DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 4943

Application
- [x] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [x] Application and attachments

Right Side

- [x] Project summary (final)
- [ ] Work Completed analysis (final)
- All other material filed in chronological order including the following reports if checked:
- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports
- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with transmittal, narrative and maps.

Folders No._____: Maps (Use pocket folder or envelope)

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

17963

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

February 11, 1958

ORIGINAL FILE COPY
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DMEA

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA Aid (Thorium, Uranium and Rare Earths) James Martin (Promise et al claims) Lawrence County, South Dakota

Enclosed are the original and two copies of the subject application. One copy is being retained in our file.

The applicant proposes to explore the property by drilling 50 holes of unknown depth at a total estimated cost of $57,933.50. The location of the 50 drill holes is not indicated, and the application is poorly prepared.

Also enclosed are all of the drill logs by Joe T. Monger, which accompanied the application.

W. H. King

W. H. King

Encls.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

50%

DMEA
FEB 10 1958
REGION III
DENVER, COLORADO

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

Not to be filled in by applicant

Docket No. 4943
Metal or Mineral Thorium - Rare Earths Mon.
Date Received 2-14-58
Estimated Cost 57,933.50
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: James Martin
Fantail Route
Lead, South Dakota

(*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 Refer to Page 1, 3a

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

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

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

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

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

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

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

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

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

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

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

(*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. Refer to

(*c*) The work will start within 5 c days and be completed within 12 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☒ Use of equipment owned by you ☒ Other

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 28 January 1958, 1958

James Martin
(Applicant)

By

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

I(d) George Milos 3[illegible] W. Addie St., Lead, South Dakota
Bard Carlow 3[illegible] Richmond., Lead, South Dakota
Joseph Monger Custer, South Dakota
Ted Brown Silver City, South Dakota
~~Roseph~~
Roswell Bottum Rapid City, South Dakota
Gerald Kiley 3I4 Richmond., Lead, South Dakota

3(a) From U.S. Government ¼ Section Stake, East Boundry of Section II, and West boundry of Section I2---Thence North 70° west, 474 feet to point of beginning, thence west 600 feet, thence South I500 feet, thence west 2400 feet, thence North I500 feet thence West I800 feet, thence North 3000 feet, thence East 4200 feet, thence South I500 feet, thence East 600 feet, thence South I500 feet to point of beginning.

3(f)

Promise No. I	Book	326	Page	I29
Promise No. 2	Book	326	Page	I30
Promise No. 3	Book	326	Page	I3I
Promise No. 4	Book	326	Page	I32
Aztec	Book	326	Page	I48
Bear	Book	326	Page	I49
Big Spring	Book	326	Page	I50
Blacktail	Book	326	Page	I5I
Burnt Pine	Book	326	Page	I52
Red Hat	Book	326	Page	I53
Shawnee	Book	326	Page	I54
Beaver	Book	326	Page	I55
Blue Jay	Book	326	Page	I56
Deer	Book	326	Page	I57
Hope	Book	326	Page	I58
Lost Valley	Book	326	Page	I59
Margie	Book	326	Page	I60
Mary	Book	326	Page	I6I
Wild Cat	Book	326	Page	I62

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4(a) In I953, nineteen discovery shafts were sunk I0 feet to comply with the South Dakota state laws to validate these claims.

In the succeeding years, approximate 30 holes have been bulldozed at locations along the ore outcrop for sampling and geological work. Also 6 drill holes have been completed to cutt the ore horizon. Four of these holes were drilled at different horizons with a diamond drill but there was no core recovery from the ore zone. The other two drill holes were completed with a cable rig with some diluted ore recovery from the ore zone. At one very short diamond drill hole which cut the ore zone at a depth of 30 feet, a trench was dug cutting the ore zone. From the face of this trench some of the assays in 4(c) were taken. In addition to the above work we have mapped the claims, cut roads, and cleared survey lines.

All bulldozers cuts are readily accessible, but all diamond drill holes have caved in. The cable rig holes at this time are still accessible for probing and samples from these holes are at your disposal.

There has been no production from these claims to date.

4(c) The general topography of this area is moderately abrupt with steep cliffs of the Pahasapa limestone capping the Northwestern section of the claims. This limestone varies in thickness from approximately 200 to 350 feet in depth. This is underlain by a buff colored dolemitic sandstone alternated with a green glauconite shale. The mineralized ore beds are a red sandstone underlying these alternated beds. In previous drill holes it has varied in thickness from I2 to 20 feet, grading into a quartz conglomerate lying immediately on top of the schist. The beds have a slight dip of about 5° to the west. The mineralized section of the red sandstone varies with the thickness of the beds with little mineralization at the extreme top of the bed and little mineralization in the conglomerate overlaying the schist. As we have had a poor recovery from this zone, a probe has been used extensively to log all radio-activity. A drillers probe log of these holes accompanies this report. On the basis of these probe logs along with the samples taken from the outcrop and the bulldozer cuts into the mineralized zone, we base our beliefs in the further exploration of these claims. Accompanying this report are assay reports, probe logs of drill holes, maps and other technical information that we have at this time.

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4(d) These claims lie adjacent to a graveled Forest Service road kept in good condition at all times. The present drill holes are about ½ mile off this road, accessible by a second Forest Service road. The Burlington railroad has a loading station approximately 8 miles from these claims along the same graveled Forest Service road, also they are approximately 104 miles from the ore buying station and Uranium Mill at Edgemont, South Dakota.

There are residence points in the town of Rochford, South Dakota, 8 miles east of these claims. The nearest town of any size is Lead, which is 30 miles away, with a population of approximately 6000.

4(c) The availability of manpower, materials, supplies, equipment and water would give no hardships of any kind in this area. Manpower is available in large quantities at all times. Materials, supplies and equipment are plentiful and easily accessible to the claims.

There is a plentiful supply of water in the form of one trout stream, 4 beaver dams, and two springs on the claims proper.

The nearest electrical power is approximetely 3 miles away.

5b We propose at this time to drill 50 holes through the ore zone in a pattern to outline the limits of the ore body and to evaluate the ore reserves from these holes so as to better determine the proper method to mine this ore. The proposed work will continue on from the information learned in the first 6 drill holesand the outline of the ore outcrop as presently known.

(Refer to enclosed maps marked 5(b)).

5(c) The climate in this area is very unpredictable and the date of the starting can reasonably be assumed to start in late spring. The work will be completed in 12 months.

5(d) Operating Experience:

Joe Monger---1927 to 1937 Operating & maintaining diamond drills & cable tool rigs for various contractors in U.S., Philippine Islands, Canal Zone, and South Africa. 1937 to 1950 Diamond setter & drill foreman for U.S. Bureau of Reclamation. 50 to 58 independent drill contractor.

Gerald Kiley---Mining Engineer, 4 years with Bald Mountain Mining Co. 6 years experience in M.E. B.S. degree from M.S.M.

James Martin---10 years general mechanic, 4months as Truck Driver (Gravel Haul), 3 months as Track man at Pactola Dam, Tunnel Project.

Bard Carlow---1½ years as Miner with Homestake Mining Co, 3 months on Bull gang at Pactola Dam Tunnel, 1year as Truck Driver.

George Milos---3 years on Bull Gang with the Homestake Mining Co, 1 year as Truck Driver, Licensed Master Plumber.
1year as Accountant.

6. ESTIMATE OF COSTS

(a) Independent Contracts

(I) Road building to point of operations	$3600.00

(b) Labor & Supervisors

James Martin-	$4800.00
Gerald Kiley -	$4800.00
Joe Monger - (DRILLER)	$4800.00
Bard Carlow -	$4800.00
George Milos -	$4800.00
Drillers Helper -	$3600.00

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(c) Operating Material & Supplies

Gas	$2100.00
Oil	$ 240.00
Misc. (rope, grease, tools etc.)	$1000.00
Engineering & Office Supplies	$ 100.00

(d) Operating Equipment

Drill Rig	$3000.00
Water Pumps	$2500.00
Water Tank & Truck	$1500.00
Power Wagon	$1000.00
Electric Welder	$ 500.00
Drill Rod	$1000.00
Diamond Bits	$2500.00
Core Barrels	$ 300.00
Gas Welder	$ 100.00

(e) Repairs & Rehabilitations

Tires & Tubes- Repairs	$ 500.00

(f) New Buildings

Storage and Sample Shed	$ 500.00

(g) Miscellaneous

Analytical work- Estimate $50.00 per hole	$2500.00
Accounting	$4800.00
Compensation Liability	
Payroll Taxes- F.I.C.A.* State & FED. Unemp.	$1093.50
(h) Contingencies	$1500.00

