DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE — Idm-E NO. 928 — DMEA NO. 3962

Application
- [ ] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

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

Additional Folders:

Left Side

Folders No. folder #2 : Reports
- [x] Analysis of Semi-Annual Inspection Reports & Settlement Sheets
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [x] 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

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Washington office pertaining to Contract Idm-E928, Docket DMEA-3962 (uranium), dated March 9, 1956, with

Norbute Corporation
and its assignee
L. H. Wilkerson
and his assignee
Arthur R. Shumway, Lawrence C. Davis,
and Truman Goode
d/b/a Ringtail Mining Company
P. O. Box 1644
Moab, Utah

for the purpose of determining the amount of royalty payable to the U. S. Government on sales of minerals from property referred to as the Utah Mineral Lease No. 3971 in sec. 36, T. 22 S., R. 21 E., S.L.M., located in Grand County, Utah, during the period April 1, 1961, through May 14, 1964.

A certification of discovery or development was issued on July 6, 1956, and, in accordance with Article 8 of the contract, royalty is payable on all minerals produced from the land described in Article 2 of the contract for a period of 10 years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A Report of Review dated August 16, 1956, indicated accepted costs under the exploration contract amounting to $11,520.31 with the Government's contribution on a 75 percent basis being $8,640.23.

The status of the project, the scope of review, and the reasons therefor are stated on page 2.

This review found no sales subject to the Government's royalty subsequent to the period covered by a prior Report of Royalty Review which found the sales subject to the Government's royalty through March 31, 1961, to be $112,278.51. The royalty account as of March 31, 1961, was:

Total Royalty Payable	$5,567.21
Total Royalty Paid	5,567.21
Balance of Royalty Due	$ -0-

As of May 14, 1964, the royalty account of this project was found to be:

Total Royalty Payable	$5,567.21
Total Royalty Paid	5,567.21
Balance of Royalty Due	$ -0-

June 3, 1964

E. D. Talbert, OME Auditor

STATUS OF PROJECT, SCOPE OF REVIEW AND REASONS THEREFOR

This contract provides that the Operator (Norbute Corporation, 405 Park Avenue, New York 22, N. Y.), as principal if the producer or as surety if not the producer, shall pay to the Government a percentage royalty on all minerals produced from the land thereunder. The land was leased from the State of Utah. In lieu of a consent to lien, the Operator provided a performance bond executed by the Indemnity Insurance Company of North America as surety.

Exploration work under the contract was completed during May 1956. There was no production during the exploration period, but production thereafter resulted in shipments by the Operator and its successors in interest through August 1958. These sales, aggregating 3,904.696 tons of ore containing 18,325.43 lbs. U_3O_8 and 99,223.98 lbs. V_2O_5, are set forth in Exhibit "A" attached to an April 19, 1961, Report of Royalty Review.

On March 8, 1957, the Operator (Norbute) assigned its mineral lease to the Ringtail Corporation, its wholly owned subsidiary. On August 14, 1957, the latter corporation assigned its lease to L. H. Wilkerson, d/b/a Dola Belle Mining Company, Box 3, Thompson, Utah. On April 18, 1958, after Wilkerson had provided a performance bond issued by the Indemnity Insurance Company of North America on March 9, 1958, the Government executed a Consent to Assignment and specifically released both the Operator (Norbute) and the Assignor (Ringtail Corporation) from all the provisions of the exploration contract.

On January 8, 1959, Mr. Wilkerson assigned the mineral lease to Arthur R. Shumway, Lawrence C. Davis, and Truman Goode, d/b/a Ringtail Mining Company, who furnished a performance bond issued by the National Surety Corporation on January 8, 1959. By letter dated April 22, 1959, addressed to Haynie, Hotchkiss, & Golden, attorneys at law, with copies to the Operator (Norbute), the Assignor (L. H. Wilkerson), and the Assignee (Ringtail Mining Company), the Government consented to the assignment without releasing the Assignor (L. H. Wilkerson) from any of the provisions of the contract.

Since 1959 Arthur R. Shumway has made three requests for cancellation of the performance bond. On the other hand, Mr. Shumway has failed to reply to MME Forms 63 and letters, the last on January 10, 1964, inquiring as to changes in property status and production. Investigations by the Acting Field Officer, OME Region III, have

established, however, that no ore has been mined since August 1958 from the area subordinated under the contract.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(a) The files indicate that no production from the property under the contract occurred during the period covered by this review; and

(b) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Washington office pertaining to Contract No. Idm-E928, Docket No. DMEA-3962 (uranium), dated March 9, 1956, with

Norbute Corporation
405 Park Avenue
New York 22, New York

and subsequent assignees, for the purpose of determining the amount of royalty due the U. S. Government on sales of minerals from property referred to as part of Utah Mineral Lease No. 3971 located in Sec. 36, T. 22 S., R. 21 E., S.L.M., Grand County, Utah, during the period February 7, 1958, through March 31, 1961.

A certification of discovery or development was issued on July 6, 1956, and, in accordance with Article 8 of the contract, royalty is payable on all minerals mined or produced from the land described in Article 2 of the contract for a period of 10 years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A Report of Review dated August 16, 1956, indicated accepted costs under the exploration contract amounting to $11,520.31 with the Government's contribution, on a 75 percent basis, being $8,640.23.

The status of the project, the scope of review, and the reasons therefor are stated on the following pages.

This review found the total reported sales of uranium-vanadium for the period to be $45,535.70. Royalty paid the Government at rates specified in the contract amounted to $2,230.06.

A prior Report of Royalty Review found the reported sales through February 6, 1958, to be $66,742.81 which added to the reported sales for this subsequent period make a total of $112,278.51. The royalty account as of February 6, 1958, was:

Total Royalty Due	$3,337.15
Total Royalty Paid	3,337.15
Balance of Royalty Due	$ -0-

At March 31, 1961, the royalty account of this project was found to be:

Total Royalty Due	$5,567.21
Total Royalty Paid	5,567.21
Balance of Royalty Due	$ -0-

April 19, 1961

E. D. Talbert, OME Auditor

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

Title to the land described in Article 2 of the contract is vested in the State of Utah. At the time the contract was executed, the Operator had the right of possession by assignment from Strategic Minerals Exploration Company, a partnership, of Grand Junction, Colorado. In lieu of a consent to lien, the Operator provided a performance bond in the penal sum of $33,750.00 with the Indemnity Insurance Company of North America as surety. The penal sum of the bond was reduced on March 11, 1957, to $8,582.84, the amount of the Government's contribution less royalty payments to that date.

On March 8, 1957, the Operator assigned its mineral lease to the Ringtail Corporation, its wholly owned subsidiary; however, from March 1957 until June 1957, the property was operated by L. H. Wilkerson, d/b/a Dola Belle Mining, Box 3, Thompson, Utah, on a trial basis. During the latter month, the Ringtail Corporation sold to Wilkerson all fixed assets on the property and assigned the mineral lease to him. The assignment was rewritten on August 14, 1957; Wilkerson provided a performance bond executed by the Indemnity Insurance Company of North America on March 9, 1958, in the penal sum of $5,000.00, the amount of the Government's contribution less the approximate royalty payments to that date; and the Government executed a Consent to Assignment on April 18, 1958. This Consent to Assignment specifically released both the Assignor (Ringtail Corporation) and the Operator (Norbute Corporation) from any and all terms, provisions, and conditions of the exploration project contract.

On January 8, 1959, L. H. Wilkerson assigned the mineral lease to Arthur Roy Shumway, Lawrence C. Davis, and Truman Goode, d/b/a Ringtail Mining Company, P. O. Box 312, Moab, Utah. By letter dated April 22, 1959, addressed to Haynie, Hotchkiss & Golden, attorneys at law, with copies to the original Operator (Norbute Corporation), the Assignor (L. H. Wilkerson), and the Assignee (Ringtail Mining Company), the Government consented to the assignment without releasing the Assignor from any of the terms, provisions, or conditions of the contract. This consent was in consideration of a performance bond in the penal sum of $5,000.00 executed on January 8, 1959, by the Ringtail Mining Company as principal and the National Surety Corporation as surety.

Sales during the period of January 10, 1957, to May 31, 1957, of production from Utah Mineral Lease No. 3971 were made on an f.o.b. receiving station basis to the Climax Uranium Company in the name

of Norbute Corporation. Sales during the period of June 16, 1957, to June 30, 1958, were made on an f.o.b. mine basis to Climax Uranium Company in the name of L. H. Wilkerson. Thereafter, until August 31, 1958, sales were made on an f.o.b. receiving station basis to Union Carbide Nuclear Company in the name of Dola Belle Mining Company.

A 5% royalty on the entire gross proceeds was paid to the Government on all sales to Climax Uranium Company; however, the 5% royalty paid on subsequent sales to Union Carbide Nuclear Company was based on gross proceeds exclusive of haulage allowance. Additional royalty of $46.74, calculated to be payable on these sales, was requested of L. H. Wilkerson by the Acting Executive Officer, OME Region III, in a letter dated September 25, 1958.

In an October 1, 1958, reply to the request for payment of the additional royalty, Mr. Wilkerson stated:

> "Since my purchase of the Ringtail mine, Section 36, T 22 S, R 21 E, I have faithfully paid the government 5% of the gross proceeds of all ore mined from this property. During this period I have not at any time, mined as much as one ounce of ore from the D.M.E.A. loan property, yet I have paid the government the sum of $3,902.00 since purchasing the property and $1,180.64, for the three months period previous to the purchasing of said property, which by all rights should never have been paid since I was not mining D.M.E.A. property.
>
> Under the circumstances, due to the insecure sales of my ore I no longer find it expedient to continue these payments at this time. If and when D.M.E.A. property should be mined let me assure you the payments would begin at once".

In verification of Mr. Wilkerson's assertion, two representatives of the Region III Field Team examined the workings on October 7, 1958. By memorandum dated October 21, 1958, they reported that: (1) mine maps indicated mining from subordinated land of only 300 tons of ore and that during the period of January to June 1957; (2) such ore was commingled with ore from unsubordinated ground; (3) the reserve was essentially depleted by the removal of the 300 tons of ore; (4) the workings were abandoned before June 30, 1957; (5) examination of the workings disclosed that the stope and incline were completely flooded and appeared to have been flooded for months; and (6) the active mining area was south of the shaft and not on subordinated land.

Mr. Wilkerson's assertion was further confirmed by the Norbute Corporation in a letter dated February 20, 1959, which stated in part:

> "The block of ground subject to the exploration loan was never really mined; but it was our decision to repay this obligation from all production from this property and Mr. Wilkerson had agreed to that condition when the lease was turned over to him".

Such agreement, however, was not incorporated in the August 14, 1957, assignment of the mineral lease and a letter dated February 25, 1959, from Norbute Corporation states that such agreement was only "a very definite understanding".

In view of the foregoing conditions, this review has accepted the royalty paid to date as being applicable as repayment of the Government's contribution, with neither overpayment nor balance due being stated. However, in the event that Mr. Wilkerson should initiate a claim for and insist on a refund, the Government's position is stated in the following paragraph of the Operating Committee's January 30, 1959, letter to the Executive Officer, OME Field Team, Region III:

> "We have been advised by our Legal Division that Mr. Wilkerson is entitled to a refund on royalty payments made after the Government consented /April 18, 1958/ to the assignment of the land and lease, provided that Mr. Wilkerson submits a claim for the specific amount and recites the facts on which the claim is based".

In addition to a thorough review of the files, I have recomputed and tabulated the ore settlements covering all reported sales. The tabulation is filed with my audit work-papers. A summary thereof, by the several producers and pertinent periods of operation, is attached as Exhibit "A". No A.E.C. production bonus is indicated as such was fully liquidated prior to the date of the exploration project contract.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(1) The reported production, on which royalty has been paid, is far in excess of the production from the land subordinated under the contract;
(2) The files do not indicate any production from the land under the contract since June 1957; and

(3) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

This review has been made for OME record purposes only and no distribution to the original Operator or subsequent Assignees is authorized.

Exhibit "A"

Idm-8928 | Summary of Reported Sales and Royalty Paid | DMEA-3962

Sales Period	Jan. 10, 1957 to Feb. 28, 1957	Mar. 31, 1957 to May 31, 1957	June 16, 1957 to Mar. 31, 1958	Apr. 1, 1958 to June 30, 1958	July 21, 1958 to Aug. 31, 1958	Totals
Seller	Norbute	Norbute	Wilkerson	Wilkerson	Dela Belle	
Purchaser	Climax	Climax	Climax	Climax	Union Carbide	
Dry Weight: Pounds	483,650	1,619,312	3,910,610	1,104,412	691,408	7,809,392
Tons	241.825	809.656	1,955.305	552.206	345.704	3,904.696
Average Assays: U_3O_8	.2952	.2019	.2249	.2536	.2939	.2347
V_2O_5	1.4022	1.3021	1.2287	1.2490	1.3762	1.2706
Contents, Pounds: U_3O_8	1,427.71	3,268.77	8,796.23	2,800.69	2,032.03	18,325.43
V_2O_5	6,781.62	21,084.38	48,048.74	13,794.38	9,514.86	99,223.98
Payments:						
U_3O_8 Base	$4,996.99	$10,467.64	$30,496.10	$ 9,802.42	$ 7,112.12	$ 62,875.27
Development Allowance	713.86	1,654.40	4,398.15	1,400.35	1,016.03	9,162.79
Premiums	345.26	283.99	774.74	443.92	486.92	2,334.83
Haulage	1,520.99	4,690.53	-	-	934.64	7,146.16
V_2O_5	2,102.38	6,536.16	14,895.10	4,276.26	2,949.64	30,759.46
Total	$9,679.40	$23,612.72	$50,564.09	$15,922.95	$12,499.35	$112,278.51
Average Value per Ton	$ 40.03	$ 29.16	$ 25.86	$ 28.84	$ 36.16	$ 28.75
Average Royalty Rate	5%	5%	5%	5%	5%	5%
Royalty Payable	$ 483.97	$ 1,180.64	$ 2,528.21	$ 796.15	$ 624.98	$ 5,613.95
Royalty Paid	483.97	1,180.64	2,528.21	796.15	578.24	5,567.21
Balance Due	$ -	$ -	$ -	$ -	$ 46.74	$ 46.74

Note: All royalty for the sales periods of Jan. 10, 1957, through Mar. 31, 1958, was received by the Government prior to April 18, 1958, the date of the Government's consent to assignment of the lease to L. H. Wilkerson; and all royalty for the sales periods of Apr. 1, 1958, through Aug. 31, 1958, was received after April 18, 1958.

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CORPORATE ADMINISTRATION AND AUDIT DIVISION

DATE 7 CODE

FIRST REPORT OF ROYALTY REVIEW

I have reviewed the files of the Executive Officer, DMEA Field Team, Region III, Denver, Colorado, pertaining to Contract No. [illegible], Docket No. DMEA 3968 (Uranium) dated March 9, 1956, including Termination Agreement dated July 27, 1956, with

L. M. Wilkerson, Assignee,
Norbute Corporation
P. O. Box 3
Thompson, Utah.

for the purpose of determining the amount of royalties due the United States Government on the sale of Uranium-Vanadium ores produced from mining operations on Utah Lease No. 3971, Sec. 36, T 22 S, R 21 E, located in Grand County, Utah, commonly referred to as the Ringtail Mine during the period March 9, 1956 through February 6, 1958.

The status of the project, scope of the review and reasons therefor are stated on Page 2.

My review established the total sales of Uranium-Vanadium ores for this period to be $66,749.81. (See Schedule I, attached.) Royalty due the United States Government at the contract rate of 5% is $3,337.15. The royalty paid and balance due are as follows:

Total Royalty Due	$3,337.15
Total Royalty Paid	3,337.15
Balance of Royalty Due	$ 0.00

March 4, 1958

Donald T. Finch, Auditor

STATUS OF THE PROJECT, DESCRIPTION OF REVIEW
AND REASONS THEREFOR

Contract 14m-5928 Docket DMEA 3968

The original contractor was Norbute Corporation who assigned its interest in the operations to L. H. Wilkerson sometime in June, 1957.

A Certificate of Discovery or Development was issued July 6, 1956, and in accordance with the contract, royalty is payable on all minerals mined or produced from the land described in Annex I, Article 2 of the contract during a maximum period of 10 years from the date of the contract. A Report of Review in lieu of a final audit, dated August 16, 1956, by T. H. Brading, indicated accepted costs under the Exploration Contract amounting to $11,520.31, with the Government's contribution on a 75 percent basis being $8,640.23.

My review included a tabulation and recomputation of all ore settlement sheets in the files of the Executive Officer, DMEA Field Team, Region III, for the period March 9, 1956 through February 6, 1958, and correspondence with the Chief of Accounting Branch, Finance Division, Field Operations Office, Atomic Energy Commission, Grand Junction, Colorado. The producers' sales reported to DMEA were reconciled with the production records maintained by A.E.C. Royalties paid were reconciled with the DMEA Finance Office, Denver, Colorado. It was noted during the review that sales by L. H. Wilkerson, Assignee, were on the basis of F.O.B. the mine.

A conference with the Examining Engineer disclosed indications that the original contractor and the assignee have elected to report and pay royalty on all production from the Ringtail Mine even though part of such production might be exempt from DMEA royalties. The reconciliation of production reported to DMEA with A.E.C. records tend to confirm the foregoing indications. Since production reported by the original operator and the assignee do not show any segregation of production between that subject to royalty and that which might be exempt, this report reflects royalty due DMEA on all reported production.

The review was made in lieu of an on-site audit of the producers' accounts and records for the following reasons: -

(a) All reported production was reconciled with records of the Atomic Energy Commission.

(b) The Examining Engineer is of the opinion that all sales of production are accounted for.

(c) The administrative cost to the Government of an on-site audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

SCHEDULE I

L. H. WILBERSON, ASSIGNEE
KORBUTE CORPORATION

CONTRACT NO. IAm-8988 DOCKET NO. DMEA 3962

Summary of Production, Sales and DMEA Royalties
W. ½ SEC. 36, T. 22 S., R. 21 E., Salt Lake B. & M.
Grand County, Utah

	Korbute Corporation	L.H. Wilberson	Total
Period	3/9/56 to 6/6/57	6/7/57 to 2/6/58	3/9/56 to 2/6/58
Purchaser	Climax Uranium Company	Climax Uranium Company	Climax Uranium Company
Gross Weight, Pounds	2,300,560	2,794,140	5,094,700
Dry Weight, Pounds	2,102,962	2,587,191	4,690,153
Dry Weight, Tons	1051.48	1293.59	2345.07
Average Assays			
Uranium (U_3O_8)	.223	.223	.223
Vanadium (V_2O_5)	1.325	1.265	1.292
Pounds, U_3O_8	4,696.48	5,772.89	10,469.52
Base Payment U_3O_8	$15,464.63	$19,014.40	$35,379.03
Development Allowance	$ 2,348.25	$ 2,886.47	$ 5,234.73
Premiums			
Excess of 4 lbs. U_3O_8 per Ton			
Excess lbs. of U_3O_8	839.00	676.78	1,515.78
Payment at 75¢ per excess lb. U_3O_8	$ 628.25	$ 507.59	$ 1,136.84
Haulage Allowance			
Wet Tons	1,150.28	1,397.07	2,547.35
Per Ton	5.40	F.O.B. Mine	2.44
Haulage Allowance	$ 6,211.52	None	$ 6,211.52
Pounds V_2O_5	27,866.80	32,716.88	60,582.88
Payment V_2O_5	$ 8,638.46	$10,142.23	$18,780.69
* Total Value Subject to DMEA Royalties	$33,292.12	$33,450.69	$66,742.81
Average Value per Dry Ton	$ 31.66	$ 25.86	$ 28.46
Average DMEA Royalty Percentage	5%	5%	5%
DMEA Royalties Due	$ 1,664.61	$ 1,672.54	$ 3,337.15
DMEA Royalties Paid	$ 1,664.61	$ 1,672.54	$ 3,337.15
Balance DMEA Royalties Due	$ 0.00	$ 0.00	$ 0.00

The last Liquidation Settlement Sheet in above is Climax Uranium Company No. 3860, dated January 7, 1958. The last Certificate of Deposit is GD 58-78, dated January 14, 1958.

* A.E.C. production bonus was all utilized prior to DMEA contract date.

Check Sheet of Examining Engineer

Operator's Name L. V. Gilbertson, Assignee
Fortune Corporation

Address P. O. Box 3

Thompson, Utah

Exploration Contract No. Ida-928 Docket No. DMEA 972

	Check One	
	Yes	No
1. (a) Does the Operator stockpile ore subject to royalty repayment?		✓
(b) If so, is segregation and identification procedure adequate?		
2. (a) Does Operator commingle production subject to DMEA royalties with exempt production?	✓	
(b) If so, do you consider the allocation of the commingled production equitable?		
3. (a) Does the Operator stockpile mine or mill rejects (low grade ore, tailing, middlings, etc.) that may have potential value within the royalty payment period?		✓
(b) If so, are adequate records maintained on such material to protect the Government's interest?		
4. Do you consider the assay controls in effect are adequate?		
5. Do you consider that the manner of disposing of production gives the Government its fair royalty returns?	✓	
6. Do your periodic examinations of operations indicate the Operator is properly reporting his production of ores subject to DMEA royalties?	✓	
7. Does the Operator buy from or sell to other Operators?		✓

8. Comment on any item 2 (b) to 6 if answer is No.

2 (a) Operator's representative states that DMEA royalty is being paid on all production from property whether subordinated or not.

Date 2-6-58

W. H. Fahlbusch
Mining Engineer

Docket

Murphy
Ellis
Indritz 6/29/56
Chamberlin
Payne
Selfridge

CERTIFICATION BY THE UNITED STATES OF AMERICA OF A DISCOVERY OR DEVELOPMENT UNDER AN EXPLORATION PROJECT CONTRACT

To: Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Pursuant to the provisions of Exploration Project Contract No. Idm-8928, dated March 9, 1956, (Docket No. DMEA-3968), hereinafter called the "contract," between Norbute Corporation, a Minnesota corporation, and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien therefor and on the land described in the contract, the Government considers and therefore certifies that discovery or development from which production may be made has resulted from the exploration work.

The nature of said discovery or development is described broadly or indicated as follows:

Drilling performed under the contract resulted in the discovery of uranium-vanadium ore in sandstone of the Salt Wash member of the Jurassic Morrison formation.

Dated: JUL 6 - 1956

FMMurphy/gla
6-27-56
cc to: Operator (original)
Indemnity Insurance Company of North America
Contract Adm. andAudit Division
DMEA Field Team, Region III (2)
Finance Office
Rare and Misc. Metals Division
Docket
Admr.'s Reading File
Operating Committee
Robert W. Geehan, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
F. E. Johnson
F. M. Murphy

THE UNITED STATES OF AMERICA

By C. D. Mittendorf
Administrator, Defense Minerals Exploration Administration

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

GEOLOGICAL SURVEY

File

APR 27 1966

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928

Gentlemen:

By the terms of the subject Exploration Project Contract and the certification of discovery or development dated July 6, 1956, all minerals mined or produced from March 9, 1956, to March 9, 1966, were subject to the Government's royalty as set forth in said contract.

As the period during which production was subject to royalty has now expired, the Government according to its present records retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this contract. Your attention, however, is called to the provisions of the contract which require the Operator to keep and preserve certain records for the periods indicated.

Sincerely yours,

Frank E. Johnson

Frank E. Johnson
Chief, Office of
Minerals Exploration

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
WASHINGTON, D.C. 20240

OFFICIAL BUSINESS
GEOLOGICAL SURVEY

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF THE INTERIOR

Norbute Corporation
P. ~~O. Box 1700~~
Gr~~and Junction, Colorado~~

RETURNED TO WRITER
REASON CHECKED
Unclaimed ___ Refused ___
Addressee unknown ___
Insufficient Address ___
No such street ___ number ___
No such office in state ___
Do not re-mail in this envelope

40

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/27	A McSmith	120S
4/27	Kuberna	120K
		120
		120

APR 2 7 1966

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract I4n-2938

Gentlemen:

By the terms of the subject Exploration Project Contract and the certification of discovery or development dated July 6, 1956, all minerals mined or produced from March 9, 1956, to March 9, 1966, were subject to the Government's royalty as set forth in said contract.

As the period during which production was subject to royalty has now expired, the Government according to its present records retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this contract. Your attention, however, is called to the provisions of the contract which require the Operator to keep and preserve certain records for the periods indicated.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: L. H. Wilkerson
Ringtail Mining Company
Director's Reading File
Division File
Economic Geology File
Br. of Budget & Finance
DMEA Docket
OME Reading File
Region III
120M

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23263

8/23/56

DEPARTMENT OF THE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

pertaining to Exploration Project Contract No. Idm-8988, Docket No. DMEA-3962, for the months of April and May, 1956, and Termination Agreement dated July 27, 1956, covering a project for the exploration of Uranium on property known as School Section 36, T. 22 S., R. 21 W., located in Grand County, Utah.

My review included an examination of the Monthly Reports (Form MF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, consultation with the Executive Officer, DMEA Field Team, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and and records for the following reasons:

(a) the administrative cost to the Government of an audit would be excessive in relation to the estimated amount of possible disallowances thereunder;

(b) the monthly reports were supported by documentary proof of the costs claimed under the contract provisions for contribution by the Government on the basis of actual costs incurred;

(c) a major portion ($9,479.77) of the costs incurred covered work performed at unit rates under independent contract; and

(d) the balance ($2,040.54) of the costs incurred were under a contract provision for payment by the Government on the basis of fixed unit costs for work actually performed.

The review disclosed the following facts in regard to the amount paid or to be paid the contractor:

Total cost as billed by Contractor		$11,544.31
Exceptions: (Schedule attached)		
By DMEA Finance Officer	$24.00	
Herewith	0.00	24.00
Total Accepted Cost		$11,520.31

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Eight thousand, six hundred forty, and 23/100ths Dollars

** $8,640.23 **

is considered valid and proper, provided that the Regional Executive Officer, the Administrator, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

August 16, 1956

T. H. Breding, Auditor

SCHEDULE OF EXCEPTIONS

BOHNUNK CORPORATION.

Contract No. Idm-[illegible]

Docket No. DMRA-3962

Stage I of contract allowed 22 hours of bulldozing @ $12.00 per hour	$264.00
Operator claimed 24 hours of bulldozing @ $12.00 per hour	288.00
Excess of 2 hours @ $12.00 per hour disallowed	$ 24.00

[illegible]

Docket Copy

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JUL 30 1956

Robin
Dunger
Appd. for Off.
Murphy
Ellis
Chamlin
Rance
Arnold
Bilogeard
Selfridge
Matteucy

TERMINATION AGREEMENT

It is agreed this 27th day of July, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and Norbute Corporation, hereinafter called the "Operator," parties to Exploration Project Contract Idm-2928, Docket No. DMEA-3962, dated March 9, 1956, hereinafter called the "Contract," that:

1. Effective May 11, 1956, the Contract and all obligations of the parties thereunder, except as otherwise herein expressly provided, shall be and are hereby terminated.

2. The Government shall contribute to allowable costs incurred prior to said effective date.

3. The Operator shall promptly perform all winding-up and settlement actions provided for in the Contract, including the rendering of the final report and final account, and shall preserve records of the project work as required by the Contract.

4. All rights of the Government provided for in the Contract with respect to a certification of discovery or development and a percentage royalty and liens for its payment are preserved.

5. The Operator hereby releases and agrees to save the Government harmless from all claims and demands under or arising out of said Contract, except as otherwise provided in this termination agreement.

IN WITNESS WHEREOF, these parties have executed this agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

By W. M. Graves
Executive Officer
DMEA Field Team, Region III

NORBUTE CORPORATION

By [illegible]

Title President

Government's copy

Long
Lanzer
App'd. Sol. Off.
Murphy
Ellis
Chambers
Selfridge
Johnson

CONSENT TO ASSIGNMENT

WHEREAS, the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter referred to as the "Government", and Norbute Corporation, a Minnesota corporation, entered into Exploration Project Contract No. Idm-E928 (Docket No. DMEA-3962), dated March 9, 1956, hereinafter referred to as the "Contract"; and

WHEREAS, the Contract was terminated on May 11, 1956, and certified on July 6, 1956; and

WHEREAS, on March 8, 1957, Norbute Corporation transferred Utah State Mineral Lease #3971, the land therein described, being the subject of the Contract to a wholly owned subsidiary, the Ringtail Corporation, a Delaware corporation, hereinafter referred to as the "Assignor"; and

WHEREAS, L. H. Wilkerson, an individual whose mailing address is P. O. Box 3, Thompsons, Utah, hereinafter referred to as the "Assignee" has acquired the Assignor's interest in the said land by an assignment dated August 14, 1957, and approved by the Utah State Land Board on December 24, 1957;

NOW THEREFORE, the Government, this 18th day of April, 1958, being satisfied that the terms of the assignment adequately preserve its right to a percentage royalty on production, and in consideration of the bond posted by the Assignee, hereby consents to the aforementioned assignment and releases the Assignor and the Norbute Corporation, from any and all terms, provisions, and conditions of the Contract.

THE UNITED STATES OF AMERICA

By C P Mitchenor
Administrator, Defense Minerals
Exploration Administration

Docket copy

RECEIVED
MAR 29 1956

MF-200
(Revised June 1954)

Docket No. DMEA - 3962

Commodity Uranium

Contract No. Idm-E 928

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]

It is agreed this MAR 9 1956 day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] MORBUTE CORPORATION, a Minnesota corporation,

whose mailing address is P. O. Box 1700
Grand Junction, Colorado,

hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and 2 maps (Figures 1 and 2).

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of ~~Colorado~~ Utah, County of Grand, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee of the mineral ~~xxx~~ rights to uranium and vanadium in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] See Annex I, [7] ..... recorded in Book --, page --, official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: Royalty payments to State of Utah on mineral production.

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

of the land (lessor, seller, optionor, etc.), are attached, as follows: Surety Company's Performance Bond is attached to the Government and ERDA Docket copies of this contract, in lieu of the Consent to Lien.

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Uranium. The work to be performed is described in Exhibit "A." The Operator on or before April 15, 1956, shall commence the work, and on or before October 1, 1956 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall ~~either~~ have completed the work, ~~or shall have incurred allowable costs (see Article 6) in an amount less than the estimated total allowable costs set forth in Exhibit "A"~~ except as otherwise provided in Exhibit "A" with respect to stages of work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Independent contracts.*—To the extent that the allowable costs are estimated in Exhibit "A" with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed; but if the reference in Exhibit "A" to any such independent contract requires the Government's approval thereof, payments under such contract will not be allowable costs unless the Government gives its written approval of the contract. Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract and regardless of the Government's approval thereof, the Government will participate in payments to the independent contractor only on account of work performed in accordance with the provisions of this exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $45,000.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $33,750.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work or not in excess of the amount of the Government's contribution to the cost of property which is or may become subject to disposal as provided in Article 9(c), whichever is greater. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 7(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. "Costs incurred" mean costs that have been paid or have become due and payable, or that in the opinion of the Government have become an obligation. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; but except for any such necessary excesses in categories, subcategories, or items thereunder the Operator is not obligated to incur more than his agreed percentage of the estimated, total allowable cost of the work. **See Article 13.**

To the extent specified in this article or in Exhibit "A" the following categories, subcategories, and elements thereof are maximums; but if not so specified either here or in Exhibit "A" they are not maximums, and may be exceeded within the limit of the estimated total allowable cost of the work:

CATEGORY (1)—INDEPENDENT CONTRACTS.—Work to be performed under independent contracts (see Article 4(b)). The estimated total amount of this category and the estimated cost of each unit of work for performance under an independent contract are maximums.

CATEGORY (2)—PERSONAL SERVICES.

Subcategory (a)—Supervision.—All elements of this subcategory (number of supervisors, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)—Technical services.—All elements of this subcategory (number of technicians, periods of employment, rates of pay, and total) are maximums.

Subcategory (c)—Labor.

CATEGORY (3)—OPERATING MATERIALS AND SUPPLIES.—Includes such items as drill bits and steel, explosives, fuel, pipe, power, small tools costing less than $50 each, timber, track.

CATEGORY (4)—OPERATING EQUIPMENT.

Subcategory (a)—Rental.—The number of each object to be rented [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)—Purchases.—The estimated total of this subcategory is a maximum.

Subcategory (c)—Depreciation.—All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)—INITIAL REHABILITATION AND REPAIRS.—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

Subcategory (a)—Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).—The estimated total of this subcategory is a maximum.

Subcategory (b)—Initial rehabilitation and repairs of operating equipment.—The estimated total of this subcategory is a maximum.

CATEGORY (6)—NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

CATEGORY (7)—MISCELLANEOUS.—Repairs and maintenance (other than initial) of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, communications, and any other items of requirement or cost that do not fall within any of the first 6 categories.

THE ESTIMATED TOTAL ALLOWABLE COST of the work is a maximum.

