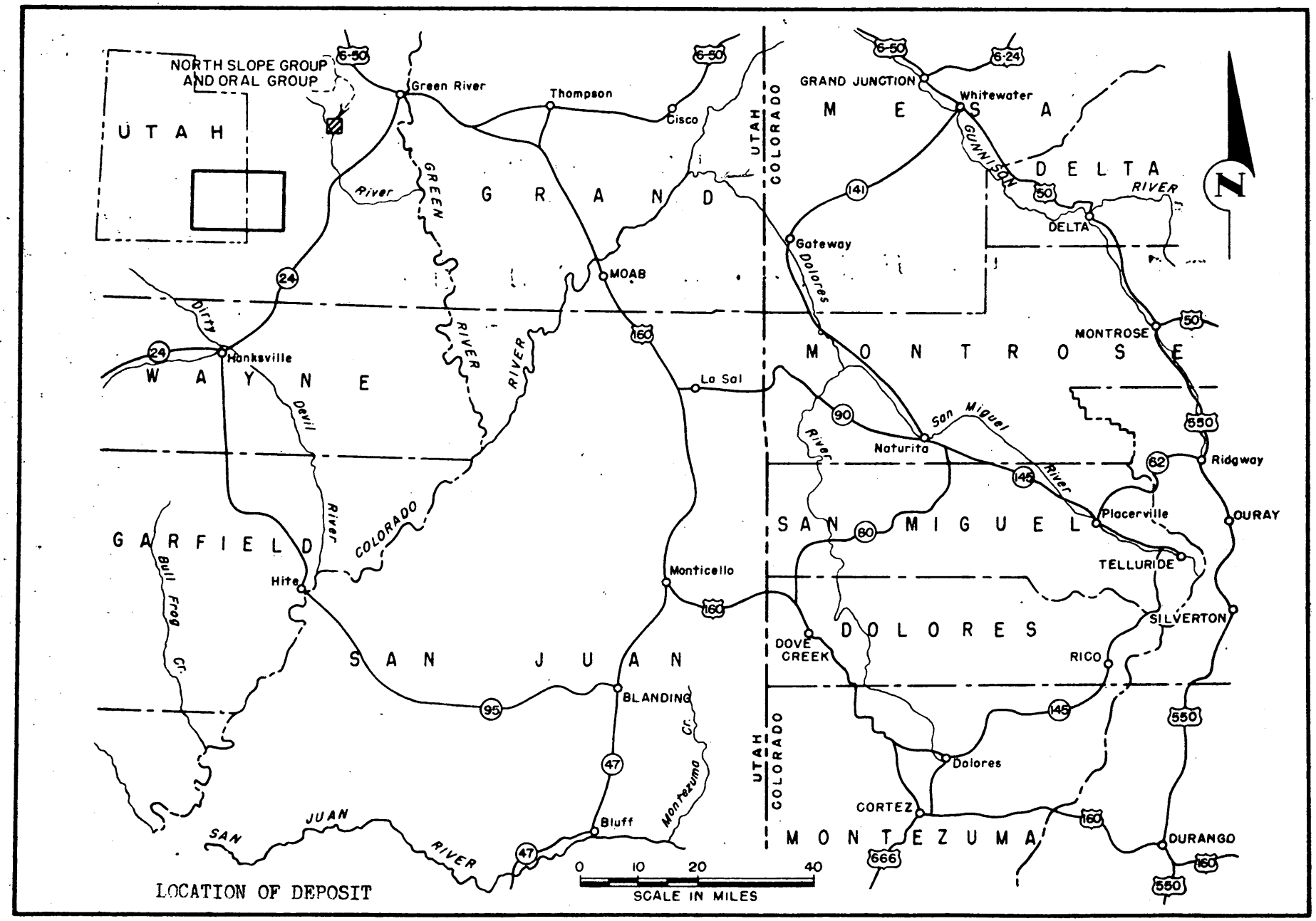

FIGURE 1 - LOCATION MAP OF THE NORTH SLOPE AND ORAL GROUPS OF CLAIMS, EMERY COUNTY, UTAH. MINERALS CORPORATION OF AMERICA. DMEA 4210

Water for drilling and mining in the area would be hauled from the San Rafael River. Domestic water can be obtained at Green River, Utah, and trucked to the area. Labor and supply sources are at Green River and Moab, Utah, or Grand Junction, Colorado, 18, 52, and 138 miles distant, respectively. Operating personnel in this area usually live in house trailers.

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Claim group	Period	Tons	U_3O_8 (percent)	V_2O_5 (percent)	U_3O_8 (lbs.)	V_2O_5 (lbs.)
North Slope	1953	31.1	0.48	1.37	298.56	852.14
" "	3rd Quarter, 1955	12.0	0.20	0.70	48.00	168.00
" "	1st Quarter, 1956	8.7	0.23	0.89	40.02	154.86
Sub-total		51.8	0.373	1.10	386.58	1,175.00
Oral	4th Quarter, 1949	21.0	0.24	0.57	100.80	239.40
"	3rd Quarter, 1954	3.1	0.28	0.59	17.36	36.58
"	4th Quarter, 1955	3.0	0.35	1.13	21.00	67.80
"	1st Quarter, 1956	8.6	0.19	0.46	32.68	79.12
Sub-total		35.7	0.240	0.592	171.84	422.90
Total		87.5	0.32	0.91	558.42	1,597.90

OWNERSHIP AND EXTENT

The mining claims are leased by Minerals Corporation of America and are recorded at the Emery County Courthouse, Castle Dale, Utah, as follows:

Name of claim	Recording date	Book	Page
North Slope No. 1	September 26, 1951	J-9	579
North Slope No. 2	September 26, 1951	J-9	579
North Slope No. 11	July 25, 1953	J-12	259
North Slope No. 12	July 25, 1953	J-12	260
Oral No. 1	September 8, 1952	J-10	330
Oral No. 2	November 30, 1953	J-13	446

The above data was verified by the examining engineer by inspection of the records. The following instrument which could invalidate part of the applicant's lease if still outstanding was noted in the records.

Recorded May 29, 1952, in book J-56, on page 33:

May 29 1952

On this 29 Day of May We do hereby agree to give Tom Alivesakis one-third interest of North Slope No. 1 and 2 for the sum of lawyer fees $150.00.

/s/ James W. Jensen

G. Kouris

The above is copied exactly as written by the owners and appears in the Emery County records. No further reference to the instrument was found by the examining engineer. The applicant has not been asked to clarify the matter.

PRESENT STATUS

Exploration and development

Exploration on the North Slope group of four claims consists of two open pits which stripped rim exposures of uranium ore. One of these, the East mine, in the southwestern corner of North Slope No. 11, is apparently mined out. The other open pit, the West mine, in the west-central part of North Slope No. 2, is being stripped at the present time and accounts for all current production. The ore occurs as small, widely scattered pods and is selectively mined. No exploration or development by drilling has been done.

Exploration of the Oral group consists of one open-pit mine on a rim exposure of uranium-vanadium ore. The mineralized zone remaining is about 2 inches thick and 6 feet long. The deposit has been surrounded by jackhammer holes 8 to 12 feet in depth. No extension of the ore was indicated by these holes.

Mining and milling equipment and other facilities

Equipment on the property at the present time consists of one D-6 caterpillar bulldozer, one LeRoi 105 trailer-mounted air compressor, and two jackhammers with all accessories. This equipment is in use at the West mine on North Slope No. 2 claim. No equipment is on the Oral claims.

Project personnel could be housed at a camp sustained on the property by the Operator. Electricity for the camp is generated by gasoline-powered light plants.

GEOLOGY

The North Slope and Oral groups of claims are on the east flank of the San Rafael Swell. Easterly dips on the North Slope group range from 5° to 10° eastward, whereas on the Oral group the beds dip only 1° to 2° eastward. Both claim groups are underlain largely by the Salt Wash member of the Jurassic Morrison formation. The North Slope group contains small resistant cappings of silicified conglomerate of the lowermost part of the Brushy Basin member, which rests on the ore-bearing sandstone of the uppermost Salt Wash.

The ore-bearing sandstone in the upper part of the Salt Wash member ranges from about 30 to 50 feet in thickness. It is markedly cross-bedded on both claim groups and contains a few pebble conglomerate beds up to 10 feet thick on the North Slope group. Thin beds of pebble conglomerate and sandstone also occur in crossbedded association. The ore-bearing sandstone might be regarded as favorable in that it is commonly 40 feet or more in thickness, is light gray, and contains greenish gray or gray mudstone splits and galls. The thickness and color of the mudstone underlying the ore-bearing sandstone was concealed or inaccessible. Thick red mudstone splits, however, were observed to intertongue with the ore-bearing sandstone south of open cuts on the North Slope claim. In spite of the favorable thickness and color of ore-bearing sandstone, the uranium ore has been localized in festoon-controlled pods ranging from a few hundred pounds to possibly as much as 35 tons. The ore-bearing sandstone of the Salt Wash and in places

the lowermost 10 to 15 feet of the Brushy Basin member underlies about 60 percent of the North Slope claims and about 95 percent of the Oral claims (excluding alluvium); the remaining portion of the applicant's claims is underlain by thin sandstone and mudstone beds of the lower part of the Salt Wash.

Ore deposits

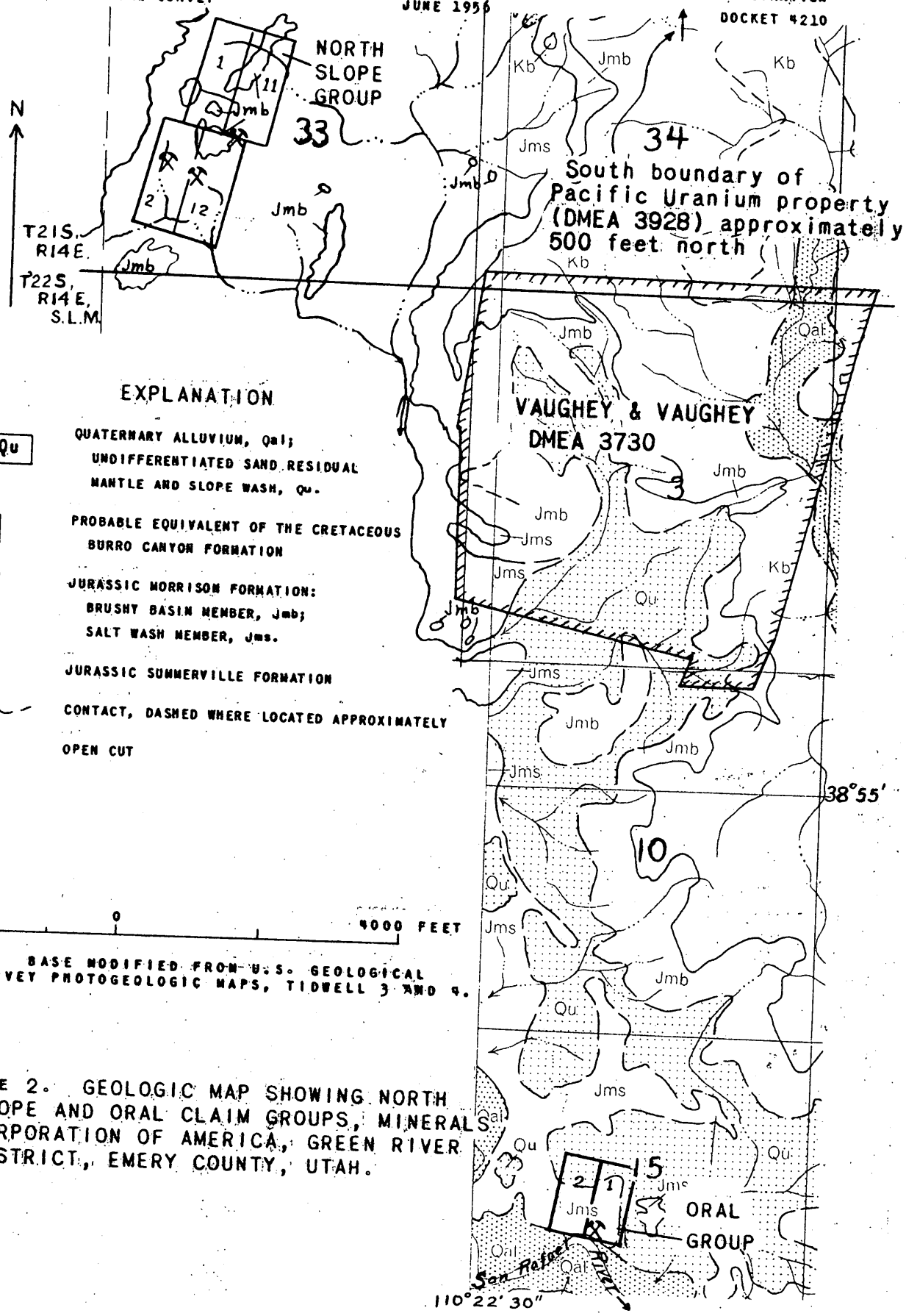
Most, if not all, the uranium ore pods on the North Slope and Oral groups are in the 1- to 10-ton class. Three open cuts from which ore had been mined are on the North Slope group (fig. 2) and one open cut is on the Oral No. 1 claim. These exposures are described to illustrate the size and occurrence of the deposits.