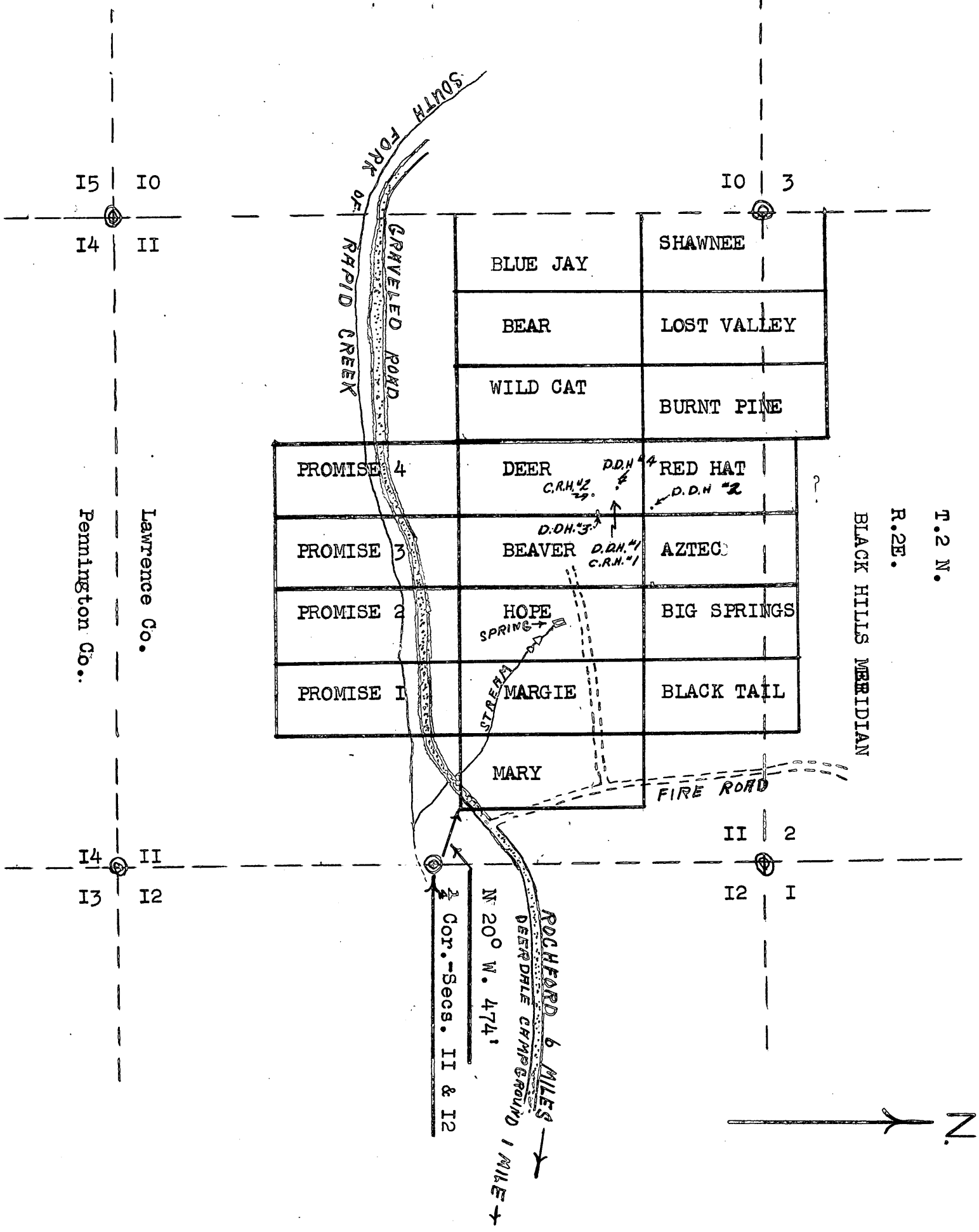
Total 57,933.50

7. (a) Yes.

(b) We propose to furnish our share of the costs by supplying all equipment required plus the labor.

(1)

SWEDE GULCH MINING CLAIMS



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Heinrich 9 7.46% H/M from grab, Deadwood s.s. Martin,, Rochford, S.D.		I0 5I/2 foot vert. chan. hope claim, Martin property
Ba	.4	.I
Th	5.3	.33
Sr	.4	.I5
Y	.I	.0I
Br	.8	---
As	.4	.05
Zn	.05	.0I
Fe	50	I2
Cr	.I	---
V	.03	---
Ti	.09	.I
Ca	2	.8
K	.5	I
Mn	.9	.85
P	I	.3
Si	8	38
Zr	.I	.I

This is an assay from Dow Chemical Co. received from them in May of I957. These samples were taken from the open cut bulldozed at the location of diamond drill hole #3 of I955. The corresponding probe reading of that hole is included in this report.

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DEPARTMENT OF THE INTERIOR
FEB 10 1958
REGION III
DENVER, COLORADO

1 1/8" D.D. Hole

JOE T. MONGER

Copy

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date June 6 1955

Location Swede Gulch #1

Inclination of Hole Vertical (diamond drill)

Feet of Casing Installed or Pulled 10'

Total Feet of Casing in Hole at End of Shift 10'

Feet of Hole Cemented

From	To	Material
0	8	overburden
8'	15	Boulders clay

RECEIVED 14 58

Remarks:

Well Completed at

Casing Set at 10

Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date June 7-8 19 53

Location Swedes Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 12

Total Feet of Casing in Hole at End of Shift 12

Feet of Hole Cemented

From	To	Material
15'	18	limey clay
18'	25'	pebbly limey clay
25	30'	shale lime
30	35'	hard red sandstone

Remarks:

RECEIVED JUL 14 '58

Well Completed at

Casing Set at 12'

Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Issued 9-10-11 19 58

Location Swedes Ranch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 12'

Total Feet of Casing in Hole at End of Shift 12'

Feet of Hole Cemented

From	To	Material
35	50	shale.
[illegible]	[illegible]	-10-11

Remarks:

STATE GEOLOGIST
RECEIVED
14 13

Well Completed at

Casing Set at 12

Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date June 12 - 17 1955

Location Swede Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 12

Total Feet of Casing in Hole at End of Shift 12

Feet of Hole Cemented

From	To	Material
0	55	sandstone lime
55	60	same - shale

Remarks:

Well Completed at

Casing Set at 12

Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date January 8 19 55

Location Swede Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 12

Total Feet of Casing in Hole at End of Shift 12

Feet of Hole Cemented

From	To	Material
60	65'	pebbly lime
65	70	lime shale brown sandstone
70	75	brown sandstone shale streaks

Remarks:

RECEIVED FEB 14 3

Well Completed at

Casing Set at 12

Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date June 19 1955

Location Sweden Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 12

Total Feet of Casing in Hole at End of Shift 12

Feet of Hole Cemented

From	To	Material
75	80	reddish gray sandstone
80	85	same 5" recovery
85	95'	same 16" recovery
95	100'	serpentine shale

Remarks:

Probe showed excellent reading from 80' to 92' - 10 to 20 over background 85' to 90' best

Well Completed at 100'

Casing Set at 12'

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Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Aug - 10 19 57

Location Sweed Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 18'

Total Feet of Casing in Hole at End of Shift 18'

Feet of Hole Cemented 6" hole Dh. #1

From	To	Material
0'	10'	over-burden

Remarks: Water Pump No. 9 Went To load Picked up Pump From Cont. CHURN DRILL HOLE #1

Well Completed at

Casing Set at 18"

Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Aug. 11 19 57

Location Sweed Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 18

Total Feet of Casing in Hole at End of Shift 18

Feet of Hole Cemented 6" hole Dh. #1

From	To	Material
10'	14'	Hard lime stone
14'	16'	shale gas
16	20'	Thin Beded lime stone shale seams
20'	35	same

Remarks:

CHURN DRILL HOLE #1

Well Completed at

Casing Set at 18'

Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Aug 12 19 57

Location Sweeds Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 18'

Total Feet of Casing in Hole at End of Shift 18'

Feet of Hole Cemented 6" hole Dh. #1

From	To	Material
35'	49'	Shale lime stone seams
Heavy Water - Caise @ 49' making 20 G.P.M.		
49'	51'	Brown shale & lime stone
51'	60'	Shale Thin lime seams

Remarks:

CHURN DRILL HOLE #1

RECEIVED FEB 14 3

Well Completed at

Casing Set at 18'

J. T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Aug. 13 19 57

Location Sweed Gulch.

Inclination of Hole Vertical

Feet of Casing Installed or Pulled

Total Feet of Casing in Hole at End of Shift 18'

Feet of Hole Cemented 6" hole Dh #1

From	To	Material
60'	66'	Blue shale lime stone
66'	69'	Brown sandy shale
69'	78'	Brownish sandstone
78'	80'	Brownish Sandstone
78'	80'	Probe Reading XL .07

Remarks: Started Probing hole @ 78'

CHURN DRILL HOLE #1

Well Completed at

Casing Set at 18'

Joe T. Monger

Driller

RECEIVED FEB 14

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Aug 14 1957

Location Sweed Gulch.