(b) *Nonallowable costs.*—The following costs are not allowable for contribution by the Government:

(1) *Costs of the land,* such as rental, depreciation, depletion, or other cost of acquiring, owning, or holding possession;

(2) *Indirect costs,* such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) *Previous work* performed or costs incurred before the date of this contract; and

(4) *Deferred payments.*—Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods; unless the purchase agreement is approved by the Government in writing.

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9.

See Article 13.

ARTICLE 7. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. If the Government elects to audit said records and accounts relating to the exploration work by certified public accountant, it may do so as a cost of the work to which the Operator shall contribute. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing detailed costs incurred during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and costs incurred for each type of work; and (3) a Narrative Report of the work performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and related costs incurred.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 8. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 7) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value therof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½)

percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 9. *Interests in purchased property.*—(a) *Title and ownership.*—All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions, although title thereto shall be taken in the name of the Operator.

(b) *Preservation of property.*—Until the final disposal of any property in which the Government has an interest the Operator shall preserve and protect same for the best interest of the Government, any reasonable and necessary costs thereof to be treated as an allowable cost of the project. After the completion of the work or termination of the Government's obligation to contribute, or when such property is not in use for or needed for the work, the Operator shall neither use it without the written consent of the Government nor without paying a reasonable rental to be fixed by the Government for its interest.

(c) *Disposal of property.*—Upon the completion of the work or termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator or the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government the Operator shall not sell at any price any item of property the cost of which was more than $500, and shall not sell at less than 25 percent of the purchase price any item of property which cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or himself cares to give. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, or explosives, or pipe, or rails), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the project.

(d) *Default of the Operator re disposal.*—If within 90 days after the completion of the work or termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, or after such further time as the Government may in writing allow, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may pursue one of the following two courses: (1) the Government, by written notice to the Operator, may place upon such property what in its opinion is a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the

date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; or (2) the Government may enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 10. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon: (1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon: (1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 10 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 11. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 12. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 13. *Changes and added provisions.*—

(a) Categories (2) through (7) of Article 6(a) are deleted.

(b) To the extent that costs are set forth in Exhibit "A" as "Fixed Unit Costs," they are in lieu of the actual costs that otherwise would be allowable costs of the project under Article 6 of the contract. The Government will contribute to the Fixed Unit Costs as they accrue, on the basis of units of work actually performed. The Fixed Unit Costs include all costs of the work necessary to complete the project.

(c) That part of the last sentence in the first paragraph of Article 6(a) commencing after the semicolon is deleted.

Rubin.
Dwyer
"Appd. Sol. Off."
Murphy
Ellis
Chambers
Selfridge
Johnson

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By O. Mitchell
Administrator, Defense Minerals
Exploration Administration

MORBUTE CORPORATION
(Operator)

By Nicolas M. LaGo
President

I, H. Newman Clark Jr., certify that I am the secretary of the corporation named as Operator herein; that Nicolas M. LaGo who signed this contract on behalf of the Operator, was then President of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

H. Newman Clark Jr.

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70617-1

EXPLORATION PROJECT CONTRACT
NORBUTE CORPORATION
DOCKET NO. RMA-3962

ANNEX I

Title to the land referred to in Article 2 of the Contract is vested in the State of Utah. The land is situated in section 36, Township 22 South, Range 21 East, Salt Lake Base and Meridian, Grand County, Utah, and is described by metes and bounds as follows:

"Beginning at a point 420 feet north of the center point of said section 36, thence 960 feet east to the northeast corner; thence south 970 feet to the southeast corner; thence west 1,730 feet to the southwest corner; thence north 970 feet to the northwest corner; thence east 770 feet to the point of beginning."

The approximate location of the area, above-described, is shown on map "Figure I - Sketch Map of Section 36, T. 22 S., R. 21 E., S.L.M. . . .," attached hereto and made a part hereof.

Norbute Corporation has the right of possession of the above-described land by assignment from Strategic Minerals Exploration Company, approved by letter of the State of Utah Land Board dated February 23, 1955, of Utah State Uranium and Vanadium Mineral Lease, Mineral Lease No. 3971.

EXPLORATION PROJECT CONTRACT
NORMUTE CORPORATION
DOCKET NO. [illegible]-3962

EXHIBIT "A"

Description of the Work

General Provisions:

The object of this project is to explore, by means of drilling, for uranium ore deposits which might occur in the lowermost sandstone unit of the Salt Wash member of the Jurassic Morrison formation.

The holes shall be drilled noncore to the inferred upper contact of the potential ore-bearing sandstone unit and then core drilled, recovering not less than NX size core, through the lower contact of this sandstone unit. It is estimated that 75 feet of each hole will be core-drilled.

Sections of the drill core showing significant uranium shall be split. One-half of the split core shall be analyzed for its U_3O_8 and V_2O_5 content. The remainder shall be stored, for Government use, with the rest of the core, in boxes properly labeled as to drill hole number. Markers shall be placed in the sections of core to indicate the depth represented.

All holes shall be logged and probed for radioactivity, and records of such logging and probing, together with the assay certificates of the core samples, shall be submitted with the Operator's monthly progress report.

Bulldozing shall be done with a D-7 Caterpillar tractor or equivalent unit.

The project work shall be performed with competent engineering and supervision.

The extent and method of sampling and logging drill holes, the manner of storing drill core, and the location and depth of the drill holes are all subject to Government approval.

The work shall be divided into three stages. The Operator shall perform all the work in Stage I, and shall perform as much of the work under Stages II and III as is approved in advance in writing by the Government.

Stage I

Stage I consists of drilling not in excess of 11 holes, totaling an estimated 2,965 feet of noncore and 825 feet of core drilling. The approximate locations of the holes are indicated by an X with the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 21, and 23, on a map entitled "Figure 2. Sketch Map of Part of Section 36, T. 22 S., R. 21 E., S.L.M. Showing . . . Location of Proposed Stage I Drill Holes . . .," attached hereto and made a part hereof.

Not in excess of 22 hours of bulldozer work shall be performed on access roads to drill sites, and not more than 25 samples shall be analyzed for their U_3O_8 and V_2O_5 content under this Stage I.

If the footage estimated for Stage I is not sufficient to complete the 11 holes, then with prior written approval by the Government a part of the drill footage and cost allowed for Stage III may be used.

Stage II

Stage II consists of drilling not in excess of 12 holes, totaling an estimated 3,660 feet of noncore and 900 feet of core drilling. The approximate locations of the holes are indicated by an X with the numbers 10 through 21 inclusive, on the map Figure 2 described under Stage I.

Not in excess of 36 hours of bulldozer work shall be performed on access roads to drill sites, and not in excess of 30 samples shall be analyzed for their U_3O_8 and V_2O_5 content under this Stage II.

If the footage estimated for Stage II is not sufficient to complete the number of holes authorized under this stage, then with prior written approval by the Government a part of the drill footage and cost allowed for Stage III may be used to complete such holes.

Stage III

Stage III consists of drilling not in excess of 32 holes as offsets to holes drilled under either Stage I or Stage II that penetrated rock containing significant uranium mineralization, as approved in writing in advance by the Government. No hole under this Stage shall be drilled closer than approximately 75 feet to any other drill hole, nor closer than 100 feet to the outer boundaries of the land described in Article 2 of the contract.

Not in excess of 7,968 feet of noncore and 1,440 feet of core drilling, less any drill footage transferred to either Stage I or Stage II, shall be performed under this Stage III of the contract.

Not in excess of 30 hours of bulldozer work shall be performed on access roads to drill sites, and not in excess of 80 samples shall be analyzed for their U_3O_8 and V_2O_5 content under this Stage III.

Estimated Costs of the Project

Stage I

Actual Costs

Category (1) Independent Contracts

22 hours bulldozing @ $12.00/hr.	$ 264.00
2,065 feet noncore drilling @ $1.82/ft.	3,758.30
825 feet core drilling @ $3.15/ft.	2,598.75

Categories (2) through (7)

None

Fixed Unit Costs (See Article 13)

25 samples analyzed chemically for U_3O_8 and V_2O_5 @ $5.00/sample	125.00	
Incidental allowance for each foot of drilling completed, 2,890 feet @ $0.30/ft.	867.00	
Estimated Total Cost Stage I		$ 7,613.05

Stage II

Actual Costs

Category (1) Independent Contracts

36 hours bulldozing @ $12.00/hr.	432.00

3,660 feet noncore drilling @ $1.82/ft.	$ 6,661.20	
900 feet core drilling @ $3.15/ft.	2,835.00	

Categories (3) through (7)

None

Fixed Unit Costs (See Article 13)

30 samples analyzed chemically for U_3O_8 and V_2O_5 @ $5.00/sample	150.00	
Incidental allowance for each foot of drilling completed, 4,560 feet @ $0.30/ft.	1,368.00	
Estimated Total Cost Stage II		$11,446.20

Stage III

Actual Costs

Category (1) Independent Contracts

30 hours bulldozing @ $12.00/hr.	360.00	
7,968 feet noncore drilling @ $1.82/ft.	14,501.76	
2,400 feet core drilling @ $3.15/ft.	7,560.00	

Categories (2) through (7)

None

Fixed Unit Costs (See Article 13)

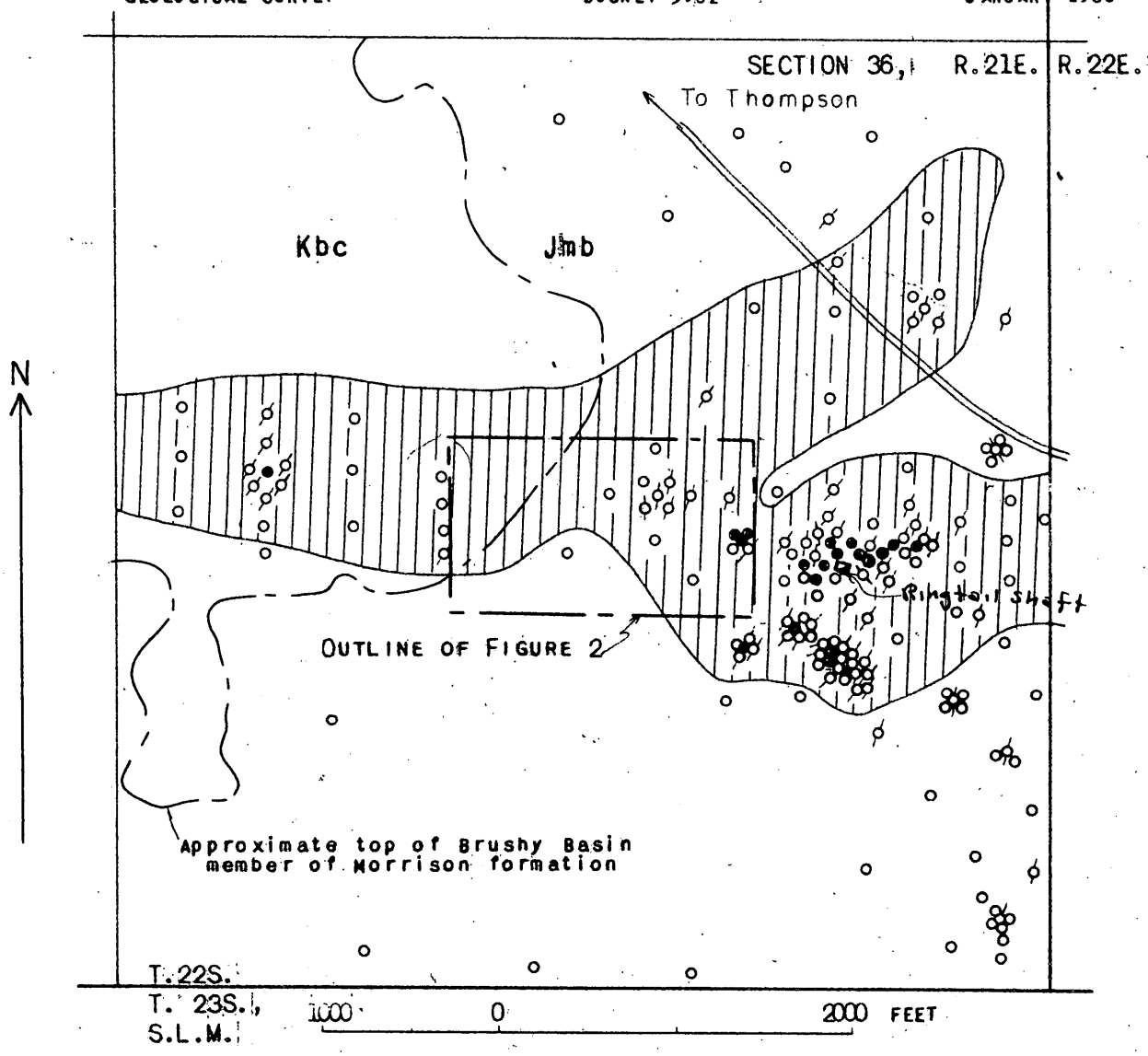
80 samples analyzed chemically for U_3O_8 and V_2O_5 @ $5.00/sample	400.00	
Incidental allowance for each foot of drilling completed, 10,368 feet @ $0.30/ft.	3,110.40	
Estimated Total Cost Stage III		$25,932.16

S U M M A R Y

Estimated Total Cost, Stage I	$7,613.05	
Estimated Total Cost, Stage II	11,446.20	
Estimated Total Cost, Stage III	25,938.16	
Total Estimated Cost of Project (rounded)		$45,000.00
Government Participation @ 75 percent		$33,750.00

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3982
JANUARY 1956



EXPLANATION

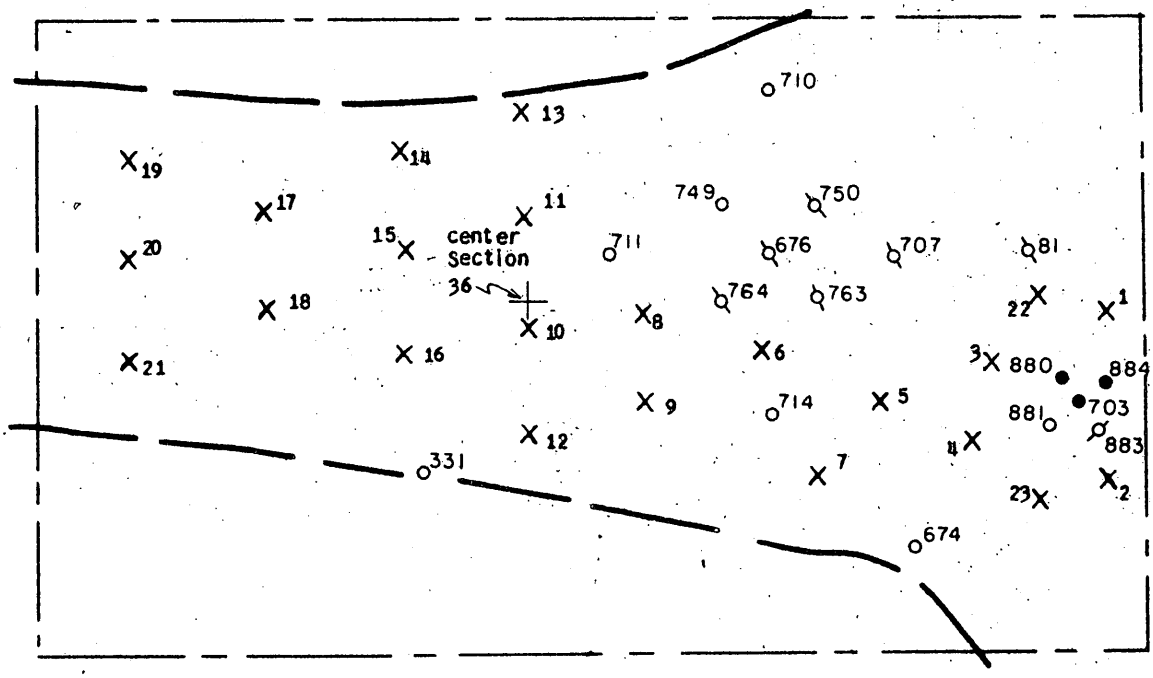
Kbc	CRETACEOUS BURRO CANYON FORMATION
Jmb	JURASSIC BRUSHY BASIN MEMBER OF MORRISON FORMATION
	GROUND UNDERLAIN BY FAVORABLE NO. 3 ORE-BEARING SANDSTONE OF SALT WASH MEMBER OF MORRISON FORMATION

DRILL HOLES, U.S. GEOLOGICAL SURVEY

o	BARREN
ø	MINERALIZED
●	ORE-BEARING

Note: BASE FROM U.S. GEOLOGICAL SURVEY REPORT MAP.

FIGURE 1. SKETCH MAP OF SECTION 36, T. 22 S., R. 21 E., S.L.M., SHOWING GEOLOGY, U.S. GEOLOGICAL SURVEY DRILLING, AND AREA OF AMENDED APPLICATION, NORBUTE CORPORATION, YELLOW CAT AREA, GRAND COUNTY, UTAH.



SECTION 36, T. 22 S., R. 21 E., S.L.M.

N

EXPLANATION

AREA OF AMENDED APPLICATION

BOUNDARY OF INDICATED CHANNEL

DRILL HOLES, U.S. GEOLOGICAL SURVEY.

711 BARREN

764 WEAKLY MINERALIZED

703 ORE-BEARING

X_{12} LOCATION OF PROPOSED STAGE I DRILL HOLE

Note: GEOLOGY, BOUNDARY OF AMENDED APPLICATION AND LOCATION OF DRILL HOLES FROM APPLICANTS MAP.

300 0 900 FEET

FIGURE 2. SKETCH MAP OF PART OF SECTION 36, T. 22 S., R. 21 E., S.L.M., SHOWING U.S. GEOLOGICAL SURVEY DRILLING AND LOCATION OF PROPOSED STAGE I DRILL HOLES, NORBUTE CORPORATION, YELLOW CAT AREA, GRAND COUNTY, UTAH.

RECEIVED
FEB 20 1956

STANDARD FORM 25
REVISED NOVEMBER 1950
PRESCRIBED BY GENERAL
SERVICES ADMINISTRATION
GENERAL REGULATION NO. 5

PERFORMANCE BOND

(See Instructions on Reverse)

DATE BOND EXECUTED

January 8, 1959

APR 3 1959 O.M.E.

PRINCIPAL

RINGTAIL MINING COMPANY, P. O. Box 312, Moab, Utah

SURETY

NATIONAL SURETY CORPORATION, New York, New York

PENAL SUM OF BOND *(express in words and figures)*	CONTRACT NO.	DATE OF CONTRACT
FIVE THOUSAND AND NO/100 ($5,000.00)	Idm-E928 Docket No. DMEA 3962	3-9-56

KNOW ALL MEN BY THESE PRESENTS, That we, the **PRINCIPAL** and **SURETY** above named, are held and firmly bound unto the United States of America, hereinafter called the Government, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the Government, numbered and dated as shown above and hereto attached;

NOW THEREFORE, if the principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Government, with or without notice to the surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

See Lease Cancellation Decision March 21, 1977

In Presence of:

WITNESS		INDIVIDUAL PRINCIPAL	
1. William Hayes	as to	RINGTAIL MINING COMPANY P. O. Box 312, Moab, Utah	[SEAL]
2. Don C. Baldwin	as to	Arthur R. Shumway Arthur R. Shumway	[SEAL]
3.	as to	Lawrence C. Davis Lawrence C. Davis	[SEAL]
4.	as to	Truman Goode ~~Truman Goode~~	[SEAL]

WITNESS		INDIVIDUAL SURETY	
1.	as to		[SEAL]
2.	as to		[SEAL]

Attest:

CORPORATE PRINCIPAL

BUSINESS ADDRESS

BY

TITLE

AFFIX CORPORATE SEAL

Attest:

CORPORATE SURETY
NATIONAL SURETY CORPORATION

BUSINESS ADDRESS
New York, New York

BY Donald C. Chambers

TITLE Donald C. Chambers, Attorney-in-Fact

AFFIX CORPORATE SEAL

STANDARD FORM 25
NOVEMBER 1950 EDITION

16—30441-2

The rate of premium on this bond is $10.00 per thousand.

Total amount of premium charged, $ 50.00

(The above must be filled in by corporate surety)

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, ..., certify that I am the ..... secretary of the corporation named as principal in the within bond; that .....,

who signed the said bond on behalf of the principal, was then ..... of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said corporation by authority of its governing body.

..... [CORPORATE SEAL]

INSTRUCTIONS

1. This form shall be used for construction work or the furnishing of supplies or services, whenever a performance bond is required. There shall be no deviation from this form except as authorized by the General Services Administration.

2. The surety on the bond may be any corporation authorized by the Secretary of the Treasury to act as surety, or two responsible individual sureties. Where individual sureties are used, this bond must be accompanied by a completed Affidavit of Individual Surety for each individual surety (Standard Form 28).

3. The name, including full Christian name, and business or residence address of each individual party to the bond shall be inserted in the space provided therefor, and each such party shall sign the bond with his usual signature on the line opposite the scroll seal, and if signed in Maine or New Hampshire, an adhesive seal shall be affixed opposite the signature.

4. If the principals are partners, their individual names shall appear in the space provided therefor, with the recital that they are partners composing a firm, naming it, and all the members of the firm shall execute the bond as individuals.

5. If the principal or surety is a corporation, the name of the State in which incorporated shall be inserted in the space provided therefor, and said instrument shall be executed and attested under the corporate seal as indicated in the form. If the corporation has no corporate seal the fact shall be stated, in which case a scroll or adhesive seal shall appear following the corporate name.

6. The official character and authority of the person or persons executing the bond for the principal, if a corporation, shall be certified by the secretary or assistant secretary, according to the form herein provided. In lieu of such certificate there may be attached to the bond copies of so much of the records of the corporation as will show the official character and authority of the officer signing, duly certified by the secretary or assistant secretary, under the corporate seal, to be true copies.

7. The date of this bond must not be prior to the date of the instrument in connection with which it is given.

U. S. GOVERNMENT PRINTING OFFICE : 1955—O—364530

16—30441-2

NATIONAL SURETY CORPORATION

New York

A MEMBER OF THE FIREMAN'S FUND INSURANCE GROUP

GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that NATIONAL SURETY CORPORATION, a Corporation duly organized and existing under the laws of the State of New York, and having its principal office in the City of New York, N. Y., hath made, constituted and appointed, and does by these presents make, constitute and appoint DONALD C. CHAMBERS

of GRAND JUNCTION and State of COLORADO

its true and lawful Attorney(s)-in-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver ANY AND ALL BONDS, RECOGNIZANCES, CONTRACTS, AGREEMENTS OF INDEMNITY AND OTHER CONDITIONAL OR OBLIGATORY UNDERTAKINGS; PROVIDED, HOWEVER, THAT THE PENAL SUM OF ANY ONE SUCH INSTRUMENT EXECUTED HEREUNDER SHALL NOT EXCEED THREE HUNDRED THOUSAND ($300,000.00) DOLLARS

and to bind the Corporation thereby as fully and to the same extent as if such bonds were signed by the President, sealed with the corporate seal of the Corporation and duly attested by its Secretary, hereby ratifying and confirming all that the said Attorney(s)-in-Fact may do in the premises. Said appointment is made under and by authority of the following provisions of the By-laws of NATIONAL SURETY CORPORATION:

"ARTICLE XII. RESIDENT OFFICERS AND ATTORNEYS-IN-FACT.

"Section 1.—The Chairman, President or any Vice-President may from time to time appoint Resident Vice-Presidents, Resident Assistant Secretaries and Attorneys-in-Fact to represent and act for and on behalf of the corporation and the Chairman, President, or any Vice-President, the Board of Directors or the Executive Committee may at any time suspend or revoke the powers and authority given to any such Resident Vice-President, Resident Assistant Secretary and Attorney-in-Fact, and also remove them from office. (Adopted April 29, 1933. Applies to all powers of attorney executed prior to May 25, 1933).

"Section 1.—The President, Executive Vice-President or any Vice-President may, from time to time, appoint Resident Vice-Presidents, Resident Assistant Secretaries and Attorneys-in-Fact to represent and act for and on behalf of the Corporation and the President, Executive Vice-President or any Vice-President, the Board of Directors or the Executive and Finance Committee may at any time suspend or revoke the powers and authority given to any such Resident Vice-President, Resident Assistant Secretary or Attorney-in-Fact, and also remove any of them from office. (As amended May 25, 1933. Applies to all powers of attorney executed prior to April 27, 1943).

"Section 1.—Appointment.—The President, Executive Vice President or any Vice President may, from time to time, appoint Resident Vice Presidents, Resident Assistant Secretaries and Attorneys-in-Fact to represent and act for and on behalf of the Corporation. (As amended April 27, 1943. Applies to all powers of attorney executed on or after that date).

"Section 4.—Attorneys-in-Fact.—Attorneys-in-Fact may be given full power and authority to execute, acknowledge and deliver for and in the name and on behalf of the Corporation any and all bonds, recognizances, contracts of indemnity and other conditional or obligatory undertakings, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Corporation as if signed by the Chairman or the President and sealed and attested by the Secretary. (Adopted April 29, 1933. Applies to all powers of attorney executed prior to May 25, 1933).

"Section 4.—Attorneys-in-Fact.—Attorneys-in-Fact may be given full power and authority to execute, acknowledge and deliver for and in the name and on behalf of the Corporation any and all bonds, recognizances, contracts of indemnity and other conditional or obligatory undertakings, and any such instrument so executed by any such Attorney-in-Fact shall be as binding upon the Corporation as if signed by the President and sealed and attested by the Secretary. (As amended May 25, 1933. Applies to all powers of attorney executed prior to July 30, 1935).

"Section 4.—Attorneys-in-Fact.—Attorneys-in-Fact may be given full power and authority, for and in the name and on behalf of the corporation, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts of indemnity and other conditional or obligatory undertakings, and any and all notices and documents cancelling or terminating the corporation's liability thereunder, and any such instrument so executed by any such Attorney-in-Fact shall be as binding upon the corporation as if signed by the President and sealed and attested by the Secretary. (As amended July 30, 1935. Applies to all powers of attorney executed prior to April 27, 1943).

"Section 4.—Attorneys-in-Fact.—Attorneys-in-Fact may be given full power and authority, for and in the name and on behalf of the Corporation, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements of indemnity and other conditional or obligatory undertakings, and any and all notices and documents cancelling or terminating the Corporation's liability thereunder, and any such instrument so executed by any such Attorney-in-Fact shall be as binding upon the Corporation as if signed by the President and sealed and attested by the Secretary. (As amended April 27, 1943. Applies to all powers of attorney executed prior to April 28, 1953.)

"Section 4.—Attorneys-in-Fact.—Attorneys-in-Fact may be given full power and authority, for and in the name and on behalf of the Corporation, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements of indemnity and other conditional or obligatory undertakings, and any and all consents and releases incident thereto, and any and all notices and documents cancelling or terminating the Corporation's liability thereunder, and any such instrument so executed by such Attorney-in-Fact shall be as binding upon the Corporation as if signed by the President and sealed and attested by the Secretary. (As amended April 28, 1953. Applies to all powers of attorney executed on or after that date.)

"Section 7.—Attorneys-in-Fact.—Attorneys-in-Fact are hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, or other conditional or obligatory undertakings, and they are also authorized and empowered to certify to a copy of the By-laws of the Corporation or any Article or Section thereof. (Adopted April 29, 1933. Applies to all powers of attorney executed prior to May 25, 1933).

"Section 7.—Attorneys-in-Fact.—Attorneys-in-Fact are hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, or other conditional or obligatory undertakings, and they are also authorized and empowered to certify to copies of the By-laws of the corporation or any Article or Section thereof. (As amended May 25, 1933. Applies to all powers of attorney executed prior to April 27, 1943).

"Section 7.—Attorneys-in-Fact—Verifications.—Attorneys-in-Fact are hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts, agreements of indemnity, or other conditional or obligatory undertakings, and they are also authorized and empowered to certify to copies of the By-laws of the Corporation or any Article or Section thereof. (As amended April 27, 1943. Applies to all powers of attorney executed prior to June 27, 1944).

"Section 7.—Attorneys-in-Fact—Verifications—Certifications.—Attorneys-in-Fact are hereby authorized to verify, by affidavit or otherwise, the authority to execute bonds, recognizances, contracts, agreements of indemnity, and other conditional or obligatory undertakings; and to certify, by affidavit or otherwise, as to the inspection or examination of assets of the estates, where the fiduciary responsible for such assets is bonded by the Corporation; and they are also authorized and empowered to certify to copies of the By-laws of the Corporation or any Article or Section thereof. (As amended June 27, 1944. Applies to all powers of attorney executed on or after that date).

IN WITNESS WHEREOF, NATIONAL SURETY CORPORATION has caused these presents to be signed by its Vice President, attested by its Assistant Secretary, and its corporate seal to be hereto affixed this 12TH day of DECEMBER A.D., 19 55.

NATIONAL SURETY CORPORATION

(Seal)

By C. A. KEPPLER

Vice President

ATTEST: GEO. F. TEXIDO

Assistant Secretary

F. 2014 REV. 6/55

STATE OF NEW YORK,
COUNTY OF NEW YORK, } ss.:

On this 12TH day of DECEMBER A.D., 19 55

before me personally came C. A. KEPPLER MAPLEWOOD, N.J., to me known, who, being by me duly sworn, did depose and say, that he resides in the City of ~~New York~~; that he is Vice President of NATIONAL SURETY CORPORATION, the Corporation described in and which executed the above instrument; that he knows the seal of said Corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation and that he signed his name thereto by like order. And said C. A. KEPPLER further said that he is acquainted with GEO. F. TEXIDO and knows him to be an Assistant Secretary of said Corporation; and that he executed the above instrument.

ELIZABETH C. KING
Notary Public

(Notarial seal affixed)

STATE OF NEW YORK
COUNTY OF NEW YORK } ss.:

I, SOPHIE M. ZABOROWSKI, Resident Assistant Secretary and Attorney-in-Fact of NATIONAL SURETY CORPORATION, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney (including applicable By-law sections), executed by said NATIONAL SURETY CORPORATION, which is still in force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation, at the City of NEW YORK, N.Y. this 8th day of January A.D., 19 59.

Sophie M. Zaborowski
Resident Assistant Secretary and Attorney-in-Fact

INVISIBLE ARMOR

NATIONAL SURETY CORPORATION *New York*

A MEMBER OF THE FIREMAN'S FUND INSURANCE GROUP

GENERAL POWER OF ATTORNEY

TO

ON

DATE 19

Haynie, H

BOND

GIVEN BY

[illegible] MINING COMPANY

IN FAVOR OF

UNITED STATES OF AMERICA

INVISIBLE ARMOR

CHAMBERS-DARNELL AGENCY

INSURANCE SPECIALISTS

130 NO. 6TH STREET PHONE CH 2-8152

GRAND JUNCTION, COLO.

NATIONAL SURETY CORPORATION

NEW YORK

STANDARD FORM 25
REVISED NOVEMBER 1950
PRESCRIBED BY GENERAL
SERVICES ADMINISTRATION
GENERAL REGULATION NO. 5

PERFORMANCE BOND

(See Instructions on Reverse)

DATE BOND EXECUTED: 3/9/58

PRINCIPAL: L.H. WILKERSON, P.O. Box 3, Thompsons, Utah

SURETY: INDEMNITY INSURANCE COMPANY OF NORTH AMERICA, a Pennsylvania corporation of 99 John Street, New York 38, New York

PENAL SUM OF BOND (*express in words and figures*)	CONTRACT NO.	DATE OF CONTRACT
FIVE THOUSAND AND NO/100 ($5,000.)	Idm-E928 Docket No. DMEA 3962	3/9/56 ~~3/9/58~~

KNOW ALL MEN BY THESE PRESENTS, That we, the **PRINCIPAL** and **SURETY** above named, are held and firmly bound unto the United States of America, hereinafter called the Government, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the Government, numbered and dated as shown above and hereto attached;

NOW THEREFORE, if the principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Government, with or without notice to the surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

In Presence of:

WITNESS		INDIVIDUAL PRINCIPAL	
1.	as to	L.H. WILKERSON P.O. Box 3, Thompsons Utah	[SEAL]
2. Grace A. Bardell	as to	L.H. Wilkerson	[SEAL]
3.	as to		[SEAL]
4.	as to		[SEAL]

WITNESS		INDIVIDUAL SURETY	
1.	as to		[SEAL]
2.	as to		[SEAL]

Attest:

CORPORATE PRINCIPAL

BUSINESS ADDRESS

BY

TITLE

AFFIX CORPORATE SEAL

Bond No. 257,501, ex. in trip.

Attest:

M. Calise

M. Calise, Resident Assistant Secretary

CORPORATE SURETY: INDEMNITY INSURANCE COMPANY OF NORTH AMERICA

BUSINESS ADDRESS: 99 John Street, New York 38, N.Y.

BY: Samuel T. Alvino

TITLE: Samuel T. Alvino, Resident Vice President

AFFIX CORPORATE SEAL

The rate of premium on this bond is $7.50 per thousand.

Total amount of premium charged, $37.50MR

(The above must be filled in by corporate surety)

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, ..., certify that I am the ..... secretary of the corporation named as principal in the within bond; that .....,

who signed the said bond on behalf of the principal, was then ..... of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said corporation by authority of its governing body.