The open cut that straddles the mutual end line of North Slope No. 11 and No. 12 claims is about 100 feet in diameter. The maximum height of the face is about 20 feet, which is the maximum thickness of ore-bearing sandstone exposed. Two small mineralized pods, possibly the low-grade margins of ore mined out, were still exposed at the time of examination. These two mineralized pods had roughly lenticular cross-sections with maximum thicknesses of 2 feet and lengths of 25 and 40 feet, respectively.

The second open cut on the North Slope No. 2 claim (fig. 2) is an irregular composite excavation formed by bulldozing and surface blasting. A short 10-foot adit, used as a powder magazine, is in the cut. The west side of the cut is a sheer Salt Wash cliff capped by 45 to 50 feet of "ore-bearing" sandstone. The rim has been lowered

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
JUNE 1956
DOCKET 4210



Note: BASE MODIFIED FROM U.S. GEOLOGICAL SURVEY PHOTOGEOLOGIC MAPS, TIDWELL 3 AND 4.

FIGURE 2. GEOLOGIC MAP SHOWING NORTH SLOPE AND ORAL CLAIM GROUPS, MINERALS CORPORATION OF AMERICA, GREEN RIVER DISTRICT, EMERY COUNTY, UTAH.

several feet by bulldozing and blasting for about 200 feet eastward down the dip of the Salt Wash. One small pod of high-grade ore, possibly a log, is exposed on the uneven floor of the cut over an area about 4 by 6 feet and through a minimum thickness of 1 foot. A second low-grade pod, a maximum of 1 foot thick and 10 feet long, is exposed in the adit. According to Rear Admiral Woods, five of six small ore pods have been mined from this open cut. The claim map submitted by the applicant indicates that 38 tons of ore containing 0.46 percent U_3O_8 have been mined from this cut and 8.8 tons containing 0.24 percent U_3O_8 have been mined from the first-described open cut at the south end of North Slope No. 11 claim. The sum of the two tonnages, 46.8 tons is slightly less than the 51.8 tons of ore reported by AEC records because there was a small production prior to the date when Mineral Corporation of America acquired the property.

A small open cut was excavated near the base of an eastward-facing cliff on the down dip side of ore-bearing sandstone near the mutual side line of North Slope claims Nos. 2 and 12 (fig. 2). This cut extends a few feet into the face of the cliff and exposes a low-grade ore pod about 1-1/2 feet thick and 30 feet long in horizontal extent. The ore is in a carbon-bearing silty sandstone between crossbedded pebble conglomerate and sandstone. This ore occurrence is about 30 feet below the top of the ore-bearing sandstone or 10 to 20 feet stratigraphically below the ore pods currently being mined in the open cut to the west (fig. 2).

The open cut on the Oral No. 1 claim is about 70 feet long, extends 30 feet into the bench of ore-bearing sandstone along the San Rafael River, and has a face about 14 feet high. In the lower part of this face a 2-inch carbonaceous streak of low-grade ore is exposed for possibly 10 feet. Jackhammer holes in the bench 5 to 10 feet behind the vertical face in which the ore streak is exposed were barren. According to AEC production records, 35.7 tons of ore came from this open cut; the ore was probably mined from more than one pod.

In sec. 3, T. 22 S., R. 14 E., the Vaughey and Vaughey property (DMEA 3730, fig. 2) lies roughly midway and slightly to the east between the North Slope and Oral groups of claims. Stage I exploration of the Vaughey and Vaughey property under DMEA contract Idm-E 868 was completed on November 14, 1955, with negative results. No ore was penetrated in any of the 22 Stage I holes, and the contract was terminated without drilling Stage II or Stage III holes; no certification of discovery was issued.

The southern boundary of the Pacific Uranium property (DMEA 3928) lies a few hundred feet north of the northeastern part of the area shown in figure 2. If the northeasterly favorable trend now being explored on Pacific Uranium property under contract Idm-E 926 would extend another mile southwesterly beyond its present known extent, this favorable trend that contains large ore bodies (2000 to 12,000 tons) would pass through the North Slope claims. Recent DMEA Stage I drilling on the Pacific Uranium property, however, indicates that the southerly extent of the favorable trend either ends north of the

southern boundary of the Pacific Uranium property or possibly turns southeasterly. In either case this favorable trend would miss the North Slope claims by a mile or more. There are no known favorable trends within 3 miles of the Oral group.

In summary, the ore bodies in the Salt Wash on the North Slope and Oral groups of claims, though occurring in sandstone that is locally favorable in some aspects, are strongly controlled by festoon crossbedding and are of small size usually containing not more than 35 tons in any ore body and most are less than 10 tons. These ore bodies are sufficiently dispersed so that drilling would have to be on a 25-foot grid in order to find even part of the ore bodies, and when found they would not be significant. The known favorable trend currently being explored on the Pacific Uranium property apparently does not come near the applicant's claims.

ORE RESERVES

The Ore Reserves Section of the Atomic Energy Commission currently carries a combined indicated and inferred reserve of about 40 tons of ore containing 0.33 percent U_3O_8 on the North Slope property. This estimate appears high for indicated ore and low for inferred ore. Inasmuch as the expected ore bodies are too small and dispersed to be mined profitably under present price schedules, a geologic guess of the inferred ore potential would probably have little meaning. There are no known reserves on the Oral group.

PROPOSED EXPLORATION

The applicant proposes an exploration program consisting of drilling 29 rows of holes parallel to the end lines of the claims and spaced at 100-foot intervals. Holes in each row would be located at 100-foot centers so that a staggered grid would result. Completion of the above drilling would constitute the first stage of the project. The second stage consists of drilling offset holes 50 feet eastward and 50 feet westward from favorable holes in Stage I. No provision is made to offset northward and southward.

No plan is submitted by the applicant for exploration of the Oral group.

The estimated total cost for the project, consisting of 20,000 feet of core and non-core drilling, is $53,064.00. No revision of the applicant's proposal is offered by the DMEA examining team.

Small, widely dispersed ore deposits are indicated and would require much closer-spaced drilling than can be economically justified.

CONCLUSIONS AND RECOMMENDATIONS

The North Slope and Oral groups of claims lie in an area that is favorable in some aspects, but inspection of the property and evaluation of drilling results on nearby properties indicate that the potential ore deposits would be too small and scattered to justify a large expenditure for an exploration program. A pattern of holes on 25-foot centers would be required to reasonably delineate an ore deposit of the size expected on the property.

EMRA drilling on the properties adjoining the subject property indicates that the southerly extent of favorable ground either stops before reaching the North Slope group or possibly turns southeasterly. Drilling now in progress will give a more definite conclusion regarding the above. In either case the favorable trend would miss the subject property by a mile or more.

The examining team recommends denial of the application for Government aid in exploration of the North Slope and Oral groups of claims.

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

RECEIVED
JUN 11 1956

June 7, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman, Operating Committee, DMEA

From: Field Team, Region III

Subject: Docket DMEA 4210 (Uranium) Minerals Corporation of America (North Slope and Oral groups), Emery County, Utah

Enclosed are two copies of a drilling bid from the Scott Brothers Drilling Company which have been submitted by the Applicant. Will you please place these drilling bids with the copies of the brochures you have in the Washington Office.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

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

June 7, 1956

224 New Customhouse
Denver 2, Colorado

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By W. M. Trawer
Executive Officer

Enclosures

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

June 7, 1956

294 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (2)

From: Field Team, Region III

Subject: Docket DMEA 4210 (Uranium), Minerals Corporation of America (North Slope and Oral groups), Emery County, Utah

Attached is one copy of a drilling bid from the Scott Brothers Drilling Company which has been submitted by the Applicant. Will you please place this drilling bid with the brochure on the subject docket.

DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosure

WMC:ab

cc: Chair. Op. Comm. (2)
Docket 4210
Chron.

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

RECEIVED
JUN 1 1 1956

June 7, 1956

20th New Customhouse
Denver 2, Colorado

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DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosure

DMG:sb

cc: Chair. Op. Comm. (2)
Docket 4210
Chron.

Minerals Corp. of America
Post Office Box No. 1297
Grand Junction, Colorado

June 2, 1956

Mr. F. M. Byers, Jr., Geologist
United States Geological Service
Box 360
Grand Junction, Colorado

Dear Mr. Byers:

Enclosed is the copy of the drilling estimate from Scott Bros., which you requested on Monday, May 28. This estimate is to be included with the other drilling estimates in our D.M.E.A. application file.

I hope that this estimate satisfies all the requirements to complete our application.

Very sincerely yours,

John D. Heffernan
Vice President

JDH:rd
Enclosure

3 cc:
Mr. W. M. Traver

220 Whiteside Bldg.
Phone: PO 3-5131
Lubbock, Texas

SCOTT BROS.
drilling company
"Exploration Drilling Services"

Branch:
641 Glenwood Ave.
Phone: 45
Grand Junction, Colo.

May 29, 1956

RECEIVED
MAY 31 1956

Minerial Corporation of America
634 Walnut Avenue
Box 1297
Grand Junction, Colorado

Gentlemen:

We would like to quote the following prices for drilling requested in Green River area:

Non-Core

0-200 ft.....$1.65 per ft.

Core Drilling

0-200 ft.....$3.75 per ft.

Stand-by Time.....$12.00 per hr.

Thank You.

Sincerely,

L. W. Scott Partner
L. W. Scott

SCOTT BROS. DRILLING CO.

Minerals Corp. of America
Post Office Box No. 1297
Grand Junction, Colorado

June 2, 1956

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United States Geological Service
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L.W. Scott

SCOTT BROS. DRILLING CO.

5/8/56

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

RECEIVED
MAY 7 - 1956

May 4, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 4210 (Uranium) Minerals Corporation of America, (North Slope and Oral claim groups), Emery County, Utah

This responds to your teletype of May 4, 1956 on the subject docket.

The USGS has no geologist available until the week of May 14-18 and the field examination will be scheduled during that period.

Attached are two copies of our letter to the Applicant.

W. M. Traver

Enclosures

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

RECEIVED
MAY 7 - 1956

May 4, 1956

224 New Customhouse
Denver 2, Colorado

Rear Admiral R. W. D. Woods, U.S.N. (Ret.)
President, Minerals Corporation of America
120 South Tenth Street
Grand Junction, Colorado

Re: Docket DMEA 4210 (Uranium)
(North Slope and Oral claim groups) Emery County, Utah

Dear Admiral Woods:

A field examination of the captioned property is tentatively scheduled for the week of May 14-18, which is the earliest date that the geologist member of the examining team will be available.

The U. S. Geological Survey and the U. S. Bureau of Mines maintain a field office in the Atomic Energy Commission Compound at Grand Junction, Colorado. DMEA representatives of the two Services may be contacted as follows:

J. W. Hasler, U. S. Geological Survey
Telephone Grand Junction 3000, Ext. 262

M. H. Salsbury, U. S. Bureau of Mines
Telephone Grand Junction 3000, Ext. 274

It is suggested that you contact either of the above DMEA representatives May 10th or 11th, at which time they will probably be able to give you the exact date of the field examination.

Very truly yours,

W. M. TRAVER

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

HMC:ab

cc: Chair. Op. Comm. (2)
Harshman
Hasler
Shaw (2)
Docket 4210
Chron.

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

RECEIVED
MAY 7 - 1956

May 4, 1956

224 New Customhouse
Denver 2, Colorado

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From: Executive Officer, DMEA Field Team, Region III

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UNITED STATES
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DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
MAY 7 - 1956

May 4, 1956

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Very truly yours,

W. M. TRAVER

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

HMC:ab

cc: Chair. Op. Comm. (2)
Harshman
Hasler
Shaw (2)
Docket 4210
Chron.

Surname copy

DEPARTMENT OF THE INTERIOR

DMEA

FLKnouse

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

Exploration(GL) Revolving Fund
Defense Production Act, Interior
(Allocated Working Fund to the
Office of the Secy.)