Inclination of Hole Vertical

Feet of Casing Installed or Pulled

Total Feet of Casing in Hole at End of Shift 18'

Feet of Hole Cemented 6" hole Dh #1

From	To	Material
80'	82'	Brownish sandstone Pure X1. Average .12
82	84	B. sandstone — X10 — .04
84	86	B. sandstone - X10 — 04
86	87	B. sandstone X.1 — .04

Remarks:

CHURN DRILL HOLE #1

Well Completed at

Casing Set at 18'

Joe T. Monger

Driller

FEB 12

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Aug 15 1957

Location SWeed Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled

Total Feet of Casing in Hole at End of Shift 18'

Feet of Hole Cemented 6" hole Dh. #1

From	To	Material
87'	88'	Brownish Red Sandstone X1 - .08
88'	90'	" " X1 - 10
90	92'	Same X1 - .07
92'	94'	Same X1 - .04

Remarks: Cuttings sent To Rapid To be Checked

CHURN DRILL HOLE #1

Well Completed at

Casing Set at 18

Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Aug 23 19 57

Location Sweed Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled

Total Feet of Casing in Hole at End of Shift 18'

Feet of Hole Cemented 6" hole - Dh. #1

From	To	Material
94'	96'	Dark Red Sandstone XL .03
96'	97	Sandstone XL .03
97	98'	Shist XL .0

Remarks: Hole Completed @ 98'
Rechecked hole with Probe
Moved & set up on hole #2
CHURN DRILL HOLE

Well Completed at 98'

Casing Set at

Joe T. Monger
Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Aug 21 & 22 1957

Location Sweet Gulch

Inclination of Hole Vertical 18'

Feet of Casing Installed or Pulled

Total Feet of Casing in Hole at End of Shift

Feet of Hole Cemented

From	To	Material
0'	18'	overburden
18'	20'	Hard limestone seam
20'	30'	limestone shale seams
30'	40'	" " "

Remarks:

CHURN DRILL HOLE #2

Well Completed at

Casing Set at 18'

Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Aug 23 19 57

Location Sweet Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 18'

Total Feet of Casing in Hole at End of Shift 55

Feet of Hole Cemented

From	To	Material
40'	45'	Hard lime stone
45'	50'	" " "
50'	55'	Thin bedd lime stone
55'	60'	" " "
60'	65'	Blue Shale

Remarks: Hole Caving Set 5" Casing @ 55'

CHURN DRILL HOLE # 2

Well Completed at

Casing Set at 55'

Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Sept 2 19 87

Location Sweed Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled

Total Feet of Casing in Hole at End of Shift

Feet of Hole Cemented

From	To	Material
81'	83'	No Reading
83	85'	X10 — 04
85	87	X10 — 04
87	89	X1 — 08

Remarks:

C.D hole #2

Well Completed at

Casing Set at

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date Sept. 1 19 57

Location Sunset Gulch

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 55'

Total Feet of Casing in Hole at End of Shift 55'

Feet of Hole Cemented

From	To	Material
65'	69'	Blue Shale
69'	81'	Brownish sandstone
81	83'	" " "
83	89'	" " "
89	90	Dark Reddish shist
90	92	Pink Colored shist

Remarks:

C.D. #2

Well Completed at 92'

Casing Set at 55'

Joe T. Monger

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date June 1955

Location Swede Gulch #2

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 21'

Total Feet of Casing in Hole at End of Shift 21'

Feet of Hole Cemented

From	To	Material
0	83'	

RECEIVED FEB 14

Remarks:

No extensive radio activity

Well Completed at

Casing Set at

James Martin

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date June 27 19 55

Location Swede Gulch #3

Inclination of Hole Vertical (diamond drill)

Feet of Casing Installed or Pulled 5'

Total Feet of Casing in Hole at End of Shift 5'

Feet of Hole Cemented

From	To	Material
0	5	over burden
5	10	Shale - Brown S.S.
10	20	Brown Sandstone
20	31	Brown Sandstone

Remarks:

Hole Depth	Probe reading
8'-10'	X1 - .04
10-15	X1 - .06
15-23	X1 - .09
23-26	X1 - .09
26-30	X1 - .11

Well Completed at

Casing Set at 5'

[illegible]

Driller

JOE T. MONGER

Drilling Contractor

CUSTER, SOUTH DAKOTA

Date July 1955

Location Swede Gulch #4

Inclination of Hole Vertical

Feet of Casing Installed or Pulled 33'

Total Feet of Casing in Hole at End of Shift 33'

Feet of Hole Cemented

From	To	Material
0	123'	

FEB 14 1958

Remarks: Steel stuck in Hole at 123'. No probe readings for this hole.

Well Completed at

Casing Set at 33'

James Martin

Driller

Ching

June 20, 1958 DOCKET COPY

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-4943

Commodity: Thorium, Uranium, and Rare Earths

Applicant: James Martin (has 6 partners)
Fantail Route
Lead, South Dakota

Property: 19 lode mining claims (Promise, et al., claims) situated in secs. 2 and 11, T. 2 N., R. 2 E., B.H.M& B., Lawrence County, South Dakota. Applicant and partners are the owners.

Date of application: January 28, 1958

Amount of application: $57,933.50

Processing Data: Referred to Region III - April 11, 1958
Date of field examination - May 6, 1958
Field Team report received - June 12, 1958

Work Proposed: Build access roads and drill 50 core or churn drill holes, aggregating 5,000 feet, along two crossed lines which trend north-south and east-west. Object is to outline the ore body. Holes to be at 25-foot intervals or less. Costs estimated as follows:

Road building (contract)	$ 3,600.00
Labor and supervision	27,600.00
Operating materials and supplies	3,440.00
Operating equipment	12,400.00
Repairs	500.00
Building	500.00
Miscellaneous	8,393.50
Contingencies	1,500.00
Total	$57,933.50
Government Participation @ 50%	$28,966.75

Field Team Report, dated June 5, 1958,
W. N. Sharp, USGS
E. O. Binyon, USBM

The proposed project is designed to explore the basal sandstone and conglomerate in the Deadwood formation of upper Cambrian age.

Work done to date exposed only two widely separated anomalously radioactive points in the target horizon. Cut A exposed about 25 feet of the basal Deadwood. A 15-foot interval of orthoquartzite is highly ferruginous and moderately to strongly radioactive (0.5 to 1.3 MR/Hr.).

Two samples were taken by the examiners about 4 feet above the base of the Deadwood at Cut A. They analyzed 0.11 and 0.003% eU. Semiquantitative spectrographic analyses of the two samples were made, with emphasis directed to thorium, uranium, and rare earths. Thorium amounted to 1.5 and $<$0.05%. Uranium and rare earths were present in trace amounts only. The thorium is apparently held within a limonitic component or stain in the quartzitic part of the formation. On the basis of the available data, a significant deposit of thorium is not likely to be found. A proper evaluation of the thorium potential would require additional prospecting work in the form of trenches or side hill cuts.

It is recommended that the application be denied without prejudice.

Commodity Group Comments:

U. S. Geological Survey - W. P. Williams, June 17, 1958

Agrees with the findings and recommendations of the Field Team.

U. S. Bureau of Mines - James Paone, June 17, 1958

Agrees with the Field Team and advises denial without prejudice.

Division of Rare and Miscellaneous Metals -
Michael Ching, June 19, 1958

The Applicant has drilled 6 holes, made 30 bulldozer cuts, and sunk 19 discovery shafts on the

property. Applicant reported that spectrographic analyses of four samples from the cuts ran 0.16, 0.10, 1.8, and 1.25% ThO_2. A fifth sample ran 0.33% thorium, but the examiners report that this sample was a heavy mineral separation amounting to 7.46% of the bulk sample and is assumed to be a limonite concentration. Results from the Applicant's drilling showed only the presence of a moderately radioactive zone near the base of theDeadwood in a small area on the Red Hat claim. The work done by the Applicant has been of limited geologic value and largely inconclusive.

Conclusions and Recommendations:

Available geologic data is not conclusive, but indicates that a significant discovery would not be made by an exploration project. It is recommended that the application be denied without prejudice.

F. L. Knouse

F. L. Knouse
Acting Director
Division of Rare and
Miscellaneous Metals

DMEA Form 7
(12-56)

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Date	Surname	Code
6/20/58	Ching	700
6/20	Kourke	700
6/22	Selfridge	130
"	Johnson	110
"	Mittendorf	100
		220
		225
6/23	Lamb	130
6/23	Kiilsgaard	130

JUN 23 1958

Mr. James Martin
Fantail Route
Lead, South Dakota

Re: Docket No. DMEA-4943 (Thorium, uranium, and rare earths)
Promise, et al., Claims
Lawrence County, South Dakota

Dear Mr. Martin:

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

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

Careful study of all our information, although noting some thorium mineralization on your property, indicates 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. Such denial, however, is made without prejudice.