..... [CORPORATE SEAL]

INSTRUCTIONS

1. This form shall be used for construction work or the furnishing of supplies or services, whenever a performance bond is required. There shall be no deviation from this form except as authorized by the General Services Administration.

2. The surety on the bond may be any corporation authorized by the Secretary of the Treasury to act as surety, or two responsible individual sureties. Where individual sureties are used, this bond must be accompanied by a completed Affidavit of Individual Surety for each individual surety (Standard Form 28).

3. The name, including full Christian name, and business or residence address of each individual party to the bond shall be inserted in the space provided therefor, and each such party shall sign the bond with his usual signature on the line opposite the scroll seal, and if signed in Maine or New Hampshire, an adhesive seal shall be affixed opposite the signature.

4. If the principals are partners, their individual names shall appear in the space provided therefor, with the recital that they are partners composing a firm, naming it, and all the members of the firm shall execute the bond as individuals.

5. If the principal or surety is a corporation, the name of the State in which incorporated shall be inserted in the space provided therefor, and said instrument shall be executed and attested under the corporate seal as indicated in the form. If the corporation has no corporate seal the fact shall be stated, in which case a scroll or adhesive seal shall appear following the corporate name.

6. The official character and authority of the person or persons executing the bond for the principal, if a corporation, shall be certified by the secretary or assistant secretary, according to the form herein provided. In lieu of such certificate there may be attached to the bond copies of so much of the records of the corporation as will show the official character and authority of the officer signing, duly certified by the secretary or assistant secretary, under the corporate seal, to be true copies.

7. The date of this bond must not be prior to the date of the instrument in connection with which it is given.

U. S. GOVERNMENT PRINTING OFFICE 16—30441-2

This Performance Bond
released

STANDARD FORM 25
REVISED NOVEMBER 1950
PRESCRIBED BY GENERAL
SERVICES ADMINISTRATION
GENERAL REGULATION NO. 5

PERFORMANCE BOND

(See Instructions on Reverse)

DATE BOND EXECUTED

March 9, 1956

PRINCIPAL NORBUTE CORPORATION, a corporation organized & existing under the laws of the State of Minnesota

SURETY INDEMNITY INSURANCE COMPANY OF NORTH AMERICA, a corporation organized & existing under the laws of the State of Pennsylvania

PENAL SUM OF BOND (*express in words and figures*)	CONTRACT NO.	DATE OF CONTRACT
THIRTY THREE THOUSAND SEVEN HUNDRED FIFTY DOLLARS ($33,750.)	Idm-E928 Docket No. DMEA 3962	March 9, 1956

KNOW ALL MEN BY THESE PRESENTS, That we, the **PRINCIPAL** and **SURETY** above named, are held and firmly bound unto the United States of America, hereinafter called the Government, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal entered into a certain contract with the Government, numbered and dated as shown above and hereto attached;

NOW THEREFORE, if the principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Government, with or without notice to the surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the surety being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

In Presence of:

WITNESS		INDIVIDUAL PRINCIPAL	
1.	as to		[SEAL]
2.	as to		[SEAL]
3.	as to		[SEAL]
4.	as to		[SEAL]

WITNESS		INDIVIDUAL SURETY	
1.	as to		[SEAL]
2.	as to		[SEAL]

Attest:

H. Newman Clark, Jr.

CORPORATE PRINCIPAL
NORBUTE CORPORATION
BUSINESS ADDRESS
383 Madison Ave., New York 17, N.Y.
BY
TITLE

AFFIX CORPORATE SEAL

Bond #252,218 Ex. in trip.

Attest:

Anna Kocak

Anna Kocak,
Res. Assistant Secretary

CORPORATE SURETY INDEMNITY INSURANCE COMPANY OF NORTH AMERICA
BUSINESS ADDRESS
99 John St., New York 38, N.Y.
BY
TITLE V. J. Stahl,
Resident Vice President

AFFIX CORPORATE SEAL

See Bond for Wilkerson

STANDARD FORM 25
NOVEMBER 1950 EDITION

16—30441-2

The rate of premium on this bond is $7.50 per thousand. on contract price

Total amount of premium charged, $253.13

(The above must be filled in by corporate surety)

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, H. Newman Clark Jr., certify that I am the ..... secretary of the corporation named as principal in the within bond; that Nicholas M. Salgo, who signed the said bond on behalf of the principal, was then President of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said corporation by authority of its governing body.

RECEIVED MAR 23 1966

H. Newman Clark Jr. [CORPORATE SEAL]

INSTRUCTIONS

1. This form shall be used for construction work or the furnishing of supplies or services, whenever a performance bond is required. There shall be no deviation from this form except as authorized by the General Services Administration.

2. The surety on the bond may be any corporation authorized by the Secretary of the Treasury to act as surety, or two responsible individual sureties. Where individual sureties are used, this bond must be accompanied by a completed Affidavit of Individual Surety for each individual surety (Standard Form 28).

3. The name, including full Christian name, and business or residence address of each individual party to the bond shall be inserted in the space provided therefor, and each such party shall sign the bond with his usual signature on the line opposite the scroll seal, and if signed in Maine or New Hampshire, an adhesive seal shall be affixed opposite the signature.

4. If the principals are partners, their individual names shall appear in the space provided therefor, with the recital that they are partners composing a firm, naming it, and all the members of the firm shall execute the bond as individuals.

5. If the principal or surety is a corporation, the name of the State in which incorporated shall be inserted in the space provided therefor, and said instrument shall be executed and attested under the corporate seal as indicated in the form. If the corporation has no corporate seal the fact shall be stated, in which case a scroll or adhesive seal shall appear following the corporate name.

6. The official character and authority of the person or persons executing the bond for the principal, if a corporation, shall be certified by the secretary or assistant secretary, according to the form herein provided. In lieu of such certificate there may be attached to the bond copies of so much of the records of the corporation as will show the official character and authority of the officer signing, duly certified by the secretary or assistant secretary, under the corporate seal, to be true copies.

7. The date of this bond must not be prior to the date of the instrument in connection with which it is given.

U. S. GOVERNMENT PRINTING OFFICE 16—30441-2

THE STATE OF UTAH
STATE LAND BOARD
SALT LAKE CITY, UTAH

APR 3 1959
O.M.E.

Feb 18, 1959

Re: Mineral Lease No 3971

Mr. Arthur Roy Shumway et al
c/o L. H. Wilkerson
Thompson, Utah

Dear Sirs:

The Director, on February 3, 1959, approved assignment of the above numbered lease to you by L. H. Wilkerson

Our records have been noted and we herewith enclose the original lease..

Very truly yours
/s/ Frank J. Allen

FRANK J. ALLEN
DIRECTOR

AT
Encl.

COPY

A S S I G N M E N T

For and in consideration of the sum of Ten Dollars and other good and valuable consideration, L. H. Wilkerson, does hereby sell, assign and transfer unto Arthur Roy Shumway, Lawrence C. Davis and Truman Goode, all his right, title and interest in and to M.3971, embracing the following described land:

> All of Section 36, Township 22 South, Range 21 East of the Salt Lake Base and Meridian;

in the County of Grand, State of Utah.

SUBJECT to all the terms and conditions of a certain agreement between Norbute Corporation and the United States of America, dated March 9, 1956, Docket No. DMEA 3962, Contract No. Idm-E 928, including, but not limited to, the right of the United States of America to royalty payments and a lien for such payments, as provided by Article 8 of said Agreement, dated March 9,1956, and the undersigned assignees hereby assume and agree to comply with the terms and conditions on the part of the Operator (Norbute Corporation) designated in said Agreement dated March 9,1956, and the undersigned assignees further agree to the posting of a good and sufficient bond as required by the United States of America, in substitution for the performance bond now outstanding heretofore posed by Norbute Corporation, and

SUBJECT to all the terms and conditions of a certain agreement between Norbute Corporation and Strategic Minerals Exploration Company, dated December 7, 1954, which terms and conditions the undersigned assignees hereby assume and undertake to perform.

WITNESS my hand this 5th of January, A.D. 1959.

L. H. Wilkerson

L. H. Wilkerson

Haynie, Hotchkiss & Bullock letter 3/31/59

STATE OF COLORADA)
) ss
COUNTY OF M E S A)

The foregoing instrument was acknowledged before me this 8th day of January, 1959 by L. H. Wilkerson ~~and Dale C. Wilkerson~~.

Witness my hand and official seal.

My commission expires September ~~9, 1962~~. 10, 1960

James Golden
Notary Public

12/15/55 gla

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

RECEIVED
DEC 15 1955

December 12, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

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

Subject: Docket DMEA 3962 (Uranium), Norbute Corporation, W $\frac{1}{2}$ Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

Enclosed are two copies of an amendment to the subject application. The proposed amendment cuts the proposed cost from $111,292.54 to $58,527.64.

Copies of the amendment are being forwarded to the field to be placed with copies of the original application.

E. N. Harshman

E. N. Harshman

Enclosures

Norbute Corporation
Box 1700
Grand Junction, Colo.

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DEC 15 1955

Docket No. DMEA-3962 (Uranium)

AMENDMENT TO APPLICATION FOR D. M. E. A. LOAN

on

UTAH STATE SCHOOL SECTION 36

T 22 S, R 21 E, S.L.M.

Yellow Cat Area, Thompson Mining District

Grand County, Utah

Re: Docket No. DMEA-3962 (Uranium)

December 7, 1955

Norbute Corporation
Docket No. DMEA-3962 (Ura

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This amendment is presented as a revision of the original application for D. M. E. A. assistance, made on August 19, 1955, by Norbute Corporation. Reference is made to the report of August 8, 1955, by John I. Schumacher and I. R. Taylor, mining engineers then with Norbute Corporation, to accompany the original application.

Since the original application was made, the management of the western operations of Norbute Corporation has been changed; and a reanalysis of this exploration program has lead this corporation to the conclusion that the area for exploration should be changed. It is felt that the indications manifested by previous U. S. G. S. drilling at the western edge of this section are discouraging for two reasons. First, the depth of any ore development would place an extra burden upon the economics of ore extraction. Secondly, there has been some indication that the character and habit of the ore bodies lead to the development of smaller individual ore pods than are present to the east.

Previous drilling has not sufficiently explored the area in close proximity of the Ringtail shaft. Drill holes YC-880 and 884 indicate the western extension of the mineralized channel now being mined. All indications lead to the belief that further ore can be developed to the west of these two holes. Upon this predication, this amendment is being made to the application for D. M. E. A. assistance.

On Form MF103 Revised, heading No. 3 under "Instructions" should be revised to read "The exploration project will apply only to the portion

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DEC 15 1955

of Section 36, T 22 S, R 21 E, S.L.M., described under these meets and bounds: Beginning at a point 420 feet north of the center point of said Section 36, thence 960 feet east to the northeast corner; thence south 970 feet to the southeast corner; thence west 1730 feet to the southwest corn r; thence north 970 feet to the northwest corner; thence east 770 feet to the point of beginning."

The drilling plan is revised as follows:

First phase. In effect, the first phase of drilling has been accomplished in the past work done by the U. S. G. S.

Second phase. The amended drilling plan reduces the original number of holes as well as the average depth of hole by shifting the area to be explored eastward and closer to the ore body presently being mined. The proposed holes are listed below in order of their preference. Their locations are shown on Plate 4 amended and Plate 5 amended, which accompany this amendment.

Hole Number	Estimated Depth In Feet	Plate Number
R 1	260	5
R 2	245	5
R 3	285	5
R 4	255	5
R 5	260	5
R 6	255	5
R 7	255	5
R 8	280	5
R 9	265	5

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DEC 15 1955

Hole Number	Estimated Depth in Feet	Plate Number
R 10	290	4
R 11	290	4
R 12	300	4
R 13	280	4
R 14	300	4
R 15	290	4
R 16	295	4
R 17	420	4
R 18	420	4
R 19	550	4
R 20	575	4
R 21	550	4
R 22	265	5
R 23	265	5
Total	7,450	
Average depth	324	

Third phase. Of the 23 holes proposed to be drilled in the second phase program, it is estimated that 8 should penetrate ore or mineralization. Each of these holes would then be worthy of four offsetting holes to further define its grade and limits. This would require 32 holes with an average depth of 324 feet, for a total of 10,368 feet of drilling in this phase.

Norbute Corporation
Docket No. [redacted]-3962 (Uranium)

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DEC 15 1955

Costs for the revised plan of exploration are estimated as follows:

			Per ft.
Contract drilling:			
Phase 1	none		
Phase 2	7,450 feet @ $2.98/ft.*	$22,201.00	$2.98
Phase 3	10,368 feet @ $2.98/ft.	30,896.64	
	17,818 total footage		
Road building:			
Phase 2	60 hours @ $12.00/hr.	720.00	0.061
Phase 3	30 hours @ $12.00/hr.	360.00	
Engineering:			
	1 engineer half time 4 months @ $800.00/mo.	1,600.00	0.090
	1 field assistant full time 4 months @ $400.00/mo.	1,600.00	0.090
Core boxes:	50 @ $3.50 each	175.00	0.010
Samples for analysis:	175 @ $5.00 each	875.00	0.040
Accounting:	4 months @ $25.00/mo.	100.00	0.006
	TOTAL	$58,527.64	$3.285

* Cost per foot is based on an average of three bids submitted by Minerals Engineering Company, Johnson & Youvon Drilling Company, and Sprague & Henwood. All coring would be NX size.

NORBUTE CORPORATION

Abbott Charles
Manager, Western Mining Division

Vernon T. Dow
Mine Manager

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

RECEIVED
SEP - 2 1955

August 30, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA Aid, (Uranium), Norbute Corporation, W. ½ Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

Enclosed are two copies of the subject application in the amount of $111,292.54.

One copy of the application is being forwarded to the Grand Junction office for their review and recommendation.

W. M. Traver

W. M. Traver

Enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DMEA
Date Rec'd.
AUG 29 1955
RECEIVED
SEP - 2 1955
BUREAU OF MINES
Denver, Colorado

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

Not to be filled in by applicant

Docket No. 3962
Metal or Mineral Uranium
Date Received 9-2-55
Estimated Cost 111,292.54
Participation (Government %) 75

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: WORLDS CORPORATION, a Minnesota Corporation
P. O. Box 1700
Grand Junction, Colo.

(*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. Minnesota Corporation

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

(*d*) If a partnership, add to the above statement the names and addresses of all partners. not applicable

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract The exploration project will apply only to the west half of Section 36, T 22 S, R 21 E, S. L. M. All of this section is leased from the State of Utah.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise lessee
Utah State Lease 3971, copy attached

(*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. Copies attached.

(*e*) If you own the land, describe any liens or encumbrances on it not applicable

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Not applicable

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. Refer to attached report P 7 & 2

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. Page 889 attached report

(*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. Attached report Page 3

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.
Attached report Page 2

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.
Attached report pages 2 & 3

16—66551-1

SEE ATTACHED REPORT WITH ACCOMPANYING MAPS FOR ALL ITEMS OF NO. 4

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 pages 10 & 11 and accompanying maps. Also P 9.

(*c*) The work will start within 30 days and be completed within 5 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. See attached sheet

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: Report P 1 & 12

(*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.). See Attached Report Page 12

(*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. Page 12 of attached report

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

(*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. not applicable

(*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. not applicable

(*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. not applicable

(*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. Page 12 of attached report

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above. none

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated August 19, 1955

NORMUTE CORPORATION
(Applicant)

By [signature]

Vice President

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

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

MF-103

Norbute Corporation
Box 1700
Grand Junction, Colo.

1. (c)

Nicolas M. Salgo 383 Madison Avenue New York 17, N. Y.	President and Director
David L. Perrot 321 N. Hamilton Street Saginaw, Michigan	Chairman of the Board
Clifford W. Stuart 321 N. Hamilton Street Saginaw, Michigan	Executive vice-president and Director
Andrew W. Dallstream 231 So. LaSalle Street Chicago 4, Illinois	Director
Ralph W. LaShaum 383 Madison Avenue New York 17, N. Y.	Treasurer and Director
L. L. Steindler 274 Madison Avenue New York 16, N. Y.	Vice-President
Roderick L. Syck 222 Garfield Avenue Duluth 6, Minnesota	Vice-President and Director
Oscar Pocock 1000 Marquette Building Detroit 26, Michigan	Director
Lawrence G. Redford 321 N. Hamilton Street Saginaw, Michigan	Director
Oliver R. Grace 50 Broad Street New York 4, N. Y.	Director
H. Newman Clark, Jr. 383 Madison Avenue New York 17, N. Y.	Secretary
James A. Poore, Jr. 403-405 Silver Bow Block Butte, Montana	Director
William Zeckendorf 383 Madison Avenue New York 17, N. Y.	Director

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SEP - 2 1955

Entry No. 209615 Filed for record April 9 1952 at 10 a.m.
Bk. 6-L page 18-3 Emma M. Pratt Recorder Grand Co., Utah
Fee 5.00 Abs. Rhe 2 page 1 Sec 36 T 22 S R 21 E Line 2

Exhibit "A"

UTAH STATE URANIUM AND VANADIUM MINERAL LEASE

RECEIVED
SEP - 2 1955

Mineral Lease Application No. 3022 — Mineral Lease No. 3371
Strategic Minerals Exploration Company — Grant: School

THIS INDENTURE OF LEASE AND AGREEMENT, entered into, in duplicate, this 18th day of May, A. D. 1951, by and between the State Land Board, acting in behalf of the State of Utah, hereinafter called the Lessor, and Mary D. Schumacher, Charles P. Schumacher, James J. Schumacher, James J. Smith, John Will, Paul J. Schumacher, Claire E. Schumacher, John I. Schumacher, a copartnership doing business as Strategic Minerals Exploration Company of Grand Junction, Colorado, hereinafter called the Lessee, under the pursuant to Title 86, Chapter 1, Utah Code Annotated 1943, and Amendments thereto.

WITNESSETH: That the Lessor, in consideration of the rents and royalties to be paid and the covenants to be observed by the Lessee, as hereinafter set forth, does hereby grant and lease to the Lessee the exclusive right and privilege to mine and dispose of all of the uranium and vanadium minerals in the following described tract of land situated in Grand County, State of Utah, to-wit:

All of Section Thirty-six (36), Township Twenty-two (22) South, Range Twenty-one (21) East of the Salt Lake Base and Meridian,

containing a total of 640.00 acres, more or less, together with the right to use and occupy so much of the surface of said land as may be required for all purposes reasonably incident to the mining and removal of the uranium and vanadium minerals produced in commercial quantities from the said lands, upon condition that at the end of each Twenty-year period succeeding the first day of the year in which this lease is issued, such readjustment of terms and conditions may be made as the Lessor may determine to be necessary in the interest of the State.

ARTICLE 1

It is expressly understood and agreed that this lease is granted subject in all respects to and under the conditions of the laws of the State of Utah, and the Federal Statutes regarding the operation of metallic mineral mines, Employer's Workman's Compensation, Workman's Insurance, Social Security and Unemployment Insurance and such existing Rules and Regulations or Rules and Regulations, hereafter adopted and approved by the State Land Board.

It is further expressly understood and agreed that this lease covers only the mining and marketing of uranium and vanadium minerals, but that should other minerals be discovered such fact shall be immediately reported to the Lessor.

ARTICLE III

The Lessee in consideration of the granting of the rights and privileges aforesaid, hereby covenant and agree as follows:

FIRST: To pay to the Lessor as annual rental for each acre covered by this lease the sum of 50¢ per acre per annum. All such annual payments of rental to be made in advance on the 2nd day of January of each year, except the 1951 rental, which is payable on the execution of this lease, such rental to be credited on the royalties to become due hereunder during the year for which said rental is paid.

SECOND: To pay to the Lessor a royalty of 12½% of the proceeds for ores sold less assay charges and transportation to point of sale. All payments to be made monthly on or before the 15th day of the month next succeeding the month in which the ores are sold. Monthly statements as to the amount of production sold from the leased ground in the preceding month must be in affidavit form and shall accompany the royalty remittance. Failure to pay the rents and royalties or any of them in the manner herein provided shall constitute a default and entitle the Lessor to declare a forfeiture on this lease and to enter upon and take possession of the premises with or without process of law.

THIRD: That at the option of the Lessor it may require the payment at the mine of royalties in kind; the amount being 12½% of the material produced.

FOURTH: That upon the shipment of any ore under this lease, the Lessor shall

be immediately notified in writing that such shipment is being made, giving the means of transportation and the point of destination.

FIFTH: That at the option of the Lessor it may require, before the commencement of mining operations, that the Lessee shall submit a detailed plan with maps, showing the proposed method of opening the ground and that such work shall not be undertaken until the Lessor has approved such plan and that failure on the part of the Lessee to do so, if required, or to prosecute development on the lines directed, shall constitute a cause for cancellation of this lease.

SIXTH: To commence actual mining operations upon the land included herein on or before December 31, 1951, and thereafter to diligently operate the property according to the plans accepted or under modifications thereof as may be acceptable to the Lessor.

SEVENTH: To at all times during the life of this lease perpetuate and protect the main line tunnels in ingress and egress to and from said lands and the air courses necessary for proper ventilation, by means of proper pillars and timbering as may be directed by the Lessor or State Mine Inspector, whether upon this leased land or extending through adjacent lands owned or operated by the Lessee, and upon abandonment or termination of this lease from any cause, to substantially fence, fill in, cover or close all surface openings or workings, if directed to do so by said Lessor.

EIGHTH: To keep at the mine office clear, accurate and detailed maps on tracing cloth, on a scale not more than 50 feet to the inch, of the workings in each separate mine on the leased lands and on the lands adjacent, and to be so arranged with reference to a public land corner that the maps can be readily and correctly superimposed, and to furnish to the Lessor annually, or upon demand, certified copies of such maps and such written statement of operations as may be called for. All mine surveys shall be made by a licensed engineer and all maps certified to by him.

NINTH: To not assign this lease or any interest therein, nor sublet any portion of the leased premises, or any of the rights and privileges herein granted, without the written consent of the Lessor being first had and obtained.

ARTICLE IV

The Lessor hereby excepts and reserves from the operation of this lease;

FIRST: The right to permit for joint or several use such easements or rights-of-way upon, through or in the land hereby leased as may be necessary or appropriate to the working of these or other lands belonging to the Lessor containing mineral deposits or for other use.

SECOND: The right to use, lease, sell or otherwise dispose of the surface of said lands or any part thereof, under existing State laws or laws hereafter enacted, insofar as said surface is not necessary for the use of the Lessee in the mining and removal of the uranium and vanadium minerals therein, and to lease other mineral deposits, excepting those enumerated herein which may be contained in said lands.

ARTICLEV

It is further understood and agreed that upon failure or refusal of the Lessee to accept the readjustment of terms and conditions demanded by the Lessor at the end of any twenty-year period, such failure or refusal shall work a forfeiture of the lease and the same shall be canceled.

ARTICLE VI

Upon cancellation of this lease for any cause hereunder the Lessee shall be entitled to remove from the lease holdings only their personal and movable property and that improvements attached to the land such as buildings, timbering or other construction or constructions material in place, shall remain undisturbed upon the ground and the property surrendered in good usable condition.

ARTICLE VII

It is mutually understood and agreed that the suspension of mining operations

by the Lessee for a longer period than six months without the written consent of the Lessor being first had and obtained shall be a cause for forfeiture, and that upon the violation of this provision or any of the other terms of this lease the Lessor may at its option after thirty days notice by registered mail cancel this lease. After the expiration of the said thirty days and the cancellation of the lease no notice of such cancellation need be given the Lessee.

ARTICLE VIII

It is mutually understood and agreed that the Lessee may terminate this lease at any time upon giving three months notice in writing to the Lessor, and upon payment of all rents and royalties and other sums due and payable to the Lessor, and upon complying with the terms of this lease with respect to the preservation of the workings in such order and condition as to permit of the continued operation of the premises and the preservation of the mine.

ARTICLE IX

It is understood and agreed by and between the parties hereto that the Lessor, its officers and agents, shall have the right at all times to go in and upon the leased lands and premises, during the term of said lease to inspect the work done and the progress thereof on said lands and the products obtained therefrom, and to post any notices on the said land that it may deem fit and proper; and also shall permit any authorized representatives of the Lessor to examine all books and records pertaining to operations and under this lease, and to make copies of and extracts from the same, if desired.

ARTICLE X

It is mutually understood and agreed by the parties hereto that all of the terms, covenants, conditions and obligations in this lease contained, shall be binding upon the heirs, executors, administrators and assigns of the Lessee.

ARTICLE XI

It is understood and agreed that this lease is issued only under such title as the State of Utah may now hold, and that in the event the State is hereafter divested ~~of such title, the Lessor shall~~ not be liable for any damages sustained by the Lessee, nor shall the Lessee be entitled to or claim any refund of rentals or royalties, or other monies theretofore paid to the Lessor.

IN WITNESS WHEREOF, the parties have hereunto subscribed their names the day and year first above written.

STATE OF UTAH, STATE LAND BOARD

By _____
EXECUTIVE SECRETARY LESSOR

[illegible] Mineral Exploration Company
LESSEE

[illegible] Mgr.

[illegible]

Charles J. Schumacher

James C. Schumacher

Claire C. Schumacher

John Will

Mary D. Schumacher

Paul J. Schumacher

APPROVED AS TO FORM
CLINTON D. VERNON, Attorney General

By J. Richard Bell

wh

ASSIGNMENT

Mineral Lease No. 3971 Application No. 3022

For and in consideration of the sum of ONE Dollars we hereby sell, assign and transfer unto NORBUTE CORPORATION of 624 Rood Avenue, Grand Junction, Colorado, all our right, title and interest in and to ML No. 3971; embracing the following described land:

All of Section Thirty-six (36), Township Twenty-two (22) South, Range Twenty-one (21) East of the Salt Lake Base and Meridian

in the County of Grand, State of Utah.

Witness our hands this 17th day of January, 1955.

TWO WITNESSES:

Charles L. Collins

Rhea D. Kemper

Mary D. Schumacher
Mary D. Schumacher

James C. Schumacher
James C. Schumacher

Paul J. Schumacher
Paul J. Schumacher

John Will
John Will

Philip Schumacher
Philip Schumacher

James J. Smith
James J. Smith

John I. Schumacher
John I. Schumacher

General Partners doing business as STRATEGIC MINERALS EXPLORATION CO.

STATE OF OHIO)
) ss.
COUNTY OF MONTGOMERY)

On the 17th day of January, _____, A. D. 1955, personally appeared before me, Mary D. Schumacher, the signer of the above instrument, who duly acknowledged to me that she executed the same.

My Commission expires:

RHEA D. KEMPER, Notary Public
In and for Montgomery County, Ohio
My Commission Expires [illegible]

Rhea D. Kemper
Notary Public Residing at -
1211 Far Hills Ave.,
Dayton, Ohio.

RHEA D. KEMPER, Notary Public
In and for Montgomery County, Ohio
My Commission Expires June 17, 1956

STATE OF Ohio)
) ss.
COUNTY OF Montgomery)

On the 17th day of January, A. D. 1955, personally appeared before me, James C. Schumacher, the signer of the above instrument, who duly acknowledged to me that he executed the same.

My Commission expires:

Esther S. Dallas
Notary Public Residing at -
2931 Ridge Ave., Dayton, Ohio

STATE OF Ohio)
) ss.
COUNTY OF Montgomery)

On the 17th day of January, A. D. 1955, personally appeared before me, Paul J. Schumacher, the signer of the above instrument, who duly acknowledged to me that he executed the same.

My Commission expires:

Esther S. Dallas
Notary Public Residing at -
2931 Ridge Ave., Dayton, Ohio

STATE OF)
) ss.
COUNTY OF)

On the ___ day of _____, A. D. 1955, personally appeared before me, Clare E. Schumacher, the signer of the above instrument, who duly acknowledged to me that she executed the same.

My Commission expires:

_____
Notary Public Residing at -

STATE OF Ohio)
) ss.
COUNTY OF Montgomery)

On the 17th day of January, A. D. 1955, personally appeared before me, John Will, the signer of the above instrument, who duly acknowledged to me that he executed the same.

My Commission expires:
[illegible] Ohio
My Commission Expires August 8, 1958

Esther S. Dollard
Notary Public Residing at -
2931 Ridge Ave., Dayton, Ohio
[illegible]
My Commission Expires August 8, 1958

STATE OF)
) ss.
COUNTY OF)

On the 26th day of January, A. D. 1955, personally appeared before me, Phil ip Schumacher, the signer of the above instrument, who duly acknowledged to me that he executed the same.

My Commission Expires:
May 25th 1961
[illegible]

Lionan W. Pfeiffer
Notary Public Residing at -
5 Telegraph Drive
Cheyenne, Wyoming

STATE OF Wisconsin)
) ss.
COUNTY OF Milwaukee)

On the 19th day of January, A. D. 1955, personally appeared before me, James J. Smith, the signer of the above instrument, who duly acknowledged to me that he executed the same.

My Commission expires:
October 5, 1958

Bessie Casey
Notary Public Residing at -
561 N. 15th Street, Milwaukee, Wisconsin

STATE OF)
) ss.
COUNTY OF)

On the 25th day of January, A. D. 1955, personally appeared before me, John I. Schumacher, the signer of the above instrument, who duly acknowledged to me that he executed the same.

My Commission expires:
September 23, 1957

Warren L. Turner
Notary Public Residing at -
Grand Junction, Colo.

REPUBLIC OF FRANCE, CITY OF PARIS
EMBASSY OF UNITED STATES OF AMERICA } SS:

ASSIGNMENT

Mineral Lease No. 3971 Application No. 3022

For and in consideration of the sum of one and additional $1.00 per acre Dollars we hereby sell, assign and transfer unto NORBUTE CORPORATION of 624 Rood Avenue, Grand Junction, Colorado, all our right, title and interest in and to ML No. 3971; embracing the following described land:

All of Section Thirty-six (36), Township Twenty-two(22) South, Range Twenty-one(21) East of the Salt Lake Base and Meridian

in the County of Grand, State of Utah.

Witness our hands this 22 day of November, 1954

Two Witnesses:

Claire E. Harlow
c/o Foreign Service Mail Room
Dept. of State, Washington, D.C.

Robert Lemoine
2, Avenue Gabriel Paris France

Claire E. Schumacher
Claire E. Schumacher

I, James E. Akins, Vice Consul of the United States of America at Paris, France, duly commissioned and qualified, do hereby certify that on this 22nd day of November 1954, before me personally appeared Claire E. Schumacher

to me personally known, and known to me to be the individual described in, whose name is subscribed to, and who executed the foregoing instrument, and being informed by me of the contents thereof she duly acknowledged to me that she executed the same freely and voluntary for the uses and purposes therein mentioned.

In witness whereof I have hereunto set my hand and official seal the day and year last above written.

James E. Akins
Vice-Consul of the United States of America

AMERICAN FOREIGN SERVICE $2 FEE STAMP 2 1954

Service No. 5756
Tariff Item No. 28
$ 2.00

Acceptance of Assignment

Certificate No.....

Grazing Lease No.....

Mineral Lease No. 3971

Comes now Norbute Corporation a corporation of Minnesota, and hereby accepts the Assignment from Strategic Minerals Exploration Company of Grand Junction, Colorado assigning to Norbute Corporation Cert. #.....; GL #.....; ML # 3971, which Assignment is dated....., subject to all of the covenants and obligations of said Lease.

IN WITNESS WHEREOF, Norbute Corporation has executed this Acceptance this 7th day of December, 19 54.

NORBUTE CORPORATION

(SEAL) By N. Salgo

By .....

State of New York
County of New York } ss.

On this 7th day of December, A. D. 19 54., personally appeared before me Nicolas M. Salgo and ..... who being by me duly sworn did say, each for himself, that he, the said Nicolas M. Salgo is the President (officer) and he, the said ..... is the ..... (officer) of Norbute Corporation and that the within and foregoing instrument was signed in behalf of said corporation by authority of a resolution of its Board of Directors, and said Nicolas M. Salgo and ..... each duly acknowledged to me that said corporation executed the same and that the seal affixed is the seal of said corporation.

NORMA B. MAYER
Notary Public, State of New York
No. 31-7778100
Qualified in New York County
Commission Expires March 30, 1956

My commission expires.....

Norma B. Mayer
Notary Public

Residence 121 E. 31 St. N.Y.C., N.Y.

THE STATE OF UTAH
STATE LAND BOARD
SALT LAKE CITY 1

P. H. MULCAHY
CHAIRMAN
T. S. CURTIS
SECRETARY
A. N SMITH
EXECUTIVE SECRETARY
LEE E. YOUNG
MANAGER

February 25, 1955

RECEIVED
SEP - 2 1955

Re: Mineral Lease No. 3971

Norbute Corporation
c/o John Snow
Attorney at Law
Walker Bank Building
Salt Lake City, Utah

Gentlemen:

The Land Board, at its meeting February 17, 1955, approved assignment of the above numbered mineral lease to you; by Strategic Minerals Exploration Company.