TELETYPE

W. M. TRAVER, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION IIX
[illegible] NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

MAY 4 1956

Selfridge
Muttendorf

REFERENCE DMEA-4250 MINERALS CORPORATION OF AMERICA, APPLICANT'S NEW YORK OFFICIAL INQUIRED THE SCHEDULED DATE OF FIELD EXAMINATION. PLEASE ADVISE THE APPLICANT'S GRAND JUNCTION OFFICE AND THIS OFFICE.

George C. Selfridge

GEORGE C. SELFRIDGE, (215)
CHAIRMAN, OPERATING COMMITTEE

FLKnouse/gla
5-4-56
cc to: Admr.'s Reading File
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700, Mr.Knouse
DMEA Field Team, Region III - confirmation

Surname copy

700

F. L. Knouse

Liz Selfridge

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

Mr. Clarence R. King, Vice President
Minerals Corporation of America
P. O. Box 1297
Grand Junction, Colorado

MAY 4 1956

Re: Docket No. DMEA-4210 (Uranium)
North Slope and Oral Groups
Emery County, Utah

Dear Mr. King:

Your letter of May 1, 1956, concerning the status of your application and the date you may expect a field examination, and also your letter of April 4, transmitting the information requested in our letter of March 22, are hereby acknowledged.

We are making inquiry of the Region III office in Denver concerning the date that a field examination of your property is scheduled, and you will hear from them in due course.

Sincerely yours,

G. O. Mittendorf

Administrator

FLKnouse/gla
5-4-56
cc to: Admr.'s Reading File
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700, Mr. Knouse
DMEA Field Team, Region III (2)

Ellis

MINERALS CORPORATION OF AMERICA

P. O. BOX 1297 TELEPHONE 4568
GRAND JUNCTION, COLORADO

May 1, 1956

United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Attention: Mr. C. O. Mittendorf,
Administrator

Re: Docket #DMEA-4210(Uranium)
North Slope and Oral Groups
Emery County, Utah

Gentlemen:

On April 4 we forwarded four items which you requested to complete our application for aid on an exploration project under the above docket number. These data were requested in your letter to us dated March 22.

To date, we have received no acknowledgmentnor have we received notice as to when the field team may be expected to examine the property.

I would greatly appreciate any information you may be able to give us in this matter.

Sincerely,

C. R. King

Clarence R. King
Vice President, Mining

CRK:rd

cc: Mr. W. M. Traver, Executive Officer
Denver, Colorado

Cap

Mr. Hesserman of N.Y. phoned me about this - 11 30 AM Today. Told him we we awaiting F.T. Report. He is driving back to Colo Tomorrow & Said he would check with Traver. I said we would also check with Traver. They have been working all winter so weather is not a problem

MINERALS CORPORATION OF AMERICA
2nd at Colorado
GRAND JUNCTION, COLORADO

GRAND JUNCTION COLO. MAY 2 11:30 AM 1956

VIA AIR MAIL
Special delivery

Mr. C. O. Mittendorf, Administrator
United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

VIA AIR MAIL

Special Delivery

WASHINGTON, D.C.
MAY 3
12 M
1978

4/24/56 gla

IN REPLY REFER TO:

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

RECEIVED
APR 24 1956

April 19, 1956

Re: DMEA 4210
Minerals Corp. of America
North Slope and Oral groups
Emery County, Utah
$53,064.00 - Uranium

Memorandum

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

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

Subject: Review of supplemental information

In response to a request of the Administrator, the applicant has submitted additional information, especially a map showing where ore has been found and produced, the location of the proposed holes and the outline of the presumed trend.

The information should assist the examiners, if an investigation is undertaken.

Referral to the Field Team is again recommended.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

REFERRED TO: DATE 4-24

1. TOD
2. ~~Mr. Knouse~~
3.
4.

FOR:

---------- Action	---------- Recommendation
---------- Approval	---------- Record of ----------
---------- Comment	---------- Referring to ----------
---------- Conference	---------- Reply for signature of ----------
---------- Consideration	---------- Rewriting
---------- Filing	---------- Signature
---------- Instructions	---------- Suggestions
---------- Investigation	---------- Your information
---------- Initials	
---------- Mailing	
---------- Previous correspondence	

REMARKS: Mr. Crawford returned the material forwarded to him, without further comment. Attached are USGS comments. The Applicant forwarded a set of this information to Mr. Traver directly.

Check (X) before the items needing attention. gla

ROBERT E. ADAMS
Initials of sender.

GPO 16—63815-1

IN REPLY REFER TO:

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

RECEIVED
APR 24 1956

April 19, 1956

Re: DMEA 4210
Minerals Corp. of America
North Slope and Oral groups
Emery County, Utah
$53,064.00 - Uranium

Memorandum

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

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

Subject: Review of supplemental information

In response to a request of the Administrator, the applicant has submitted additional information, especially a map showing where ore has been found and produced, the location of the proposed holes and the outline of the presumed trend.

The information should assist the examiners, if an investigation is undertaken.

Referral to the Field Team is again recommended.

N. E. Nelson

N. E. Nelson

NENelson:jeh
4/19/56
cc: Director's reading 4212
Branch reading 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Int.
J. O. Hosted, 3210, GSA

IN REPLY REFER TO:

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

RECEIVED
APR 24 1956

April 19, 1956

Re: DMEA 4210
Minerals Corp. of America
North Sleye and Oral groups
Emery County, Utah
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DMEA (3)
Docket file
J. E. Crawford, 3641 Int.
J. O. Hosted, 3210, GSA

4-16-56

April 4, 1956

RECEIVED
APR 1 3 1956

United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Attention: Mr. C. O. Mittendorf, Administrator

Re: Docket No. DMEA-4210 (Uranium)
North Slope and Oral Groups
Emery County, Utah

Gentlemen:

Pursuant to your letter of March 22, I enclose the following data which you requested:

1. Three copies, Power of Attorney, J. W. Jensen to F. B. Hanson;

2. Three copies Claim Map, North Slope Group, showing mineralized trends and exposures; points where ore has been produced with tonnage and grade; location of inferred ore reserves; and proposed drilling pattern;

3. Three copies of a third bid upon the proposed drilling.

As requested, we are forwarding one copy of each of the above data to Mr. W. M. Traver.

Please inform us as soon as possible about any further data required to expedite this application; particularly when we may expect an inspection of the property by your field team so that we may be prepared to assist them in any way.

Sincerely,

C. R. King, Vice President

CRK:rd
Enclosures (9)

cc: (with enclosures)
Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Custom House Bldg.
Denver 2, Colorado

RECEIVED
APR 13 1956

GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That I, James William Jensen, sometimes otherwise known as James W. Jensen, or Bill Jensen, of Cleveland, County of Emery, State of Utah, has made, constituted and appointed, and by these presents does make, constitute, and appoint Frank B. Hanson, of Price, County of Carbon, State of Utah, my true and lawful attorney for me and in my name, place and stead, and for my use and benefit, to ask, demand, sue for, recover, collect and receive all such sums of money, debts, dues, accounts, legacies, bequests, interests, dividends, annuities and demands whatsoever as are now or shall hereafter become due, owing, payable or belonging to me, and have, use and take all lawful ways and means in our names or otherwise for the recovery thereof, by attachments, arrests, distress or otherwise, and to compromise and agree for the same, and acquittances, or other sufficient discharges for the same, for me, and in my name, to make, seal and deliver; to bargain, contract, agree for, purchase, receive, and take lands, tenements, hereditaments and accept the seizin and possession of all lands and all deeds and other assurances, in the law therefor, and to lease, let, demise, bargain, sell, remise, release, convey, mortgage and typothecate lands, tenements and hereditaments, upon such terms and conditions, and under such covenants, as he shall think fit. Also, to bargain and agree for, buy, sell, mortgage, typothecate and in any and every way and manner deal in and with goods, wares, and merchandise, chose in action and other property in possession or in action, and to make, do, and transact all and every kind of business of what nature or kind soever, and also for me and in my name, and as my act and deed, to sign, seal, execute, deliver and acknowledge such deeds, leases and assignment of leases, covenants indentures, agreements, mortgages, typothecations, bottomries, charter-parties bills of lading, bills, bonds, notes, receipts, evidences of debts, releases and satisfaction of mortgage, judgments and other debts, and such other instruments in writing of whatever kind and nature as may be necessary or proper in the premises.

Giving and granting unto my said attorney full power and authority to do and perform all and every act and thing whatsoever requisite and necessary to be done in and about the premises, as fully to all intents and purposes as I might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that my said attorney, or his substitute or substitutes, shall lawfully do or cause to be done by virtue of these presents.

WITNESS my hand this 23 day of July, A. D., 1954.

James W Jensen

STATE OF UTAH)
: SS
County of Carbon)

On this 23 day of July, A. D., 1954, personally appeared before me, a Notary Public in and for the County of Carbon, State of Utah, James William Jensen, sometimes otherwise known as James W. Jensen, or Bill Jensen, the signer of the foregoing instrument, who duly acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my official seal on the day and year last above written.

Notary Public for Utah
Residing at Price, Utah

My commission expires: 3-1-58

RECEIVED
APR 11 1956

RECEIVED
APR 13 1956

April 4, 1956

Minerals Corp. of America
P.O. Box 1297
Grand Junction, Colo.

Attn: C.R. King - Vice Pres. Engineering

Gentlemen:

In accordance with our recent conversations, we herewith submit our proposal for drilling on your property in Section 23 -- T21S -- R14E, Emory County, South of Greenriver, Utah.

PROPOSAL:

Non-Core Drilling:

Item 1. From surface to 300 ft. depth..... $ 1.60 per ft.

Core Drilling - Recovering minimum size AX (1 1/ ") core

Item 2. From surface to 300 ft. depth..... $ 3.50 per ft.

Delays

Item 3. For all delays such as radiometric, logging, or for any other delays requested by the customer..... $12.00 per hr.

Transportation

Item 4. See provision 9.

The preceding proposal is subject to the following provisions:

1. All drill hole locations and access roads to drill sites will be constructed and maintained to accommodate Sprague & Henwood, Inc. truck mounted drills and water trucks. Any bulldozer work required for preparation of sites and roads will be furnished by the customer at no cost to Sprague & Henwood, Inc.

2. Cores will be delivered at drill hole locations, and storage and preservation of cores will be the responsibility of the customer.

3. Upon completion of a hole to the specified bottom depth and prior to moving the drill rig, if the drill and crew are required to stand by while the customer logs said hole with subsurface logging equipment, or if the drill and crew are required to perform additional work in the hole for use of subsurface logging equipment, Sprague & Henwood, Inc, will be paid at the rate per hour specified under Item 3 of proposed schedule.

4. In the event the customer does not have logging equipment available at the time the hole is completed to specified depth, the customer may require that the casing be left in the hole and the drill moved to another site. Sprague & Henwood, Inc. shall be paid at the rate per hour under Item 3 for the time required to return, set up on hole, and pull the casing. If such casing should be impossible to recover after diligent effort on the part of Sprague & Henwood, Inc., using such equipment normally capable of performing the operation efficiently, then the casing left in the hole will be paid for by the Minerals Corp. of America at the fair market value.

5. All work shall be performed in such a manner as to secure maximum core recovery from each hole drilled and to deliver as complete and accurate core samples as are consistent with good drilling practice.

6. All holes will be located in the field by the customer.

7. All rights of entry to and exit from the property will be obtained by the customer.

8. Prior to commencement of drilling of each hole, the non-core depth will be established by the Owner. This depth may be changed by the Owner at any time prior to commencement of coring. Once coring has begun, any drilling beyond the depth where coring commenced, will be paid for at coring prices.

9. The above prices are based on a minimum drilling program of 10,000 feet. If a lesser amount is drilled, 10 cents per foot will be charged for the difference between the actual amount drilled and the minimum drilling program. If the drilling program exceeds the planned minimum, drilling prices listed above will be reduced by 10 cents per foot for all drilling over the planned minimum.

10. Payments are to be made monthly based on completed holes, within 15 days after date of invoice. Should payments not be made within the specified period then Sprague & Henwood, Inc. reserves the right to terminate operations. Credit arrangements satisfactory to Sprague & Henwood, Inc. must be made prior to commencement of work.

We thank you for the opportunity of submitting this proposal and we hope to be favored with your order.

Very truly yours,

SPRAGUE & HENWOOD, INC.

V. Nourse

V.D. Nourse

Ass't to Mgr. Mgr.

VDN:jmt

CC: Scranton

NT-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 4-13

REFERRED TO:
1. 700
2. Strouse
3.
4.