Under the new policy announced on June 6, copy enclosed, funds to finance new mineral and metal exploration contracts will not be available after June 30. However, if proposed new legislation is enacted, new applications will be processed under the rules and regulations that would be established. Therefore, if further work on your part discloses new and more favorable evidence of ore deposition on your property, we shall be pleased to consider a new application.

MChing/gla 6-20-58
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Mr. Ching
DMEA Field Team, Region III (2)

Sincerely yours,

C. O. Mittendorf (for)
Administrator

Enclosure

8623

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

June 17, 1958

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DMEA
IN REPLY REFER TO:
RECEIVED JUN 18 1958
6/18 H.J. 225
" Kling 700

Memorandum

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

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

Subject: Review of field examination report, DMEA 4943, (Thorium, Rare Earths, Uranium) James Martin, Promise, et al. claims, Lawrence County, South Dakota

The examining team report that geologic conditions on the applicant's property are not favorable for the presence of undiscovered radioactive ore deposits or rare earths.

The examiners conclude that only a small amount of work has been done on the property and that more work of a prospecting nature needs to be done before exploration is undertaken.

At present there are known only two widely separated exposures on the claims that show anomalous radioactivity. Two samples cut by the Field Team assayed 0.003 and 0.11 percent eU. A heavy mineral separation of one of the samples did not show the presence of rare earth minerals.

The best prospects for the applicant's claims appear to be the possible presence of small scattered thorium deposits. Rare earths and uranium deposits are not to be expected.

I agree with the findings and recommendations of the Field Team for denial of the application without prejudice.

N. E. Nelson
for W. P. Williams

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DATE	INITIALS	CODE
6/18	C	220
"	Chief	700

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

Date June 17, 1958

DMEA Docket No. 4943
DMEA Contract No.
Commodity Thorium-Rare earths- Uranium
Name of Applicant James Martin
Name of property Promise et al claims
Location of property Lawrence Co., So. Dakota
Estimated cost of project $57,933.50

Memorandum ✓

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee
From: James Paone, Bureau of Mines Member
Uranium Commodity Committee
Subject: Review of Field Team Report
(Application, Field Team Report, etc.)

1. Date of subject document: 6/9/58. 2. Date received by reviewer: 6/12/58.

3. Prior reports on this property known to reviewer: Yes ☐ No ☐

4. Prior reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked 'yes' above:

8. Factors meeting special consideration:
a. Location ☐
b. Ownership ☐
c. Evidence of mineralization ☐
d. Geology ☐
e. Proposed exploration method ☐
f. Alternate exploration method ☐
g. Costs
h. ☐

9. Action advised:
a. Obtain information from applicant ☐
b. Refer to Field Team ☐
c. Denial ☒ without prejudice
d. Agree with Field Team ☒
e. Disagree with Field Team ☐
f. Suggest alternate plan ☐
g. Request another examination ☐
h. Approval ☐
i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado
June 9, 1958

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6/12	C	220
6/16	2HB	130
6/17	C	220
"	Chief	700

Memorandum

To: Secretary to the Operating Committee

From: Field Team, Region III

Subject: Docket No. DMEA 4943 (Thorium-Rare earths-Uranium) James Martin (Promise et al claims) Lawrence County, South Dakota - Joint Report of Examination

Enclosed are the original and two copies of a Joint Report of Examination on the subject property by W. N. Sharp, USGS, and E. O. Binyon, USBM.

The field examiners conclude that only a small amount of useful prospecting work has been done on the claims, but available geologic data, although not conclusive, suggests that a significant discovery of thorium ore will not be made by exploration on the Promise et. al. claim group. They recommend that the Applicant's request for DMEA assistance be denied without prejudice. We concur in this recommendation.

J. W. Townsend

E. N. Harshman

ON-SITE EXAM. REPORT

Reviewed by
DMEA OPERATING COMMITTEE
6-16-58
(date)

FOR GOVERNMENT USE ONLY

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6/14	[illegible]	130
		220

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA
DEPARTMENT OF THE INTERIOR
JUN 6 - 1958
REGION III
DENVER, COLORADO

DMEA 4943

James Martin

Promise et al. claims

Lawrence County, South Dakota

TRANSMITTED
JUN 9 1958

Thorium-rare earths-uranium

Joint Engineering and Geologic Report

by

W. N. Sharp
Geological Survey

E. O. Binyon
Bureau of Mines

June 5, 1958

Reviewed by
DMEA OPERATING COMMITTEE
6-16-58
(date)

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Acknowledgments	2
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Ownership	4
History and production	6
Present status	6
Geology	7
Ore reserves	9
Applicant's proposed program	10
Conclusions and recommendations	12

ILLUSTRATIONS

Figure	Follows page
1. Location Map. James Martin, Promise et al. claims, Lawrence County, South Dakota. Docket DMEA 4943	3
2. Geologic map of the Promise et al. claims and vicinity, Lawrence Co., South Dakota, DMEA 4943	13

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DMEA 4943

JAMES MARTIN
PROMISE ET AL. CLAIMS
LAWRENCE COUNTY, SOUTH DAKOTA

INTRODUCTION AND SUMMARY

James Martin, Fantail Route, Lead, South Dakota, with four other partners, has applied to the Defense Minerals Exploration Administration for assistance in the exploration of the Promise et al. claims group for thorium, rare earths, and uranium. The group, comprising 19 contiguous unpatented lode mining claims, is in secs. 2 and 11, T. 2 N., R. 2 E., Black Hills Meridian, Lawrence County, South Dakota. Exploration as proposed in the application is to be by diamond-core or churn drilling, and is to consist of 50 holes averaging 100 feet in depth or a total footage of 5,000 feet. Estimated cost of the program is $57,933.50. The program is designed to explore the basal sandstone and conglomerate in the Deadwood formation of upper Cambrian age.

A field examination was made of the property on May 6, 1958, by W. N. Sharp, geologist, U. S. Geological Survey, and E. O. Binyon, mining engineer, U. S. Bureau of Mines. The examining team was accompanied by M. K. Roy Chowdhury, geologist of the India Geological Survey, and by three of the partners--James Martin, Gerald Kiley, and Bard Carlow. Joseph Monger, another partner, arrived at the property after the examination had been completed.

As a result of the examination, the examining team is of the opinion that occurrences of significantly radioactive material in the Deadwood are apparently sporadic, and that additional prospecting work in the form of trenches or side hill cuts should be done in order to obtain data that are essential for proper evaluation. At present there are known only two widely separated exposures on the claims that show anomalous radioactivity.

An examination of the radioactive material suggests strongly that thorium, rare earths, and uranium are associated with a limonitic component of the rock and are not contained in any heavy mineral clastic component. Also, only trace amounts of rare earths and no uranium were detected. The possibility of making a significant discovery containing rare earths and uranium on the property seems remote. The thorium content of the samples of the rock is more noteworthy; however, the scanty field data indicates that a significant deposit is not likely on this commodity as well. It is recommended that the application be denied without prejudice.

ACKNOWLEDGMENTS

James Martin, Bard Carlow, and Gerald Kiley, three of the six partners, conducted the examining team over the property.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The property is in secs. 2 and 11, T. 2 N., R. 2 E., Black Hills Meridian, Lawrence County, South Dakota (fig. 1). Examination in the field indicates the claims are not correctly located with respect to the land net shown on the applicant's map; the approximate true positions are shown on figure 2 of this report. Lead, South Dakota, 21 miles north and slightly east of the property is the nearest sizeable community. The town is a railpoint on the CB & Q Railroad and with Deadwood, 3 miles to the northeast, is a supply center for the surrounding area. Rapid City, the main source of supplies and equipment for the Black Hills, is approximately 34 miles east and slightly south of the property.

To reach the property from Lead take U. S. Highway 85 south and go 1-1/4 miles to a junction with a graveled county road leading south. Take the county road and continue for 13.6 miles to a junction; the left fork is signed, Rochford. Bear to the right and continue for 2.5 miles to an intersection; take the road to the right and go for 2 miles to a junction with a fire road; turn right onto this fire road and go 0.6 mile to an intersection; then turn left and go about 1/4 mile to the approximate center of the claims.