The Board, also, approved a Mining Agreement by and between you and Great Western Uranium Corporation, covering developing and mining the property embraced in the above numbered mineral lease. It is understood that consent to this Mining Agreement shall not be decreed in any manner to modify the terms and conditions of the State lease covered thereby or to make the State of Utah a party to any of the obligations covenants or conditions of said Mining Agreement.

Our records have been noted and we herewith enclose the original lease with assignments.

Yours very truly,

Lee E. Young by JPM

LEE E. YOUNG
EXECUTIVE SECRETARY

jg
encl.

MF 103

5 (d)

Norbute Corporation
Box 1700
Grand Junction, Colo.

Our company formerly owned a producing copper mine in Butte, Montana and was then known as North Butte Mining Company. In 1953, the company's property at Butte was sold to the adjoining Anaconda Mining Company. Subsequently, the name of the corporation was changed to the present name, but no reorganization was made and new interests entered the company. In May, 1954, it was decided that the company should interest itself in the further development of mining properties and in July, 1954, we opened an office in Grand Junction.

Two of the company's directors have been on the board for some years and have experience in an executive and financial capacity with mining matters.

L. L. Steindler, vice president of Norbute Corporation, has been in the mining business in an executive capacity for the past 25 years, particularly in Canada. He is at present and has been for the past 20 years a director of the Kerr Lake Mines, Ltd., with head office at 61 Broadway, New York City. Mr. Steindler was the one time president of Moneta Porcupine Mines, Ltd., which had a history of production of something in excess of two million dollars as a gold mine, and paid something over one million dollars in dividends. He is at present a director of several Canadian companies which are inactive.

Mr. William Heckendorf is a director of this corporation and is concerned with this country's effort to develop and increase the production of uranium ores and their uses.

Mr. Philip Wilson, Mining Engineer of New York City, has also acted as consultant for this company.

Mr. Abbott Charles, formerly with the Manhattan Project, and a consulting Mining Engineer, is joining the staff of this company.

Attached is the experience record of Mr. Vernon T. Dow, Mine Manager of this company.

MF 103 5 (d)

rbute Corporation
Box 1700
Grand Junction, Colo.

PROFESSIONAL RECORD - VIRNON T. DOW

RECEIVED
SEP - 2 1956

March 25, 1954 to August 13, 1955

Chief Exploration Engineer for the U. S. Geological Survey, Colorado Plateau project. Work consisted of writing specifications for all drilling contracts; acting as consultant for any engineering problems that arose on the various drilling projects; directing the use and distribution of heavy equipment which consisted of bull-dozers, compressors, light plants and motor graders; and preparing all of the monthly engineering reports concerning the drilling. It was my responsibility to see that the contracts between the contractors and the government were adhered to by both parties. I also prepared the invoices for payment of drilling completed under the various contracts.

January 28, 1952 to March 25, 1954

Field Engineer for U. S. Geological Survey in charge of from two to five government drilling contracts. Job was to enforce the government contracts, oversee the sampling and logging of holes, layout and construction of camps, drill roads and drill sites. Directed the necessary surveying, maintenance of camp supplies, and compiled and wrote the necessary reports.

June, 1947 to February, 1952

Stope Engineer and repair timber foreman for Miami Copper Company, Miami, Arizona. I was in charge of the controlled drawing of ore in the block caving system used there. The ore, after undercutting, must be drawn evenly so as to recover all the ore with a minimum amount of dilution from the overlying waste. I also directed the repair timbering, because the repair had to be correlated to the draw of ore to maintain maximum tonnages from the stopes.
Ref: Ben Coil, Gen. Supt.

September, 1946 to June, 1947

Safety Engineer and shift boss for Empire Zinc Co., Gilman, Colorado. Work was to supervise development and mining of lead-zinc and copper-silver stopes. The development consisted of shaft sinking, the driving of drifts and raises, and stope preparation. Mining was accomplished by using underhand square set stopes and modified Mitchell stopes.
Ref: William Jude, Gen. Supt.

June, 1945 to August, 1946

Drill foreman and engineer for the National Lead Company, Bariod Sales Division, Malvern, Arkansas. I handled the exploratory drilling and logging, the results from which I calculated the ore reserves. Also supervised all topographic surveying, and the surveying and earth-work calculations of stripping and mining contracts. Ref: Mr. J. E. Moore, Mgr.

1944 to 1945:

Norbute Corporation
Vernon T. Dow

1944 to 1945

Mining engineer for the Sunshine Mining Co. Kellog, Idaho. Work consisted of doing all surveying, both surface and underground, and the accompanying office work. At various times worked also as relief shift boss.
Ref: John Eager, Mine Supt.

1942 to 1944

Level boss for the Kennecott Copper Corporation, Ray Mines Division, Ray, Arizona. Supervised all work done during my shift pertaining to the development and production of ore. My development consisted of the driving of dfifts and raises and shrinkage stopes. Equipment used: latest type leyners and stopers. For mucking, Finley loaders and double drum Ingersol-Rand scrapers. Ore was gathered with Goodman shaker conveyors and hauled by 8-ton compressed air locomotives. The workers were 98% Mexican; my crew consisted of around 75 men.

1936 to 1942

Head transitman and contract engineer for the Kennicott Copper Corporation. Surveying consisted of topographic, railroad and claim surveying, its resultant office work and mapping. Besides engineering work for driving drifts, raises and shafts, I also designed the timber lay-out.
Ref: Dean LaGrange, Mine Supt.

1934 to 1936

Mucker, timberman, miner, transitman - in that order - for Climax Molybdenum Company, Climax, Colo.

1934

Graduated from Washington State College, School of Mines, Pullman, Washington, with a degree in Mining Engineering.

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

RECEIVED
SEP - 2 1955

Report on

UTAH STATE SCHOOL SECTION 36

T 22 S, R 21 E, S. L. M.

Yellow Cat Area, Thompson Mining District

Grand County, Utah

August 8, 1955

John I. Schumacher, Mining Engineer

I. R. Taylor, Mining Engineer

SUMMARY

The area under consideration in this report is Section 36, Township 22 south, Range 21 east, S. L. M., in Grand County, Utah. This section is held by Norbute Corporation under lease No. 3971 from the State of Utah.

Diamond drilling by the U. S. G. S. in 1952, 1953 and 1954 has disclosed six ore bodies within a mile radius of Section 36 of sufficient tonnage and grade to justify development. One of these ore bodies, on the east half of Section 36, is now being mined through the Ringtail shaft at the rate of 350 to 400 tons per month by Norbute Corporation and Great Western Uranium Corporation. Reasonable estimates of this ore body show indicated ore of 17,974 tons of average grade of 0.22% U_3O_8 and 1.63% V_2O_5. In addition it is estimated that the inferred ore is 9,987 tons of 0.22% U_3O_8 and 1.46% V_2O_5. The attached production schedule shows that 3,263.43 dry tons of average grade 0.24% U_3O_8 and 1.08% V_2O_5 have been mined. July, 1955 production from the Ringtail Mine was 416.61 dry tons of 0.27% U_3O_8 and 1.22% V_2O_5.

Application is being submitted for loan on only the west half of Section 36. Results so far on the east half of this section show that further exploration is warranted on the west half. In the latter part of the U. S. G. S. exploration program, 27 holes were drilled on the west half, and a favorable east-west trend was developed on the basis of geologic criteria. This drilling, which was mainly for geologic information, encountered two ore holes and five mineralized holes.

On the east half of this section, the U. S. G. S. drilled 33,013 feet, for an average of 0.85 tons of indicated and inferred ore per foot of drilling.

The loan application which is being submitted with this report requests 35,073 feet of drilling for a total cost of $111,292.54. This program should find enough ore to justify one or two additional mining operations on Section 36.

INTRODUCTION

Section 36, Township 22 south, Range 21 east, S. L. M., is in the Yellow Cat area of the Thompson Mining district in Grand County, Utah. This section is held by Norbute Corporation under lease No. 3971 from the State of Utah.

On the east half of this section, a mining operation known as the Ringtail Mine is being carried on under joint venture between Norbute Corporation and Great Western Uranium Corporation. Shaft sinking for this mine was started in December, 1953, by Strategic Minerals Exploration Company and Great Western Uranium Corporation. The shaft was completed and ready for production in August, 1954. Production has been continuous since that time. In February, 1955, Norbute Corporation purchased Strategic Mineral Exploration Company's interest in the Ringtail operation and the lease on Section 36 was then assigned to Norbute Corporation. Production from the Ringtail Mine is presently continuing at an average rate of about 350 tons per month.

This section lies in the central portion of the Yellow Cat area. The major production of this area is coming from a number of mines all within a mile radius of the Ringtail shaft. Production from all of these mines is from the lower sandstone lenses of the Morrison formation which, until recently, was considered relatively unproductive.

LOCATION AND PHYSIOGRAPHY

Section 36, in the Thompson Mining District, is approximately 15 miles by improved road southeast of the town of Thompson, Utah. The area is convenient to rail and trucking facilities at Thompson, and to mine supply houses at Moab, Utah, 5o miles distant, and Grand Junction, Colorado, 90 miles distant. Ore purchasing depots are located at Thompson, Utah, and Grand Junction, Colorado.

The Yellow Cat area of the Thompson Mining District is a semi-arid region of moderate relief. There is no timber and only sparce vegitation in the area.

Precipitation averages about 11 inches per year and winters are generally mild. Year around operation is possible, hampered only during spring thaws when ore hauling on the existing roads may be difficult. At present, the A. E. C. is in the process of constructing access roads which will eliminate most of the difficulties of winter travel. Water from the Ringtail Mine and several springs, as well as reservoirs, is ample for drilling. Culinary water is hauled from Thompson, Utah.

Dakota sandstone covers most of the northwestern half of the section but it has eroded away over much of the eastern and southern part. The majority of the diamond drilling done thus far has been concentrated in the east central portion where the topography consists of low Brushy Basin hills and Salt Wash sandstone rims. Elevations range from 4800 to 5500 feet. In general the topography is more moderate than most of the canyon and mesa country of the Colorado Plateau.

GEOLOGY

Rocks exposed in the Yellow Cat area consist of sediments of Jurassic and Cretaceous age. The mineral deposits of the district are found in the various sandstone lenses of the Morrison formation, chiefly in the Salt Wash member. The Salt Wash outcrops along an east-west band approximately twenty-five miles long and one to five miles wide. Most production has been from the central part of the area in the vicinity of the old Yellow Cat mine.

Rocks exposed on Section 36 range from Salt Wash sandstone through Dakota sandstone. In general, the ore minerals encountered in mining have been dark in color, ranging from gray through coal black. Vanadium minerals range from light green to black with grade increasing as the color darkens. None of the yellow uranium minerals have been noted during mining operations. Identification of the ore minerals is not complete. Minerals have been tentatively termed as vanadium hydromica, primary uranium associated with carbonaceous material, and a high-grade, black uranium mineral as yet unnamed. This black mineral is often

associated with pyrite and often replaces fossil logs and trash. It may occur as very thin seams in the sandstone or as a massive layer near the top of the mineralized zone. One fossil log, approximately two feet in diameter, was replaced for the outer 4 to 6 inches by high grade uranium with little or no value at the center. This new dark mineral is generally found only in the unoxidized portions of the deeper mines of the Colorado Plateau.

Drilling has indicated a zone of thicker sandstone, believed to be an ancient stream channel running roughly east and west. The ore bodies which are found in this channel appear to be tabular or lenticular. However, they are apparently more continuous than the ore bodies found in the Morrison formation of the Colorado Plateau in general. This favorable horizon is in the lower portion of the Salt Wash member of the Morrison formation and consequently it had been overlooked by earlier exploration programs. The bulk of the production from the Yellow Cat area now comes from this lower horizon.

PREVIOUS EXPLORATION

Section 36, Township 22 south, Range 21 east, S. L. M. was withdrawn from mineral entry in September, 1952, by the Atomic Energy Commission for U. S. geological exploration. The area is still withdrawn. However, to the best of our knowledge, the government plans no further exploration at this time. In 1952, 1953 and 1954 the U. S. G. S. carried on an active exploration program during which they drilled approximately 125,000 feet of core and wagon drilling in the Yellow Cat area. Of the total amount drilled, approximately 44,000 feet of drilling was on Section 36.

In the initial drilling program, holes were widely spaced on approximately 1000 foot centers. This drilling was mainly for geologic information and resulted in the finding of a relatively small amount of ore. The second program, which would correspond roughly to the second phase of drilling under a D. M. E. A. loan, was

more closely spaced and concentrated in an area lying in an east-west trend from Section 36 east to the Utah Alloys and Blackstone properties. This second phase was highly successful and resulted in the finding of six good-sized ore bodies. The third drilling program which was carried on in the fall of 1954 was successful in blocking out the ore bodies on the east half of Section 36, on the Blackstone claims and on Utah Alloys' claims. The success of the drilling on the east half of Section 36 prompted the government to extend the favorable trend into the west half of Section 36 and this work was completed in the winter of 1954. With the completion of the contract and a general change in the policy of the Geological Survey, no further drilling was done.

HISTORY AND PRODUCTION OF THE YELLOW CAT DISTRICT

The Yellow Cat area has produced ores of uranium, vanadium and radium since about 1911. Prior to the formation of the ore procurement program of the Atomic Energy Commission, production was intermittent, paralleling that of the other producing areas of the Colorado Plateau. Early production, during the period 1911 to 1923, was for radium content and was limited to high grade ores. With the discovery of the rich Belgian Congo deposits, operations on the Colorado Plateau were for the most part suspended. Starting about 1939, the ores were mined for their vanadium content, and production continued on a moderate scale until 1948, when the current need for uranium stimulated the industry to its present position of importance. It is estimated that the Yellow Cat area is now producing about 1200 tons per month. Below are listed the main producing properties.

Blackstone Mine is operated by Don Danvers and associates and lies approximately one half mile east of the Ringtail shaft. Within the last year and a half it has produced, from Blackstone 5 and 6 mines, 2600 tons of ore. Estimates on the over all tonnage vary from 10,000 to 20,000 tons in three ore bodies.

Utah Alloys Company are operating, under contract, two mines. One adjoins the Blackstone 6 mine. No record of production is available. However, it is estimated that in excess of 1,000 tons have been mined since the last U.S.G.S. exploration program. Several small ore bodies are known to exist in the immediate area of the production on this claim. Approximately one mile south of the Ringtail shaft, Utah Alloys Company have been operating an open pit mine on the Parko 23 claim. The production figures on this mine are not known. It is estimated that approximately 2,000 tons of ore have been produced. Both of the above mines are still in operation.

Mid-Continent Uranium Corporation are at present mining on a group of claims known as the John group. The group adjoins the south edge of Section 36 and were drilled by the U. S. G. S. in 1953. As a result of this drilling, an ore body estimated at 5,000 tons was found. Figures on the production of Mid-Continent are not available.

Yellow Cat Area in general

In addition to the above mentioned operating properties, the geologic map in Plate 1 shows numerous other mines that have produced or are producing. Among the largest producers are listed: The Utah Alloys' Pittsburgh Mine, Climax Uranium's Cactus Rat Mine, and U. S. Vanadium's McCoy group. Other notable production has come from the Smith Dorsey group now owned by the Four Corners Uranium Corporation, the Flat Top Mine, and numerous other small mines in the area around Utah Alloy's main camp. From the U. S. G. S. work it appears that the most favorable area for large, sustained production is in the area within one mile radius of the Ringtail shaft.

DEVELOPMENT OF SECTION 36

As a result of three U. S. G. S. drilling contracts, a shaft was started in December, 1953, on the east half of School Section 36 by Strategic Minerals Exploration Company and Great Western Uranium Corporation. This shaft was com-

pleted and ready for production in August, 1954. Production has been continuous since that time at the rate of 350 tons per month. In February, 1955, Norbute Corporation purchased Strategic Mineral Exploration Company's interest in the Ringtail operation and the lease on Section 36 was then assigned to Norbute Corporation.

Estimates of ore reserves showed that on the east half of Section 36 there are 17,974 tons of 0.22% U_3O_8 and 1.63% V_2O_5 indicated. Inferred ore was calculated at 9,987 tons of o.22% U_3O_8 and 1.46% V_2O_5. To date, the operation on the east half of Section 36 has produced 3,263.43 dry tons of o.24% $U_3O_8$and 1.08% V_2O_5.

Description of mining operation

Entry to the ore body of the Ringtail Mine located on the east half of this section is by means of a 220 foot, two compartment, vertical shaft, sunk on diamond drill hole YC 721. The shaft is centrally located to mine all of the reserve blocks. Track elevation was set at 210 feet below the collar of the shaft. This places the track 15 to 20 feet below the ore in the area east of the shaft. To the west, the ore dips below the track at approximately the west boundary of reserve block "A". Level development consists of an east and west drift now being driven through the center of Block "A". The west drift is presently out to the west boundary of the block. The ore has dropped in the drift face to track level. Production started from the area west of the shaft, in August, 1954, and has steadily increased as additional working places have been opened up. Recent production has been mainly from an area to the east of the shaft around hole 727.

Most ore is mined by driving short raises up from the haulage drift and mining out on the ore horizon, using a modified room and pillar method. Ore is slushed to the chutes where thickness and grade permit, otherwise hand mucking is necessary. Presently, hand tramming is used, with cars being caged for

hoisting. Jacklegs are used for drilling, including long-hole exploration drilling. An Eimco 12 B mucking machine is in use for mucking in drifts. Exploratory work underground relies greatly on the results of long-hole drilling. Where ore is in the back of the drift, drilling is done on more or less a ring pattern up from the haulage level. This makes possible a better ore intercept than is obtained in flat long-holing. Hole depths up to forty feet are possible. Plans call for drilling the rings on 25 foot centers. Where ore is encountered, additional rings will be drilled to determine the estent of the ore. Raises can thus be spotted in advantageous positions. The mine is wet, making it necessary to pump 3000 to 5000 gallons of water per day. This is handled with an air driven, duplex pump. The ten foot sump holds the inflow of water ofer a long change weekend.

Surface plant consists of a 36 foot, steel headframe; 30 ton steel ore bin; 16 x 30 Armco metal building (hoist room, office and change room); Hendrie & Bolthoff No. 2 hoist, gasoline powered; 16 x 24 foot tin compressor house and shop; 365 c.f.m. Gardner-Denver compressor; 465 c.f.m. Ingersoll-Rand compressor; 16 x 24 foot timber watchman's house; 12" gasoline driven Champion fan; light plant 3 K.W.; and 200 amp arc welder. Shop facilities are adequate to handle most repair and maintenance jobs.

The present mine crew consists of eight to ten men, working on a one shift basis.

Production Schedule:	Dry tons	% U_3O_8	% V_2O_5
August, 1954	186.51	0.31	1.345
September	313.87	0.219	0.922
October	234.71	0.257	1.11
November	219.07	0.307	1.29
December	374.94	0.22	1.12
January, 1955	369.31	0.26	1.01
February	268.13	0.20	0.81
March	130.22	0.22	1.17
April	167.60	0.22	1.40
May	264.39	0.25	1.13
June	318.07	0.191	0.68
July	416.61	0.27	1.22
	3,263.43	0.24	1.08

Ore reserves East Half of Section 36

Ore reserve calculations have been made on the basis of U. S. G. S. drilling on Section 36. (Map attached). For the purposes of reserve calculations, the following classifications are used:

Ore hole - at least 1.0 feet of 0.10% U_3O_8 or 1.00% V_2O_5.

Mineralized hole - measurable uranium-vanadium concentration.

Indicated ore - that ore for which tonnage and grade are computed partly from specific measurements, samples, and production data and partly from projection for a reasonable distance on geologic evidence.

Inferred ore - that ore for which quantitative estimates are based largely on broad knowledge of the geologic character of the deposit and for which there are few, if any, samples or measurements.

Average grade and thicknesses are obtained through weighting of assays by standard sampling procedure.

When locating the boundaries of "indicated ore" blocks, the maximum radius of influence of each ore hole was considered to be fifty feet. This distance was used only where adjacent holes were either ore holes or strongly mineralized. In cases where adjacent holes were barren, the radius was reduced. Single ore holes were classified as inferred ore blocks. Inferred ore was extended outward from the indicated ore toward mineralized holes or along channel trends.

Summary of Ore Reserves East Half of Section 36

	Block	Tons	U_3O_8 %	U_3O_8 T x %	V_2O_5 %	V_2O_5 T x % 6
I Indicated ore						
	A	14,455	0.20	2,891.0	1.52	21,971.6
	B	2,227	0.27	601.3	0.62	1,380.7
	C	1,031	0.36	371.2	5.06	5,216.9
	D	261	0.23	60.00	2.69	702.1
Total		17,974	0.22	3,923.5	1.63	29,271.3
II Inferred Ore						
	A	5,673	0.20	1,134.6	1.52	8,623.0
	B	3, 250	0.27	877.5	0.62	2,015.0
	C	537	0.29	155.7	4.26	2,287.6
	E	283	0.03	8.5	4.80	1,358.4
	F	244	0.13	31.7	1.37	334.3
Total		9,987	0.22	2,208.0	1.46	14,618.3

FUTURE ORE POTENTIAL

The U. S. G. S. drilled 20 holes on the west half of Section 36 and have outlined the favorable trend of ore through this part of the section. Of the 20 holes drilled, two are of ore thickness and grade and five are mineralized. This favorable trend was figured on the basis of favorable criteria developed by the U. S. G. S. in their drilling in the Yellow Cat area and is based mainly on the thickness of the sand, green clay alteration under the ore sand, and the presence of carbon. This drilling, which was relatively widely spaced, is in effect equivalent to a first phase drilling program which would be conducted under a D. M. E. A. program.

Past drilling results in the east half of Section 36 have averaged .85 tons of indicated and inferred ore per foot of drilling. Considering that the trend is already outlined in the west half, the rate of ore per foot of drilling could be as high or higher in the west half. The area around holes YC 946 and YC 944 probably represent the fringe of a larger ore body which, with drilling as outlined, should result in a considerable tonnage.

It is known that the favorable trend has actually been extended to the west of Section 36 and that several ore holes lie a short distance beyond the west border of this section. An application for a lease on this withdrawn area has been made by Norbute Corporation to the Atomic Energy Commission.

DRILLING PLANS

First phase. It is felt that the U. S. G. S. have outlined the favorable trend thoroughly enough that their drilling would, in effect, take the place of the first stage of drilling under a D. M. E. A. loan.

Second phase. The proposed holes, listed on the following sheet, would constitute the second phase of the drilling. These holes are listed in order of preference and their locations are shown on Plate 4. This series of holes, more

closely spaced than the U. S. G. S. holes, are for the purpose of drilling within the most favorable trend and should encounter several new ore bodies as well as pick up the extensions from the known ore holes.

Proposed hole	Estimated depth	
R 1	610	
R 2	570	
R 3	615	
R 4	600	
R 5	575	
R 6	600	
R 7	600	
R 8	575	
R 9	550	
R 10	560	
R 11	575	
R 12	575	
R 13	600	
R 14	600	
R 15	615	
R 16	600	
R 17	500	
R 18	400	
R 19	450	
R 20	500	
R 21	575	
R 22	575	
R 23	400	
R 24	550	
R 25	350	
R 26	450	
R 27	600	
R 28	575	
Total	15,345	Average 548

See Plate 4

Third phase. Of the 28 holes proposed to be drilled in the second phase, it is estimated that 9 should penetrate ore or mineralization. Each of these holes would then be worthy of four offsetting holes for the purpose of blocking out the ore found. This would require 36 holes of an average depth of 548 feet, or a total of 19,728 feet of drilling in the third phase.

ESTIMATE OF COSTS FOR PROPOSED EXPLORATION WORK

		Total Cost	Cost/ft.
Contract drilling:			
	Phase 1 - none		
	Phase 2 - 15,345 feet @ $2.98/ft.	$ 45,728.10)	
	Phase 3 - 19,728 feet @ $2.98/ft.	58,789.44)	$2.980*
Total footage - 35,073			
Road building:			
	Phase 2 - 80 hours @ $12.00/hr.	960.00)	
	Phase 3 - 40 hours @ $12.00/hr.	480.00)	0.041
Engineering:			
	1 engineer half time 5 months @ $800.00/mo.	2,000.00	0.056
	1 field assistant full time 5 months @ $400.00/mo.	2,000.00	0.056
Core boxes:	60 @ $3.50 each	210.00	0.006
Samples for analysis:	200 @ $5.00 each	1,000.00	0.028
Accounting:	5 months @ $25.00/mo.	125.00	0.004
	TOTAL	$111,292.54	$3.171

* Cost per foot is based on an average of three bids submitted by Minerals Engineering Company, Johnson & Youvon Drilling Company, and Sprague & Henwood. All coring would be Nx size. Over-all bid figures ranged from $2.76 per foot to $3.15 per foot. Cost per foot includes 50 hours standby time for probing holes.

John I. Schumacher, Mining Engineer

I. R. Taylor, Mining Engineer

August 8, 1955

DENVER
AUG
1955
COLO.

Defense MineralsExploration Administration
U. S. Department of the Interior
Interior Building
Washington 25, D. C.

Catherine: 4/27/66

While this docket will be closed with the mailing of these letters, Mr. Johnson wants the docket held in OME files until such time as the Ringtail Mining Company possibly may request a release of the Performance Bond, dated January 8, 1959, with the National Surety Corporation.

Grace

Mr. Johnson:

Should I send our standard closing letter to Norbute Corporation, the original Operator, with copies to L. H. Wilkerson and Ringtail Mining Company?

Marion

File

OK

4/27/66

Hold memo for operations against release of Performance Bond.

JE

700

Murphy
Ellis

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

Project Summary Report

By: F. M. Murphy

Date: December 27, 1956

1. Docket No. DMEA-3962 (Uranium)
   Contract No. Idm-E928

   Operator: Norbute Corporation
   P. O. Box 1700
   Grand Junction, Colorado

   Operator's Property Rights: Utah State Mineral Lease No. 3971 on about 40 acres of land in the north central part of sec. 36, T. 22 S., R. 21 E., SLBM, Grand County, Utah.

2. Contract dated: March 9, 1956

   The Operator submitted a Performance Bond in the sum of $33,700.
   Project terminated by mutual agreement July 27, 1956.
   Project certified on July 6, 1956.

Work Authorized:

	UNITS			
	Stage I (11 holes)	Stage II (12 holes)	Stage III (32 holes)	Total Cost
Bulldozing drill sites @ $12/hr.	22	36	30	$1056.00
Non-core drilling @ $1.82/ft.	2065	3660	7968	24921.26
Core drilling @ $3.15/ft.	825	900	2400	12993.75
Chemical analysis V_2O_5 & U_3O_8 @ $5/sample	25	30	80	675.00
Incidental allowance @ $0.30/ft.	2890	4560	10368	5345.40

Total Estimated Cost of Project (rounded) $45000.00
Government Participation @ 75% $33,750.00

Work Completed - 22 holes:

Drilled 11 holes under Stage I and 11 offset holes under Stage III. Drilling Under Stage I indicated that the area to the west was not favorable, therefore, no holes were drilled under Stage II work which covered the western part of the project area.

Billed by Operator, May, 1956:

Bulldozing drill sites, 54 hrs. @ $12.00/hr.	$648.00
Core drilling, 1,070.4 ft. @ $2.05/ft.	2,194.32
Non-core drilling, 4,734.3 ft. @ $1.41/ft.	6,661.45
Incidental allowance, 5,804.7 ft. @ $0.30/ft.	1,741.41
Analyses for U_3O_8 & V_2O_5 - 62 samples @$4.82/ sample	299.13
Total	$11,544.31

3. Audit Report of Review, August 16, 1956:

Total cost as billed by Contractor	$11,544.31
Exceptions by Finance Officer	224.00*
Total Accepted Cost	$11,520.31
Government Participation @ 75%	$ 8,640.23

*2 hours excess bulldozer work disallowed under Stage I limitation of 22 hours.

4. Certified July 6, 1956 — Ore reserves are estimated at 650 tons assaying 0.42 percent U_3O_8 and 0.91 percent V_2O_5.

5. Comments:

Work was started March 23, 1956 and completed May 10, 1956. The drilling equipment consisted of a diesel driven rotary with chain pullodwn and two Sullivan No. 22 rigs:

Stage I - April 5 - April 21 (17 days)
Non-core - 2330.3 ft. ≠ 137'/day
Core - 483.3 ft. ≠ 28.4'/day

Stage II - April 25 - May 10 (14 days)
Non-core - 2404.0 ft. ≠ 172'/day
Core - 587.1 ft. ≠ 42'/day

Of the 22 holes drilled, 3 were ore holes, 10 were mineralized, 3 were slightly mineralized, and 6 were barren.

The drilling indicated a well defined, steep-walled mineralized channel in the Salt Wash, that could be mined from the Ringtail shaft.

The Operator's final report, dated May 28, 1956, was accepted by DMEA.

Excerpts from final Field Team report, dated February, 1957:

The Applicant originally requested 64 holes to explore the W½ of sec. 36. Portions of the area had been drilled by the USGS and denial of the application was recommended.

In December, 1955, the Applicant submitted a modified program to explore an area 970 feet by 1,730 feet in extent (38.524 acres) covering the center of sec. 36. Production from the area east of the project to September, 1956, totaled 7,921 tons averaging 0.22 percent U_3O_8 amd 1.12 percent V_2O_5. Three shipments of about

22 tons each were made January 11-13, 1957, from the small ore body found under the contract in the project area west of the Ringtail shaft.

F M Murphy

F. M. Murphy

Note 3/19/58

To date the operator has been paying royalty on all production including that from ore bodies on land not subcontracted under the contract.

F M Murphy

☒ Audited

☒ Certified

WORK ANALYSIS SHEET - DMEA PROJECT

Analysis as of 3/4/57
Incl. Voucher for May 1956

☒ Actual Cost

☐ Agreed Unit Costs

Name Norbute Corporation

Docket No. 3962

State Utah

Commodity Uranium

Idm-E No. 928

Grand County

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting					
Raising					
Shafts					
Winzes					
Drilling (Specify) Core	4125	14795.53	1070.4	2774.79	2774.79
Drilling (Specify) Non-core	13693	28484.86	4734.3	7822.39	7822.39
Surface Excavation					
Underground Excavation					
Roads and Trails		1056.00		624.00	624.00
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify) Analyses		675.00		299.13	299.13
Totals		$ 44,991.41		$ 11,520.31	$ 11520.31

Contract rounded to $ 45,000.00

Prepared by [signature]

71626

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
		110
7/14/66	Kirkham	120
		220

JUL 2 4 1966

Mr. A. P. McIntyre
Bond Department
Fireman's Fund, American
Insurance Companies
817 Seventeenth Street
Denver, Colorado 80202

Your Re: Bond No. M-6043577
Ringtail Mining Company

Our Re: DMEA-3962 (Uranium)
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928

Dear Mr. McIntyre:

This is in reply to your letter of July 7, 1966, concerning the Performance Bond issued on March 9, 1956, in behalf of Ringtail Mining Company in connection with the subject contract.

Your understanding is correct that the liability for repayment of the Government's contribution under the contract expired on March 9, 1966. The Operator was so informed by letter dated April 27, 1966.

Sincerely yours,

FRANK E. JOHNSON (gla)

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file

FEJohnson/bih 7/13/66

23263

George D. Robie: RESIDENT VICE-PRESIDENT

FIREMAN'S FUND AMERICAN
INSURANCE COMPANIES

DENVER BRANCH OFFICE: 817 SEVENTEENTH STREET • DENVER, COLORADO 80202
PHONE: 292-1360

OFFICIAL COPY
O. M. E.
RECEIVED
JUL 12 1966

INITIALS	CODE
	120
	110

JULY 7, 1966

MR. FRANK E. JOHNSON, ACTING DIRECTOR
U. S. DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
WASHINGTON, D. C.

RE: BOND NO. M-6043577 RINGTAIL MINING CO.

YOUR RE: DMEA-3962 (URANIUM)
L. H. WILKERSON, ASSIGNEE
SEC. 36, T. 22 S., R. 21 E.
GRAND COUNTY, UTAH
CONTRACT IDM-E928

DEAR SIR:

OUR BOND NO. M-6043577, IN THE AMOUNT OF $5000, WAS ISSUED BEHALF OF RINGTAIL MINING COMPANY AND IN CONNECTION WITH CONTRACT DATED MARCH 9, 1956.

IT IS OUR UNDERSTANDING THAT THE CONTRACT WAS ISSUED FOR A TEN YEAR PERIOD AND WE PRESUME THE LIABILITY OF NATIONAL SURETY CORPORATION, AS SURETY, TERMINATED ON OR ABOUT MARCH 9, 1966, AND WILL APPRECIATE YOUR CONFIRMATION.

VERY TRULY YOURS,

A. P. McINTYRE,
BOND DEPARTMENT.

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

GEOLOGICAL SURVEY

File ~~110~~ 120

APR 27 1956

Mr. L. H. Wilkerson
Box 3
Thompson, Utah

Re: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928

Dear Mr. Wilkerson:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the subject contract.