FOR:

____ Action	____ Recommendation
____ Approval	____ Record of ____
____ Comment	____ Referring to ____
____ Conference	____ Reply for signature of ____
____ Consideration	____ Rewriting
____ Filing	____ Signature
____ Instructions	____ Suggestions
____ Investigation	____ Your information
____ Initials	
____ Mailing	
____ Previous correspondence	

REMARKS: Forward one copy of Application to letter with one copy of the cases to each of the Commodity Members, USBM & USGS.
J. Pitt 4-16-56

Check (X) before the items needing attention.

Initials of sender.

GPO 16—63815-1

4-13-56

MINERALS CORPORATION OF AMERICA

P. O. BOX 1297 TELEPHONE 4568
GRAND JUNCTION, COLORADO

Maps are in envelope

April 4, 1956

RECEIVED
APR 13 1956

United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Attention: Mr. C. O. Mittendorf, Administrator

Re: Docket No. DMEA-4210 (Uranium)
North Slope and Oral Groups
Emery County, Utah

Gentlemen:

Pursuant to your letter of March 22, I enclose the following data which you requested:

1. Three copies, Power of Attorney, J. W. Jensen to F. B. Hanson;

2. Three copies Claim Map, North Slope Group, showing mineralized trends and exposures; points where ore has been produced with tonnage and grade; location of inferred ore reserves; and proposed drilling pattern;

3. Three copies of a third bid upon the proposed drilling.

As requested, we are forwarding one copy of each of the above data to Mr. W. M. Traver.

Please inform us as soon as possible about any further data required to expedite this application; particularly when we may expect an inspection of the property by your field team so that we may be prepared to assist them in any way.

Sincerely,

C. R. King

C. R. King, Vice President

CRK:rd
Enclosures (9)

cc: (with enclosures)
Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Custom House Bldg.
Denver 2, Colorado

P.S. – My best personal regards – I visited Inn City & Randsburg not long ago – it is nearly a ghost town now
C.R.K.

GENERAL POWER OF ATTORNEY

RECEIVED
APR 13 1956

KNOW ALL MEN BY THESE PRESENTS:

That I, James William Jensen, sometimes otherwise known as James W. Jensen, or Bill Jensen, of Cleveland, County of Emery, State of Utah, has made, constituted and appointed, and by these presents does make, constitute, and appoint Frank B. Hanson, of Price, County of Carbon, State of Utah, my true and lawful attorney for me and in my name, place and stead, and for my use and benefit, to ask, demand, sue for, recover, collect and receive all such sums of money, debts, dues, accounts, legacies, bequests, interests, dividends, annuities and demands whatsoever as are now or shall hereafter become due, owing, payable or belonging to me, and have, use and take all lawful ways and means in our names or otherwise for the recovery thereof, by attachments, arrests, distress or otherwise, and to compromise and agree for the same, and acquittances, or other sufficient discharges for the same, for me, and in my name, to make, seal and deliver; to bargain, contract, agree for, purchase, receive, and take lands, tenements, hereditaments and accept the seizin and possession of all lands and all deeds and other assurances, in the law therefor, and to lease, let, demise, bargain, sell, remise, release, convey, mortgage and typothecate lands, tenements and hereditaments, upon such terms and conditions, and under such covenants, as he shall think fit. Also, to bargain and agree for, buy, sell, mortgage, typothecate and in any and every way and manner deal in and with goods, wares, and merchandise, chose in action and other property in possession or in action, and to make, do, and transact all and every kind of business of what nature or kind soever, and also for me and in my name, and as my act and deed, to sign, seal, execute, deliver and acknowledge such deeds, leases and assignment of leases, covenants indentures, agreements, mortgages, typothecations, bottomries, charter-parties bills of lading, bills, bonds, notes, receipts, evidences of debts, releases and satisfacti n of mortgage, judgments and other debts, and such other instruments in writing of whatever kind and nature as may be necessary or proper in the premises.

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WITNESS my hand this 23 day of July, A. D., 1954.

James W Jensen

STATE OF UTAH)
: ss
County of Carbon)

On this 23 day of July, A. D., 1954, personally appeared before me, a Notary Public in and for the County of Carbon, State of Utah, James William Jensen, sometimes otherwise known as James W. Jensen, or Bill Jensen, the signer of the foregoing instrument, who duly acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my official seal on the day and year last above written.

Notary Public for Utah
Residing at Price, Utah

My commission expires: 3-1-58

MANUFACTURERS OF
DIAMOND DRILLS
DRILLING EQUIPMENT
DIAMOND BITS

BRANCH OFFICES
NEW YORK · PITTSBURGH
PHILADELPHIA
GRAND JUNCTION, COLO.

EXECUTIVE OFFICES & PLANT
221 W. OLIVE STREET
SCRANTON, PA.

SINCE 1883

SPRAGUE & HENWOOD, INC.

CONTRACTORS FOR
DIAMOND DRILLING
SHOT DRILLING · SOIL SAMPLING · PRESSURE GROUTING
WATER WELLS & CHURN DRILLING

PLEASE REPLY TO
P. O. BOX 645
GRAND JUNCTION, COLO.
TELEPHONE 834

RECEIVED
APR 11 1956
RECEIVED
APR 13 1956

April 4, 1956

Minerals Corp. of America
P.O. Box 1297
Grand Junction, Colo.

Attn: C.R. King - Vice Pres. Engineering

Gentlemen:

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Very truly yours,

SPRAGUE & HENWOOD, INC.

V. Nourse

V.D. Nourse

Ass't to West. Mgr.

VDN:jmt

CC: Scranton

3/30/56

March [illegible] 1956

Memorandum

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

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4210 (Uranium), Minerals Corporation of America, (North Slope and Oral claim groups), Emery County, Utah

The subject application in the amount of $53,064.00 was received in this office on March 27, 1956.

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

JOHN F. SHAW

John F. Shaw

cc: W. M. Traver (2)
E. N. Harshman
J. W. Hasler
M. K. Salsbury
J. F. Shaw
Sec. Op. Com. (2)

March 27, 1956

Memorandum

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

From: Superintendent, Denver Experiment Station, Reg. III

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John F. Shaw

cc: W. M. Traver (2)
E. N. Harshman
J. W. Hasler
M. H. Salsbury
J. F. Shaw
See. Op. Com. (2)

3/26/56

MINERALS CORPORATION OF AMERICA

MICOA

P. O. BOX 1297 TELEPHONE 2641
GRAND JUNCTION, COLORADO

March 22, 1956

RECEIVED
MAR 26 1956

Mr. Robert E. Adams, Chief
Operations Control and Statistics Division
United States Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Subject: DMEA-4210

Re: Exploration Assistance
North Slope & Oral

Dear Mr. Adams:

Your letter containing the assignment of the Docket Number DMEA-4210 is hereby acknowledged.

Sincerely,

R. W. D. Woods,
President

RWDW:rd

700

FILE COPY

Surname:

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

MAR 22 1956

Rear Admiral R. W. D. Woods, U.S.N. (Ret.)
President, Minerals Corporation of America
120 South Tenth Street
Grand Junction, Colorado

Re: Docket No. DMEA-4210 (Uranium)
North Slope and Oral claim groups
Emery County, Utah

Dear Admiral Woods:

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 for a field examination to:

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

In the meantime, so the processing of your application will not be delayed, please furnish the following:

1. We note the "Lease and Agreement" covering the land you propose to explore was signed by Frank B. Hanson as attorney for James W. Jensen. In this connection, we will require a copy of the power of attorney from Mr. Jensen to Mr. Hanson.

2. There were submitted with your application two claim maps entitled, "Claim Map Oral No. 1 & No. 2 T. 22 S, R 14 E, Sec. 15 Emery Co. Utah," and "Minerals Corporation of America Claim Map North Slope No.s, 1-2-11-12 S. 33, T. 21 S., R. 14 E., S.L.M. Emery County, Utah." On prints of these maps, please show the locations of mineralized trends and exposures; also where ore was produced (including tonnage and grade), and the location of the "reasonable assured reserves" as is described in your application. Also please show the location of the holes you propose to drill.

3. On page 8 of the narrative attached to your application you state "Contract drilling price given is bid from Airborne Exploration Co. Included with the application are bids from two other drilling companies." Only two copies of bids were received with the application, i.e., one from Cannon Diamond Drilling Co. and one from Airborne Exploration Co. Therefore, please furnish the third bid.

Please send one copy of this information to Mr. W. M. Traver at the above address. Three copies of this information and one copy of the power of attorney from Mr. Jensen to Mr. Hansen should be forwarded to this office.

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

Sincerely yours,

C. O. Mitchell

Administrator

FLKnouse/gla/izm 3-20-56
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

700

FILE COPY
Surname:
FLKnouse
Selfridge
Williams

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

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

MAR 22 1956

Re: Docket No. DMEA-4210 (Uranium)
Minerals Corporation of America
North Slope and Oral claim groups
Emery County, Utah

Dear Mr. Traver:

The captioned application is referred to your office for a field examination and report on the proposed project. Certain information has been requested from the Applicant. However, you may desire to schedule the examination, based on information available to your office, prior to receipt of the requested information.

Enclosed are copies of memoranda, dated March 14 and 15, 1956, from Mr. N. E. Nelson, USGS, and Mr. John E. Crawford, USBM, respectively.

If the Field Team recommends an exploration project, we will require, in addition to the usual information, the following:

1. Nine copies of a map showing location of mineralized exposures and proposed work, all in relation to the property boundaries; and

2. The Applicant should be requested to furnish Consents to Lien covering all the land to be included in the project, signed by all the landowners.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (W/S)

Enclosures

APPROVED:

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

W. P. Williams (W/S)
Member, Geological Survey

FLKnouse/gla/izm 3-20-56
cc to: Docket
Code 700
Mr. Knouse
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

3/16/56 dzm

RECEIVED
MAR 16 1956

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

March 15, 1956

Memorandum

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

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

Subject: Application for assistance, DMEA Docket 4210, Minerals Corporation of America, Emery County, Utah

I have reviewed the attached application, Minerals Corporation of America, DMEA Docket 4210, dated March 1 and received in this office March 13. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The applicant requested assistance to explore the Oral and North Slope groups of claims located in Emery County, Utah. The proposed project includes 10,000 feet of plug drilling at a unit cost of $1.00, 10,000 feet of core drilling at a unit cost of $3.00, and 150 hours of bulldozing at a unit cost of $10.00. The total estimated cost of the project is $53,064.00.

Both groups of claims have produced small tonnages of uranium from rim outcrops since 1952, but neither group has been systematically explored to date.

It is suggested that the applicant be advised to submit a map or maps indicating the location of the proposed drill-hole pattern in the various stages and the relationship of the pattern to geologic data. The additional information should probably be received before the examining team visits the property, thereby precluding the situation wherein the team may be asked to act as consultants by the applicant. The responsibility of setting up an exploration program rests with Minerals Corporation of America.

We agree with the Field Team that the property warrants an examination.

John E Crawford
John E. Crawford

Attachment

3/15/56

IN REPLY REFER TO:

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

RECEIVED
MAR 14 1956

March 14, 1956

Re: DMEA 4210
Minerals Corp. of America
North Slope & Oral groups
Emery County, Utah
$53,064.00 - Uranium

Memorandum

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

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

Subject: Review of application.

An examination of the two properties is considered warranted by the Field Team if and when the applicant submits a map showing the proposed drilling on the North Slope property.

The location of the properties in relation to well-known producing properties, the small production record of the North Slope mines, and the practically proven existence at shallow depth of the Salt Wash member of the Morrison formation support the tentative intention of the Field Team.

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
MAR 14 1956

March 14, 1956

Re: DMEA 4210
Minerals Corp. of America
North Slope & Oral groups
Emery County, Utah
$53,064.00 - Uranium

Memorandum

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

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

Subject: Review of application.

An examination of the two properties is considered warranted by the Field Team if and when the applicant submits a map showing the proposed drilling on the North Slope property.

The location of the properties in relation to well-known producing properties, the small production record of the North Slope mines, and the practically proven existence at shallow depth of the Salt Wash member of the Morrison formation support the tentative intention of the Field Team.

Referral to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-3/14/56

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Hosted, 3210

March 12, 1956
Subject: DMEA-4210
Re: Exploration Assistance
North Slope & Oral

Minerals Corporation of America
120 South Tenth Street
Grand Junction, Colorado

Gentlemen:

The receipt of your application dated March 1, 1956 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4210 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

March 12, 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 - 4210 Minerals Corporation of America

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
MAR 12 1956

March 9, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman, Operating Committee, DMEA

From: Field Team, Region III

Subject: Application for DMEA Aid (Uranium), Minerals Corporation of America, Emery County, Utah

Enclosed are the original and three copies of a review of the subject application by J. William Hasler and M. H. Salsbury of the Grand Junction office, DMEA.