The property is in an area of moderate relief. At the east boundary where the fire road enters the claims the altitude is 5,814 feet; from this point the rise is steep, and an altitude of about 6,700 feet is reached in the northwestern corner of the claims. The only outstanding

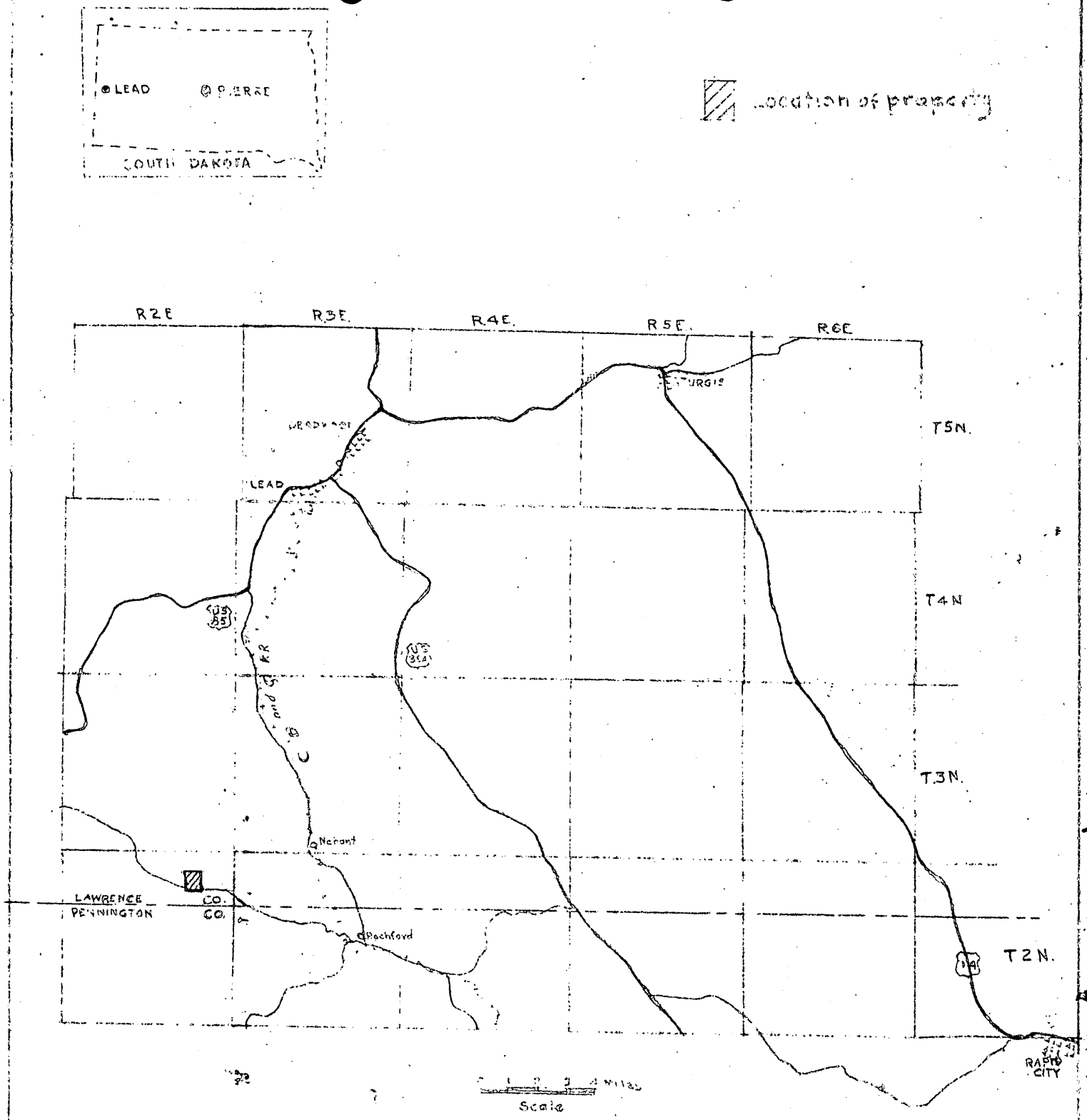

Figure 1 . - Location Map. James Martin, Promise et al Claims, Lawrence County, South Dakota. Docket DMEA 4943

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DATE	INITIALS	CODE

topographic features are Swede Gulch which cuts through the center of the claims in a southeast direction, and the bluffs or cliffs of Pahasapa limestone in the northwestern corner.

The climate is marked by mild summers and falls, but the winters and early springs are rather severe with much snow and rainfall. During most winters the snowfall would make the property inaccessible for long periods unless equipment for snow removal was used. Water is readily available from a permanent spring near the center of the claims and from the south fork of Rapid Creek which cuts the south end of the property. Except for an area near the center of the claims that was cleared of timber by a fire, the property has much timber, mainly ponderosa pine and spruce. Range grasses are quite plentiful.

Electric power is not available, and gasoline or diesel powered equipment for exploration or mine development would have to be used.

OWNERSHIP

The 19 claims designated the Promise Nos. 1 through 4, Blue Jay, Bear, Wild Cat, Deer, Beaver, Hope, Margie, Mary, Shawnee, Lost Valley, Burnt Pine, Red Hat, Aztec, Big Springs, and Black Tail, are owned by James Martin, George Milos, Bard Carlow, Joseph Monger, Ted Brown, Roswell Bottum, and Gerald Kiley, all members of a partnership. The Promise Nos. 1 through 4 claims were located by James Martin, George Milos, Lowell Jones, Ted Brown, and Bard Carlow; the Aztec and others were located by the above persons with the exception of George Milos.

A list of the claims with book, page number, and location date as recorded with the Register of Deeds at Deadwood, South Dakota, is as follows:

Claim	Book	Page No.	Location date
Promise No. 1	326	129	5/25/54
Promise No. 2	"	130	5/25/54
Promise No. 3	"	131	5/25/54
Promise No. 4	"	132	5/25/54
Aztec	"	148	6/4/54
Bear	"	149	6/3/54
Big Spring	"	150	6/4/54
Black Tail	"	151	6/5/54
Burnt Pine	"	152	6/4/54
Red Hat	"	153	6/4/54
Shawnee	"	154	6/4/54
Beaver	"	155	6/2/54
Blue Jay	"	156	6/3/54
Deer	"	157	6/2/54
Hope	"	158	6/2/54
Lost Valley	"	159	6/5/54
Margie	"	160	6/2/54
Mary	"	161	6/2/54
Wild Cat	"	162	6/3/54

Approximately 379 acres are included by the claims which incidentally are not staked. Only one stake, the north end center of the Beaver claim and south end center of the Promise No. 3 claim was found.

HISTORY AND PRODUCTION

The applicant states that the claims were discovered in 1953 and the discovery work done in that year. It will be noted that May 25, 1954, is the earliest date of location recorded. A number of bulldozer cuts were made on the claims, and 4 diamond drill and 2 churn drill holes were drilled to what is considered the ore-bearing horizon in the Deadwood. The bulldozer cuts, generally 70 feet long and 8 to 10 feet deep, appear to be more for randomly placed assessment work than for discovery work. Some of the cuts do not penetrate the talus cover to bed rock, even though well placed to expose basal Deadwood rocks.

The drilling, done in 1955 and 1957, was completed with crude radioactivity logs on four of the holes. Three holes, 90 to 100 feet deep in a small group on the Red Hat claim, cut a moderately radioactive zone near the base of the Deadwood.

PRESENT STATUS

The property is inactive at present.

GEOLOGY

The Promise et al. claims are located at the western edge of the Precambrian metamorphic rock core of the Black Hills uplift. Consequently, the geology of the area involves some of the thick sedimentary formational units (that range in age successively from Paleozoic to Tertiary) that overlie the metamorphic rocks of the core. In the area of the claims the sedimentary formations are the upper Cambrian Deadwood formation that directly overlies schist, and the Mississippian Englewood and Pahasapa formations that overlie the Deadwood. The Englewood and Pahasapa formations are limestone units; the Deadwood is composed of orthoquartzite, conglomerate, glauconitic shale, and sandstone, and throughout its outcrop in the Black Hills region this formation appears to be characteristically slightly to moderately radioactive at or near the base.

In the immediate area of the Promise et al. claims, the Deadwood formation, caps the ridges between drainage valleys, and forms sloping benches even where the relief is steep (fig. 2). The formation in the vicinity of the claims is about 180 feet thick. The basal 20 to 30 feet is of limonite stained conglomerate and orthoquartzite; the remaining 150 feet appears to be a sequence of thin shale, sandstone and flat-pebble conglomerate beds.

The basal part of the Deadwood is significantly radioactive at two known places on the Promise et al. claims, and cuts that expose the

bedrock (A & B, fig. 2) have been made at these sites. Also four holes have been drilled back from the outcrop at cut A, and a radioactive basal interval of Deadwood is reported to be present in at least two of these holes. Sample data from these holes are not available however.

Cut A exposes about 25 feet of the basal Deadwood. This interval, lying directly on the Precambrian schist, is made up of 1 to 2 feet of coarse quartz pebbly and flat-shale pebble conglomerate, 15 feet of medium-grained orthoquartzite, and 5 to 8 feet of varicolored shale interbedded with thin beds of flat pebble conglomerate and sandstone. The 15-foot interval of orthoquartzite is highly ferruginous and moderately to strongly radioactive (0.5 to 1.3 mr/hr). Much of the rock appears spongy as if leached of some of the material interstitial to the grains and limonite fills in the intragranular spaces.