Sincerely yours,

Frank E. Johnson

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

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

GEOLOGICAL SURVEY

Marbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: MMA-3962 (Uranium)
Marbute Corporation
Sec. 34, T. 22 S., R. 21 E.
Grand County, Utah
Contract 14-[illegible]

Gentlemen:

By the terms of the subject Exploration Project Contract and the certification of discovery or development dated July 6, 1954, all minerals mined or produced from March 9, 1954, to March 9, 1964, were subject to the Government's royalty as set forth in said contract.

As the period during which production was subject to royalty has now expired, the Government according to its present records retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this contract. Your attention, however, is called to the provisions of the contract which require the Operator to keep and preserve certain records for the periods indicated.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
WASHINGTON, D.C. 20240

OFFICIAL BUSINESS

GEOLOGICAL SURVEY

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REASON CHECKED
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Mr. L. H. Wilkerson
~~Box 3~~
~~Thompson, Utah~~

209 W/W 13th
Ardmore, Oklahoma

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THUMPSON, UT
MAY
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A.M.
1966
84540

ARDMORE, OK
MAY 5
1966
AM
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MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/27	R M Smith	120
4/27	Kirkham	120K
		110
		220

APR 2 7 1966

Ringtail Mining Company
P. O. Box 1644
Moab, Utah

Re: DMEA-3962 (Uranium)
Morbete Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-2928

Gentlemen:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the subject contract.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's Reading File
Division File
Economic Geology File
DMEA Docket
OME Reading File
Region III
120M

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23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/27	R M Smith	120
4/27/66	Kirkemo	120
		110
		220

APR 27 1966

Mr. L. N. Wilkerson
Box 3
Thompson, Utah

Re: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-3928

Dear Mr. Wilkerson:

Enclosed is a copy of a self-explanatory letter of today to the Operator under the subject contract.

Sincerely yours,

FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's Reading File
Division File
Economic Geology File
OME Reading File
Region III
Docket
120M

MMerrithew/mm (4/27/66)

23263

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
4/26	RM Smith	120
4/27	Kirkham	120
		110
		220

April 26, 1966

Memorandum

To: The File

From: R. M. Smith

Subject: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928
(Assignment of leased land to:
L. H. Wilkerson, Assignee
Ringtail Mining Company, Assignee)

The 10-year period during which production was subject to royalty expired March 9, 1966.

Production from the mine was made prior to August 31, 1958, and royalties were paid on all production, but only a small part of the ore was from land subordinated to the Government. It was Mr. Wilkerson's intent, however, to repay the Government by royalties on production from the entire property. Although Mr. Wilkerson is entitled to a refund on royalty payments made after April 18, 1958, provided he submits a claim for the specific amount, no such claim has been received.

Since August 31, 1958, no production has been reported. An on-site examination on October 7, 1958, revealed that the ore reserves on subordinated land had been virtually depleted and the workings had been abandoned. According to the records of the AEC, there has been no production from the subordinated land from October 1958 through March 9, 1966.

Two Performance Bonds to secure the payment of royalties, one executed by the Operator and the other by L. H. Wilkerson, have been released. A third Performance Bond executed by the Ringtail Mining Company has not been released.

I recommend, therefore, that the Government's records on the subject property be closed and the Operator and the Assignees be notified accordingly.

RM Smith

R. M. Smith

cc: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Smith

RMSmith/gla 4-26-66

23263

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

U. S. Geological Survey -- Denver Federal Center
Building [illegible] -Room 2284
Denver, Colo. [illegible]

April 20, 1966 RMA. 120 S

Memorandum

To: Chief, OME

From: Field Officer, Region III

Subject: Information supplied by the AEC on the following dockets relating to possible production, allocation and change of ownership

1. DMEA-3962 (Uranium)
Norbute Corporation (L. H. Wilkerson, Assignee)
Sec. 36-22S-21E
Grand County, Utah

Contract Idm E-[illegible]

We have no record of production for the period from 3/29/65 to 3/9/66.

2. DMEA-3809 (Uranium)
Silver Pick Uranium, Inc.
Buckskin and Stain claims
San Juan County, Utah

Contract Idm E-690

The property has an allocation, No. 760, issued to Shiprock Ltd., assignee of a lease from Silver Pick to Roger C. Head, 430 West Hall, Grand Junction.

We understand Shiprock has drilled the property, but did not find any ore. Hall and Bailey shipped 33 tons of ore containing 80 lbs. U_3O_8 to Monticello in November 1959 from the Buckskin No. 1 claim.

Close out as of Mar. 9, 1966

J. William Hasler
Field Officer, Region III
Office of Minerals Exploration

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
3/23	[illegible]	20
		110
		220

Memorandum

MAR 23 1966

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: MMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-2928

Please refer to the Report of Royalty Review, dated June 3, 1963, to our memorandum of March 26, 1965, and Mr. Connors' reply of March 29, 1965. These documents establish that no royalties are owing the Government through March 29, 1965. The Government's lien expired March 9, 1966.

As we have no response to the several MME Forms 63 sent to Mr. Shumway, will you please check the AEC records for possible production from the property for the period March 29, 1965, to March 9, 1966, and report thereon.

FRANK E. JOHNSON

Frank E. Johnson

cc to: Director's Reading File
Division File
Economic Geology File
OME File
OME Reading File
Mr. Smith
120M

RMSmith/gla 3-23-66

23263

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Bldg. 20, Denver Federal Center
Denver, Colo. 80225

March 29, 1965

OFFICIAL
O. M. E.
RECEIVED
MAR 31 1965

INITIALS	CODE
ama	800
~~4/a nm~~	~~120~~
	120
	120

Memorandum

To: George C. Selfridge, Chief
Division of Exploration Operations
Washington, D. C. 20240

From: Acting Field Officer, OME, Region III

Subject: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928

This responds to your memorandum of March 26, 1965 on the subject contract.

We have double checked the AEC records and find that Anthony Pene made four small shipments from Ringtail from March 1964 to May 1964, and none since then.

I checked this one out with AEC in Grand Junction last May. The only approach to the subordinated area was caved and all production had come from outside the subordinated area.

A copy of my memorandum to you in reply to yours of April 14, 1964 is attached.

Hugh M. Connors

Hugh M. Connors

H. M. Connors (3-29-65)
cc: E928
Chron

Bldg. 20 - Denver Federal Center
Denver, Colo. 80225

May 14, 1964

Memorandum

To: George C. Selfridge, Chief
Division of Field Operations, OME
Washington, D. C. 20240

From: Acting Field Officer, OME, Region III

Subject: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928

The Grand Junction AEC Field Office advised that ore from the entire Section 36 is "Ringtail Ore" for their records.

Their working map of this Section 36 shows that the last ore mined from the subordinated area was in August 1958. This checks our royalty record.

The Ringtail shaft is east of the subordinated area and most of the production has come from that part of Section 36 south of the shaft and east of the subordinated area. This area is presently being worked by Anthony Pene and H. D. Lile.

It is my belief that all royalty has been paid on ore produced from the subordinated area but the next time I am in the Yellow Cat area I intend to visit this property.

ORIGINAL SIGNED BY
Hugh M. Connors

cc: OME 3962
E928
Chron

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	GCS	120
3/16	Jensen	120
		~~120~~
"	Meard	160
		220

MAR 2 6 1965

Memorandum

To: Acting Field Officer, Region III

From: Chief, Division of Exploration Operations

Subject: DMEA-3962 (Uranium)
Morbeta Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-2924

Please refer to my memorandum of April 14, 1964, relating to possible production under the subject contract.

As we seem to be at loggerheads with Mr. Shumway, there is little point in sending the Form 63 to him. Therefore, will you please check the AEC records for possible production from the property as you did last year and report thereon.

George C. Selfridge (cfla)

GCSelfridge/mm (3/26/65)
cc: Director's Reading File
Review Committee
Docket
Mr. Selfridge
Code 120M

23263

Bldg. 20 - Denver Federal Center
Denver, Colo. 80225

June 5, 1964

OFFICIAL FILE COPY O. M. E. RECEIVED JUN 8 1964		
DATE	INITIALS	CODE
6/8	Murphy	500
		520

Memorandum

To: Fiscal Section, Office of Management Operations
Office of the Secretary
Department of the Interior
Washington, D. C.

From: Acting Field Officer, ONE, Region III

Subject: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-N928

Attached is the original Report of Royalty Review dated June 3, 1964 on the subject contract.

ORIGINAL SIGNED BY
Hugh M. Connors

cc: G. C. Selfridge
R. D. Talbert
N928
Chron

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

JUN 3 1964

Memorandum

To: Acting Field Officer, Region III

From: Chief, Contract Administration and Audit Division (Signed) E. D. Talbert

Subject: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928

The original and one copy of a Report of Royalty Review covering the subject contract are enclosed. If you concur in the facts stated therein, please make the following distribution:

(a) Original to the Fiscal Section, Office of Management Operations, Office of the Secretary, U. S. Department of the Interior, Washington, D. C. 20240; and

(b) One copy for your files.

This Report of Royalty Review is made for record purposes only; therefore, no copy for the Operator is provided.

As evidence of your concurrence, a copy of your memorandum transmitting the original report to the Fiscal Section should be furnished this Division. If for any reason you do not concur, both copies of the report should be returned to this Division with your comments.

Enclosures

EDTalbert/ama 6-3-64

cc:
Docket
Director's Reading File
CA & A Division
Fiscal Section

43683

Denver Federal Center
Bldg. 20 - Denver, Colo.
80225

OFFICIAL FILE COPY
O. M. E
RECEIVED MAY 26 1964

DATE	INITIALS	CODE
	May 25,	~~1964~~
		120
		500
		220

3962

Mr. T. S. Ary, Land Manager
Nuclear Division
Union Carbide Corporation
P. O. Box 1049
Grand Junction, Colo. 81502

Dear Mr. Ary:

Thank you for your letter of May 21, 1964. I don't blame you for being provoked at me for requesting settlement sheets occasionally and I appreciate your efforts in my behalf. It is the only way I have of collecting royalty due the Government in many cases.

My problem of collecting royalty is not with the original operator of the DMEA contract but with leasers who come and go, and sometimes many months pass before I know that ore has been shipped and I have no knowledge of the shipper or his whereabouts.

The Uranium mills have been most helpful to me but in many instances it has not been a one-way road. Several mills have taken over properties where I have been able to help them by supplying valuable DMEA drill logs from our file. I hope that I will be able to assist you in this way and in the meantime I thank you for your help in furnishing settlement sheets to this office.

Yours very truly,

Hugh M. Connors
Acting Field Officer, GMK
Region III

cc: G. C. Selfridge
E. D. Talbert
Chron
File

Hmc

UNION CARBIDE CORPORATION
NUCLEAR DIVISION
P. O. BOX 1049, GRAND JUNCTION, COLORADO 81502

OME
DEPARTMENT OF THE INTERIOR
MAY 22 1964
REGION III
DENVER, COLORADO

May 21, 1964

Mr. Hugh M. Connors
Acting Field Officer, OME
Bldg. 20, Denver Federal Center
Denver, Colorado 80225

Dear Mr. Connors:

We are in receipt of your letter of May 18 regarding the Ringtail Mining Company.

As you know, we have spent a considerable amount of time digging through old files looking for the settlement sheets which you requested in your earlier letter. Supplying this information to your office has become quite a time-consuming and expensive problem. We would appreciate it in the future if you could (1) advise your shippers to notify us that a DMEA is on the property so that we could prepare this information as the ore is shipped, or (2) contact your people and request the settlement sheets from them.

Very truly yours,

UNION CARBIDE CORPORATION
NUCLEAR DIVISION

T S Ary

T. S. Ary
Land Manager

TSA:jg

cc: Mr. E F. DeLucas

Bldg. 20 - Denver Federal Center
Denver, Colo. 80225

May 18, 1964

RECEIVED		
DATE		CODE
5/20	Murphy	500
		220

Mr. T. S. Ary, Land Manager
Union Carbide Corporation
P. O. Box 1049
Grand Junction, Colo. 81502

Subject: DMEA-3962 (Uranium)
Sec. 36, T. 22 S., R. 21 E. (Ringtail)
Grand County, Utah
Contract Idm-E928

Dear Mr. Ary:

Thank you for your letter of May 15, 1964 regarding settlement sheets for Ringtail.

I have now determined the Ringtail ore in question did not come from land subordinated to the Government, so I will not need copies of the settlement sheets.

Very truly yours,

Hugh M. Connors
Acting Field Officer, OME
Region III

cc: E. F. DeLucas
G. C. Selfridge
E. D. Talbert
E928
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Bldg. 20 - Denver Federal Center
Denver, Colo. 80225

OFFICIAL FILE COPY
O. M. E
RECEIVED MAY 18 1964

DATE	INITIALS	CODE
5/18	Murphy	500
		220

May 14, 1964

Memorandum

To: George C. Selfridge, Chief
Division of Field Operations, OME
Washington, D. C. 20240

From: Acting Field Officer, OME, Region III

Subject: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928

The Grand Junction AEC Field Office advised that ore from the entire Section 36 is "Ringtail Ore" for their records.

Their working map of this Section 36 shows that the last ore mined from the subordinated area was in August 1958. This checks our royalty record.

The Ringtail shaft is east of the subordinated area and most of the production has come from that part of Section 36 south of the shaft and east of the subordinated area. This area is presently being worked by Anthony Pene and H. D. Lile.

It is my belief that all royalty has been paid on ore produced from the subordinated area but the next time I am in the Yellow Cat area I intend to visit this property.

Hugh M. Connors

Hugh M. Connors

cc: OME 3962
E928
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Bldg. 20 - Denver Federal Center
Denver, Colo. 80225

April 22, 1964

OFFICIAL FILE COPY
O. M. E
RECEIVED APR 27 1964

DATE	INITIALS	CODE
		~~120~~
4/27	Murphy	500
4/28	Talbert	800
		220

Memorandum

To: George C. Selfridge, Chief
Division of Field Operations, OME
Washington, D. C. 20240

From: Acting Field Officer, OME, Region III

Subject: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E. (Ringtail?)
Grand County, Utah
Contract Idm-E928

In response to your memorandum of April 14, 1964 on the subject contract I have done a considerable amount of detective work as you will note from the attached copies of letters.

I note that the claim "Ringtail" is shown as the source of ore on old settlement sheets. I also note that the Consent to Assignment signed by Mr. Mittendorf April 18, 1958 mentions Ringtail Corporation as the "Assignor."

I plan to visit the AEC field personnel on April 30, 1964 in Grand Junction and will determine if the Ringtail ore mentioned in the attached letters actually came from Sec. 36. I believe it did but I want definite proof.

The contract makes no mention of a Ringtail Claim.

Hugh M. Connors

Hugh M. Connors

cc: E. D. Talbert
E928
Chron

Bldg. 20 - Denver Federal Center
Denver, Colo. 80225

April 22, 1964

Mr. Albert Eikenbary
Climax Uranium Co.
P. O. Box 989
Grand Junction, Colorado

Re: DMEA-3962 (Uranium)
Sec. 36, T. 22 S., R. 21 E. (Ringtail)
Grand County, Utah
Contract Idm-E928

Dear Mr. Eikenbary:

Mr. Pete Anthony, Jr. shipped ore to your mill from the subject property in September 1963. He possibly has made shipments since that time.

Will you please forward this office two copies of each settlement sheet for all ore shipped to your mill from this property including September 1963 to the present time.

Very truly yours,

Original signed

Hugh M. Connors
Acting Field Officer, GME

cc: G. C. Selfridge (2)
E920
Chron

Bldg. 20 - Denver Federal Center

April 22, 1964

Mr. Allan Jones
Manager Operations Office
Atomic Energy Commission
Grand Junction, Colorado

Re: DMMA-3962 (Uranium)
Sec. 36, T. 22 S., R. 21 E. (Ringtail)
Grand County, Utah
Contract Idm-E928

Dear Mr. Jones:

The following shipments of ore were made from the subject property to your mill at Monticello, Utah in 1960:

Shipper	Ringtail Claim	Month	Dry tons	lbs. U_3O_8	lbs. V_2O_5
Ringtail Mining Co.	"	March	67.83	352.73	1,479.00
Ray Shumway	"	February	10.84	15.18	87.00
Ray Shumway	"	February	22.07	158.90	803.00
Ringtail Mining Co.	"	April	35.91	158.01	725.00

Will you please advise where I may obtain two copies of each settlement sheet for the above listed ore?

Very truly yours,

Original signed by
Hugh M. Connors
Acting Field Officer, OMM

cc: G. C. Selfridge (2)
E928
Chron

Bldg. 20 - Denver Federal Center
Denver, Colo. 80225

April 22, 1964

Union Carbide & Nuclear Co.
P. O. Box 1049
Grand Junction, Colorado

Re: DMEA-3962 (Uranium)
Sec. 36, T. 22 S., R. 21 E. (Ringtail)
Grand County, Utah
Contract Idm-E928

Gentlemen:

The Ringtail Mining Company shipped ore to your mills as follows:

	Month	Dry tons	lbs. U_3O_8	lbs. V_2O_5
1959	January	91.71	487.88	1,960.34
	February	192.87	1,295.94	5,418.27
	March	47.67	390.93	1,020.24
	March	126.21	858.41	3,690.87
	April	10.86	62.97	310.52
	April	134.58	735.54	2,626.36
	May	132.28	634.08	2,447.91
	May	27.56	148.82	633.85
	July (Rifle)	55.45	188.52	665.37
	July	28.26	90.44	327.85
	July	69.66	311.66	1,079.00
1960	January	52.83	285.60	1,389.97

Will you please forward this office two copies of each settlement sheet for the above listed shipments?

Very truly yours,

Original signed by

Hugh M. Connors
Acting Field Officer, GMK

cc: G. C. Selfridge (2)
E927
Chron

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
	Griswold	500
4/13	Talbot	800
	GCS	130
4/13	Johnson	110
	[illegible]	100
		120

APR 1 4 1964

Memorandum

To: Acting Field Officer, Region III

From: Chief, Division of Field Operations

Subject: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928

This is with reference to our January 10 letter to Mr. Shumway, to which we have received no reply. Neither have we had any reply to the various Form 63's which we have sent out.

Will you be kind enough to check the AEC records and also utilize any other possible source of information to see what can be obtained on property status and possible production since January 8, 1959.

George C. Selfridge (gla)

WRGriswold/mm (4/13/64)
cc: Director's Reading File
Review Committee
Docket
Code 500

23263

~~Griswold~~

220

#1-INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Deliver *ONLY* to addressee ☐ Show address where delivered

(Additional charges required for these services)

RETURN RECEIPT

Received the numbered article described on other side.

SIGNATURE OR NAME OF ADDRESSEE *(must always be filled in)*

Arthur R. Shumway

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

Mrs. Ray Shumway

DATE DELIVERED

MAR 17 1964

ADDRESS WHERE DELIVERED *(only if requested in item #1)*

C55—16—71548-4 GPO

3962

DMEA 3962

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

March 12, 1964

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Re: DMEA-8062 (Granium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-8020

Mr. Arthur Ray Shumway
Box 3644
Moab, Utah

Dear Mr. Shumway:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

W. R. Grimold, Chief
Division of Minerals

MME Form 63
Revised 3-62

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since January 8, 1959 , has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☐

2. Since January 8, 1959 , has there been any production from the land subject to the contract? Yes ☐ No ☐

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value
_____	_____	_____
_____	_____	_____

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore	_____	Tons	_____	_____
Concentrates	_____	Tons	_____	_____
Other	_____	Tons	_____	_____

3. Since , has any production been transported through workings (see of contract)? Yes ☐ No ☐

   A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value
_____	_____	_____

Submitted by:

Name _____ Title _____

Address _____ Date _____

4511

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
1/9	Talbot	800
1/9	Murphy	500
	Eldridge	120
	Johnson	110
	Hunt	100
		220

JAN 10 1964

Mr. Arthur Ray Shumway
Box 1644
Moab, Utah

Re: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928

Dear Mr. Shumway:

By letter dated January 3 you express the opinion that a change is in order as to the principal under the surety bond on the referenced contract. This bond, No. M-6043577 of the National Surety Corporation, names the Ringtail Mining Company as principal and was issued to assure the payment of the Government's percentage royalty under the contract.

As was pointed out to you in our December 19, 1961, reply to your December 12, 1961, letter of inquiry, the referenced contract provides for payment to the Government of a royalty on all production from the land described in the contract until March 9, 1966, or full repayment of the Government's contribution under the contract, whichever occurs first. The Government may release the surety under the bond only after one or the other of these contractual conditions is met. As to who pays the bond premium, that is a matter between you and your partners, the present lessee, and the bonding company.

In our December 19, 1961, letter we requested your submission of two copies of each settlement sheet, together with remittance of royalty thereon, for all sales of production after August 30, 1958. On March 23, 1962, and November 21, 1962, we sent to you our MME Form 63 inquiring as to whether there had been (a) a change in ownership, lease, or sublease, and (b) any production from the land. The last set of forms was sent by registered mail and we hold a receipt of delivery executed by Dick Shumway on November 30, 1962. On February 6, 1963, we addressed a letter to you requesting the prompt execution and return of the forms. To date none of our inquiries have been acknowledged by you, although your present inquiry states that "another company has the lease and is working it".

- Yes

43683

Enclosed are three copies of our MME Form 63 requesting information on changes in property status and production since January 8, 1959. Your cooperation in answering the questions on this form and returning two copies is solicited.

Sincerely yours,

George Fumich, Jr.

Acting Director

Enclosures

EDTalbert/ama 1-9-64

cc:
Docket
Director's Reading File
CA & A Division
Region III (w/cy inc. ltr.)

Jan. 3, 1964
Box 1644
Moab, Utah

United States Department of the Interior
office of Minerals Exploration

Washinton 25, DC

RE: DMEA-3962(uranium)
Norubte Corpation
Sec. 36,T. 22S., R, 21E
Grand County, Utah

Dear Sir,

I,am writing to you concerning a surety bond No. M-6043577
I,am paying for this bond and another companyhas the lease and is working it, and I think the bond ought to be transferd to them.

Sincerly Yours,

Arthur R Shumway

Arthur Ray Shumway

OFFICIAL FILE COPY
O. M. E
RECEIVED JAN 9 1964

DATE	INITIALS	CODE
1/9		800
		500

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
2/6	Murphy	500
		500
2/6	Talbot	800
	Jeffrey	20
2/6	Johnson	110
2/6	Family	100
		220

FEB 6 1963

Mr. Ray Shumway
P. O. Box 1644
Moab, Utah

Re: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T.22 S., R.21 E.
Grand County, Utah
Contract Idm-E928

Dear Mr. Shumway:

Will you kindly complete and return two copies of the MME Form 63, which were received by your agent, Dick Shumway, on November 30, 1962. The information requested is essential for our records; therefore, an early return of the completed forms will be appreciated.

Sincerely yours,

W. R. Griswold
mm
W. R. Griswold, Chief
Division of Minerals

WRMurphy/mm
2/6/63
cc: Director's Reading File
Docket
Code 500

43603

Murphy

220

#1-INSTRUCTIONS TO DELIVERING EMPLOYEE

☐ Deliver *ONLY* to addressee ☐ Show address where delivered

(Additional charges required for these services)

RETURN RECEIPT

Received the numbered article described on other side.

SIGNATURE OR NAME OF ADDRESSEE *(must always be filled in)*

Ray Shumway 3962

SIGNATURE OF ADDRESSEE'S AGENT, IF ANY

Dick Shumway

DATE DELIVERED

NOV 30 1962

ADDRESS WHERE DELIVERED *(only if requested in item #1)*

C55—16—71548-4 GPO

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

November 21, 1962

Re: DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Mr. Ray Shumway
P. O. Box 1644
Moab, Utah

Dear Mr. Shumway:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

W. R. Griswold

W. R. Griswold, Chief
Division of Minerals

MME Form 63
Revised 3-62

IMRA-3962
Idm-2928

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since January 8, 1959, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☐

2. Since January 1, 1960, has there been any production from the land subject to the contract? Yes ☐ No ☐

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value
_____		
_____	_____	_____

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore	_____	Tons	_____	_____
Concentrates	_____	Tons	_____	_____
Other	_____	Tons	_____	_____

3. Since , has any production been transported through workings (see of contract)? Yes ☐ No ☐

   A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value
_____	_____	_____

Submitted by:

Name _____ Title _____

Address _____ Date _____

4511

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
1/15	Talbert	800
	Murphy	500
	[illegible]	500
1/15	Selfridge	120
"	[illegible]	110
	[illegible]	100
		220

JAN 15 1962

The Fund Insurance Companies
P. O. Box 5030
Denver 17, Colorado

Your Re: Bond No. M-6043377
Our Re: DMEA-3962 (Uranium)
Neebute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-5928

Gentlemen:

We have received a copy of your Bond-Burglary Department's January 9 letter addressed to Mr. Ray Shumway regarding the referenced bond. The last sentence of the second paragraph of your letter indicates the possibility of a misunderstanding.

The purpose of the referenced bond is to assure payment to the Government of a percentage royalty on minerals produced from the land under the contract until the Government's contribution is repaid or until March 9, 1966, whichever occurs first. Neither of these conditions has been met as of this date and, therefore, the bond may not be released even though the mine presently may not be operating.

No royalty has been paid since prior to the date of the bond. The last paragraph of our December 19, 1961, letter to Mr. Shumway was a request for an accounting of sales of production and, if any, for payment of the royalty due thereon.

Sincerely yours,

George Fumich, Jr.

Director

(eb)

cc: Mr. Ray Shumway
P. O. Box 1644, Moab, Utah
Citizens Insurance Company
4th and Rood Ave., Grand Junction, Colo.

EDTalbert/ama
January 15, 1962

cc: Docket
Director's Reading File
CA & A Division
Acting Field Officer, Region III (2)

43683

The FUND
Insurance Companies

OFFICIAL FILE COPY
O. M. F.
RECEIVED JAN 12 1962
DATE

COPY MS 191A 12-60

JANUARY 9, 1962

MR. RAY SHUMWAY
P. O. BOX 1644
MOAB, UTAH

RE: 643577 RINGTAIL MINING COMPANY

DEAR MR. SHUMWAY:

WE ARE IN RECEIPT OF A COPY OF A LETTER ADDRESSED TO YOU FROM MR. GEORGE FUMICH, JR., DIRECTOR OF UNITED STATES DEPARTMENT OF THE INTERIOR, OFFICE OF MINERAL EXPLORATION, DATED DECEMBER 19, 1961 WHICH REFERS TO OUR BOND AS CAPTIONED ABOVE. WE ASSUME THAT PROPER STEPS ARE BEING TAKEN TO FILE WITH THE DEPARTMENT OF THE INTERIOR THE NECESSARY PAPERS AS REQUESTED IN MR. FUMICH'S LETTER.

AS YOU KNOW WE, OF NATIONAL SURETY CORPORATION, ARE INTERESTED THAT NO CLAIM BE FILED AGAINST OUR BOND AND THAT DELINQUENT BOND PREMIUMS BE PAID. IF THE MINE IS NO LONGER OPERATIVE WE WOULD APPRECIATE YOUR FILING THE NECESSARY PAPERS WITH THE GOVERNMENT SO OUR BOND MAY BE RELEASED.

PLEASE LET US HEAR FROM YOU REGARDING THIS MATTER.

VERY TRULY YOURS,

RICHARD E. SHREVE,
BOND-BURGLARY DEPARTMENT.

RES/M

CC: DEPT. OF THE INTERIOR
GEO. FUMICH, JR., OFFICE MINERALS EXPLORATION
WASHINGTON 25, D.C. RE: DMEA-3962 (URANIUM)
NORBUTE CORPORATION
SEC.36, T.22 S., R.21 E., GRAND COUNTY, UTAH
CONTRACT IDM-E928

BOND DEPT.
CC: PDO - SAN FRANCISCO

CC: CITIZENS INSURANCE CO., GRAND JUCNTION, COLO

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
12/18	Talbert	800
"	Murphy	500
	Brownell	500
12/19	Selbrede	120
"	on leave	110
12/19	Fumich	100
12-19	gad	220

DEC 19 1961

Mr. Ray Shumway
Box 1644
Moab, Utah

Re: IMEA-3962 (Uranium)
Nerbuta Cooperation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-5920

Dear Mr. Shumway:

Receipt is acknowledged of your December 12 letter of inquiry with which you enclosed (1) a photostat of a July 14, 1960, letter addressed to this office by The Fund Insurance Companies, (2) the original of a November 27, 1961, letter addressed to the Bureau of Land Management's Salt Lake City office by the Citizens Insurance Company, and (3) the original of a December 1, 1961, letter to Arthur R. Shumway from the Bureau of Land Management.

Your three submissions, together with a copy of this office's July 20, 1960, reply to the July 14, 1960, letter from The Fund Insurance Companies, are returned herewith. I believe our letter to The Fund Insurance Companies gives the information you desire regarding that surety's bond no. M-6043577, under which the principal is Ringtail Mining Company, a partnership composed of Arthur R. Shumway, Lawrence C. Davis, and Truman Goode.

Your letter states that it has been nearly two years since the mine has operated. On the other hand, the last royalty received by the Government covered an August 30, 1958, settlement by Union Carbide Nuclear Company with Dola Belle Mining Company under liquidation number 8436. Your prompt submission of two copies of each settlement sheet, together with the Government's percentage royalty due thereon, for all sales of production between August 30, 1958, and the date of final shipment before cessation of operations, is requested.

Sincerely yours,

George Fumich, Jr.

Director

Enclosures

cc: The Fund Insurance Companies w/cy 7/20/60 ltr.
P. O. Box 5050, Denver 17, Colorado
Citizens Insurance Company w/cy 7/20/60 ltr.
4th & Reed Ave., Grand Junction, Colorado

cc: Docket
Director's Reading File
CA & A Division
Acting Field Officer, Region III (2) w/cys incoming ltr.

EDTalbert/ama
12-18-61

43683

Moab, Utah.
Dec. 12, 1961

U.S. Dept. of Interior
Office of Minerals Ex
Washington 25, D.

Dear Sir:

I have been trying to locate this bond I haven't found the right office to do so as yet.

It has been nearly two years since the mine was operating and I tried to get Citizens Insurance Company to cancel it & after a length of time I found I have to write to you. I am enclosing the other correspondence I've had on it.

The Docket No. DMEA-3962.
Sec. 36. T 22S. R. 21E. Utah

OFFICIAL FILE COPY
O. M. E
RECEIVED DEC 18 1961

DATE	INITIALS	CODE
C.		800
		500
		500

County, Utah,
Would you please see
about this,
Thank you,
Sincerely
Ray Thurnway
Box 16 Rt 4
Moab, Utah.

IN REPLY REFER TO

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Land Office
Post Office Box No. 777
Salt Lake City 10, Utah

December 1, 1961

Mr. Arthur R. Shumway

Moab, Utah

Dear Mr. Shumway:

We are in receipt of a letter from the Citizens Insurance Agency which gives us additional information concerning the bond you wish to be cancelled.

We find that the agency concerned in this case is the Geological Survey and not the Bureau of Land Management. Therefore, you should take up the matter with that office. The information sent to us by the Citizens Insurance Agency indicates that the address for you to use is:

U. S. Department of the Interior
Office of Minerals Exploration
Washington 25, D. C.

The letters from the insurance agency are enclosed herewith. It would probably help in clarifying the matter if you would forward them with your letter to the office indicated above.

Sincerely yours,

For the Manager:

F. S. Kirk
Operations Manager

Enclosures 2

M. M. GRIFF, PRESIDENT REX RAMSON, VICE PRESIDENT R. E. TOPE, SECRETARY A. J. COX, EXECUTIVE VICE PRESIDENT

Citizens Insurance Agency

4th at Rood Ave. • CH 2-2311 • Grand Junction, Colorado

DON C. CHAMBERS, MGR.
ROSS C. DARNELL, ASST. MGR.

November 27, 1961

[illegible] Department of the Interior
[illegible] of Land Management
Land Office
P. O. Box 777
Salt Lake City 10, Utah

Attn: F. E. Kirk, Operations Manager

Re: Ringtail [illegible]
Arthur R. Shumway, Moab, Utah
Yours of [illegible]-6-61

Dear Mr. Kirk:

Mr. Shumway has forwarded your letter on to us with a request that we indicate you of a land description, etc. which will enable you to locate the file. We enclose a photostat of a letter from our bonding company to the Washington, D. C. office. This apparently contains all necessary identification numbers and land description.

We will appreciate your advising Mr. Shumway, with a copy to [illegible] as soon as you have a decision.

Very truly,

Don C. Chambers
Manager

cc: Mr. Arthur R. Shumway
Moab, Utah

Building 20 - Federal Center
Denver 25, Colorado

DATE	INITIALS	
4/27	gad	110
4/27	[illegible]	800
	~~Murphy~~	500
		220

April 25, 1961

Memorandum

To: Fiscal Section, Division of Administrative Services
Office of the Secretary, Department of the Interior
Washington 25, D.C.

From: Hugh M. Connors, Acting Field Officer, OME, Region III

Subject: Docket No. BMEA-3962 (Uranium)
Contract Idm-E928
Norbute Corporation
(Utah Mineral Lease No. 3971)
Grand County, Utah

Attached is the original Report of Royalty Review on the subject property dated April 19, 1961 covering the period February 7, 1958, through March 31, 1961.