We concur that a field examination is warranted provided the applicant submits a pattern of drilling showing the approximate location of the proposed holes in stages of drilling.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

IN REPLY REFER TO:

DMEA
Rec'd.
MAR 9 1956
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 360
Grand Junction, Colorado

March 7, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: J. William Hasler
M. H. Salsbury

Through: E. N. Harshman

Subject: Application for DMEA aid, Minerals Corporation of America, (Uranium), Emery County, Utah

The above application was referred to us for recommendation concerning the advisability of making a field examination. A cursory investigation concerning the application for aid with the Atomic Energy Commission and the U. S. Bureau of Mines shows that some drilling has been completed by the Atomic Energy Commission near the North Slope group of claims listed in this application.

The applicant's property is adjacent to the Four Corners Uranium property which has produced over 200,000 tons of ore. Mineralized outcrops and subsequent diamond drilling indicates that the property should be examined by a DMEA field team. The applicant should be advised to submit a pattern of drilling and show approximate location of proposed holes in stages of drilling. We may alter an applicant's program, but we cannot act as consultants in setting up his program.

We recommend that a field examination be scheduled, in view of the foregoing information.

We will retain the applicant's brochure in this office pending orders from Washington.

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

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

224 New Customhouse
Denver 2, Colorado

March 9, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

DMEA-4210

From: Field Team, Region III

Subject: Application forDeam Aid (Uranium), Minerals Corporation of America, Emery County, Utah

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DMEA Field Team, Region III

/s/ W. M. Traver

By: W. M. Traver
Executive Officer

Enclosures

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IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA
Date Rec'd.
MAR 9 1956
BUREAU OF MINES
Denver, Colorado

P. O. Box 360
Grand Junction, Colorado

March 7, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

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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

To Crawford
3/12/56

IN REPLY REFER TO:
DMEA
Date Rec'd.
MAR 9 1956
DMEA-4210

BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 360
Grand Junction, Colorado

March 7, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: J. William Hasler
M. H. Salsbury

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U. S. Geological Survey

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

JWH/mlr

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

RECEIVED
MAR - 8 1956

March 5, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. W. Hasler

From: Field Team, Region III

Subject: Application for DMEA Aid (Uranium), Minerals Corporation of America, ~~Carbon~~ Emery County, Utah

Enclosed is the subject application in the amount of $53,064.00.

Will you please discuss this application with the Bureau of Mines' member of the Grand Junction office and the Atomic Energy Commission and forward this office eight copies of your recommendations concerning the advisability of making a field examination.

DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosure

HMC:ab

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

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

RECEIVED
MAR - 8 1956

March 5, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. W. Hasler

From: Field Team, Region III

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DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosure

HMC:ab

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

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

RECEIVED
MAR 8 1956

March 5, 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), Minerals Corporation of America, ~~Carbon~~ Emery County, Utah

Enclosed are two copies of the subject application in the amount of $53,064.00.

One copy of the application is being forwarded to the Grand Junction office for their review and one copy is being retained in our files.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

DMEA
Date Rec'd.
MAR 5 1956
BUREAU OF MINES
Denver, Colorado

February 29, 1956

RECEIVED
MAR - 8 1956

Executive Officer, D.M.E.A.
Field Team, Region III
Defense Minerals Exploration Administration
United States Department of the Interior
224 New Custom House
Denver, Colorado

Dear Sir:

It is requested that the application for aid in this company's project on the North Slope and the Oral mines, submitted herewith, in quadruplicate, be accorded your review and consideration.

In anticipation of an inspection of the properties by members of your Field Team, it is requested that this company be advised of the scheduled inspection date in order to insure that our senior mining engineer will be present to meet and escort the Field Team members as desired.

Yours very truly,

R.Adm. R. W. D. Woods, USN (Ret.)
President

RWDW:rd

DMEA
Date Rec'd.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

MAR 5 1956

RECEIVED
BUREAU OF MINES
Denver, Colorado
MAR - 8 1956

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-4210
Metal or Mineral Uranium
Date Received 3-8-56
Estimated Cost $53,064.00
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: Minerals Corporation of America, a Delaware Corporation, 120 South Tenth St., Grand Jct., Colorado. Adm. R.M.D.Moody, President, Above address: J.S.Vickers, Sec'y. Treas. 207 Old National Bldg. 5619 Fannin, Houston Texas: C.R.King, 7648 Bolsa, Midway City, Calif. V.P.

(*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 North Slope No's. 1-2-11 & 12 unpatented lode claims situated in T21S,R14E,Sec.33, S.L.M; and Oral No's. 1 & 2, unpatented lode claims situated in T22S,R14E,Sec.15, S.L.M; (See claim maps)

(*b*) State any mine name by which the property is known. North Slope & Oral

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

(*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

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

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.

(See attached report)

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

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

(*c*) The work will start within 15 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 March 1, 1956

Minerals Corporation of America
(Applicant)

By Rud Woods, Pres.

L. R. King, Vice-Pres.

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

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MAR - 8 1956

Item 5 (d): Operating Experience & Background of the Applicant

Minerals Corporation of America has been actively engaged in exploring for, and mining, uranium ores for more than a year. Equipment owned and staff organization maintained is adequate to perform any exploration and/or mining operation normal to uranium mining.

Technical control of exploration and mining rests in C. R. King, Vice President, Operations. Mr. King, of King & King Mining Engineers, has over thirty years experience in all phases of mining.

References upon MICOA are:

U. S. Bank of Grand Junction, Fourth & Main, Grand Junction, Colorado;
Western Machinery Company, 2400 West Seventh Avenue, Denver 4, Colorado;
Uranium Ore Producers Association, Uranium Center, Grand Junction, Colorado;
Uranium Institute, Uranium Center, Grand Junction, Colorado.

References upon Mr. King are:

American Institute of Mining and Metallurgical Engineers, 29 West 39th Street, New York, New York;
Mr. C. O. Mittendorf, Director, D.M.E.A;
Mr. Ben Adelstein, Chief Mining Engineer, S. E. C., Washington, D. C;
Mr. T. O. Evans, Chief Mining Engineer, Santa Fe RRY, Prewitt, New Mexico.

RECEIVED
MAR - 8 1956

KING & KING

MINING ENGINEERS

CLARENCE R. KING
7648 BOLSA RD.
MIDWAY CITY, CALIF.
WESTMINSTER 8272

15 February, 1956

DAN M. KING
11762 MINES BLVD.
WHITTIER, CALIF.
OXFORD 44361

INTRODUCTION.

This report and recommended exploration program has been prepared to supply the technical data necessary for an application for aid in an exploration project to be made by MINERALS CORPORATION OF AMERICA, to the Defense Minerals Exploration Administration. This report is part of, and attached to, the above mentioned application.

The ORAL and NORTH SLOPE groups of mining claims described herein are located in section 15, T22S, R14E; and section 33, T21S, R14E, Salt Lake Meridian; respectively, (See Index map herewith). The groups of claims lie about fifteen miles southeast of the town of Green River, Utah, and adjoin the Four Corners Uranium Co. property; which property is producing a substantial monthly tonnage of ore at present; and upon which it is reported that ore reserves in excess of 200,000 tons are proved to date.

The ORAL and NORTH SLOPE groups of claims are among the first located in the district. Both groups have produced small tonnages of high grade ore from rim outcrops since 1952. Neither group has been systematically explored by drilling or otherwise; mining having been confined to date to one-man "highgrading" operations upon three known ore outcrops. This report contains details of a proposed systematic exploration program upon which is based the attached Application for Aid in an Exploration Project.

RECEIVED
MAR - 8 1956

LOCATION AND ACCESS.

The ORAL group of two full-sized lode claims is located in Sec. 15, T22S, R14E, S. L. M.; and the NORTH SLOPE group of four full-sized lode claims is located in Sec. 33, T21S, R14E, S. L. M. Both groups are reached by graded and improved dirt roads, from U. S. highway 6-50. The nearest town and rail shipping point is Green River, on the Denver & Rio Grande Railroad, about 15 miles northeast of the properties. (See index map herewith). The nearest uranium ore-buying station is Thompson, fifty miles by road distant from the properties; 29 miles of which is the paved U. S. 6-50. At present, plans call for the erection of a uranium ore reduction mill at Green River by the Four Corners Uranium Co., to treat ore from their property adjacent to the North Slope group of claims.

TITLES AND PROPERTY HOLDINGS.

MINERALS CORPORATION OF AMERICA, a Delaware Corporation, with principal office in Grand Junction, Colorado, holds a lease upon the ORAL and NORTH SLOPE groups of claims, from the owners of record thereof, Messrs. James Jensen, George Kouris, and Frank B. Hanson. (See Appendix A for pertinent documents).

HISTORY OF PROPERTY.

The claims herein reported upon were located by James Jensen in 1951 and 1953, to cover outcroppings of uranium ore discovered by him. At that time, Mr. Jensen began mining highgrade outcrop ore, and until December of 1955, made occasional small shipments to various ore-buying stations. On December 19th, 1955, Minerals Corporation of America concluded a lease with the owners, and have been actively operating the properties since that date.

GENERAL INFORMATION.

Topography at the property is controlled by the San Rafael river, which borders the rugged upturn of the San Rafael Swell on the east. Immediately to the east of the river, and upon the west side of the North Slope property, nearly vertical cliffs about three hundred feet high have been carved from the easterly-dipping Morrison formation. To the east of the cliffs, dip-slope topography gently falls to a valley about half a mile wide. The east side of this valley is bordered by an escarpment one or two hundred feet high, and formed by erosion of the Brushy Basin member of the Morrison, capped by the Dakota sandstone. Elevation on the property varies from 4,400 to 4,900 feet. Thick alluvium is absent; most of the property area being covered with sandstone of the Salt Wash member of the Morrison formation, upon which little or no vegetation is found.

Climate is that of the Green River Desert: hot and dry in the summer, with occasional thunder showers; rather cold in the winter, with normal snowfall for the latitude. Temperature extremes approximate 100° maximum in the summer; -10° in the winter. Precipitation averages about 20" annually, most of which is winter snowfall. Normal mining and auto travel is not impeded by winter weather except for a few days at a time during severe blizzards, which occur infrequently.

Labor supply is available from the surrounding region. Rates are: common labor, $1.50 per hour; skilled miners, $2.00 per hour; Mechanics and cat-skinners, $2.25 per hour.

Water supply for drilling or other industrial uses is found in the San Rafael river on the western edge of the property. Drinking water is hauled from Green River, or might be obtained from wells sunk close to the river.

Power for exploration and other mining purposes is generated by use of gasoline or diesel engines. Fuel is obtained from Moab, Utah, at present, and stored in large-capacity tanks on the property. The nearest source of electrical power is Green River, where high-line power is available.

Supplies and timber are purchased in Green River, Price, Utah, Grand Junction, Colorado, or other outside points, and hauled to the property by rail and truck, or by truck.

ECONOMIC GEOLOGY.

The properties lie on the east flank of the San Rafael swell, a short distance to the east of the nearly vertically dipping "reef". At and near the properties, average dip of the sediments is 5° to 15° slightly south of east; the lesser dips being upon the east side of the property. The channel of the San Rafael river has exposed a cross section of the sedimentary column upon the property, (in the cliffs upon the western side of the North Slope group), from the Entrada at the bottom of the river bed, to remnants of the Brushy Basin member of the Morrison formation upon the tops of the highest points of the ridge dominating the center of the property. Except for these remnants of the Brushy Basin, the entire surface of the properties is covered with the upper part of the Salt Wash member of the Morrison, within which all of the orebodies known to date in the immediate district have been found.

Immediately to the north of the North Slope group, extensive exploration and mining upon the properties of the Four Corners Uranium Co. has established the trend of the mineralized zone, and has given much information upon the habits and characteristics of orebodies within this

zone. These data may be summarized as follows:

(1) The mineralized zone strikes roughly N30°E, for a known distance of about four to five miles. Orebodies within this zone are elliptical in outline, with the long axis parallel to the strike of the zone, (N10° to N40°E).

(2) Orebodies are found only in the upper 100 feet of the Salt Wash formation, but may occur at any horizon within this approximate thickness. Orebodies may be one above the other; en echelon; or scattered at random within the favorable zone; but are almost always associated with high carbon concentrations in the sandstone, and with interbedded thin bleached mudstone seams. Orebodies vary in size from about 1500 tons to 10,000 tons each, but average about 6000 tons; and frequency of occurrence within the mineralized zone is high: upon the Four Corners property, over 200,000 tons of commercial ore is so far known within an area about 1/2 mile wide by one mile long, with exploratory drilling extending the known reserves to date.