Two samples were cut by the field team from the limonitic quartzite about 4 feet above the schist; the samples contained radioactivity amounting to 0.003 and 0.11 percent eU. A semiquantitative spectrographic analysis of the two samples was run with emphasis directed to thorium, rare earths, and uranium content. Thorium amounted to 0.003 percent and 1.5 percent; uranium and rare earths were not detected or were present in trace amounts only (see table of sample analyses).

The DMEA sample data compares well with an analysis of similar material collected by the Dow Chemical Company, and submitted by the applicant. A 5-1/2 foot vertical channel sample taken from Cut A contained 0.33 percent Th. A second analysis by Dow contained 5.5 percent Th and 50

percent Fe. This analysis is labeled as a heavy mineral separation amounting to 7.46 percent of the bulk sample, and is assumed by the Field Team to be a limonite concentration. The thorium in effect has been concentrated about 13 times, and if extrapolated back to the bulk sample content would be about 0.4 percent Th.

One of the samples collected by the examining team was crushed, cleaned, and separated of heavy mineral components. Less than 0.5 percent of the disaggregated material was heavy minerals, and this small component appeared to be mostly tourmaline. A few grains of pyrite also were present. Monazite, zircon, rutite, etc., minerals that might contain rare earths as well as thorium, were not noted. Also it may be demonstrated easily that the more limonitic the rock the higher the thorium value. Consequently, the thorium values of the material are without much doubt in the limonite component of the rock. Rare earths and uranium are present only in trace amounts and there is no geologic basis for expecting larger amounts.

It appears that the limonite in the basal Deadwood and the thorium it contains is a result of the oxidation in place of pyrite which had accumulated in moderate amounts at certain places in the formation. The distribution of limonite in the rock is uneven and at sites of abundant limonite, cast of pyrite crystals are still discernible in the rock.

ORE RESERVES

There are no known ore reserves.

APPLICANT'S PROPOSED PROGRAM

The exploration program as proposed in the application is to consist of road building and diamond core drilling of 50 holes with an average depth of 100 feet or a total footage of 5,000 feet. The applicant's estimate of the cost of the program is $57,933.50.

In discussing the program the applicant was uncertain as to whether he wished to use a diamond core drill or churn drill for drilling. Also the location of the drilling was not definite, the applicant stated that the drilling could be done on a block of ground northwest of and near the intersection of lines A and B as shown on the map accompanying the application or on the Red Hat and Deer claims.

A breakdown of the applicant's estimate of costs is as follows:

(a) Independent Contracts		
Road building to point of operations		$ 3,600.00
(b) Labor and Supervision		
James Martin, Gerald Kiley, Joseph Monger, Bard Carlow, and Geo. Milos, each $4,800		24,000.00
Driller's helper		3,600.00
		$27,600.00
(c) Operating materials and supplies		
Gas	$2,100.00	
Oil	240.00	
Misc. (rope, grease, tools, etc.)	1,000.00	
Engineering and office	100.00	3,440.00

(d) Operating equipment		
Drilling	$ 3,000.00	
Water pumps	2,500.00	
Water tank & truck	1,500.00	
Power wagon	1,000.00	
Electric welder	500.00	
Drill rods	1,000.00	
Diamond bits	2,500.00	
Core barrels	300.00	
Gas welder	100.00	
		$12,400.00
(e) Repairs and rehabilitation		
Tires, tubes, repairs		500.00
(f) New building		
Storage and sample shed		500.00
(g) Miscellaneous		
Analytical work estimate	50.00/hole	
50 holes at $50	2,500.00	
Accounting	4,800.00	
Compensation-liability insurance, payroll taxes, FICA State & Fed. unemployment	1,093.50	
		8,393.50
(h) Contingencies		1,500.00
Total estimated cost		$57,933.50

CONCLUSIONS AND RECOMMENDATIONS

After an examination of the property and a brief study of the material from the "ore" exposures, the conclusion is drawn that the Promise et al. claims overlie several of the thorium-bearing zones that are common throughout the Deadwood outcrop in the Black Hills region. Thorium is present in restricted zones in moderate amounts; rare earths and uranium are present in trace amounts only. The thorium values appear to be held within a limonitic component or stain in the lower quartzitic part of the formation, but even so thorium is not present in all limonitic material. Only a small amount of useful prospecting work has been done on the claims but available geologic data, although not conclusive, suggests that a significant discovery of thorium ore will not be made by exploration on the Promise et al. claim group. A study of the data does rule out the possibility of a discovery of rare earths and uranium in more than trace amounts.

It is therefore recommended that the applicant's request for DMEA assistance be denied without prejudice.

Table of sample analyses

DMEA 4943-1 - Grab sample of highly limonitic orthoquartzite from 4 feet above base of Deadwood at Cut A.

DMEA 4943-2 - Grab sample of moderately limonitic orthoquartzite from same general area in Cut A.

Sample	Semiquantitative spectrographic analyses in percent							Radiometric analysis
	Ce	Dy	La	Nd	Y	Yb	Th	eU
4943-1	0	0	0	0	0.007	0.0015	1.5	0.11
4943-2	0	0	0	0	0.0015	0.0003	< 0.05	0.003

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/26	Ching	200
5/26	Ellis	200
5/28	[illegible]	130
"	Johnson	116
	Townsend	100
5/29	C	220
		200

MAY 28 1958

Mr. J. W. Townsend
Alternate Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4943
(Thorium, uranium, and rare earths)
James Martin
Promise, et al., Claims
Lawrence County, South Dakota

Dear Mr. Townsend:

In accordance with your teletype of May 23, we are enclosing three copies each of drill logs of 2 churn drill holes and 4 diamond drill holes as submitted in the original application.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

Enclosures

APPROVED:

Frank D. Lamb (HB)
Member, Bureau of Mines

Thor H. Kiilsgaard (HB)
Member, Geological Survey

MChing/izm 5-26-58
cc: Mr. Ching
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

Chairman, D.M.E.A.

DN 235 BUR MINES 5-23-58 4-270

CHAIRMAN OPERATING COMMITTEE DMEA

RE DOCKET DMEA 4943, JAMES MARTIN, DRILL LOGS REFERRED TO IN LAST PARAGRAPH OF OUR LETTER OF FEBRUARY 11 AND PARAGRAPH 2 OF MR ELLIS S LETTER OF FEBRUARY 20 TO THE APPLICANT. PLEASE FORWARD DRILL LOGS, AS THERE ARE NON XXX NONE WITH FIELD COPIES OF APPLICATION AND THEY ARE NEDXXX NEEDED FOR REVIEW BY FIELD EXAMINERS.

J W TOWNSEND

OFFICIAL FILE COPY
D M E A

DATE	INITIALS	CODE
5/26	C	220
"	Ching	700

making copies

Denver Colo.

MAY 26 7 24 AM '58
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.

RECEIVED APR 21 1958

224 New Customhouse
Denver 2, Colorado
April 18, 1958

Memorandum

To: E. N. Harshman w/enclosures items 1-5 below
DMEA/DFC Att: Binyon w/enclosures items 1-5 below

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

Subject: Docket No. DMEA 4943 (Uranium, Thorium and Rare Earths) James Martin (Promise et. al. Claims) Lawrence County, South Dakota

Enclosed is the following material relating to the subject docket.

1. Copy of application for Government assistance in exploration work under the DMEA program.

2. Memorandum of Review by James Paone, USBM.

3. Memorandum of Review by N. E. Nelson, USGS.

4. Letter of transmittal of the foregoing to this office dated April 11, 1958, from the Chairman, Operating Committee, DMEA.

5. Routing Control sheet.

The field examination of the property and a joint report of findings and recommendations pertaining to the Applicant's work proposal are requested.

Signed by
E. N. HARSHMAN
E. N. Harshman

EMC:dp
cc: Sec. Op. Comm. (2)
Docket
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/10	Ching	700
4/10	Ching	700
4/11	Selfridge	130
"	[illegible]	110
"	[illegible]	100
4/11		220
		700

APR 11 1958

Mr. James Martin
Fantail Route
Lead, South Dakota

Re: Docket No. DMEA-4943
(Thorium, uranium, and rare earths)
Promise, et al., Claims
Lawrence County, South Dakota

4/11 Ramt (130
4/11 Williams (130)

Dear Mr. Martin:

Your letter and attachments of March 28, 1958, have been received. Your application is now being referred to Mr. E. N. Harshman, Acting Executive Officer, DMEA Field Team, Region III, 224 New Customhouse Building, Denver 2, Colorado, for further consideration and possibly a field examination.