Original signed by

Hugh M. Connors

Attachments

HMC/lm
cc: Chief, Division of Field Operations, OME
E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Royalty Corres. E928
Chron

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/21	[illegible]	120
"	Johnson	220
4/21	gad	220

APR 21 1961

Memorandum

To: Acting Field Officer, Region III

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: DMEA-3962 (Uranium)
Norbute Corporation
Utah Mineral Lease No. 3971
Grand County, Utah
Contract Idm-8928

The original and one copy of a Report of Royalty Review covering the subject contract are attached. If you concur in the facts stated therein, please make the following distribution:

(a) Original to the Fiscal Section, Division of Administrative Services, Office of the Secretary, Department of the Interior, Washington 25, D. C.; and
(b) One copy for your files.

As evidence of your concurrence, a copy of your memorandum transmitting the original report to the Fiscal Section should be furnished this Division. If for any reason you do not concur, the original and copy should be returned to this Division with your comments.

Please note that no copy has been furnished for the Operator. This report is for OME record purposes only and, under no circumstances, should a copy be furnished to either the original Operator or any of the subsequent Assignees.

Attachments

EDTalbert/ama
April 20, 1961

Copy to: Docket
Director's Reading File
CA & A Division
Mr. Rothrock

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
7/20	Fisher	800
7/20	Talbot	800
7/20	Murphy	500
	Brown	500
		~~140~~
7/20	Selfridge	120
		110
7-20	gad	220

JUL 20 1960

Mr. A. P. McIntyre
Bond Department
The Fund Insurance Companies
835 East 18th Avenue
P.O. Box 5030
Denver 17, Colorado

Your Re: Bond No. M-6043577

Our Re: DMEA-3962 (Uranium)
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract Idm-E928

Dear Mr. McIntyre:

In reply to your letter dated July 14, 1960, you are advised that the above referenced contract, on which National Surety Corporation issued a performance bond, has not been completed and the bond may not be terminated at this time.

Article 8 of the contract, dated March 9, 1956, provides for the payment of a royalty to the Government on production from the land described in the contract during a period of 10 years from the date of the contract or until the entire amount of the Government's advance toward exploration costs under the contract has been fully repaid, whichever occurs first. Liability under the performance bond will terminate when either condition is met.

This office has no record of any change, by payment of royalty or otherwise, in the status of this contract since January 8, 1959, the date of the performance bond.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

CEFisher/fw-7/19/60
cc: Docket
Director's Read File
Reg. III, w/2 cc McIntyre letter
CA&A Division
Chron.

43683

The FUND
Insurance Companies
FIREMAN'S FUND INSURANCE COMPANY · HOME FIRE & MARINE INSURANCE COMPANY · NATIONAL SURETY CORPORATION
835 EAST 18th AVENUE · DENVER 17, COLORADO · AMherst 6-2131
MAIL ADDRESS: P. O. BOX 5030
Denver Office

OFFICIAL FILE COPY
O. M. E.
RECEIVED JUL 18 1960

DATE	INITIALS	CODE
7-18	gad	VVO
		800
		500

JULY 14, 1960

U. S. DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
WASHINGTON 25, D. C.

RE: BOND NO. M-6043577 RINGTAIL MINING CO. $5000 PERFORMANCE
EFFECTIVE JAN. 8, 1959

DOCKET NO. DMEA-3962 (URANIUM)
SEC. 36, T. 22 S., R. 21 E.
GRAND COUNTY, UTAH
CONTRACT NO. IDM-E928

GENTLEMEN:

NATIONAL SURETY CORPORATION EXECUTED THE ABOVE NUMBERED PERFORMANCE BOND UNDER DATE OF JANUARY 8, 1959. WE ARE NOW ADVISED BY MR. RAY SKUMWAY OF RINGTAIL MINING COMPANY THAT THE CONTRACT NO. IDM-E928, IN CONNECTION WITH WHICH THE PERFORMANCE BOND WAS FILED, HAS BEEN COMPLETED. WILL YOU KINDLY CONFIRM THIS INFORMATION, GIVING THE THE DATE LIABILITY UNDER OUR BOND TERMINATED?

VERY TRULY YOURS,

A. P. McINTYRE,
BOND DEPARTMENT.

FILE COPY
Surname:

Hoffland
App'd Sol. Off.

4-21-59 Murphy
4-21-59 Kunoff

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

Haynie, Hotchkiss & Golden APR 22 1959
Attorneys at Law
200 North Sixth Street
Grand Junction, Colorado

800 Talbut
130
130
130
110
100
HB
220 a 4/22/59
700

Re: Docket No. DMEA-3962 (Uranium)
Ringtail Mining Company, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract No. Idm-8928

Gentlemen:

This is to acknowledge your letter, dated March 31, 1959, transmitting (1) an Assignment of the lease on the above-referenced property by L. H. Wilkerson to Arthur Roy Shumway, Lawrence C. Davis, and Truman Goode, (2) a copy of the State of Utah State Land Board's letter, dated February 18, 1959, approving the assignment of the subject land, and (3) a copy of the Performance Bond, dated January 8, 1959, by the National Surety Corporation with Ringtail Mining Company as principal.

We note that although the Assignment runs to the three individuals named, the bond names Ringtail Mining Company as principal, and is executed by Ringtail Mining Company, apparently by the three individuals although the word "by" does not appear before their names. In spite of these formal defects, we believe the record is sufficiently clear to show that the three individuals are doing business as Ringtail Mining Company and have assumed all of the obligations under the subject exploration contract.

In view of the above the Government hereby consents to the aforementioned assignment, but without releasing the Assignor from any of the terms, provisions, or conditions of the contract. The bond of Mr. Wilkerson and the Indemnity Insurance Company of North America has been released by letter of even date herewith to Frankel and Company, Inc.

Sincerely yours,

Frank E. Johnson

Acting Director

cc: L. H. Wilkerson
Ringtail Mining Company
Norbute Corporation

cc: Director's reading file
Div. of Contract Adm. and Audit
ME Field Team, Reg. III (2) w/2cc Haynie, Hotchkiss & Golden ltr. 3/31/59

FMMurphy/gla 4/13/59
JLHoffland/hm 4/20/59

Mr. Knowles

Should not we hold Wilkerson liable for full amount of Government's participation in view of possible refund to him and no legal basis for retaining what Norbute paid if they also request refund, unless he releases OME from any and all claims for refunds?

FEJohnson

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/13/59	Murphy	700
4/15	Kilcoyne	700
4/16	Tobyned	140
	Hoffman	140
4/17	App'd Sol. Off. Stallcup	800
"	Absent	~~120~~
		~~110~~
		~~100~~
		220
		700

Haynie, Hotchkiss & Golden
Attorneys at Law
200 North Sixth Street
Grand Junction, Colorado

Re: Docket No. DMEA-3962 (Uranium)
Ringtail Mining Company, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract No. Idm-E928

Gentlemen:

This is to acknowledge your letter, dated March 31, 1959, transmitting (1) an Assignment of the above-referenced property by L. H. Wilkerson to Arthur Roy Shumway, Lawrence C. Davis, and Truman Goode, (2) a copy of the State of Utah State Land Board's letter, dated February 18, 1959, approving the assignment of the subject land, and (3) a copy of the Performance Bond, dated January 8, 1959, by the National Surety Corporation with Ringtail Mining Company as principal.

We note that although the Assignment runs to the three individuals named, the bond names Ringtail Mining Company as principal, and is executed by Ringtail Mining Company, apparently by the three individuals although the word "by" does not appear before their names. In spite of these formal defects, we believe the record is sufficiently clear to show that the three individuals are doing business as Ringtail Mining Company and have assumed all of the obligations under the subject exploration contract.

In view of the above, the Government, being satisfied that the terms of the assignment adequately preserve its rights to a percentage royalty on production and in consideration of the bond posted by the Assignee, hereby consents to the aforementioned assignment and releases the Assignor from any and all terms, provisions, and conditions of the contract.

Sincerely yours,

Acting Director

cc: L. H. Wilkerson
Ringtail Mining Company
Norbute Corporation

FMMurphy/gla
4-13-59
cc to: Director's Reading File
Div. of Contract Adm. & Audit
OME Field Team, Region III (2) w/2cc Haynie, Hotchkiss & Golden let.
FMMurphy
March 31, 1959

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/13/59	Murphy	700
4/15	Kuschke	700
4/16	Johnson	140
	Hoffman	140
4/17	App'd. Sol. Off. Talbert	800
"	Absent	~~120~~
		~~110~~
		~~100~~
		220
		700

APR 22 1959

Mr. Richard Shreve
Bond Department
National Surety Corporation
835 East 18th Avenue
Denver 18, Colorado

Re: Docket No. DMEA-3962 (Uranium)
Ringtail Mining Company, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract No. Idm-E928

Dear Mr. Shreve:

With reference to our letter of March 3, 1959, the matters mentioned have now been clarified and the bond issued by your corporation as surety has been submitted. Therefore, in accordance with our above-mentioned letter we are enclosing one copy of the Exploration Project Contract you requested.

Sincerely yours,

Frank E. Johnson

Acting Director

Enclosure

cc: L. H. Wilkerson
Ringtail Mining Company
Norbute Corporation

FMMurphy/gla
4-13-59
cc to: Director's Reading File
FMMurphy
OME Field Team, Region III (2)

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
4/13/59	Murphy	700
4/15	Kerouke	700
4/16	J. Lynch	140
		140
4/17	Talbert	800
"	Absent	~~120~~
		~~110~~
		~~100~~
		220

700

APR 22 1959

Mr. Alan Samuels
Fre[illegible] & Co., Inc.
102 Maiden Lane
New York 5, New York

INTERIOR DEPT.
APR 16 1959
SOLICITOR

Re: Docket No. DMEA-3962 (Uranium)
Ringtail Mining Company, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract No. Idm-5926

Dear Mr. Samuels:

RECEIVED
APR 16 1959
ASSOC. SOLICITOR
MINERAL RESOURCES

With reference to our letter of March 18, 1959, the assignment of the above-referenced property to Ringtail Mining Company by L. H. Wilkerson has now been approved by this Agency.

A surety bond with the new owner as principal has been submitted to replace the surety bond issued by the Indemnity Insurance Company of North America under their Policy No. 257501 with Mr. L. H. Wilkerson as principal. Therefore, Mr. Wilkerson's bond is herewith released effective January 8, 1959, the date of the new bond.

Sincerely yours,

Frank E. Johnson

Acting Director

In duplicate

cc: L. H. Wilkerson
Ringtail Mining Company
Korbute Corporation

FMMurphy/gla
4-13-59
cc to: Director's Reading File
FMMurphy
OME Field Team, Region III (2)

43683

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

April 9, 1959

Memorandum

To: Acting Director
Office of Minerals Exploration

From: Acting Associate Solicitor
Division of Mineral Resources

Subject: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
L. H. Wilkerson, Assignor
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

We approve as to legal sufficiency the "Assignment", executed January 8, 1959, by L. H. Wilkerson, assignor, and the attached "Performance Bond", on the above-named contract, signed by the assignees, Arthur R. Shumway, Lawrence C. Davis, and Truman Goode.

We note that although the Assignment runs to the three individuals named, the bond names Ringtail Mining Company as principal, and is executed by Ringtail Mining Company, apparently by the three individuals although the word "by" does not appear before their names. In spite of these formal defects we believe the record is sufficient to show that the three individuals are doing business as Ringtail Mining Company and have assumed all of the obligations under the exploration contract.

J. L. Hofflund

HAYNIE, HOTCHKISS & GOLDEN
ATTORNEYS AT LAW
200 NORTH SIXTH STREET
GRAND JUNCTION, COLORADO

CECIL S. HAYNIE
NORMAN B. HOTCHKISS
JAMES GOLDEN

TELEPHONE
CH 2-7322

INTERIOR DEPT.
APR 6 - 1959
SOLICITOR

March 31, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED APR 3 1959

DATE	INITIALS	CODE
4/3	C	220
4	Murphy	700
		140

U. S. Department of Interior
Office of Minerals Exploration
Washington 25, D. C.

Re: Docket No. DMEA-3962 (Uranium)
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract No. Idm-E928

Gentlemen:

I am enclosing herewith copy of Assignment with contract from L. H. Wilkerson to Arthur Shumway et al, together with the bond of the Ringtail Mining Company, and a copy of letter from the State of Utah State Land Board, indicating the approval of the assignment of the lease. If there are any additional papers necessary to complete this transaction, please let me know and I will endeavor to obtain the same for you.

MINERAL RESOURCES

Sincerely,

HAYNIE, HOTCHKISS & GOLDEN

By Norman B. Hotchkiss

NBH:ba

encl.

RECEIVED
APR 6 1959
ASSOC. SOLICITOR
MINERAL RESOURCES

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/13/59	Murphy	700
3/13	Kubota	700
3/16	J. Lyman	140
3/16	Hoffman	140
	Appl. Sol. Ctl.	800
3/16	Seffinger	220
		110
		100
		220
		700

MAR 18 1959

Mr. Alan Samuels
Frenkel & Co., Inc.
102 Maiden Lane
New York 5, New York

Re: Docket No. DMEA-3962 (Uranium)
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract No. Idm-E928

Dear Mr. Samuels:

This is to acknowledge your letter, dated March 11, 1959, enclosing a copy of the bond showing Ringtail Mining Company as principal.

Enclosed is a copy of our letter of this date to Mr. Wilkerson, which is self-explanatory.

SOLICITOR

Sincerely yours,

MAR 13 1959

(signed) FRANK E. JOHNSON

Acting Director

INTERIOR DEPT.

Enclosure

FMMurphy/gla
3313-59
cc to: Director's Reading File
FMMurphy
OME Field Team, Region III, w/2cc Frankel & Co. letter

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/13/59	Murphy	700
3/13	[illegible]	700
3/16	J. Lynch	140
3/16	Hoffman	140
3-17	Chamberlin	800
3/18	Selfridge	120
		~~110~~
		~~100~~
3/19	[illegible]	~~220~~
		700

Mr. L. H. Wilkerson
Box 3
Thompson, Utah

MAR 18 1959

Re: Docket No. DMEA-3962 (Uranium)
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract No. Idm-5928

Dear Mr. Wilkerson:

Enclosed is a copy of a letter, dated March 11, 1959, by Frenkel & Co., Inc., representing the Indemnity Insurance Company of North America, relating to the performance bond submitted by you when the Government, on April 18, 1958, consented to the assignment of the above-referenced land.

Article 2 (d) of the subject contract provides, in part,"... the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, . . . without expressly referring to and providing in the instrument of conveyance, . . . for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof."

Accordingly, if you have assigned the subject land to the Ringtail Mining Company, we should like to have a copy of the assignment containing provisions preserving the Government's rights. If the assignment is found to conform to the requirements of the contract and is accompanied by the original and one copy of Ringtail Mining Company's performance bond, we would authorize cancellation of your Performance Bond No. 257,501.

RECEIVED
MAR 13 1959
ASSOC. SOLICITOR
MINERAL RESOURCES

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

Enclosure

FMMurphy/gla
3-13-59
cc to: Director's Reading File
FMMurphy
OME Field Team, Region III(2)
w/2cc Frankel & Co. letter
and 2 cc our reply

cc: Ringtail Mining Company
P. O. Box 312
Moab, Utah

43683

CABLE ADDRESS: JOINER, NEW YORK

TELEPHONE: HANOVER 2-6250

ESTABLISHED 1878

EUROPEAN CORRESPONDENTS
LONDON
PARIS
AMSTERDAM

Frenkel & Co. Inc.

BRANCHES
LOS ANGELES, CALIFORNIA
HAVANA, CUBA
CARACAS, VENEZUELA

GENERAL INSURANCE

102 MAIDEN LANE

New York 5, N. Y.

March 11, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 12 1959

DATE	INITIALS	CODE
3-12	C	220
"	Murphy	700

RE: DOCKET NO. DMEA-3962 (Uranium)
CONTRACT NO. Idm-E928
L. H. WILKERSON, ASSIGNEE
SEC. 36, T. 22 S., R. 21 E.
GRAND COUNTY, UTAH

Mr. Frank E. Johnson, Acting Director
United States Department of the Interior
Office of Minerals Exploration
Washington 25, D.C.

Dear Mr. Johnson:

We refer to our previous correspondence and more specifically to your letter of February 13, 1959 in connection with the above captioned.

We have been successful in obtaining a Report of Execution from the National Surety Company evidencing that they issued a bond in the amount of $5,000 effective January 8, 1959 in the name of Ringtail Mining Company. We are enclosing a photostatic copy of this Report of Execution and assume that the original bond has already been filed with your office.

With this additional information we trust that you will be able to issue a release to the Indemnity Insurance Company of North America under their Policy No. 257501.

Thanking you for giving this matter your attention, we are,

Yours very truly,

FRENKEL & CO. INC.

Alan Samuels

A.SAMUELS:rb
encls.

COPY

Fireman's Fund INSURANCE GROUP

REPORT OF EXECUTION

THIS FORM IS TO BE USED ONLY FOR ONE OF THE FOLLOWING PURPOSES
INDICATE BY 'X' IN PROPER SPACE WHICH ONE APPLIES IN THIS PARTICULAR CASE

- [x] Report from agency to supervising office of bond executed for its own account.
- [ ] Report from office or agency to another office or agency of bond executed for latter's account. Copy of report should be sent to Departmental Office Registration Division.
- [ ] Report from office or agency to Departmental Office or supervising office of reexecution BEARING SAME [redacted]. Number of original bond should be entered here 6063577

TO: Denver Branch Office
Denver, Colorado

Date January 8, 1959

- [ ] Fireman's Fund Insurance Company
- [ ] Fireman's Fund Indemnity Company
- [ ] Home Fire and Marine Insurance Company
- [x] National Surety Corporation

Gentlemen

I have this day executed, on behalf of the following described bond.

EFFECTIVE DATE 1-8-59	PRINCIPAL'S NAME AND ADDRESS (TYPE SURNAME FIRST) Ringtail Mining Company P. O. Box 312 Moab, Utah	ORIGINAL PREMIUM $62.50
EXPIRATION DATE 1-8-60		AMOUNT OF BOND $5,000.00
DATE OF PROBABLE TERMINATION	OBLIGEE, ASSURED, OR NAME OF ESTATE, AND COMPLETE ADDRESS United States of America	AMOUNT OF CONTRACT, JUDGMENT, OR ESTATE
COLLATERAL? JOINT CUSTODY? SOLE CUSTODY?	DESCRIPTION OF RISK Miscellaneous Indemnity U. S. Contract #IDM-E928, Docket #DMEA 3962	SUB-PREMIUM DATE DUE
ATTACH TO THIS REPORT AN APPLICATION THAT HAS BEEN COMPLETED IN DETAIL AND SIGNED BY THE PRINCIPAL, AND A COPY OF THE BOND.	NAMES OF INDEMNITORS	ATTACH ALSO ALL NECESSARY UNDERWRITING INFORMATION, INCLUDING FINANCIAL STATEMENT OF THE PRINCIPAL AND REPORT OF YOUR INVESTIGATION OF THE RISK
	NAMES OF PARTNERS OR OFFICERS OF CORPORATION PRINCIPAL Truman Goode, Lawrence C. Davis and Arthur R. Shumway	
	NAME OF ATTORNEY AND ADDRESS Mayne, Hotchkiss and Golden 200 North 6th St., Grand Junction, Colorado	
	ISSUED IN LIEU OF BOND NO.	

APPROVAL RECORD

1. BOND WAS ISSUED UNDER OUR UNDERWRITING AUTHORITY AND WAS APPROVED BY

Chambers-Darnell Agency, Grand Junction, Colorado 1-8-59

SIGNATURE DATE

SIGNATURE DATE

2. BOND WAS APPROVED BY HOME OFFICE OR SUPERVISING GENERAL AGENT OR OFFICE AND WAS AUTHORIZED BY:

NAME DATE

NAME DATE

BOND WAS EXECUTED FOR ACCOUNT OF	PERSON OR PERSONS WHO EXECUTED THE BOND SIGN HERE AT SAME TIME BOND IS SIGNED
AGENT	ATTORNEY IN FACT
ADDRESS	ATTORNEY IN FACT

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/2/59	Murphy	700
3/2	Kuche	700
3/3	Chromley	800
3/3	Selfridge	120
		~~110~~
		~~100~~
3/4	C	~~220~~
		700

Mr. Richard Shreve
Bond Department
National Surety Corporation
835 East 18th Avenue
Denver 18, Colorado

MAR 3 1959

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Shreve:

Your letter of February 17, 1959, to our Region III Field Team has been referred to this office for reply.

The above-referenced contract was executed by the Government and Norbute Corporation on March 9, 1956. Norbute Corporation, through its subsidiary, Ringtail Corporation, on August 14, 1957, with the Government's approval, assigned the land concerned to Mr. L. H. Wilkerson. The Performance Bond submitted by Norbute Corporation was cancelled and a new surety bond in the penal sum of $5,000.00, covered by the Indemnity Insurance Company of North America, was submitted by Mr. Wilkerson.

To date we have not been informed either by Mr. Wilkerson that he has assigned his interest in the land or by Ringtail Mining Company that they have acquired the property. We are at present attempting to clarify the situation. However, until we are able to do so, we must refuse your request for a copy of the subject contract.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

Copies to:
L. H. Wilkerson, P. O. Box 3, Thompson, Utah
Ringtail Corporation, Moab, Utah
FMMurphy/gla/RWLong/eal/FMMurphy/gla
3-2-59
cc to: Director's Reading File
OME Field Team, Region III (2)
FMMurphy
RWLong
RPDwyer

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado

February 27, 1959

RECEIVED MAR 2 1959		
DATE	INITIALS	CODE
3-2	C	220
		700

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket DMEA 3962 (Uranium), Contract Idm-E928, School Section 36, T. 22 S., R. 21 W., L. H. Wilkerson, Assignee, Grand County, Utah'

Supplementing our memorandum to you dated February 25, 1959, enclosed are two copies of the following:

1. Letter dated February 24, 1959 from D. C. Deringer to Messrs. Arthur R. Shumway, Lawrence C. Davis and Truman Good, who apparently are the new assigness of the property.

2. Letter from D. C. Deringer to the Executive Officer, Region III, dated February 25, 1959.

3. Our reply dated February 27, 1959 to Mr. Deringer's letter.

J. W. Townsend

J. W. Townsend

Enclosures

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

OME
DEPARTMENT OF THE INTERIOR
FEB 26 1959
REGION III
DENVER, COLORADO

[illegible]

RECEIVED MAR 2 1959

DATE	INITIALS	CODE

[illegible]

Western Mining Division

NORBUTE CORPORATION

Western Mining Division: URANIUM CENTER BUILDING, P.O. BOX 1709, GRAND JUNCTION, COLORADO—CHapel 2-0257

DEPARTMENT OF THE INTERIOR

FEB 26 1959

REGION III
DENVER, COLORADO

February 25, 1959

MAR 2 1959

DATE	INITIALS	CODE

Mr. J. A. Townsend, Executive Officer
OMM Field Team, Region III
New Customhouse
Denver, Colorado

Re: Docket No. DMEA 3962 (Uranium)
Contract No. Idm-2928
L. H. Wilkerson, Assignee
Grand County, Utah

Dear Mr. Townsend:

I am taking the liberty of thanking you for your letter of February 24th addressed to Mr. Abbott Charles on the above subject as I wish to take the opportunity to make a few comments thereon.

As you may remember, the contract called for retirement of the loan from production only on a restricted area of this section. Notwithstanding, it has been the policy of Norbute, which has been expressed to you on other occasions, to repay the loan from all ores regardless of what area on the School section was responsible for the production.

According to the information we have in this office, $5,567.21 has been the amount repaid leaving an unpaid balance of $3,073.02 still due as of December 1st, 1958. We are also informed that no new payments toward the loan have been made since last August, 1958 although we understand that shipments were made from the School Section. Out of the $8,567.21, Norbute was responsible for the repayment of approximately 50%. It is particularly distressing to us to learn that this loan is not being retired in the manner in which we had agreed with Wilkerson at the time the assignment of the School Section was made to him, and it is even more distressing to learn that Wilkerson has applied for a refund on amounts previously paid, supposedly including those of Norbute, toward the retirement, particularly, in view of the fact that we had a very definite understanding with Wilkerson that he would follow out the policy that had been established by Norbute previously to this assignment. To what point we can put pressure on the new assignees for continuing the Norbute policy, I am not certain. It would seem to me, however, that some method should be found to continue the policy of repayment from all ores regardless of source in as much as it was incorporated by Norbute in the assignment to Wilkerson.

Furthermore, it appears to me that Norbute has a justifiable point in insisting that no refund be considered inasmuch as Norbute definitely contributed a portion of this retirement of the loan.

I would more than appreciate it if you would feel free to render any information on this issue as you may see fit together with any recommendations as to what you may care to render.

Very sincerely yours,

OFFICIAL FILE COPY
O. M. E.
MAR 2 1959
INITIALS | CODE

224 New Customhouse
Denver 2, Colorado

February 27, 1959

Mr. B. C. Beringer, Vice President
Western Mining Division
Kerrmite Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket DMEA 3962 (Uranium),
Contract Idm-E928, School Section 36,
T. 22 S., R. 21 W., L. E. Wilkerson,
Assignee, Grand County, Utah

Dear Mr. Beringer:

Thank you for your letter of February 25, 1959 and the copy of your letter of February 24 to Messrs. Shumway, Davis and Good. Your attitude toward the loan repayment on the captioned contract is most commendable.

All correspondence pertaining to the new assignee and royalty refund have been referred to the Washington office of OME for advice; therefore we are unable to make any commitments at this time.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Executive Officer
OME Field Team, Region III

HMC/ff

cc: Chmn. Op. Comm.
Harshman
Robertson
Hasler
Royalty file, E928
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado

February 25, 1959

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAR 2 1959

DATE	INITIALS	CODE
3/2	C	220
		700

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket DMEA 3962 (Uranium), Contract No. Idm-E928
L. H. Wilkerson, Assignee
Grand County, Utah

Your letter of February 17, 1959 clarified the situation for us as it existed on February 2, 1959 when we wrote you, but ensuing events lead us to believe that this office should not answer Mr. Wilkerson's letter of December 17, 1958 unless advised to do so by you.

The property has been assigned by Mr. Wilkerson to a new individual, as noted in the copy of a letter to the Administrator from Frenkel & Company, dated January 29, 1959, which will necessitate a new performance bond from the new assignee.

A letter from Mr. Abbott Charles, Norbute Corporation, of February 20, 1959, copies of which were forwarded you February 24, 1959, indicate that Mr. Wilkerson may cancel his request for a refund of royalties paid the Government.

Under these circumstances we will defer action in the matter for the time being unless instructed otherwise by you.

J. W. Townsend

Cy sent to 800

DATE	INITIALS	CODE
2-27	C	220
"	Murphy	700

February 24, 1959

Mr. Abbott Charles, Manager
Western Mining Division
Norbate Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket No. DMRA 3968 (Uranium)
Contract No. Idm-928
L. E. Wilkerson, Assignee
Grand County, Utah

Dear Mr. Charles:

Thank you for your letter dated February 20, 1959, regarding the captioned contract.

Mr. Wilkerson has not written this office to cancel his request for a refund on royalty payments and a decision is pending regarding the requested refund of royalty payments.

Very truly yours,

signed by
J. W. TOWNSEND

J. W. Townsend
Executive Officer
OME Field Team, Region III

HMC/ff
cc: Chmn. Op. Comm. (2)
Harshman
Hasler
Robertson
Royalty File E-928
Chron.

[illegible]

[illegible] URANIUM [illegible]

OFFICIAL FILE COPY O. M. E. RECEIVED FEB 27 1959		
DATE	INITIALS	CODE

Mr. J. W. Simmons, Executive Officer
Old Field Team, Boston [illegible]
864 New Guarantee
Denver 2, Colorado

Re: Request No. [illegible]
Contract No. [illegible]
[illegible]
[illegible]
Grand Junction, Colo.

Dear Mr. Simmons:

Mr. Hilderson was in our office early last week and mentioned that he was selling the Mayfield Mine. He also mentioned that he had requested refund of some of the money paid on the M-24 loan.

The block of ground subject to the contract loan was never really mined, but it was our understanding that the property and the contract had been sold together with all production from this property and that the buyer had agreed to that condition when the mine was turned over to him. After hearing of our annoyance at his requesting a refund, Mr. Hilderson stated that he would write to you that day and cancel his application for refund. Today, I moved the loan status of record displeasure and learned that there has been no cancellation of the request of record here.

I would like to request a statement from you as to whether Hilderson has written to you cancelling this request. Unless it is too late to do anything about cancelling it, he could be holding for private transaction, I would very much appreciate your report on the Hilderson request.

Very truly yours,

[illegible]
[illegible]
[illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
224 New Customhouse
Denver 2, Colorado

February 18, 1959

OFFICIAL FILE COPY O. M. E. RECEIVED FEB 20 1959		
DATE	INITIALS	CODE
2/20	C	220
"	Murphy	700

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA 3962 (Uranium) Contract No. Idm-E928
L. H. Wilkerson, Assignee, Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah - Bond No. 6043577

In conjunction with the matter discussed in the Acting Director's letter, dated February 13, 1959 to Mr. Allen Samuels, Frenkel and Company, Inc., enclosed are the following:

1. Original and one copy of a letter dated February 17, 1959 from Richard Shreve of the National Surety Corporation requesting a copy of the subject contract.

2. Two copies of a letter from this office dated February 18, 1959 acknowledging receipt of the letter above and advising of its disposition.

3. An extra copy of the original executed contract which we had in our files.

As the matter of a reduced performance bond is in process, the request for a copy of the contract is forwarded to you for appropriate action.

J. W. Townsend

J. W. Townsend

Enclosures

Official Docket

O. M. E.
RECEIVED FEB 20 1959
DATE | INITIALS | CODE

224 New Customhouse
Denver 2, Colorado

February 18, 1959

Mr. Richard Shreve
Bond Department
Fireman's Fund Insurance Group
P. O. Box 5030
Denver 17, Colorado

Re: Docket No. DMEA 3962 (Uranium)
Contract No. Idm-5928
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S, R. 21 E.
Your Bond No. 6043577

Dear Mr. Shreve:

Receipt is acknowledged of your letter of February 17, 1959 requesting a copy of the referenced contract and any comments we wish to make in respect to it.

Your letter has been referred to the Washington Office, OME for their consideration and appropriate action in complying to your request, on which you should hear at an early date.

Very truly yours,

J. W. Townsend
Executive Officer
OME Field Team, Region III

JWT:ad
cc: Chmn. Oper. Comm. (2)
Harshman
Royalty File, Reg. III
Chron.

The FUND Insurance Companies
FIREMAN'S FUND INSURANCE COMPANY · HOME FIRE & MARINE INSURANCE COMPANY
FIREMAN'S FUND INDEMNITY COMPANY · NATIONAL SURETY CORPORATION
835 EAST 18TH AVENUE • DENVER 18, COLORADO • AMherst 6-2151
Denver Office

OFFICIAL FILE COPY
O. M. E.
RECEIVED FEB 20 1959
DATE | INITIALS | CODE

February 17, 1959

OME
DEPARTMENT OF THE INTERIOR
FEB 18 1959
REGION III
DENVER, COLORADO

Defense Minerals Exploration Administration
Bureau of Mines
New Custom House Building
Denver 2, Colorado

Re: Contract No. IDME 928
Docket No. DMEA 3962
Ringtail Mining Company
Moab, Utah
(In reply please refer to
our bond number 6043577)

Gentlemen:

We of National Surety Corporation recently executed a bond for Ringtail Mining Company of Moab, Utah covering the captioned contract. It is noted on the performance bond that was executed that the date of this contract is given as March 9th, 1956. It is our understanding from conferring with the Attorneys for Ringtail Mining Company that the original contract was held by Mr. L. H. Wilkerson. We are interested in completing our file with a copy of the above referenced contract.

We would appreciate your cooperation in forwarding to our office a copy of the referenced contract and any other comments you feel free to make in respect to it. We enclose herewith a self-addressed envelope for your prompt reply.

Very ~~truly~~ yours,

Richard Shreve

RICHARD SHREVE
BOND DEPARTMENT

RS/jjp

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
2/13/59	Murphy	700
2/15	Lubanko	700
2-16	Chamberlin	800
2/17	[illegible]	130
2/17	Johnson	110
		~~100~~
2/18	C	~~[illegible]~~ 220
		700

FEB 17 1959

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

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Townsend:

This is in response to your memorandum of February 2, relating to our letter of January 30, 1959.