Upon the North Slope and Oral properties, outcropping ore in the extreme upper part of the Salt Wash has been mined and shipped from four places. Both properties are within the known trend of the mineralized zone. Upon the North Slope group, mining is progressing upon two outcropping orebodies as of Feb. 15th, 1956. These outcrops represent orebodies occurring approximately 1,200 feet along the strike of the mineralized zone, one from the other. Between these outcrops, and to the north and south of both of them, the remnants of the Brushy Basin member cover the ore-bearing zone to a depth varying from 20 to 150 feet. Exploration of this area should disclose four to six orebodies of average tonnage, (about 6000 tons each), if the size and frequency of occurrence conforms to that found in the favorable zone adjacent to the North Slope group and to the north therefrom.

At the present time, a detailed study of the immediate district is being made by the exploration division of the A. E. C., Grand Junction Operations Office. None of the data have been published, however. This division has drilled several exploratory holes near the properties, and stratigraphic information is available from these drill holes which corelates with that exposed in the San Rafael river cliffs.

ORE SHIPMENTS AND RESERVES.

To date, under the owners operations, which involved small-scale hand mining of outcrop ore; approximately 40 dry short tons of ore averaging 0.463% U_3O_8 and 1.36% V_2O_5 were shipped from the North Slope group; and about 3 tons averaging 0.28% U_3O_8 and 0.60% V_2O_5 were shipped from the Oral group. Since Dec. 20, 1955, when Minerals Corporation of America leased the properties, mining of rim outcrops has been under way as a prelude to systematic exploration, and approximately 50 tons has been mined from each of the properties up to Feb. 15, 1956.

No blocked ore reserves exist on either of the two groups of claims. Upon the North Slope, a few hundred tons of ore of a grade about 0.3% U_3O_8 may be classed as reasonably assured. Systematic exploratory drilling will be required to outline extensions of orebodies now outcropping, and to find others inferred from favorable geologic evidence.

reasonably assured reserves

RECOMMENDATIONS AND CONCLUSIONS.

The following facts and inferences lead to the conclusion that a detailed and systematic drilling program will disclose and outline commercial orebodies upon the North Slope and Oral properties; and will give information necessary to plan an efficient mining program:

(1) Ore of good grade has been mined and shipped from four separate outcrops upon the properties, in places where erosion has exposed

the known ore-bearing horizon upon the properties.

(2) The North Slope and Oral lie near the center and south end, respectively, of the favorable mineral belt from which Four Corners Uranium Co. and others are now producing appreciable tonnages of ore, and within which large known reserves exist.

(3) Exploration and development has progressed, upon the Four Corners properties adjoining the North Slope, to the point that prediction of type and size of orebodies, and frequency of occurrence within the favorable zone, may be made with a reasonable degree of accuracy.

(4) These data, applied to the North Slope and Oral properties, indicate that exploratory drilling may be expected to disclose an average of about 500 to 1000 tons of ore of commercial thickness per acre of first phase exploration drilling. Ore so disclosed may be expected to occur in bodies varying from 1000 to 10,000 tons, and should average about 6000 tons per orebody. These orebodies will be found at depths not exceeding 150 feet, upon the properties herein reported upon. Drill hole spacing, to insure a pattern that will disclose any orebodies within the pattern, should be about 50 feet, in a direction at right angles to the trend of mineralization, (S30°E); but may well be spaced at 100 foot intervals parallel to the trend, (N30°E), since known orebodies are elongate in the direction of the trend. Allowing for those areas within the claim groups which would not be explored by drilling because of geological or other considerations, it is estimated that 20,000 feet of first phase exploratory drilling is necessary to establish the presence of any orebodies other than those outcropping, which may exist upon the properties. Detailed cost estimates upon this program follow.

Location and direction of mineralized trends also drill hole pattern holes bottom?

KING & KING

MINING ENGINEERS

TABULATED ESTIMATE OF COSTS.

Application Item No.	Description of Item	Est. total Cost	Unit cost, per foot hole
5-(c)	Start in 15 days, complete in 6 months		
6-(a)	Independent contracts: Drilling,		
	10,000 ft. plug drilling @ $1.00	$10,000	
	10,000 ft. core drilling @ $3.00	$30,000	
	Total drilling, by contract - - - - - - -	$40,000	$2.0000
6-(b)	Labor, supervision & consultants:		
	(furnished by Micoa):		
	Field supt., 6 months @ $525	$ 3,150	
	Engineer-geologist, 6 mo. @ $400	$ 2,400	
	Total labor, super. & consultants:	$ 5,550	$0.2775
6-(c)	None: included under 6-(d)		
6-(d)	Operating equipment:		
	(furnished by Micoa):		
	150 hours cat. work building drill roads, etc., @$10 per hour, inc. operating supplies & operator	$ 1,500	$0.0750
6-(e)	Rehabilitation & repairs:		
	None: included under 6-(d)		
6-(f)	New buildings: none.		
6-(g)	Miscellaneous:		
	Accounting: 6 months @ $85	$ 510	
	Comp. ins., payroll taxes, etc., 6 months @ $84	$ 504	
	Total miscellaneous	$ 1,014	$0.0507
6-(h)	Contingencies:		
	10% of estimated costs	$ 5,000	$0.2500
Item 6: Total estimated cost of project:		$53,064	$2.6532

Notes:

Item 5-(c) : Drilling contractor is willing to start within a week of signing contract; and guarantees completion within six months of date of contract.

Item 6-(a): Contract drilling price given is bid from Airborne Exploration Co.. Included with application are bids from two other drilling companies.

Item 6-(d): Dozer necessary to build drill roads, etc. is property of the company, and is figured at customary charge.

RECEIVED
MAR - 8 1956

Rotary
Percussion

Calyx
Coring

CANNON DIAMOND DRILLING CO.
Compton, Calif. Grand Junction, Colo.

Compton Calif.
P.O.Box 549
Tel. Ne.1-9341

Grand Junction, Colo.
P.O.Box 712
Tel. 2605

Minerals Corporation of America
159 Colorado Avenue
Grand Junction, Colorado

Gentlemen:

In answer to your request for bids on drilling your property near Green River, Utah, we submit the following prices:

0-300 feet	Non Core	$1.37 per foot
0-300 "	Core	$5.00 per foot
Standby time		$12.00 per hour

Thanking you for your request we are,

Very truly yours,

S/F. G. Cannon, Jr.

(rd: copied from original: 2/29/56)

Minerals Corp. of America

Airborne Exploration Corporation
270 Park Avenue
New York 17, N. Y.

RECEIVED
MAR 8 1956

(copied from original letter
2/29/56)

Murray Hill 8 - 8490

February 13, 1956

Minerals Corporation of America
120 South Tenth Street
P. O. Box 1297
Grand Junction, Colorado

Gentlemen:

Confirming our conversation regarding our bidding on drilling upon your North Slope and Oral properties near Green River, Utah, we herewith submit the following bid:

Plug bit drilling, depth 0 - 300 feet	$1.00 per foot;
Coring, 0 - 300 ft. depth, per foot cored	$3.00 per foot;
Standby time	$10.00 per hour;
Move-in charge	$100.00.

If core recovery does not exceed 70%, it is understood that such footage will be charged for at the same rate as plug drilling.

Standby time is defined as that time our drill rig is idle due to your request, or your failure to have drill sites prepared ahead of moves.

Usual contract provisions regarding sampling procedure, drill roads and sites prepared on your account, etc. will apply.

Thanking you for the opportunity to bid this job, we are

Very truly yours,

AIRBORNE EXPLORATION CORPORATION

JDH:rd

John D. Heffernan, Manager

Appendix "A"

RECEIVED
MAR - 8 1956

LEASE AND AGREEMENT

THIS LEASE AND AGREEMENT, made and entered into in quadruplicate this 19th day of December, A. D., 1955, by and between James W. Jensen, sometimes otherwise known as James Jensen, by his attorney in fact, Frank B. Hanson George Kouris and Frank B. Hanson, all of Price, County of Carbon, State of Utah, hereinafter called the LESSORS, which expression shall include each and all of their heirs, executors, administrators, and assigns, and MINERALS CORPORATION OF AMERICA, organized and existing under and by virtue of the corporate laws of the State of Delaware, with its principal place of business at Grand Junction, Colorado, hereinafter called the LESSEE, which expression shall include each and all of its successors and assigns, WITNESSETH:

That the Lessors, for and in consideration of the covenants hereinafter set forth, do, by these presents, demise and let unto the LESSEE, Six (6) Mining Claims, together with the areas embraced therein, subject to the paramount title of the United States of America, and subject to the regulations and requirements of the mining laws of the United States of America, and of the State of Utah; said Six (6) mining claims being evidenced by Notices of Location being duly made, posted, and recorded in accordance with the mining laws aforesaid; said mining claims, their names, and their dates of recordation in the office of the County Recorder for the County of Emery, State of Utah, being as follows, to-wit:

Six (6) Mining Claims, as evidenced by Notices of Location, posted and recorded as aforesaid, located in the San Rafael Mining District, in Emery County, State of Utah, the claims located being as follows, to-wit:

NAME OF CLAIM	RECORDING DATA	BOOK & PAGE
North Slope No. 1	Sept. 26, 1951	J-9 579
North Slope No. 2	Sept. 26, 1951	J-9 579
North Slope No. 11	[illegible], 1953	J-12 259
North Slope No. 12	[illegible], 1953	J-12 260
Oral No. 1	Sept. 8, 1952	J-10 330
Oral No. 2	Nov. 30, 1953	J-13 446

TO HAVE AND TO HOLD the same for a term of five years from the date and execution of this lease, unless sooner relinquished or abandoned or forfeited or surrendered by LESSEE, under the terms, covenants and provisions of this lease.

IT IS FURTHER UNDERSTOOD AND AGREED that, if the LESSEE is in possession of said claims under this lease, and has fully complied with the terms, covenants and provisions thereof, at the termination or end of said lease period of five years, then and in that event the LESSEE shall have the option to remain in possession of said claims and mine and operate the same, and the said lease shall be extended and renewed upon the same terms, covenants and provisions of this lease for two (2) consecutive five year terms; provided, however, that the LESSEE shall, at least ninety (90) days prior to the expiration of the first five year term hereof, give written notice by registered mail to the LESSORS of its, the lessee's, election to extend the lease for the first five-year additional period, and like notice at least ninety (90) days prior to the expiration of the second five-year term, in the event LESSEE exercises the option to extend the lease for the second additional five-year term.

The Lessee, in consideration of the lease of the said mining claims hereinabove set forth and described, covenants and agrees with the LESSORS as follows:

1. The lessee shall pay to to the LESSORS the sum of Five Hundred Dollars ($500.00) upon the execution of this lease, receipt of which is hereby acknowledged, which said sum of $500.00 is not paid as royalty, nor can the same be charged against or claimed as credit against the further royalty payments provided hereunder, but is simply made as an evidence of their intention to carry out the terms of this lease, and to reimburse the LESSORS for any expense incident to the preparation and negotiation of said lease.

2. The Lessee shall further to pay to the LESSORS forty (40) percent of the net profits resulting from the operation of and mining of said mining claims, and the extraction and sale of ores mined and produced and sold therefrom; the said forty (40) percent of net profits computed on the basis hereinafter set forth being taken by the LESSORS as their royalty payments for ore produced, mined and sold from their claims above described, and the said forty (40) percent of net profits being computed determined and established at the end of each 4 week period from the first time ore is mined, extracted and sold from said claims above described, and

to continue each 4 weekly period thereafter as long as this lease, or any extension, continuation or renewal thereof, is in force and being; the determination, establishment and computation of the net profits so divided as aforesaid is to be made on the following basis, and computed solely on that basis, and none other, as long as this lease, or any renewal or continuation thereof remains in force, as follows, to-wit:

(a) The total returns as evidenced by settlement sheets or vouchers or checks received by the Lessee for each 4 weekly period from the sale of all ores mined and extracted during that said 4 weekly period shall be computed and totaled, and that shall be amount of the earnings from the mining and sale of ore for said 4 weekly period.

(b) From the amount of earnings so arrived at as above set forth for the said 4 weekly period, there shall be deducted all haulage allowances and development allowances included therein by the purchaser of said ores as now provided under present purchasing invoices.