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

Sincerely yours,

[illegible]

Administrator

MChing/izm 4-10-58
cc: Mr. Ching
Admr.'s Reading File
DMEA FT Reg. 3 (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/10	Ching	700
4/10	[illegible]	700
4/11	[illegible]	130
"	Johnson	110
"	[illegible]	100
		220
		700

APR 11 1958

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

Re: Docket No. DMEA-4943
(Thorium, uranium, and rare earths)
James Martin
Promise, et al., Claims
Lawrence County, South Dakota

Dear Mr. Harshman:

The subject application is being referred to you for investigation, a field examination if warranted, and recommendations.

Enclosed for your information are memoranda, dated February 19 and April 8, 1958, by James Paone, USBM, and N. E. Nelson, USGS, respectively, relating to the application. Also enclosed are two copies of the original application and three sets of supplemental material for the use of the Field Team. The supplemental material consists of a map, a letter dated March 28, 1958, and a report of spectrographic analysis.

We note that James Martin has listed six partners, but wishes to contract in his name only. If a contract is recommended it should be determined whether all partners listed are to be included in the contract. A power of attorney may also be in order.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures
APPROVED:

Frank D. Lamb (GCS)
Member, Bureau of Mines

W. P. Williams (GCS)
Member, Geological Survey

MChing/izm 4-10-58
cc: Mr. Ching
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

OFFICIAL FILE COPY
DMEA
RECEIVED APR 9 1958

DATE	INITIALS	CODE
4-9	C	22
11	Ching	766

IN REPLY REFER TO:

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

April 8, 1958
Re: DMEA 4943
James Martin
Red Hat, etc. claims
Lawrence County, South Dakota
$57,933.50 - Thorium, Uranium & Rare earths

Memorandum

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

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

Subject: Review of application

The applicant requests assistance in exploring a 12 to 20 foot flatly dipping bed of red sandstone, from which samples have been taken showing from 0.10% ThO_2 to 1.25% ThO_2 by spectographic analysis.

The samples appear to have been taken from points some distance apart. Churn and diamond drill holes have also been put down, but the results of the drilling are not easily related to the map or descriptive matter of the application.

The proposed work consists of 50 one hundred-foot holes drilled on 25-foot centers. Just what all the high-priced supervisors and laborers would be doing while Joe Monger and his helper are drilling 5,000 feet of hole is not too apparent. The payroll looks to be padded.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

Docket No. DMEA-4943
(Thorium, Uranium, and Rare Earths
Promise, et al., Claims
Lawrence County, South Dakota

Dear Sirs,

March 28, 1958

We reply to your letter dated Feb. 20, 1958 requesting clarification of the following points.
The reason we are so slow in returning this information was the absence of our engineer during this period.
I. The legal description of the property under 3(a) was in error. The map shows the true description of the claims with the Red Hat, Aztec, Big Springs, Black Tail claims being only 1250 feet in length. This was due to amending of our first claims.

2. The assay report which indicated the second assay was from the Hope claim is in error due to the fact that the field representative from Dow Chemical Co. was confused in his location in his notes. The sample was taken from a 5½ foot face in the bulldozer cut made at the location of drill hole #3.
Enclosed you will find 4 more assay reports. Lab. No. 191A assay and Lab. No. 662A assay are from the ore outcroping on Promise #3 claim. Lab. No. 774A is taken from the Deer claim.
Lab. No. 374B is taken from the Beaver claim.
We have no further assay reports at this time due to the fact that most of our copies were given to a possible financier and we have no way of locating him at present.
The best possible way we can try to explain our probe results is that on D.D.H. #3 the present location of our open cut, the probe readings ranged about .10 on the XI scale and the chemical assays from the open cut ran about 2% Thorium.

3. The map referred to under 5(B) was overlooked in the original report and is enclosed here.
The location of the present drill holes are correctly plotted where as their location as shown on the small map you now have was only an estimate.
The expected depth of the proposed drill holes would average 100 feet in depth with the total footage being 5000 feet.

DMEA
RECEIVED APR 3 1958
DATE | INITIAL | CODE
4 3 | C | 22C 700

James Martin
Fantail Route
Lead, South Dakota

SOUTH DAKOTA
SCHOOL OF MINES AND TECHNOLOGY
RAPID CITY, S.D.

Spectrographic Analysis

Lab. No. I9IA,	.....	0.I6%	ThO_2,	reported	I0/28/54
Lab. No. 662A,	.....	0.I0%	"	"	5/6/55
Lab. No. 774A,	.....	I.8%	"	"	6/3/55
Lab. No. 374B	.....	I.25%	"	"	II/23/56

We are now awaiting a chemical assay from the Michigan Chemical Co. which will be sent to you as soon as received.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/20/58	Ching	700
3/21	Ellis	700
	Johnson	100
3/24	C	220
		700

MAR 21 1958

Mr. James Martin
Fantail Route
Lead, South Dakota

Re: Docket No. DMEA-4943
(Thorium, Uranium, and Rare Earths)
Promise, et al., Claims
Lawrence County, South Dakota

Dear Mr. Martin:

Reference is made to our letter, dated February 20, 1958, relating to the captioned docket.

Action on your application is pending receipt of the information requested in the above-mentioned letter. If you are no longer interested in the processing of this application, please advise us.

Sincerely yours,

Ernest Wm. Ellis, Director
Division of Rare and
Miscellaneous Metals

MChing/gla
3-20-58
cc to: Admr.'s Reading File
THKiilsgaard, 5224
Mr. Ching
DMEA Field Team, Region III (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/20/58	Ching	700
"	Ellis	700
"	Matthews	100
2/21	C	220
		700

FEB 20 1958

Mr. James Martin
Fantail Route
Lead, South Dakota

Re: Docket No. DMEA-4943
(Thorium, Uranium, and Rare Earths)
Promise, et al., Claims
Lawrence County, South Dakota

Dear Mr. Martin:

We have reviewed the subject application and find that the following points need clarification before the processing can continue:

1. The legal description of the property under 3(a) covers 19 full size claims (600 ft. by 1500 ft.). The map attached to the application shows the Red Hat, Aztec, Big Springs, and Black Tail claims as less than 1500 feet long. Please explain this discrepancy.

2. In view of the fact that 6 holes have been drilled, 30 bulldozer cuts made, and 19 discovery shafts sunk, we are surprised to find only two assay reports attached to the application and these are not impressive. Neither shows any uranium nor a significant amount of rare earths, and only one shows a significant amount of thorium. You describe both samples as having been taken from the open cut near diamond drill hole No. 3, but the heading above the second assay report indicates that this sample was taken from the Hope claim. Please advise whether or not you can supply other chemical assay reports on representative samples that will show more conclusively the presence of thorium, uranium, and rare earths. Incidentally, the meaning of the probe results shown on the drill logs is not clear to us and should be converted into eU_3O_8 readings if that is possible.

3. Under 5(b) of the application you refer to "enclosed maps marked 5(b)". These were not found. The locations of the 50 drill holes, and of the first 6 holes proposed, are not shown on the only map available. Furthermore, the expected depth of drilling and total footage are not given.

8623

Please submit all additional information in quadruplicate (4 copies). When we have received the above-mentioned clarification we shall continue to process your application.

Sincerely yours,

SIGNED

Ernest Wm. Ellis, Director
Division of Rare and
Miscellaneous Metals

MChing/gla
2-20-58
c.c to: Admr.'s Reading File
THKiilsgaard, 5224
MChing
DMEA Field Team, Region III (2)

old

FILE COPY
DMEA
RECEIVED FEB 20 1958

DATE	INITIALS	CODE
2-20	C	220
11	[illegible]	700

February 19, 1958

DMEA Docket No. 4943

Commodity: Thorium, Uranium, and Rare Earths

Name of applicant: James Martin

Name of property: Promise et al claims

Estimated cost of project: $ 57,933.50

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

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

Subject: Review of Application

(Application, Map, and Other Reports, etc.)

1. Date of subject document: 1/28/57 2. Date received by reviewers 2/14/58

3. Prior reports on this property known to reviewers: Yes [ ] No [ ]

4. Prior reports on nearby properties known to reviewers: Yes [ ] No [ ]

5. Information available on past production: Yes [ ] No [ ]

6. Other pertinent factors known to reviewers: Yes [ ] No [ ]

7. Explain items marked yes above:

8. Factors meeting special considerations:
   a. Location [ ]
   b. Ownership [ ]
   c. Evidence of mineralization [ ]
   d. Geology [ ]
   e. Proposed exploration method [ ]
   f. Alternate exploration method [ ]
   g. Costs [ ]
   h. [ ]

9. Action advised:
   a. Obtain information from applicant [ ]
   b. Refer to Field Team [x]
   c. Denial [ ]
   d. Agree with Field Team [ ]
   e. Consult with Mr. [ ]
   f. Agree with Field Team [ ]
   g. Request alternate plan [ ]
   h. Request engineer examination [ ]
   i. Approval [ ]
   j. [ ] Other action

10. Remarks: (Use back of page if necessary)

Although the application is poorly prepared and lacking in certain data, it is doubtful that the applicant could provide additional information. The field team may have some data or information on the property; field examination recommended.