Please disregard Liquidation No. 3619. If Mr. Wilkerson requests the repayment of royalties after he is advised that the amount of the performance bond must be increased, the sum will be $1,106.97 plus the royalties paid on specific lots received by the buyer after April 18, 1958, in Liquidation No. 4152. The total royalties paid on Liquidation No. 4152 amounted to $267.42.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (HB)

APPROVED:

H. G. Iverson (HB)
Member, Bureau of Mines

N. E. Nelson (HB)
Member, Geological Survey

FMMurphy/gla
2-13-59
cc to: Director's Reading File
Operating Committee
FMMurphy

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

224 New Customhouse
Denver 2, Colorado

February 2, 1959

OFFICIAL FILE COPY O. M. E. RECEIVED FEB 6 1959		
DATE	INITIALS	CODE
2-6	C	220
2-9	Fmy.	700

Memorandum

To: Chairman, Operating Committee, OME

From: Executive Officer, OME Field Team, Region III

Subject: Docket No. DMEA-3962 (Uranium), Contract No. Idm-E928
L. H. Wilkerson, Assignee, Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Further clarification of your letter dated January 30, 1959, is requested before we proceed.

We understand from the third paragraph of your letter that Mr. Wilkerson is entitled to a refund on royalty payments made after April 18, 1958, provided he submits a claim and recites the facts. The royalty payments made after April 18, 1958 started with Liquidation No. 4152 dated May 9, 1958. We are not clear what Liquidation No. 3619, mentioned in the last paragraph on Page 2 of your letter, has to do with a possible refund of royalties to Mr. Wilkerson. 1/

The answer to your question regarding amounts paid in royalties on ore produced from subordinated ground since the assignment of the land and lease is none. H. F. Robertson and J. W. Hasler of the Grand Junction Office, OME, checked the subject property on October 1, 1958 and their memorandum report dated October 21, 1958 states, "Mr. Wilkerson has not mined any ore from subordinated ground since acquiring the Ring Tail property".

We will not write to Mr. Wilkerson or to the Climax Uranium Company until we receive the requested clarification of your letter.

J. W. Townsend

J. W. Townsend

1/ None if repayment to Wilkerson is effective after Government consented to transfer.
Fmy

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
2/9/59	Murphy	700
2/9	[illegible]	700
	Rubin	140
	Dwyer	140
2-12	[illegible]	800
2/13	Selfridge	120
		110
2/13	C	220
		700

FEB 13 1959

Mr. Alan Samuels
Frenkel & Co., Inc.
102 Maiden Lane
New York 5, New York

INTERIOR DEPT.
FEB 9 - 1959
SOLICITOR

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Samuels:

This is in response to your letter, dated January 29, 1959, in which you request a release of the performance bond submitted by Mr. L. H. Wilkerson, as he has assigned the above-referenced property to a new individual.

The Government requires that its rights to royalty and the security therefor be preserved. Mr. Wilkerson should submit to this office a copy of the assignment of land containing provisions preserving the Government's rights. If the assignment adequately preserves the Government's interests and is accompanied by a new performance bond, we will authorize cancellation of the present bond.

The penal sum of the new bond must equal the unpaid balance of the sum contributed by the Government under the subject contract.

The Office of Minerals Exploration is the successor agency to the Defense Minerals Exploration Administration.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

RECEIVED
FEB 9 1959
ASSOC. SOLICITOR
MINERAL RESOURCES

FMMurphy/HCRubin/gla
2-9-59
cc to: Director's Reading File
HCRubin
FMMurphy
OME Field Team, Region III (2) w/2cc Mr. Samuels' letter

43683

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/27	Murphy	700
1/27	Krause	700
	Long	140
	Sanger	140
1-28	Chamberlin	800
1/30	[illegible]	130
1/30	Johnson	110
2/2	C	~~100~~ 220
		700

JAN 30 1959

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

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Townsend:

Your memorandum of December 23, 1958, and other data regarding the royalty question pertaining to the subject contract have been reviewed by the Washington staff.

Norbute Corporation, through its subsidiary, Ringtail Corporation, assigned the land covered by Utah State Land Board Mineral Lease No. 3971 to Mr. Wilkerson on August 14, 1957. The assignment was approved by the Utah State Land Board on December 24, 1957, and by the Administrator of the Defense Minerals Exploration Administration on April 18, 1958. With this approval, it was agreed to reduce the Performance Bond submitted when the contract was signed to equal the amount of Government participation under the contract, less the amount paid in royalties to the time of assignment. The sum owed was $8,640.23 and the royalties paid to February, 1958, amounted to $3,632.33. Therefore, a bond in the sum of $5,000.00, with Mr. Wilkerson as principal, was accepted.

We have been advised by our Legal Division that Mr. Wilkerson is entitled to a refund on royalty payments made after the Government consented to the assignment of the land and lease, provided that Mr. Wilkerson submits a claim for a specific amount and recites the facts on which the claim is based.

8623

According to the Field Team's estimated reserves on the subject property, Mr. Williamson made an attempt to stockpile or otherwise separate production subject to this royalty. Previous royalty payments and also Mr. Williams's letters, including one dated February 21, 195[illegible], by H. C. Bertinger to the Executive Officer, Taylor Ill, indicated that Mr. Williamson would repay the [illegible] participation by paying royalty on all ore mined in order to retire the loan as soon as possible. Therefore, Mr. Williamson's request came as a surprise.

According to ore settlement sheets submitted, Derbyte Corporation received its last settlement on Liquidation No. 3[illegible]1 on ore received from May 1 to May 31, 1957. Derbyte paid the Government the sum of $1,[illegible] in royalties on these liquidations.

Upon that on all settlements were paid to Mr. Williamson and he made the following royalty payments:

Ore received June through August 31, 1957, liquidations 3[illegible], 3[illegible], and 3[illegible], royalty paid -- $[illegible].0.

Ore received September 1 to April 30, 1958, liquidations 3[illegible], 3[illegible], 3[illegible], 3[illegible], 3[illegible], 4[illegible], 4[illegible], and 4[illegible], royalty paid -- $1,[illegible].70.

Ore received May 1 to September 30, 1958, liquidations 4[illegible], 4[illegible], 4[illegible], 4[illegible], and 4[illegible], royalty paid -- $1,10[illegible].57.

The date of assignment of the lease and lease to August 14, 1957, and the Government's approval of the assignment is dated April 15, 1958. Liquidation numbers 3[illegible] and 4[illegible] indicate a number of lots received for the full month for each of the above dates respectively. Therefore, will you kindly ascertain the dates upon which these liquidations were received by Climax Uranium Company. Also, if possible, ascertain and advise this office the amounts paid in royalties on ore produced from submitted prior since the assignment of the lease and lease.

Before any repayment can be made, Mr. Wilkerson will be required to submit a new Performance Bond equal to the Government's participation under the contract less royalties received. Mr. Wilkerson should be so advised.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (2LB)

APPROVED:

C. T. BAROCH (2LB)
Member, Bureau of Mines

N. E. Nelson (2LB)
Member, Geological Survey

Copy to: Donald T. Finch, Auditor, Region III
FMMurphy/RWLong/hm 1/26/59
cc: Director's reading file
Operating Committee
Div. of Contract Adm. & Audit
Mr. Murphy
Mr. Long
Mr. Dwyer

CABLE ADDRESS: JOINER, NEW YORK

TELEPHONE: HANOVER 2-6250

ESTABLISHED 1878

Frenkel & Co. Inc.

GENERAL INSURANCE

102 MAIDEN LANE

New York 5, N. Y.

EUROPEAN CORRESPONDENTS
PARIS
AMSTERDAM

BRANCHES
LOS ANGELES, CALIFORNIA
HAVANA, CUBA
CARACAS, VENEZUELA

OFFICIAL FILE COPY
O. M. E.
RECEIVED JAN 30 1959

DATE	INITIALS	CODE
1/30	C	220
2/2	Murphy	700

January 29, 1959

RE: DOCKET NO. DMEA-3962 (URANIUM)
CONTRACT NO. IDM-E928
SEC. 36, T. 22 S., R. 21 E.
GRAND COUNTY, UTAH

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

Dear Mr. Mittendorf:

It is our understanding that the captioned contract has been assigned by Mr. L. H. Wilkerson to a new individual who has supplied his own performance bond.

In order for us to have the Indemnity Insurance Company of North America, the surety on Mr. Wilkerson's bond, cancel their present bond it would be necessary for us to present them with a release from your office.

We would therefore appreciate your sending us such release at your earliest convenience.

Yours very truly,

FRENKEL & CO. INC.

Alan Samuels

A.SAMUELS:rb

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
1/21/59	Murphy	700
1/21	Knouse	700
		140

INTERIOR DEPT.
JAN 22 1959
SOLICITOR

January 21, 1959

Memorandum

To: Associate Solicitor
Division of Mineral Resources

From: F. L. Knouse, Acting Chief
Division of Rare and Miscellaneous Metals

Subject: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Attached is a draft of a letter relating to royalty payments under the terms of the subject contract. Will you kindly review and make such corrections or additions that you consider necessary.

RECEIVED
JAN 22 1959
ASSOC. SOLICITOR
MINERAL RESOURCES

/s/ F. L. Knouse

F. L. Knouse

Attachment

FMMurphy/gla
cc to: Mr. Murphy

43683

DRAFT
1/21/59
FMMurphy/gla

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

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Townsend:

Your memorandum of December 23, 1958, and other data regarding the royalty question pertaining to the subject contract have been reviewed by the Washington staff.

Norbute Corporation, through its subsidiary, Ringtail Corporation, assigned the land covered by Utah State Land Board Mineral Lease No. 3971 to Mr. Wilkerson on August 14, 1957. This land is subordinated under the terms of the subject contract. On April ~~21~~ 18, 1958, the Administrator approved the assignment of the land to Mr. Wilkerson. With this approval it was agreed to reduce the Performance Bond, submitted when the contract was signed, to equal the amount of Government participation under the contract, less the amount paid in royalties to the time of assignment. The sum owed was $8,640.23 and the royalties paid to February, 1958, amounted to $3,632.33. Therefore, a bond in the sum of $5,000.00, with Mr. Wilkerson as principal, was accepted.

We have been advised by our Legal Division that Mr. Wilkerson is entitled to a refund on royalty payments made after the Government consented to the assignment of the land and lease,

provided that Mr. Wilkerson submits a claim for a specific amount and recites the facts on which the claim is based.

According to the Field Team's semiannual reports on the subject property, Mr. Wilkerson made no attempt to stockpile or otherwise separate production subject to DMEA royalty. Previous royalty payments and also Norbute's letters, including one dated February 26, 1958, by D. C. Deringer to the Executive Officer, Region III, indicated that Mr. Wilkerson would repay the DMEA participation by paying royalty on all ore mined in order to retire the loan as soon as possible. Therefore, Mr. Wilkerson's request came as a surprise.

According to ore settlement sheets submitted, Norbute Corporation received its last settlement on Liquidation No. 3391 on ore received from May 1 to May 31, 1957. Norbute paid the Government the sum of $1,664.61 in royalties on these liquidations.

From then on all settlements were paid to Mr. Wilkerson and he made the following royalty payments:

Ore received June through August 31, 1957, Liquidations [illegible], 3530, and 3619, royalty paid -- $828.90.

Ore received September 1 - April 30, 1958, Liquidations 3695, 3751, 3795, 3860, 3937, 4012, 40[illegible] and 4152, royalty paid -- $1,966.75.

Ore received May 1 to September 30, 1958, Liquidations 4215, 4262, 8275, 8355, and 8436, royalty paid -- $1,106.97.

The date of assignment of the land and lease is August 14, 1957, and ~~our~~ the Government's approval of the assignment was April ~~21~~ 18, 1958. Liquidation numbers 3619 and 4152 include lots received for the full month for each of the above dates respectively. Therefore, will you kindly ascertain the dates when each lot under these liquidations were received by Climax Uranium Company. Also, if possible, ascertain and advise this office the amounts paid in royalties on ore produced from subordinated ground since the assignment of the land and lease.

Before any repayment can be made, Mr. Wilkerson will be required to submit a new Performance Bond equal to the Government's participation under the contract less royalties received. Mr. Wilkerson should be so advised.

Sincerely yours,

Chairman, Operating Committee

(same distribution as shown on previous letter)

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

~~May 1 — Aug 14, 1957~~

Norbute Royaltys. Paid. on ore to

March 7, 1957	$57.39
April 4, "	426.38
May 6. "	426.88
June 7 "	403.32
July 11 "	350.24 — on ore received May 1-31/57
Total	$1664.61

Wilkerson's Royaltys - starting ore received June 16-30 ending August 31/57

Date	Lot.	
7/3/57	3458	163.86
8/7/57	3530	369.93
9/4/57	3619	295.11 includes ore received Aug 1-31/57
Total		$828.90

Wilkerson Royalty's - Starting Sept 1-1957 to ?

Date.	Lot.	
10/8/57	3695	206.69
10/31/57	3751	208.08
12/3/57	3795	242.07
1/7/58	3860	186.80
2/10/58	3937	290.79
3/7/58	4012	237.93
4/8/58	4071	326.95
5/8/58	4152	267.42 $1966.75 received April 1 to April 30/58
6/9/58	4215	$306.05
7/11/58	4262	222.68
8/6/58	8275	172.07
8/15/58	8355	166.79
8/30/58	8436	239.36 $1106.97

Grand Total - Royaltys paid — $5,567.21

2nd par. — Royalty on production prior to date of assignment (~~Aug. 14, 1959~~ April) is included in Wilkerson's payments of $3,902.60

4th par. — Provided that Wilkerson's submits a claim for a specific amount and recites the facts on which claim is based.

last par — "Prior to repayment, not "at the time of repayment."

remark p 5 at end

Omra - 3962 (E 9237)

Omra - 3962

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/13/59	Murphy	700
1/14	Wilcoxson	700
		140
		140
		800
		130
		110
		100
		220
		700

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

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-8928
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Townsend:

Your memorandum of December 23, 1958, and other data regarding the royalty question pertaining to the subject contract have been reviewed by the Washington staff.

According to ore settlement sheets submitted, the total sum paid as royalties under the subject contract amounts to $5,567.21. Of this sum Norbute Corporation's royalty payments amounted to $1,664.61 and Mr. Wilkerson's $3,902.60.

On April 21, 1958, the Administrator approved the assignment of the subject contract to Mr. Wilkerson. With this approval it was agreed to reduce the Performance Bond, submitted when the contract was signed, to equal the amount of Government participation under the contract less the amount paid in royalties to the time of assignment. The sum owed was $8,640.23 and the royalties paid (to February 1958) amounted to $3,632.33. Therefore, a bond in the sum of $5,000.00, with Mr. Wilkerson as principal, was accepted.

We have been advised by our Legal Division that Mr. Wilkerson is entitled to a refund on royalty payments made after the contract was assigned to him, provided that he can prove that the ore on which the royalty payments were made did not come from subordinated ground.

According to the Field Team's semiannual reports on the subject property, Mr. Wilkerson made no attempt to stockpile or otherwise separate production subject to DMEA royalty. Because previous royalty payments and, also, Norbute's letters, including one dated February 26, 1958, by D. C. Deringer to the Executive Officer, Region III, indicated that Mr. Wilkerson

8623

would repay the DMEA participation, this office, and we presume the Field Team, assumed that the Operator wished to retire the loan as soon as possible; therefore, it was paying royalty on all ore mined.

However, since Mr. Wilkerson wishes to reclaim these royalty payments, will you kindly ascertain and advise this office the amounts paid in royalties on ore produced from subordinated ground since the assignment of the contract. This sum will be deducted from the $3,902.60 paid by Mr. Wilkerson.

At the time the repayment is made Mr. Wilkerson will be required to submit a new Performance Bond equal to the balance of the Government's participation cost under the contract less royalties received. Mr. Wilkerson and Norbute should be so advised.

Sincerely yours,

Chairman, Operating Committee

cc to: Donald T. Finch, Auditor, Region III

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

RWLong/FMMurphy/gla 1-13-59

cc to: Director's Reading File
Operating Committee
Div. of Contract Adm. & Audit
RPDwyer
RWLong
FMMurphy

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

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

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Townsend:

Your memorandum of December 23, 1958, and other data regarding the royalty question pertaining to the subject contract have been reviewed by the Washington staff.

~~According to ore settlement sheets submitted, the total sum paid as royalties under the subject contract amounts to $5,567.21. Of this sum Norbute Corporation's royalty payments amounted to $1,664.61 and Mr. Wilkerson's $3,902.60.~~ Norbute Corporation assigned the contract to Mr. Wilkerson on Aug. 14, 1957. On April 21, 1958, the Administrator approved the assignment of the subject contract to Mr. Wilkerson. With this approval it was agreed to reduce the Performance Bond, submitted when the contract was signed, to equal the amount of Government participation under the contract less the amount paid in royalties to the time of assignment. The sum owed was $8,640.23 and the royalties paid (to February 1958) amounted to $3,632.33. Therefore, a bond in the sum of $5,000.00, with Mr. Wilkerson as principal, was accepted.

We have been advised by our Legal Division that Mr. Wilkerson is entitled to a refund on royalty payments made after the contract was assigned to him, provided that ~~he can prove that the ore on which the royalty payments were made did not come from subordinated ground.~~ Mr. Wilkerson submits a claim for a specific amount and recites the facts on which the claim is based.

According to the Field Team's semiannual reports on the subject property, Mr. Wilkerson made no attempt to stockpile or otherwise separate production subject to DMEA royalty. Because previous royalty payments and, also, Norbute's letters, including one dated February 26, 1958, by D. C. Deringer to the Executive Officer, Region III, indicated that Mr. Wilkerson

FILE COPY
Surname:

Long
Dwyer
Murphy

700
700
800
130

110
100
220
700

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

Mr. J. W. Townsend
Executive Officer
OME Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA-[illegible] (Uranium)
Contract Idm-[illegible]
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Townsend:

Your memorandum of December 23, 1958, to the Chairman, Operating Committee, the Operator's letter of December 17, 1958, and the file on the subject case have been reviewed in the Solicitor's Office.

We have been advised that on the basis of the memorandum of October 21, 1958, signed by H. F. Robertson, and J. W. Hasler, and a previous Comptroller General's opinion, relating to royalty payments, Mr. Wilkerson is entitled to a refund.

Please have your auditor prepare a current audit to determine the exact amount due Mr. Wilkerson. Mr. Wilkerson, in turn, should write to the Acting Director claiming his refund and reciting the facts upon which the claim is based.

Sincerely yours,

Acting Director

RWLong/eal - 1/8/59

Copy to: OME Docket
F. L. Knouse
F. M. Murphy
R. P. Dwyer
R. W. Long

OFFICIAL FILE COPY

Date	Surname	Code
1/6/59	Murphy	700
1/6	[illegible]	700
		140

January 6, 1959

Memorandum

To: Associate Solicitor
Division of Mineral Resources

From: F. L. Knouse, Acting Chief
Division of Rare and Miscellaneous Metals

Subject: Royalty Payments
Docket No. DMEA-3962 (Uranium)
Contract No. Idm-2928
L. H. Wilkerson, Assignee
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Reference is made to Mr. J. W. Townsend's memorandum of December 23 and to Mr. L. H. Wilkerson't letter of December 17, 1958, relating to royalty payments under the subject contract.

We believe Mr. Wilkerson is correct in his statement that only part of the ore on which royalty payments have been made was produced from the subject project area. However, all the ore shipped to date was hoisted through the Ringtail shaft and no effort was made to separate the production from the unsubordinated ground by the original operator or by L. H. Wilkerson until he advised the Field Team in a letter, dated October 1, 1958, that royalty payments on ore from unsubordinated ground would not be continued.

Under the terms of the contract, Mr. Wilkerson is correct; however, the original operator felt that it had a moral obligation to repay the DMEA loan. This condition is covered in Mr. Kriegel's letter, dated February 28, 1958, to Mr. Mittenderf and D. C. Deringer's letter, dated February 26, 1958, to the Field Team.

Since the question raised requires legal interpretation, will you please prepare the necessary reply to Mr. Wilkerson's letter (for the signature of the Acting Director) which covers the question of returning the royalty he paid as well as his obligations to continue to pay royalty.

RECEIVED
JAN 6 1959
ASSOC. SOLICITOR
MINERAL RESOURCES

/s/ F. L. Knouse
F. L. Knouse

FMMurphy/FLKnouse/sl

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

224 New Customhouse
Denver 2, Colorado

December 23, 1958

OFFICIAL FILE COPY O. M. E. RECEIVED DEC 30 1958		
DATE	INITIALS	CODE
12/30	H. G.	225
		130
12/31	Murphy	200

Memorandum

To: Chairman, Operating Committee

From: Executive Officer, OME Field Team, Region III

Subject: Docket DMEA-3962 (Uranium), Contract Idm-E928, L. H. Wilkerson, Assignee, (Sec. 36, T. 22 S., R. 21 E.), Grand County, Utah

Enclosed are two copies of a letter from the subject Operator, dated December 17, 1958, together with copies of our reply. This is a most unusual request made by the Operator and since it involves top level policy, we would appreciate receiving your advice before we reply.

The pertinent facts are as follows:

1. Only a small amount of ore has ever been mined from the ground subordinated to DMEA under the captioned contract.

2. All of the original production from this property was made by D. C. Deringer, Vice-President of Norbute Corporation, who is a great believer in the Defense Minerals Exploration Administration program. He stated that he knew there was no legal obligation on his part to pay the Government royalty on ore from ground not subordinated. However, he believes he had a moral obligation to repay the Government and it is his thought that if every Operator would make an effort to repay the Government, that DMEA would be a boon to the mining industry, and would have a long life.

3. When the property was sold to Wilkerson, one of the stipulations was that the buyer would continue to pay royalty to the Government on production from the entire property. Mr. Deringer states that if this stipulation is not in writing, it was witnessed by Abbott Charles, and both will testify that Wilkerson agreed to it.

4. Our records indicate that $5,567.21 has been paid the Government in royalties from this property.

If it is determined that the Government has no legal right to royalty payments already made and cannot retain the money, an audit will be necessary to determine the amount due Mr. Deringer and Mr. Wilkerson as refunds.

For prior correspondence in the matter, refer to our letter to the Operator dated October 24, 1958, and the joint memorandum report by H. F. Robertson and J. W. Hasler, dated October 21, 1958, copies of which were forwarded you October 24, 1958.

When the matter has been reviewed by your office, we will appreciate it if you will either reply direct to Mr. Wilkerson or prepare a letter for signature in this office.

J. W. Townsend

Enclosures

J. W. Townsend

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 30 1958

DATE		

224 New Customhouse
Denver 2, Colorado

December 23, 1958

Mr. L. H. Wilkerson
Box 3
Thompson, Utah

Re: Docket DMEA-3962 (Uranium)
Contract Ldm-E928
L. H. Wilkerson, Assignee
(Sec. 36, T. 22 S., R. 21 E.)

Dear Mr. Wilkerson:

This will acknowledge receipt of your letter dated December 17, 1958, regarding refunding of royalties.

This matter will be given consideration and you will be advised at a later date.

Very truly yours,

Original signed by
J. W. TOWNSEND

J. W. Townsend
Executive Officer
OME Field Team, Region III

HMC/ff
cc: Chmn. Op. Comm. (2)
Harshman
Robertson, OME/GJ
Hasler, OME/GJ
Royalty File, E928
Chron.

[illegible] Board of the Interior
[illegible] Exploration
[illegible]
[illegible] Co

Attn: Mr. R. Z.

[illegible] to the [illegible] recover the monies paid to the [illegible],
[illegible] Docket IMA-3992 (Uranium)
Contract I6m-1928
Norbute Corporation
(Sec. 36, T. 22 S., R. 21 E.)
Grand County, Utah

?

This money was paid to D.M.E.A. thru ignorance, beginning June 1957 [illegible] September 1958.

[illegible] think there is a chance for me to recover this money, would [illegible] advise me as to what procedure I am to take.

Thank you.

Sincerely,

L. H. Wilkerson

L. H. Wilkerson
Box 3
Thompson, Utah

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 30 1958
DATE

OFFICIAL FILE COPY
O. M. E.
RECEIVED OCT 27 1958
DATE
10/27

224 New Customhouse
Denver 2, Colorado
October 24, 1958

Mr. L. H. Wilkerson
Dola Belle Mining
Box 3
Thompson, Utah

Re: Docket No. DMEA 3962 (Uranium)
Contract I~~dm~~-E928
L. H. Wilkerson, Assignee
(School Sec. 36, T. 22 S.,
R. 21 E.)
Grand County, Utah

Dear Mr. Wilkerson:

Thank you for your letter of October 1, which clarified the misunderstanding regarding the royalty due on the captioned property.

Will you please advise this office when mining operations are again resumed on that portion of the property which has been subordinated to the Government.

Very truly yours,

Original signed by
E. N. HARSHMAN

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

HMC:hmh

cc: Chmn. Op. Comm. (2)
Harshman
Robertson, OME/GJ
Hasler
Royalty file, E928
Chron

OME
DEPARTMENT OF THE INTERIOR
OCT 6 - 1958
REGION III
DENVER COLORADO

October 1, 1958

United States Department of the Interior
Office of Minerals Exploration
224 New Customhouse
Denver 2, Colorado

Attn: Mr. E. N. Harshman

Property file E-928

Dear Mr. Harshman:

In reply to your letter of September 25, please rest assured that the "Dola Belle Mining" and "L. H. Wilkerson", are one and the same.

Since my purchase of the Ringtail mine, Section 36, T 22 S, R 21 E, I have faithfully paid the government 5% of the gross proceeds of all ore mined from this property. During this period I have not at any time, mined as much as one ounce of ore from the D.M.E.A. loan property, yet I have paid to the government the sum of $3,202.60 since purchasing the property and $1,160.64, for the three months period previous to the purchasing of said property, which all rights should never have been, since I was not mining D.M.E.A. property.

Under the circumstances, due to the insecure sales of my ore I no longer find it expedient to continue these payments at this time. If and when D.M.E.A. property should be mined let me assure you the payments would begin at once.

Union Carbide Nuclear Company have so been informed, they are no longer to withhold payments for the D.M.E.A. loan, until either myself or your government engineers should inform them the property in question is being mined, and they in turn shall start withholding payments again.

Mr. Harry F. Robertson of your Grand Junction office, will be at the Ringtail mine on October 7th. for the purpose of inspecting said mine. I am sure that in his report to you, the above claims will be substantiated. In the future, please feel free to send your government engineers to inspect this mine at anytime you so desire, they will be given in all due respect the curtesy and consideration due them.

I remain.

Sincerelly,

L. H. Wilkerson

L. H. Wilkerson
Dola Belle Mining
Box 3
Thompson, Utah

CC: H. F. Robertson

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 300
Grand Junction, Colorado

OME
DEPARTMENT OF THE INTERIOR
OCT 22 1958
REGION III
DENVER, COLORADO

MINERAL DEPOSITS
IN REPLY REFER TO:
O M E
RECEIVED
OCT 22 1958
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

October 21, 1958

Memorandum

To: Acting Executive Officer, OME Field Team, Region III

From: H. F. Robertson
J. W. Haeler

Subject: Docket No. DMRA 3962 (Uranium), Contract Idm-E 928, L. H. Wilkerson, Assignee (sec. 36, T. 22 S., R. 21 E.) Grand County, Utah. Payment of royalty on ore from the Ringtail mine

On October 1, 1958, the subject operator informed the OME, Region III, that royalty on uranium ore produced from the Ringtail mine would no longer be paid since the production was not coming from property subordinated under Contract Idm-E 928. In order to verify the above statement, this office arranged a meeting with Mr. Wilkerson at the property on October 7, 1958, for the purpose of checking the underground workings.

Current mine maps, kept by the Norbute Corporation and Mr. Wilkerson, indicate that the only mining done on the subordinated ground was performed during the period January-July 1957 and amounted to approximately 300 tons. The ore was taken from a small stope near the bottom of the incline. Production from subordinated and unsubordinated ground was not segregated and royalty was paid on all shipments made from the Ringtail mine during the period. The mining of the 300 tons of ore essentially depleted the reserve and the workings were abandoned sometime before June 30, 1957. The Norbute Corporation then assigned the Ringtail property to Mr. Wilkerson, effective August 14, 1957. Since acquiring the mine, Mr. Wilkerson has confined his mining operations to the unsubordinated area south of the shaft but has continued paying the Government's royalty on all ore produced from the mine.

After checking all available mine maps, the examining team went into the underground workings for a physical check on the mining operations. A Brunton-tape survey was made, extending from the Ringtail shaft, northwesterly to the top of the incline. The stope and incline are completely flooded and, from the appearance of the track, pipe, etc., have been flooded for many months. The east boundary of the subordinated property crosses the workings at about the top of the incline. Further checking verified the statement that the currently active mining area is located south of the shaft and is not on subordinated property.

In conclusion, the results of our investigation indicate that Mr. Wilkerson has not mined any ore from subordinated ground since acquiring the Ringtail property. From the appearance of the drift and incline (as far as we could actually go) leading to the subordinated ground, the workings have been abandoned for many months and the approximately 300 tons produced by the Norbute Corporation during January-June 1957 appears to comprise the entire production on which the Government's royalty was legally due.

During a recent conversation with officials of the Norbute Corporation, it was learned that when Mr. Wilkerson was assigned the Ringtail property there was an unwritten agreement that Wilkerson would pay the DMEA loan as rapidly as possible from all production from sec. 36, T. 22 S., R. 21 E. This memorandum points out that royalty payment was due from approximately 300 tons of ore which was produced from subordinated ground. The operator stated that he wishes to suspend further payments to DMEA due to unstable marketing conditions in the area. Whether or not the operator wishes a refund of all royalty payments on production from unsubordinated ground is a matter to be resolved.

H. F. Robertson

H. F. Robertson
Mining Engineer

J. William Hasler

J. William Hasler
Geologist

OME
DEPARTMENT OF THE INTERIOR

OCT 3 - 1958
REGION III
DENVER, COLORADO

P. O. Box 360
Grand Junction, Colorado

October 2, 1958

Memorandum

To: Acting Executive Officer, OME Field Team, Region III

From: H. F. Robertson

Subject: Docket No. DMEA 3962 (Uranium), Contract Idm-E 928
L. H. Wilkerson, Assignee (Sec. 36, T. 22 S., R. 21 E.)
Grand County, Utah.
Payment of royalty

Mr. Wilkerson was in this office on October 1, 1958, for a conference regarding your letter to him dated September 25, 1958. We were informed at that time that all current production (including that concerned by your letter) is being mined from unsubordinated ground and that the purchaser would be instructed to stop deducting the 5 percent DMEA royalty as of October 1, 1958. If and when mining of the DMEA ore is resumed, the royalty will again be paid.

Mr. Hasler and I made arrangements with Mr. Wilkerson to meet him at the Ringtail mine on October 7, 1958. At that time we will ascertain whether or not the current production is from subordinated ground and will write an appropriate memorandum regarding our findings.

H. F. Robertson

H. F. Robertson
Mining Engineer

OME
PARTMENT OF THE INTERIOR
OCT 6 - 1958
REGION III
DENVER COLORADO

October 1,1958

United States Department of the Interior
Office of Minerals Exploration
224 New Customhouse
Denver 2, Colorado

Attn: Mr. E. N. Harshman

Dear Mr. Harshman:

In reply to your letter of September 25, please rest assured that the "Dola Belle Mining" and "L. H. Wilkerson", are one and the same.

Since my purchase of the Ringtail mine, Section 36, T 22 S, R 21 E, I have faithfully paid the government 5% of the gross proceeds of all ore mined from this property. During this period I have not at any time, mined as much as one ounce of ore from the D.M.E.A. loan property, yet I have paid to the government the sum of $3,902.60 since purchasing the property and $1,180.64, for the three months period previous to the purchasing of said property, which by all rights should never have been paid since I was not mining D.M.E.A. property.

Under the circumstances, due to the insecure sales of my ore I no longer find it expedient to continue these payments at this time. If and when D.M.E.A. property should be mined let me assure you the payments would begin at once.

Union Carbide Nuclear Company have so been informed, they are no longer to withhold payments for the D.M.E.A. loan, until either myself or your government engineers should inform them the property in question is being mined, and they in turn shall start withholding payments again.

Mr. Harry F. Robertson of your Grand Junction office, will be at the Ringtail mine on October 7th. for the purpose of inspecting said mine. I am sure that in his report to you, the above claims will be substantiated. In the future, please feel free to send your government engineers to inspect this mine at anytime you so desire, they will be given in all due respect the curtesy and consideration due them.

I remain.

Sincerelly,

L. H. Wilkerson

L. H. Wilkerson
Dola Belle Mining
Box 3
Thompson, Utah

CC: H. F. Robertson

224 New Customhouse
Denver 2, Colorado
Sept. 25, 1958

9.29 C 220
" Murphy 700

Mr. L. H. Wilkerson
P. O. Box 3
Thompson, Utah

Re: Docket No. DMRA 3942 (Uranium)
Contract 14m-[illegible]
L. H. Wilkerson, Assignee
(Sec. 36, T 22 S, R 21 E)
Grand County, Utah

Dear Mr. Wilkerson:

Royalties and copies of settlement sheets for the below listed production have been received in this office, which result in a net underpayment of $46.74, as follows:

Liquidation No.	Dry Tons	Royalty Due	Royalty Payment
8275	117.273	$187.91	$172.09
8355	80.873	177.64	166.79
8436	147.559	259.43	239.36
		$624.98	$578.24

Total Royalty due ---------- $624.98
Total Royalty paid ---------- 578.24
Balance Royalties due ---------- $ 46.74

The underpayment in each instance is due to the haulage allowance being omitted in calculating royalties due. Article 8(c) of the contract stipulates that royalties shall be based on the value of production sold, including any bonuses, premiums, allowances or other benefits. Accordingly, a check in the amount of $46.74, as additional royalties due on this production is to be sent to the

Executive Officer
OME Field Team, Region III
224 New Customhouse
Denver 2, Colorado.