(c) From the net amount of earnings so arrived and determined as set forth in (a) and (b) aforesaid, then there shall be deducted 5% of the total returns or proceeds, which said 5% amount as computed on the basis of the total returns shall be credited against the amount thus far expended by the LESSEE, as exploration costs; exploration costs being those costs incident to drilling and drifting to the point of mining ore; drifting essential in the mining of ore and not location of ore would be not classified as an exploration cost but a mining cost; and in this connection all expense incident to drilling or drifting not essential to mining, including the moving to the claims of drilling equipment, will be classified as exploration costs and not mining costs. This right to deduct 5% of total returns from the net amount of earnings as herein provided shall exist so long, and not any longer, as it takes the amounts and sums computed as aforesaid as they are applied to reimburse the LESSEE for such exploration costs paid and expended by the lessee, and when the lessee has received deductions and credits to the amount of the exporation costs, then, as aforesaid, this right to deduct shall cease and determine, and all further computations after happening of that event shall be made without taking into consideration such 5% deduction.

(d) From the net amount of earnings so arrived and determined as set forth in (a) and (b) aforesaid, and after the deduction has been made as set forth in (c), there shall be deducted another 5% of the total returns or proceeds, for each 4 weekly period, and the sums and amounts so realised therefrom shall be credited against the advance of $1500.00

made by the Lessee to the Lessors, for the purpose of removing outstanding claims or leases, as hereinafter set forth; and this right to deduct another 5% of the total returns or proceeds shall continue only so long as the sums realized each 4 weekly period do not equal the said $1500.00, and when they do, then, at that time, this right to deduct another 5% of total returns as aforesaid shall cease and determine, and all further computations after the happening of that event shall be made without taking into consideration the said5% deduction as above set forth.

(e) From the net amount of earnings so arrived at and determined as above set forth in (a) and (b) hereof, and the net amount of earnings left after the deductions or credits are taken as set forth in (c) and (d) hereof, (for as long as they shall be permissible and not longer), the Lessee shall then deduct its actual mining costs (mining costs being those costs incident to mining and excluding exploration costs as hereinabove defined and set out); and it is agreed that in addition to actual mining costs the pro rata cost for eachweekly period for industrial insurance, compensation insurance (unemployment) and that portion of the social security taxes paid by the lessee shall be included as a mining cost; and also, if any occupational tax is due the State of Utah for ore delivered from the claims, then that percentage of such tax applicable to the total returns for each 4 weekly period shall be a mining cost. In the event the lessee determines the said tax is not constitutional, or not payable, it shall nevertheless have a right to deduct the same as a mining cost, holding that amount in a trust fund until the question is determined, and then if determined in favor of the lessee, the lessee will refund 40% thereof back to the Lessor. It is understood that this occupational tax deduction shall not be operative until the total returns exceed 50,000.00, the State of Utah, by statute having exempted the returns to that amount before the application of the tax.

(f) It is agreed, however, in this connection that the Lessee in no event can charge from the net earnings as determined as provided in (a), (b), (c) and (d), more than 60% as mining costs; and that in event the actual mining costs as set forth in (e) exceed 60% then in that event, the Lessee shall for each 4 weekly period bear the same, and shall have no right of offset for such excess mining cost against the net amount of earnings so computed for each 4 weekly period, for that 4 weekly period, or any 4 weekly period in the future; each 4 weekly period standing on its own, without right of redress against any other 4 weekly period.

(g) The remainder, computed as set forth in (a), (b), (c), (d), and (e), or rather resulting therefrom after the application of those paragraphs have been taken into consideration, shall divided as follows: 60% of said remainder shall be retained by the lessee, and 40% thereof shall be paid to the LESSORS as royalty as set forth in paragraph 2 hereof and above.

(h) Whilst the determination and computation of the royalty due the LESSORS is to made at the end of each weekly 4 week period, the LESSEE shall have ten days after the end of such 4 weekly period in which to transmit and pay said royalty as so computed to Frank B.Hanson, at 28 North Carbon Ave., Price, Utah, one of the lessors, and the agent for the other lessors; lessee sending to the said Frank B. Hanson statement of computation for each said 4 weekly period so

computed as aforesaid.

(i) In this connection, it is further agreed that in the event the total returns for ores extracted, mined and sold shall not be sufficient to reimburse the LESSEE for its exploration costs, or its advance of $1500.00, deducated on a 5% basis above set forth, then the LESSEE shall have no recourse against the LESSORS for any of the moneys so expended for exploration costs or so advanced as aforesaid.

(j) It is mutually understood between the LESSEE and the LESSORS that the claims known as the NORTH SLOPE, and the claims known as the ORAL, have not as yet been certified as yet for payment of the bonuses due as provided under the Atomic Energy Act; and it is further mutually understood between the LESSEE AND THE LESSORS that the LESSORS have shipped ores from said claims; and that upon certification of these claims, the LESSORS shall have a right to receive the bonuses applicable thereto for ore shipped prior to this lease, as their own, without any claim being made for same by the LESSEE, and without deductions or claims of any kind by the LESSEE.

(k) It is mutually understood between the LESSEE AND THE LESSORS, however, that after the certification of the claims for payment of the bonuses has been made, and after the LESSORS have been paid the bonuses due on ore shipped prior to this lease, then the amount of the bonuses remaining on on the claims shall accrue to and belong to the LESSEE, the LESSEE MAKING claim therefor under the certification of the LESSORS, or under their certificate, as may be determined by the A.E.C., subject however to the agreement by the LESSEE to pay to the LESSORS 40% of the bonuses received by them from the mining of ore, the LESSEE having the right to first deduct from said bonuses as received, as long as the exploration and advancement heretofore referred to herein is unpaid, 5% of the total bonus received as it is received, for exploration cost, and 5% of the total bonus as it is received for advancement as aforesaid, and then to divide such bonuses as received, 40% to the LESSORS and retain 60% to them; said bonuses, or rather the 40% thereof as above set forth, being payable to the LESSORS thru their agent, Frank B.Hanson, at 28 North Carbon Ave., Price, Utah, within ten days after receipt thereof, together with a statement showing the amount of bonus received at each time, less the deductions as aforesaid.

3. It is mutally agreed by and between the LEASEE, and the LESSORS that certain surveys have to be made, and certain locations cleared, and outstanding claims, leases, and liens have to be removed, and for that purpose, as set forth in paragraph 2, the LESSEE will advance, and does hereby advance, to the LESSORS, for those purposes, the sum of $1500.00, which sum shall be repayable only in the manner and way set forth in paragraph 2, subdivisions (d) and (i) thereof, and not otherwise.

4. The Lessee covenants and agrees to enter upon said mining property and commence exploration and or mining within thirty (30) days from the date

hereof. The lessee agrees to work and mine said premises in a manner consistent with good and economical mining practices with due regard to the development and preservation of the same as mining property. Suspension of exploration and /or mining operations for a period of more than fifteen (15) days shall, at the option of the lessor, constitute abandonment, and result in the automatic forfeiture of the lease, at the option of the lessors. It is mutally understood, however, that mining and /or exploration conducted upon any of said claims, or any one of them, leased herewith shall satisfy the foregoing agreement by LESSEE to work and mine said premises; and that suspension of mining and/ or exploration for periods longer than fifteen (15) days due to Acts of God, flood, excessive snow or other causes resulting in involuntary suspension of such work on the part of the LESSEE shall not constitute abandonment, or forfeiture, nor violation of the terms of this lease.

5. LESSEE shall not be under obligation to survey any claims but may at its own discretion, make such surveys when ores in commercial quantities are located on any claims. If such surveys, in the opinion of both the LESSEE AND LESSORS, indicate the necessity of filing new or amended locations, or location certificates, LESSEE AND LESSOR will mutually prepare the same, sharing the cost thereof, and when satisfactory to both the LESSORS AND LESSEE agree to execute and file of record the said amended location or location certificates.

6. Lessee shall enter upon said leased premises and work the same in good miner-like fashion, in manner necessary to good and economical mining, and it is hereby given the right to take over the sole and exclusive possession of said property and to investigate, test, sample and develop, work, operate, manage, and control the same, and the water and water rights appurtenant thereto, and to mine, extract, and remove from said property the ores and minerals therefrom, therein and belonging thereto, and to treat or mill on or off the premises, ship, sell, or otherwise dispose of the same, and receive the proceeds therefrom, subject, however, to the express limitation that the ores so sold or disposed of cannot be so sold or disposed of for less than the market price prevailing at the time of such disposal or sale, and subject further to the payment of the

royalty hereinaoove provided, and in the manner and way set forth hereinabove; to erect, construct, maintain, use and operate thereon structures, machinery, and equpment, to build, erect, construct, use and operate ponds, tanks, or reservoirs for the storage and use of water; to stack or store on the surface thereof waste products and residues resulting from the operations of said property; to construct and maintain roads, power lines, telephone lines, etch., over and across the surfance thereof; and to do all things, including but not limited on the foregoing, necessary or convenient to carrying on the operations contemplated herein.

7. Lessee shall perform the annual labor upon said mining claims as required by law; and shall record such data required and otherwise comply with the laws of the United States and the State of Utah to the end that the claims leased from the LESSORS shall remain valid and in good standing.

8. Lessee shall furnish Lessors with copies of any drill logs and maps made by it and all drill holes put down by LESSEE shall be plainly marked thereon for location and identification purposes. Also, LESSEE shal, in proper and reasonable manner, mark location on site of all drill holes and plug the same.

9. Lessee shall comply with all laws and regulations pertaining to the mining operations to be carried on hereunder by LESSEE, including the payment of industrial, unemployment and social security insurance or taxes, and occupational taxes, if legally valid, when levied by the State of Utah, over and above the exemption of $50,000.00 for ores mined and delivered, and on the basis and under the terms as provided in Saragraph 2 hereof. Lessors shall pay any property tax levied by the county on the property herein leased, if any there is, it being understood these are unpatented mining claims, located on the Public Domain of the U. S. of A., and as yet no such levies have been made thereon.

10. Lessee shall take out Workmen's compensation insurance and maintain the same, on any basis satisfactory to the State and its employees, and shall also pay all unemployment insurance and social security taxes levied on said property, or rather, against the payrolls as provided by law, and shall have the right to pro rate such as mining costs as provided in paragraph 2 hereof.

11. Lessee agrees to indemnify and hold harmless from harm, the Lessers, from any and all loss, or damage, and from all claims for injury, death, loss or damage of any kind or character, and by whomsoever suffered, occasioned by or in connection with any work performed by LESSEE, its agents or employees. Lessee agrees fruther to promptly pay all bills for labor and material incurred in LESSEE'S operations hereunder, and to indemnify and save harmless LESSOR from all claims and liability of every kind and nature which may or might be incurred by reason of LESSEE'S operations hereunder.

12. Lessers, or their duly signated agent or agents, may at reasonable times, enter on said premises and descend into the mine workings for the purposes of inspecting the same at reasonable times without interference with mining operations. LESSORs shall also have the right to enter upon the premises at all reasonable times for the purpose of pewbing any existing drill holes on said mining claims.

13. Lessors represent to LESSEE that they acquired the claims herein described by Locating and filing upon said claims itself, and to the best of their knowledge and belief said mining claims are and were located, discovered, staked and filed upon in full compliance with the laws of the United States and the State of Utah, upon public domain, which they believed was open for location under said laws, and that the same to the best of their belief and knowledge good and in full legal standing. LESSORS further agree that in the event any adverse claims are asserted thereto, at any time, it or they will defend against said claims promptly and to the best of their ability, and in this connection, LESSEE, who have possession hereunder, will promptly advise them of any claims made, but that the LESSEE will not surrender possession of any of the property, until ordered to so do by a Court of competent jurisdiction.

14. LESSORS shall have the right to declare this lease at an end, upon the violation of any of the covenants and provisions hereof, but that such right shall not be effective, except in case of cessation of work or exploration as herein above provided, or failure to pay royalties as herein above provided (which without notice will cause forfeiture of lease, at option of lessors) without the LESSORS giving the LESSEEs thirty days written notice,

by registered mail, addressed to the LESSEE at Minerals Corporation of America, at P. O. Box 1297, Grand Junction, Colorado, of such violation and during such 30 days period LESSEE shall have the right to correct and remedy the alleged violation. In the case of cessation of work or explora- for a period longer than 15 days, unless excused by the terms of this lease, or in case of failure to pay royalties, the LESSORS may treat the same as a surrender of the lease without notice, but the LESSORS may, by written notice as herein provided, call these violations to the attention of the LESSEE, and the LESSEE will have only 10 days from receipt of notice to remedy and correct such violations, it being the purpose of this provision to give the LESSOR the choice of remedies, and to maintain the essence of good relations between the LESSOR and LESSEE, but since this is mining property, the LESSORS expressly except themselves from being bound to give notice, except at their option where the property has been abandoned longer than 15 days, or royalties have not been paid within the time stated in said lease.