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

February 14, 1958

Mr. James Martin
Fantail Route
Lead, South Dakota

Subject: DMEA-4943

Dear Mr. Martin:

Your application for exploration assistance, dated January 28, 1958 submitted to our office at Denver, Colorado has been assigned Docket Number DMEA-4943 and referred to the Rare & Miscellaneous Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

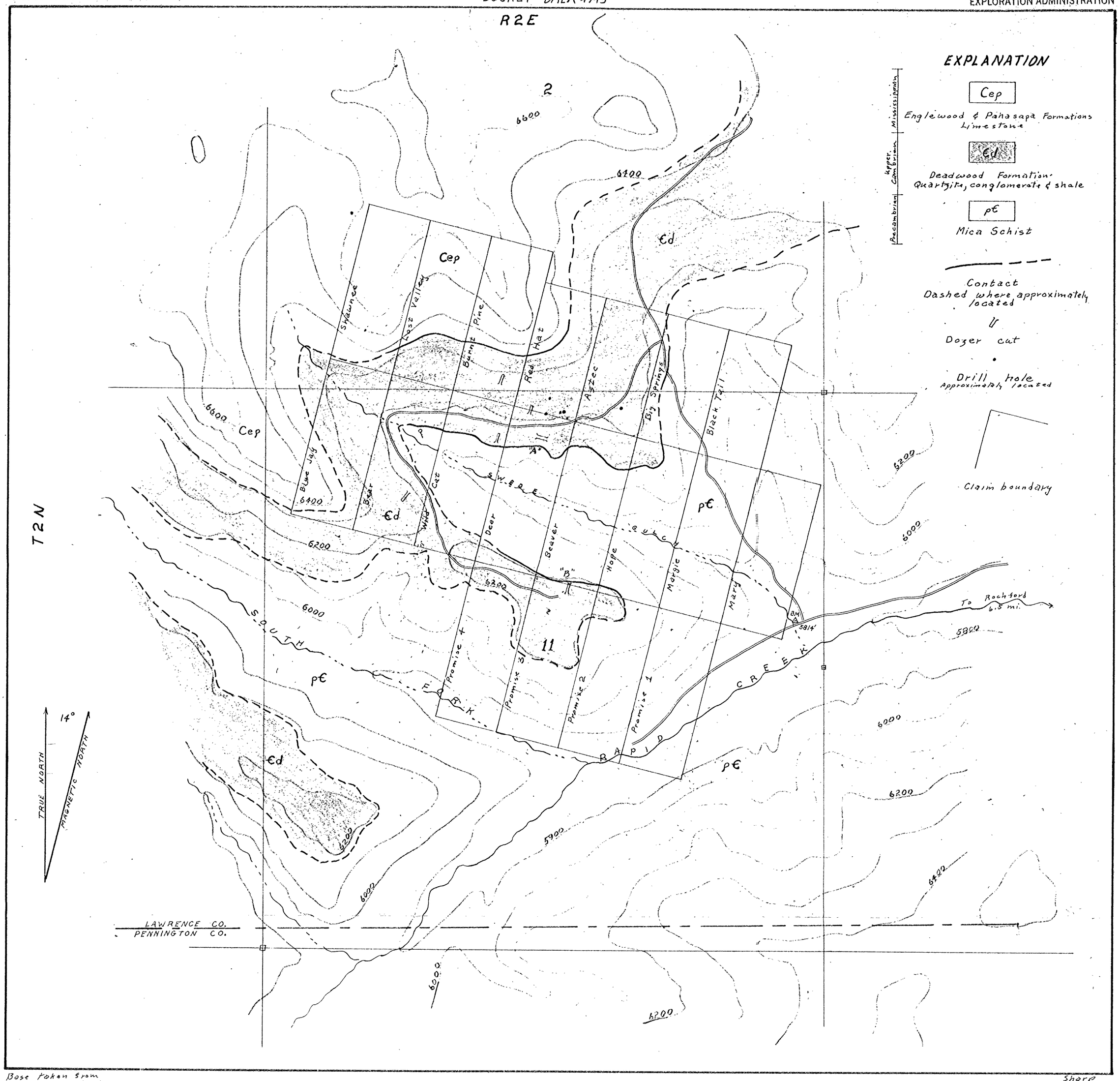
Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region III

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

EXAMINATION REPORT
DOCKET DMEA-4943

PREPARED FOR
DEFENSE MINERALS
EXPLORATION ADMINISTRATION

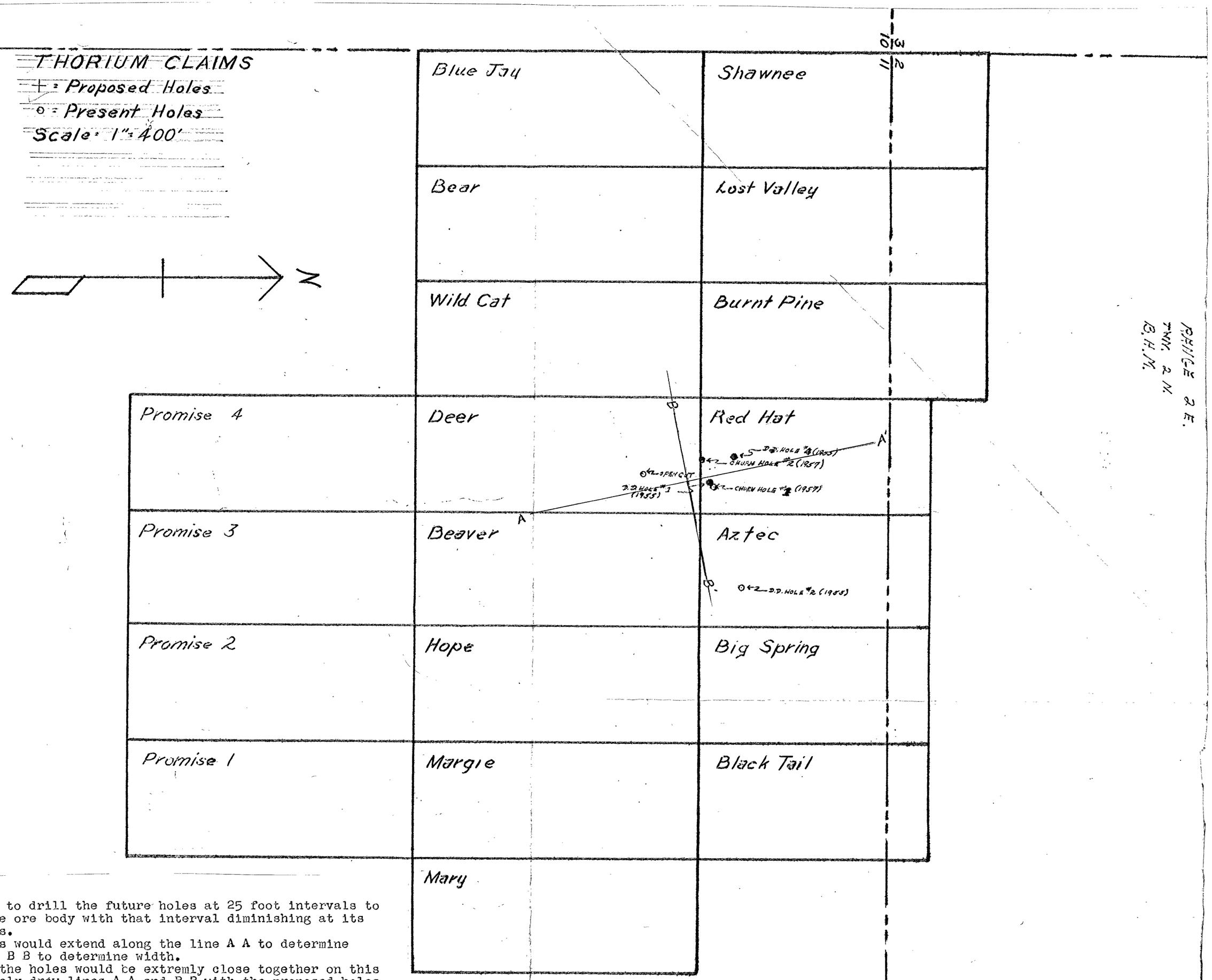


Base taken from USGS Topo sheet.

Sharp
May '58

Fig. 2 - GEOLOGIC MAP OF THE PROMISE ET AL. CLAIMS AND VICINITY
LAWRENCE CO., SOUTH DAKOTA ; DMEA -4943

600 0 600 1200 1800 feet



We propose to drill the future holes at 25 foot intervals to outline the ore body with that interval diminishing at its extremities.

The holes would extend along the line A A to determine length and B B to determine width.

Because the holes would be extremly close together on this map we merely drew lines A A and B B with the proposed holes all to the North of line B B but not shown.

Docket DMEA-4943 - James Martin