15. Lessee shall have the right upon the termination or cancellation thereof however, at the time the same is effected, to remove from the leased premises within 90 days from the termination date, all property placed ther on by it and irrespective of whether the same may constitute real or personal property; provided, however, that LESSEE may not remove any timbering from any shaft, tunnels or drifts, and providing further that the LESSEE shall not remove any underground structure that would endanger any shaft, tunnel, or drift. Nor shall the Lessee remove any drill hole markers.

16. That the LEASE may not be assigned, either in part or in whole, without the written consent of the LESSORS first had and obtained.

17. In the event LESSEE desires to make application to the United States of America, or any of its agenices to cause said properties to be drilled at the total or partial expense of the United States, or to any Government agency for an exploration or development loan or grant, LESSOR agrees to execute consents or agreements for mineral exploration as may be required by the United States, or any of its agencies, provided, however that any such loan shall not constitute or provide to have any lien thereafter on the title of the property and mining claims covered by this lease.

18. If the Lessee shall locate any mining claim within six hundred (600) feet (airline) of the boundary lines of any of the claims described herein, LESSORS shall be entitled to a royalty from the production thereon at the same rate and determined in the same manner as royalty fixed hereto, and herein, for and during the term of this lease or any extensions as herein provided for.

19. LESSORS shall locate any additional claims within six hundred (600) feet (airline) of the demised claims, LESSEE shall have the right to lease the same on the same terms and conditions as herein contained.

20. All notices provided for herein to be served upon LESSORS shall be in writing, by registered mail, and deposited in the United States mail, addressed to Frank B. Hanson, 28 North Carbon Avenue, Price, Utah, or such other address as the LESSORS, in writing, hereafter direct. All notices herein provided to be served upon LESSEE shall be in writing, by registered mail, and deposited in the United States mail, directed to Minerals Corporation of America, P. O. Box 1297, Grand Junction, Colorado, or at such other address at ia may, in writing, hereinafter designate.

This lease and each and all of the terms, conditions, covenants and agreements herein contained shall extend to and be binding upon and inure to the benefit of the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the LESSORS have hereunto set their hands and seals the day and year first above written, and the LESSEE has caused its corporate name to affixed thereto, together with its seal, on the day and year first above written.

JAMES W. JENSEN

By _____
His Attorney.

_____
_____
LESSORS.

MINERALS CORPORATION OF AMERICA, a corporation,
BY _____
ITS PRESIDENT.

ATTEST _____
~~ITS SECRETARY.~~
Vice President and Director

(CORPORATE SEAL)

STATE OF UTAH,)
: SS
COUNTY OF CARBON)

On this 17 day of December, A. D., 1955, before me personally appeared Frank B.Hanson, known to me to be the person who is described in, and whose name is subscribed to the within instrument as the attorney in fact of JAMES W. JENSEN, and he acknowledged to me that he subscribed the name of James W. Jensen thereto as principal, and his own name as attorney in fact.

IN WITNESS WHEREOF, I, a Notary Public in and for the County of Carbon, State of Utah, have hereunto set my hand and affixed my official seal the day and year last above written.

Notary Public for Utah
Residing at Price, Utah.

My commission expires: _____

STATE OF UTAH,)
: SS
COUNTY OF CARBON)

On this 17 day of December, A. D., 1955, before me, A Notary Public, in and for the County of Carbon, State of Utah, personally appeared Frank B. Hanson, and George Kouris, two of the signers of the foregoing instrument, who duly acknowledged to me that they executed the same.

Notary Public for Utah
Residing at Price, Utah.

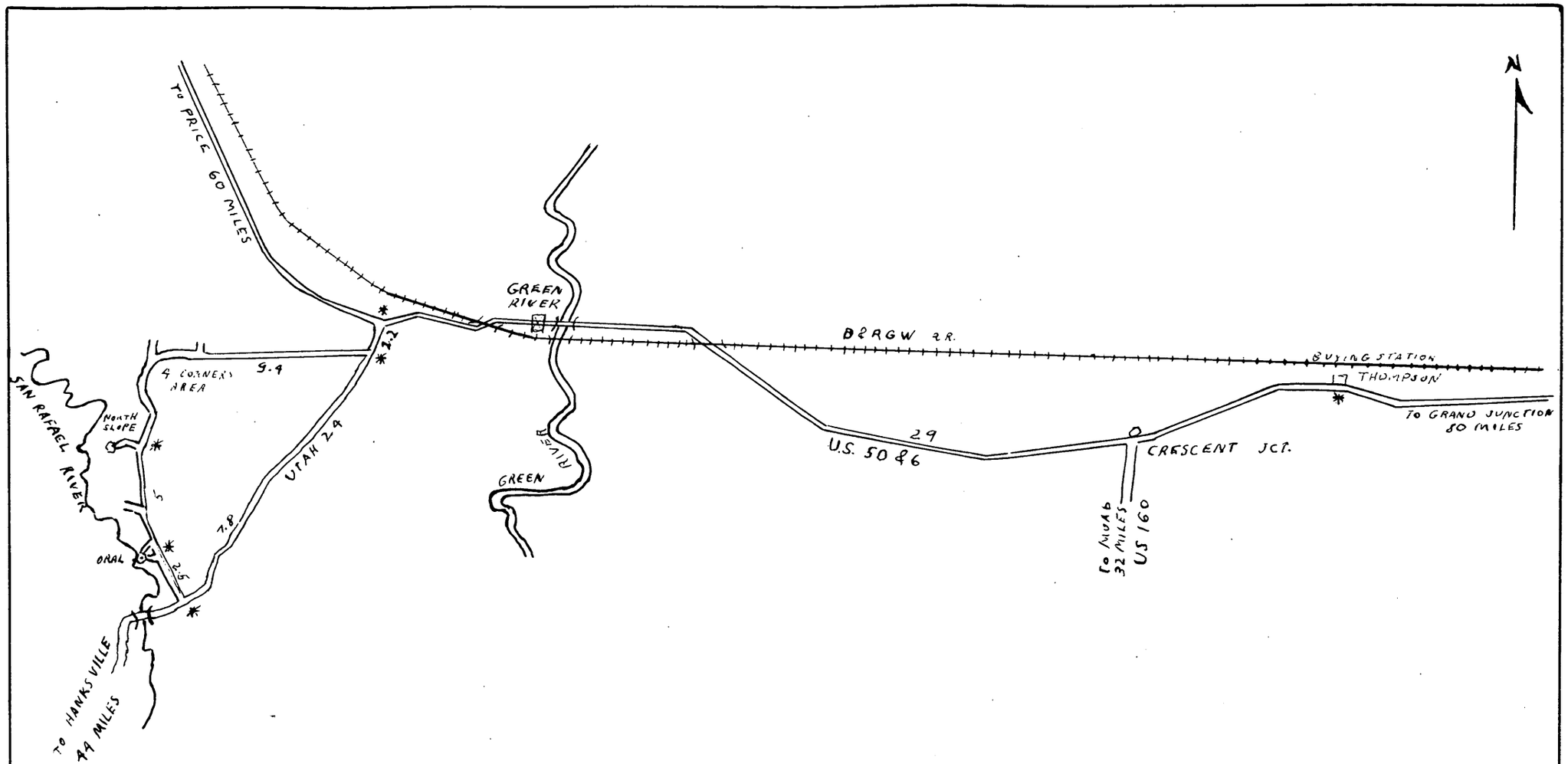
My commission expires _____

STATE OF UTAH,)
: SS
COUNTY OF CARBON)

On this 19 day of December, A. D., 1955, before me, A Notary Public, in and for the County and State aforesaid, personally appeared R. W. D. Woods, did say that he is the PRESIDENT of MINERALS CORPORATION of AMERICA, a Delaware Corporation, and that the said instrument was signed in behalf of said corporation by authority of its by-laws, and the said R.W. D. Woods acknowledged to me that the said corporation executed the same.

My commission expires Dec 13, 1959

NOTARY PUBLIC FOR UTAH.
RESIDING AT PRICE, UTAH.



INDEX MAP

MINERALS CORPORATION OF AMERICA

2nd & Colorado

GRAND JUNCTION, COLORADO

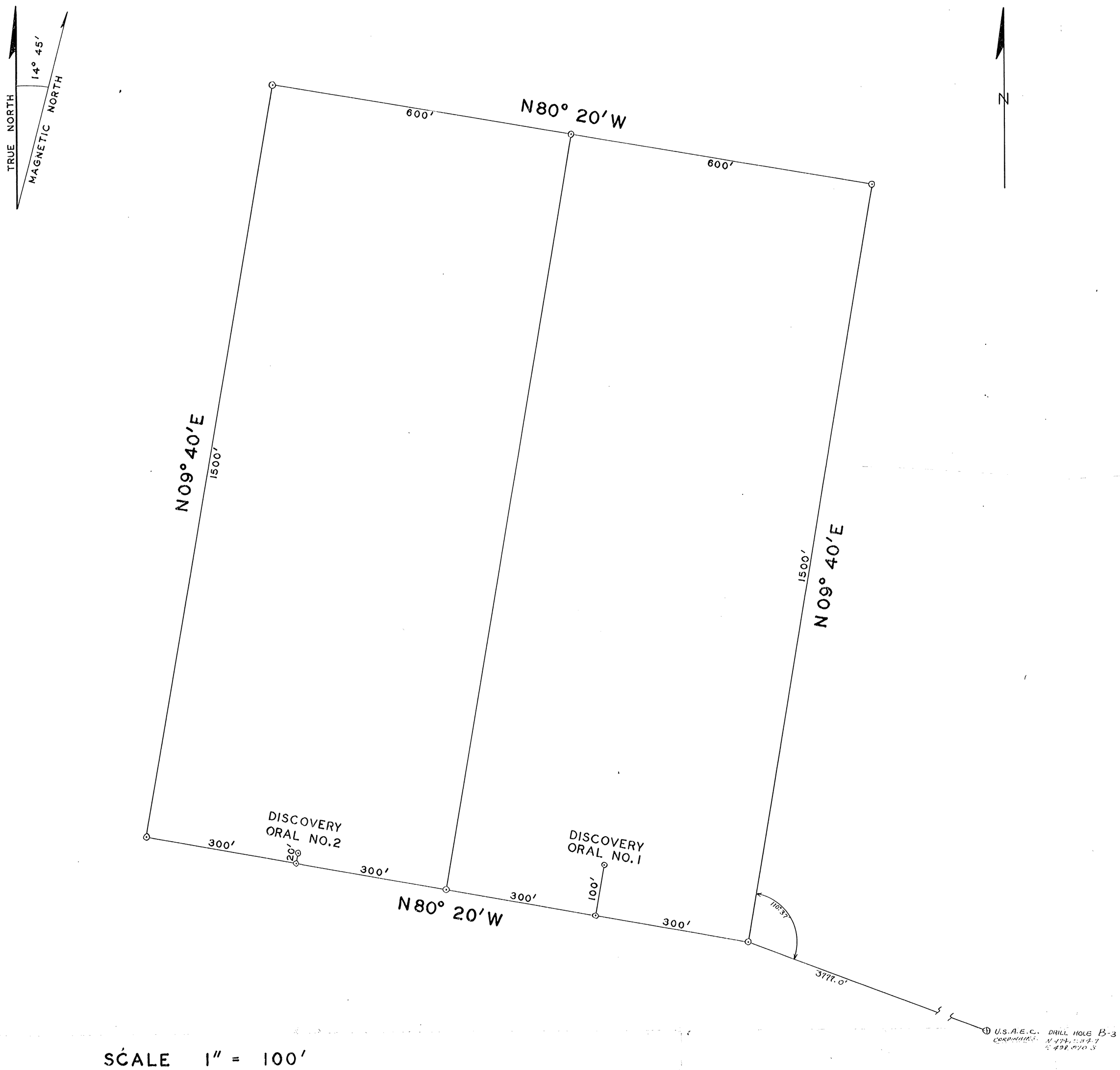
NORTH SLOPE SEC 33, T21S, R14E

ORAL SEC 15, T22S, R14E

EMERY COUNTY, UTAH

Scale: 1" = 4 MILES

Feb. 3 1956 T. J. Hartin



SCALE 1" = 100'

CLAIM MAP
ORAL NO.1 & NO.2
T22S, R14E, SEC. 15
EMERY CO. UTAH

MINERALS CORPORATION OF AMERICA

JANUARY 28, 1956

SURVEYED BY: J. F. SMITH

MINERALS CORPORATION OF AMERICA
CLAIM MAP
NORTH SLOPE NO.S, 1-2-11-12
S. 33, T. 21 S., R. 14 E., S.L.M.
EMERY COUNTY, UTAH
SCALE: 1" = 100'

⊗ : EXCAVATIONS SHOWING ORE
X : HOT SPOTS

FEBRUARY 18, 1956 Thomas S. Harper

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