We note that the production covered by the above listed liquidation numbers have been bought of Dola Belle Mining Company. Inasmuch as it is required that the Government's interests be protected in the transfer of any land covered by the contract, please also provide this office with a copy of the legal instrument whereby Dola Belle Mining Company gained interest in land subject to the Government's royalties.

Very truly yours,

Original signed by
E. N. HARSHMAN

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

MEM:hmh

cc: Chmn. Op. Comm. (2)
Royalty file, E928
Robertson, OME/G.Jct.
Chron

224 New Customhouse
Denver 2, Colorado

February 28, 1958

ORIGINAL FILE COPY DMEA RECEIVED MAR 3 1958		
DATE	INITIALS	CODE
3/3	C	220
3/3	[illegible]	800
~~3/4~~	~~[illegible]~~	~~700~~

Climax Uranium Company
Grand Junction,
Colorado

Attention: Accounting Department

Re: Docket DMEA-3962 (Uranium)
Contract Idm-E928
Norbute Corporation
(Sec. 36, T. 22 S., R. 21 E.)
Grand County, Utah

Gentlemen:

A review of the ore settlement liquidations relating to the subject contract show that beginning with the July 3, 1957, liquidation number 3458 no haulage allowance is credited, whereas in the prior liquidations, ending with number 3391, a haulage allowance is shown.

We are unable to determine the propriety of this matter, and whatever information you are able to give us will be greatly appreciated.

Very truly yours,

Original signed by
W. H. KING

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

MHM:jy
cc: Royalty File E928
Chm. Op. Comm. - 2
DMEA,G.Jct.)
Harshman) w/copy of Chm's.
Hasler) ltr. dtd. 2/24.
Finch)
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/17/58	Murphy	700
4/18	Ellis	700
4-18	Chapman	800
4/18	Selfridge	130
"	Gibson	110
"	Hutchinson	100
4/22	"	220
		700

APR 21 1958

Mr. Kenneth Kriegel
Assistant to the President
Norbute Corporation
3 East 54th Street
New York 22, New York

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Kriegel:

Enclosed is a copy of the Government's approval of the assignment of the above-referenced contract to Mr. L. H. Wilkerson. A copy of this approval is being forwarded to the Assignee.

Sincerely yours,

G. O. Willoughby (for)

Administrator

Copy to:
Mr. L. H. Wilkerson
P. O. Box 3
Thompsons, Utah

FMMurphy/gla
4-17-58
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
FMMurphy
DMEA Field Team, Region III (2)

8623

NORBUTE CORPORATION

Executive Offices: 405 PARK AVENUE • NEW YORK 22, N. Y. • *PLaza 1-4800*

April 1, 1958

DMEA
RECEIVED APR 2 1958
DATE | CODE
4/2 | C | 22C
700

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

Dear Mr. Mittendorf:

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

In accordance with your letter of March 26, 1958, we have had Mr. L. H. Wilkerson's Performance Bond corrected by the bonding company, so that the "Date of Contract" now reads 3-9-56.

You were correct in assuming that this was merely a typographical error, but we hope that everything is now in order so that the formal approval may be issued.

Very truly yours,

NORBUTE CORPORATION

Kenneth Kriegel

Kenneth Kriegel
Assistant to the President

KK:ac
Enclosure

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Long	
	Dwyer	
Appd.Sol.Off.		
3/26/58	Murphy	700
"	Ellis	700
"	Johnson	110
"	Butterworth	100
3/27	C	220
		700

MAR 26 1958

Mr. Kenneth Kriegel
Assistant to the President
Norbute Corporation
3 East 54th Street
New York 22, New York

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Kriegel:

I regret to inform you that upon examining Mr. L. H. Wilkerson's Performance Bond, which was forwarded with your letter of March 17, 1958, we noticed that the blank for the "Date of the Contract" has been filled in with the date "3/9/58" whereas, the date of the Contract is March 9, 1956. While we feel certain that this was merely a typographical error, nevertheless in the circumstances we can not accept the bond in its present form. Accordingly, we are returning the same in order that you may have the bonding company correct the error.

Upon receipt of the corrected bond, we will gladly issue the formal approval of the assignment.

Sincerely yours,

O. C. Wilkinson (for)

Administrator

Enclosure

RWLong/EWEllis/eal/gla
3-26-58
Copy to: DMEA Docket
Admr.'s Reading file
Field Team, Reg. III (2)
Mr. Ellis
R. P. Dwyer
R. W. Long
chron

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Long	
	Dwyer	
	App'd. Sol. Off.	
	Murphy	700
		700
		110
		100
		220
		700

Mr. Kenneth Kriegel
Assistant to the President
Norbute Corporation
~~405 Park Avenue~~
New York 22, New York

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Kriegel:

I regret to inform you that upon examining Mr. L. H. Wilkerson's Performance Bond, which was forwarded with your letter of March 17, 1958, we noticed that the blank for the "Date of the Contract" has been filled in with the date "3/9/58" whereas, the date of the Contract is March 9, 1956. While we feel certain that this was merely a typographical error, nevertheless in the circumstances we can not accept the bond in its present form. Accordingly, we are returning the same in order that you may have the bonding company correct the error.

Upon receipt of the corrected bond, we will gladly issue the formal approval of the assignment.

Sincerely yours,

Administrator

RWLong/eal
Copy to: DMEA Docket
Adm. Reading file
Field Team, Reg. III (2)
Mr. Ellis
R. P. Dwyer
R. W. Long
chron

FROM SOLICITOR

MAR 2. 1959

FOR SIGNATURE

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/20	Murphy	700
		140

INTERIOR DEPT.
MAR 20 1958
SOLICITOR

March 20, 1958

Memorandum

To: Associate Solicitor, Division of Mineral Resources

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

Subject: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Norbute Corporation

Assignment of Contract

Please refer to the Administrator's letter of March 14, 1958 (by R. W. Long).

Attached is a letter from Norbute and the Performance Bond we requested.

Will you kindly prepare the necessary papers for DMEA approval of the assignment of the contract from Norbute to Wilkerson.

/s/ Ernest Wm. Ellis

Ernest Wm. Ellis

RECEIVED
MAR 21 1958
ASSOC. SOLICITOR
MINERAL RESOURCES

FMMurphy/izm 3-20-58
cc: Mr. Murphy

8623

NORBUTE CORPORATION

Executive Offices: 3 EAST 54th STREET • NEW YORK 22, N. Y. • *PLaza 5-1420*

March 17, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 19 1958

DATE	INITIALS	CODE
3/19	C	220
"	TMM	700

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

Dear Mr. Mittendorf:

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Sec. 36, T. 22 S., R. 21 E
Grand County, Utah

Thank you for your letter of March 14, 1958. I am enclosing herewith the Performance Bond on the above DMEA contract issued to Mr. L. H. Wilkerson in the amount of $5,000. Mr. Wilkerson has executed this Bond and has sent it to us for further forwarding to your office.

I presume, assuming this Bond meets your requirments, you will issue the formal approval you mentioned of the assignment.

We appreciate the help you have given us over the past several months in this matter and can honestly say that it has been a pleasure doing business with you.

Very truly yours,

Kenneth Kriegel

Kenneth Kriegel
Assistant to the President

KK:ac
Enclosure

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	140	
	Long	
	Deringer	
	App'd. Sol. Off.	
3/14	Murphy	700
"	Ellis	700
"	Chamber	800
"	Johnson	110
"	Whitedog	100
3/14	C	220
		700

MAR 14 1958

Mr. Kenneth Kriegel
Assistant to the President
Norbute Corporation
405 Park Avenue
New York 22, New York

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Kriegel:

This will acknowledge receipt of your letter of February 28, 1958, transmitting a copy of Norbute's assignment of its interest in the above-identified land to Mr. L. H. Wilkerson, and a copy of the Utah State Land Board's acceptance.

We are also in receipt of a copy of Mr. DeWitt C. Deringer's letter of February 26, 1958, to Mr. W. H. King, Executive Officer, DMEA Field Team, Region III, Denver, Colorado.

As a result of these letters, we understand that the Ringtail Corporation is a wholly owned subsidiary of Norbute, that Norbute for corporate purposes had transferred its Utah State Minerals Lease No. 3971 to Ringtail, and accordingly the present assignment is from Ringtail to L. H. Wilkerson.

In accordance with your request, I am pleased to inform you that the assignment is adequate for the Government's purposes and that same is approved subject to receipt of a new Performance Bond in the amount of $5,000.00 from Mr. Wilkerson. When we have the bond, we will issue a formal approval of the assignment.

Sincerely yours,

G. O. Witterdorf (for)

Administrator

RWLong:ar
Copy to: DMEA Docket
Adm. Read. file
Field Team, Reg. III (2)
Mr. Ellis
R. P. Dwyer
R. W. Long
Chron

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/13	[illegible]	800
3/13	C	220
/		700

MAR 13 1958

Mr. Donald T. Finch
DMEA Auditor
224 New Customhouse
Denver 2, Colorado

Re: First Report of Royalty Review
Norbute Corporation
Contract No. Idm-1928
Docket No. DMEA-3962

Dear Mr. Finch:

Your Report of Royalty Review covering the above-cited project is acceptable. You are authorized to make normal distribution.

The matter of assignment of interest to L. H. Wilkerson by Norbute Corporation is with the legal department for drafting of the appropriate document.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Director
Contract Administration
and Audit Division

CEFisher/ama
March 13, 1958

Copy to: Docket
Admr. Reading File
Mr. Chambers

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/6/58	Murphy	700
"	Ellis	700
		140

March 6, 1958

Memorandum

INTERIOR DEPT.
MAR 6 = 1958
SOLICITOR

To: Associate Solicitor
Division of Mineral Resources

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

Subject: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Please review correspondence in the attached docket, as follows:

Memorandum from W. H. King, dated February 28, with attached letter, dated February 26, 1958, from Mr. DeWitt C. Deringer, Vice President, Norbute Corporation, Grand Junction, Colorado, and letter to the Administrator, dated February 28, from Mr. Kenneth Kriegel, Assistant to the President, Norbute Corporation, New York City,

and prepare a reply to Mr. Kriegel's letter for the Administrator's signature. A copy of your reply should be forwarded to the Operator's office in Grand Junction, as well as two copies for the DMEA Field Team, Region III.

In addition to the Administrator's letter of October 8, 1957, kindly refer to letter prepared by Mr. Long, dated February 20, 1958.

/s/ Ernest Wm. Ellis

Ernest Wm. Ellis

FMMurphy/gla
cc to: Mr. Murphy

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

March 3, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 6 1958

DATE	INITIALS	CODE
3-6	C	220
5-7	~~[illegible]~~	~~700~~

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3962 (Uranium) Contract Idm-E928, Norbute Corp. (Sec. 36, T. 22 S., R. 21 E.) Grand County, Utah

Enclosed is a copy of a letter, dated March 1, 1958, from A. R. Eikenbary, Climax Uranium Company, Grand Junction, Colorado, which replies to our letter of February 28.

Mr. Eikenbary states that all Climax purchases of ore subject to DMEA royalty sold by Mr. L. H. Wilkerson have been F.O.B. mine.

W H King
W. H. King

Enclosure

CLIMAX URANIUM COMPANY
P. O. BOX 1901
GRAND JUNCTION, COLORADO

DMEA
DEPARTMENT OF THE INTERIOR
MAR 3 - 1958
REGION III
DENVER, COLORADO

March 1, 1958

Mr. W. H. King, Executive Officer
United States Department of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA-3962 (Uranium)
Contract IDM-E928
Norbute Corporation

Dear Mr. King:

In reply to your letter of February 28, 1958, we wish to inform you that on June 21, 1957 we were advised that the mining operation on Utah State Lease Number 3971, Sec. 36, T. 22 S., R. 21 E., was discontinued by Ringtail Corporation and was transferred to Mr. L. H. Wilkerson.

Mr. Wilkerson offered the ore for sale F.O.B. at the mine, to which we agreed. Accordingly, no hauling allowance as such was paid to Mr. Wilkerson and we assumed the obligation of transporting the ore to our mill.

$ 8 640.23 - owed
$ 3 632.33 - paid / Feb / 58

Very Truly Yours,

CLIMAX URANIUM COMPANY

A. R. Eikenbary

A. R. Eikenbary

ARE:brg

CYTO
FINCH
PORTACYTO
WO-2
DMEA/G.S.
HARSHMAN
HASEK

NORBUTE CORPORATION

Executive Offices: 405 PARK AVENUE • NEW YORK 22, N. Y. • *PLaza 1-4800*

February 28, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 3 1958

DATE	INITIALS	CODE
3/3	C	220
		700
3/6		140

Docket No. DMEA-3962
Contract No. Idm-E928
Sec. 36, T. 22 S., R. 21 E
Grand County, Utah

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

Dear Mr. Mittendorf:

Re: DMEA Loan

I wish to apologize for not answering your letter of October 8, 1957, more quickly, but delays in revising the assignment of the above lease have prevented me from further clarifying this situation. Since receiving your letter of February 20, 1958, the Utah State Land Board has notified Mr. L. H. Wilkerson of its acceptance of the revised assignment of this land (copy enclosed), and so we are now better able to proceed.

If you will recall, you stated that in order for Norbute to be released from its obligation on the Performance Bond, it would be necessary for us to forward to you a copy of the assignment containing provisions preserving the rights of the Government, along with a new bond in Mr. Wilkerson's name. Earlier we had received a committment from Mr. Wilkerson in letter form to assume these obligations, but after receipt of your letter, we found it necessary to revise the actual assignment itself (copy enclosed herewith) in order to conform with regulations. Since the actual assignment to Mr. Wilkerson on June 18, royalties have been continuously paid to the Government, with Norbute guarantying the obligation.

The revised assignment, which complies with the DMEA contract, has been executed and finally accepted by the Utah State Land Board. Mr. Wilkerson has had difficulty, however, in getting a new Performance Bond, primarily because various bonding companies have said that DMEA approval of the assignment to Mr. Wilkerson is necessary before a new bond can be issued.

We are presently trying to impress upon the bonding companies the fact that a Government release is impossible without first having a new bond in Mr. Wilkerson's name. We have informed these companies that after the DMEA has reviewed the assignment of the lease to Mr. Wilkerson and inspected the new bond, Norbute will be released from its obligation.

An assignment, which now should be acceptable to the DMEA since it preserves the Government's rights, was executed on August 14, To expedite matters now, since we have had difficulty in having Mr. Wilkerson take out his own Performance Bond, we would appreciate a conditional approval of the assignment from the DMEA.

Such a conditional approval would permit Mr. Wilkerson to take out a Performance Bond without difficulty, and naturally, your conditional approval would be premised on the later submission of a new Performance Bond. After the submission of the new bond, I presume the DMEA would authorize cancellation of the present bond, provided the enclosed assignment is satisfactory.

It should be noted that the assignment I am enclosing reads from Ringtail Corporation to Mr. L. H. Wilkerson. Our Vice President in charge of mining operations, Mr. DeWitt C. Deringer, has already written to Mr. W. H. King, Executive Officer, DMEA Field Team Region III, Denver, Colorado, explaining Ringtail Corporation, which is a wholly owned subsidiary of Norbute. I should like to further clarify this by saying that Norbute transferred the lease to Ringtail Corporation on March 8, 1957, but that the transfer was for corporate purposes only.

Since Norbute was still accepting its obligation to continue to make DMEA royalty payments, no effort was made to notify the DMEA of this inter-corporate assignment, nor was any effort made to have a new Performance Bond taken out. Norbute continued to carry the bond and the responsibility of making appropriate payments; at a later date the lease was transferred to Mr. Wilkerson, who in turn agreed to assume the DMEA obligations.

We are sorry for the confusion which may have resulted from this series of transactions, but we do feel that the position of the Government has been preserved throughout. We are now at the point where we expect a new Performance Bond in Mr. Wilkerson's name in a matter of weeks, thus severing all Norbute responsibility after your approval. It would be helpful, however, thus insuring the possibility of our getting such a bond, if you would give us the conditional approval as outlined above.

Should you need any further information, please do not hesitate to call on us. Thank you for your help in this matter, and we indeed appreciate the interest you have taken and the assistance you have rendered to us in the past.

Very truly yours

Kenneth Kriegel

Kenneth Kriegel
Assistant to the President

KK:ac
Enclosures

Copy to Mr. DeWitt C. Deringer

2

THE STATE OF UTAH
STATE LAND BOARD

SALT LAKE CITY, UTAH

DMEA
RECEIVED MAR 18 1958
DATE | INITIALS | CODE

Copy for DMEC

Dec. 24, 1957

Re: Min ral Lease No. 3971

Mr. L. H. Wilkerson
P. O. Box 3
Thompson, Utah

Dear Mr. Wilkerson:

We wish to advise you that the Land Board has accepted the Assignment of this lease to you by Ringtail Corporation, dated Aug. 14, 1957, in lieu of the one dated June 18, 1957 which was approved by the Land Board Aug. 5, 1957. We understand it was necessary to rewrite the original Assignment in order that it would be acceptable to the Defence Materials Exploration Corporation.

The original Assignment and one copy are enclosed herewith as well as an extra copy of the June 18, 1957 Assignment which we had in our file.

Very truly yours,

Lee E. Young

LEE E. YOUNG
DIRECTOR

AT
Encls.3

COPY

[illegible]

Mineral Lease No. 3971

For and in consideration of the sum of Ten ($10.00) Dollars and other good and valuable consideration, MINERAL CORPORATION, a Delaware corporation, does hereby sell, assign and transfer unto L. E. Williams all its right, title and interest in and to ML3971, covering the following described land:

> All of Section twenty-six (26), Township twenty-two (22) South, Range twenty-one (21) East of the Salt Lake Base and Meridian,

in the County of Grand, State of Utah.

SUBJECT to all the terms and conditions of a certain agreement between Norbute Corporation and the United States of America, dated March 9, 1956, Docket No. EMEA 3962, Contract No. Idm-E 928, including, but not limited to, the right of the United States of America to royalty payments and a lien for such payments, as provided by Article 8 of said agreement, dated March 9, 1956, and the undersigned assignee hereby assumes and agrees to comply with the terms and conditions on the part of the Operator (Norbute Corporation) designated in said agreement dated March 9, 1956, and the undersigned assignee further agrees to the posting of a good and sufficient bond as required by the United States of America, in substitution for the performance bond now outstanding heretofore posted by Norbute Corporation, and

SUBJECT to all the terms and conditions of a certain agreement between Kerbuto Corporation and Uranoplo Minerals Exploration Company, dated December 7, 1956, which terms and conditions the undersigned assignee, L.H.[redacted], hereby assumes and undertakes to perform.

Witness our hands this 14 day of August, 1957.

[redacted]

By Nicolas E. Salas

Pres.

By Kenneth Kunz

TWO [redacted]:

Sheldon E. Perlman

Milton Conley

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

On the 14 day of August, 1957, personally appeared before me Nicolas M. Salas and Kenneth Kunz, the signers of the above instrument, who duly acknowledged to me that they executed the same.

John D. Dwyer
NOTARY PUBLIC

JOHN D. DWYER
Notary Public, State of New York
No. 30-6100000
Qual. in Nassau Co. Cert. filed with
N. Y. Co. Clk.
Term Expires March 30, 1959

ACCEPTANCE OF ASSIGNMENT AND
AGREEMENT OF ASSUMPTION OF ASSIGNEE

I, L. H. [redacted], on oath, do solemnly swear that I am at the present time a native born Citizen of the United States of America and over the age of twenty-one years, and I hereby assume and agree to perform all of the covenants and

obligations of said lease on the part of the lessee to be kept and performed, and accept the foregoing assignment.

L. H. Wilkerson

Subscribed and sworn to before me this 23 day of August, 1957.

E. Lucile Harris
Notary Public

My commission expires Sept 8, 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

RECEIVED MAR 3 1958

		CODE
3/3	C	220
11	RMN	700

February 28, 1958

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3962 (Uranium), Contract No. Idm-E928, Norbute Corporation (Sec. 36, T 22 S, R 21 W), Grand County, Utah

In reference to matters discussed in the Administrator's letters to the Operator, dated July 17, October 8, 1957, and February 20, 1958, enclosed are the original and two copies of a letter, dated February 26, 1958, from Mr. DeWitt C. Deringer, Vice President of Norbute Corporation. Also enclosed are three copies of our letter acknowledging the foregoing letter and advising of its disposition.

Mr. Impey, of Ohio Casualty Insurance Company, visited this office recently to discuss the possibility of his organization supplying a reduced Performance Bond for Mr. L. H. Wilkerson. Mr. Impey was informed that it would be necessary for the Administrator to be supplied with a true copy of the instrument whereby Norbute Corporation transferred its interest in subordinated land to the Ringtail Corporation. A true copy of the instrument transferring Ringtail Corporation's interest to Mr. L. H. Wilkerson would also be required. We expressed belief to Mr. Impey that matters could be resolved to the satisfaction of all concerned if these instruments, in proper order, were supplied to the Administrator, and it was determined that the Government's interests were adequately protected.

Nothing transpired in this office in any way suggesting the attitude indicated in the quoted portion of Mr. Deringer's letter.

For some reason not apparent to this office, it appears that the Operator is attempting to evade the supplying of the requested instruments that effected the transfers.

WH King
W. H. King

NORBUTE CORPORATION

Western Mining Division: URANIUM CENTER BUILDING, P. O. BOX 1700, GRAND JUNCTION, COLORADO—CHapel 2-8257

DMEA
DEPARTMENT OF THE INTERIOR

February 26, 1958

FEB 27 1958
REGION III
DENVER, COLORADO

Mr. W. H. King, Executive Officer
D.M.E.A. Field Team Region III
224 New Custom Office
Denver, Colorado

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Norbute Corporation
Sec. 36, T.22 S., R. 21 W.
Grand County, Utah

Dear Mr. King:

It was very disturbing to learn from Mr. Jack W. Impey, of the Ohio Casualty Insurance Company in Denver, that the DMEA officials are unhappy with the manner in which assignments and application to DMEA for acceptance of these assignments of the subject property have been handled. Speaking of the Denver office of DMEA, Mr. Impey writes:

> "They were somewhat miffed by the fact that their records did not show any reference to Ringtail Corporation. Furthermore, they assured me it would be most difficult if not impossible to receive the blessings of the local staff of the D.M.E.A. on the present proposed switch."

It is quite apparent that considerable misunderstanding has arisen with regard to this particular DMEA loan.

To keep the accounts of Ringtail operations separate for accounting and tax purposes, our principals in New York established the Ringtail Corporation and assigned to this newly formed company the Utah State Mineral Lease No. 3971, on which the drilling was performed with DMEA assistance. The Ringtail Corporation was and remains a wholly owned subsidiary of Norbute Corporation. Therefore, no effort was made to have a performance bond or bother the DMEA officials with acknowledgment of this assignment. Norbute Corporation simply continued to carry the bond and responsibility under the name of Norbute.

In the middle of last year it became crystal clear that the size of the ore bodies in the Ringtail property did not lend itself to a profitable company operation. Mr. L. H. Wilkerson, a very energetic and capable individual took over the Ringtail property on a trial basis in March, 1957, and on June 18, 1957, The Ringtail Corporation sold to Wilkerson all of the fixed assets installed at the property at approximately fifty cents

on the dollar and assigned to him at the same time without additional cost Mineral Lease No. 3971 on which the drilling had been done with DMEA assistance. Approval of this assignment was requested and granted by the Utah State Land Board. However, the form of the assignment did not meet the approval of DMEA and the New York lawyers , as a result of discussion with the DMEA officials in Washington, rewrote the assignment, and the revised assignment was presented to the Utah State Land Board in August, 1957. For some reason not known to the writer, the revised assignment was not acknowledged nor approved by the Utah State Land Board until December 24, 1957. As soon as notification of approval of the revised assignment was received in this office, early in January, application was made to a local insurance company to write a performance bond similar to that carried by Norbute Corporation, in the name of Wilkerson. Insurance companies have been batting this question around ever since.

It was our understanding at the time of application for bond for Wilkerson that DMEA, before approving the assignment, would have to have the new bond attached to the assignment. This understanding was gained from the letter of July 18, 1957, from C. O. Mittendorf, Administrator, Washington, D. C., to our New York office. The last sentence of this letter reads: "If the assignment is found to conform to the requirements of the contract and is accompanied by the new bond, we would authorize cancellation of the present bond."

Now, we find that the bonding companies require the assignment to be approved by DMEA before they will issue the new bond - an entirely new point of view. It was in an effort to obtain this bond for Mr. Wilkerson, and after many telephonic conversations with the Ohio Casualty Company, that I suggested that the agent in Denver call the DMEA regional office for more details as to the liability incurred by the bonding company under such a performance bond. I had attempted to explain but they wanted an official explanation from some one in your office. As a result of this, we received the letter from the agent in Denver, which, as I mentioned in the beginning, is most disturbing because I feel it is the result of some misunderstanding .

In passing, I think it would be wise to mention that payments of approximately $3,000.00 toward the retirement of the DMEA loan have been made from the ores produced by Wilkerson since June of last year, so that the balance of this loan as of this date is something less than $5,000.00. Furthermore, the manner in which Wilkerson is operating today strongly suggests that this loan will be completely retired within the next year or certainly within eighteen months. We believe this, in itself, is a splendid record, considering the spottiness of the ore bodies, and is a definite recommendation that every consideration should be given to Wilkerson.

I sincerely trust that the foregoing clarifies any doubts or questions that you or your personnel may have had with regard to the subject loan. If there is any further clarification or explanation that you desire, kindly feel free to call on me.

Very sincerely yours,

DeWitt C. Deringer

DeWitt C. Deringer
Vice President

CC Mr. Kriegel, New York office

DCD/b

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/21/58	Murphy	700
2/24	Ellis	700
"	Chambers	260
2/24	GCS	130
"	Johnson	160
"	Rutherford	200
2/25	C	200
		700

FEB 24 1958

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

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. King:

A review of the ore settlement liquidations relating to the subject contract show that beginning with the July 3, 1957, liquidation number 3458 no haulage allowance is credited, whereas in the prior liquidations, ending with number 3391, a haulage allowance is shown.

It appears that the change occurred when L. H. Wilkerson became the miller instead of Norbute Corporation. Will you kindly investigate this matter and advise this office.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (2/18)

APPROVED:

Frank D. Lamb (2/18)
Member, Bureau of Mines

Thor H. Kiilsgaard (2/18)
Member, Geological Survey

FMMurphy/gla
2-21-58

cc to: Admr.'s Reading File
Operating Committee
FMMurphy/gla
Contract Adm. & Audit Div.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/11	Murphy	
2/11	Ellis	
	Long	
	Dwyer	
2/19	Fallon	800
"	Johnson	110
20	Mattendorf	100
2/21	C	220
		700

rewritten by

FEB 20 1958

Mr. Kenneth Kriegel
Assistant to the President
Norbute Corporation
383 Madison Avenue
New York 17, New York

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Kriegel:

Will you kindly refer to my letters of July 17 and October 8, 1957, relating to the subject Contract. To date we have not received your reply.

It would be to your best interest that the matters mentioned in your letter of July 1, 1957, and my response be resolved as soon as possible, as the cost of the Performance Bond may be reduced considerably.

The bond which your corporation is now carrying in the amount of $8,582.84 is in excess of the remaining interest of $5,303.08 which the Government retains under the Contract as of January 1, 1958. Therefore, the bond may be reduced to this amount; less any additional royalties received since the first of the year.

If the assignment of your Contract to Mr. Wilkerson is approved by the Government, then the bond required from the assignee will be only for the amount that has not been repaid at the date of approval.

Sincerely yours,

G. C. Mattendorf (for)

Administrator

FROM SOLICITOR
FEB 13 1958
FOR SIGNATURE

FMMurphy/RWLong:md 2/12/58
CC: DMEA Docket
Adm. Reading File
~~Operat. Com.~~
T. H. Kiilsgard, USGS
Jay L. Chambers
Field Team, Reg. 3 (2)
R. W. Long
R. P. Dwyer

Mr. Ellis
Mr. Higbie

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/7	Murphy	700
10/7	Norbute	700
10-7	Chamlus	800
	Johnson	110
7	Mittendorf	100
10/8	C O	220
		225

Mr. Kenneth Kriegel
Assistant to the President
Norbute Corporation
383 Madison Avenue
New York 17, New York

OCT 8 1957

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Part of sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Kriegel:

Please refer to my letter of July 17, 1957, relating to the assignment of the above-referenced contract to a Mr. L. H. Wilkerson.

We are presently receiving royalty payments on production from the land described in Annex I of the contract. The liquidations are for ore bought from Mr. Wilkerson under A.E.C. License No. P-3613. However, to clarify the situation with respect to Norbute Corporation's obligations under the contract, we would appreciate an answer to our above-mentioned letter at your earliest convenience.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

FMMurphy/gla
10-7-57
cc to: Admr.'s Reading File
THKiilsgaard, Rm. 5224
FMMurphy/Code 700
DMEA Field Team, Region III (2) w/2cc Norbute Corporation's letter July 1, 1957.

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 7 1957

DATE	INITIALS	CODE
10/7	C	220
		225

October 4, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

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

Subject: Docket DMEA 3962, Contract Idm-E928 (Uranium), Norbute Corporation (Ringtail Mine), Grand County, Utah

By copy of letter dated July 17, 1957 from the Administrator, DMEA, to the Operator, we were informed that assignment was made of interests in land included in the subject contract.

By memorandum dated August 22, 1957, M. H. Salsbury, USBM, advised us that the land has been sold to L. H. Wilkerson, P. O. Box 3, Thompson, Utah, but understood that your office was in correspondence with Norbute Corporation concerning the matter.

We would appreciate receiving a copy of the assignment for our files, whenever obtained.

E. N. Harshman

E. N. Harshman

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Long	
	Hoffland	
7-16	Chambers	800
7/17	Kuoma	900
		~~700~~
	Abrent	120
7/17	Johnson	110
"	Shutteldy	100
		220

JUL 17 1957

Mr. Kenneth Kriegel
Assistant to the President
Norbute Corporation
383 Madison Avenue
New York 17, New York

Re: Docket No. DMEA-3962 (Uranium)
Norbute Corporation
Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah
Contract No. Idm-E928

Dear Mr. Kriegel:

Your letter of July 1, 1957, advises that on June 18, 1957, Norbute Corporation assigned its interest in the land which was the subject of the above-referenced contract to a Mr. L. H. Wilkerson, P. O. Box 3, Thompsons, Utah.

You state that Mr. Wilkerson has agreed to assume Norbute's obligations with respect to the DMEA loan, and you request advice on procedure to be followed permitting Norbute to cancel its performance bond.

Article 2(d) of the DMEA contract provides in part ". . . the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, . . . without expressly referring to and providing in the instrument of conveyance, . . . for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof."

Accordingly, we should like to have a copy of the assignment containing provisions preserving the Government's rights. If the assignment is found to conform to the requirements of the contract and is accompanied by the new bond, we would authorize cancellation of the present bond.

Sincerely yours,

C. O. Littleton (for)

Administrator

RWLong/emd
7/16/57
Copy to: DMEA Docket
Adm. Reading File
Field Team, Reg. III(2)
E. W. Ellis
J. L. Chambers
R. P. Dwyer
R. W. Long
chron.
pending

8623

NORBUTE CORPORATION
383 MADISON AVENUE
NEW YORK 17, N. Y.

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 3 1957

DATE	INITIALS	CODE
7/3	C	220
		800
		225

July 1, 1957

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

Dear Sir:

Re: DMEA Loan
Utah Mineral Lease No. 3971

Norbute Corporation secured a DMEA loan in 1956 on certain land in Grand County, Utah, (Section 36, Township 22 South, Range 21 East). The reference number as used by your Denver office is as follows: Exploration Project Contract No. IDM-E928, Docket DMEA-3962.

Norbute Corporation is presently carrying a performance bond on this loan in the amount of $8,582.84; this bond was written for a one-year period from March 9, 1957. The Norbute Bond reference number is Indemnity Insurance Company No. 252218.

By assignment dated June 18, 1957, the land on which the DMEA loan was secured was assigned to Mr. L. H. Wilkerson, P. O. Box 3, Thompsons, Utah. Consequently, neither Norbute Corporation nor its subsidiaries have any interest in or control over this land. Mr.Wilkerson agreed to assume the obligations of Norbute with respect to this DMEA loan, and he has in particular agreed to co-operate with Norbute Corporation in securing a performance bond naming himself as principal.

We wish to be advised as to what procedure should be followed in this case. Would it be possible for Norbute to cancel its present bond with the promise that Mr. Wilkerson furnish his own bond and specify that this replace the bond presently held in the Norbute name? Also, can Norbute merely transfer the existing bond to Mr. Wilkerson and still meet DMEA requirements?

Local officials in the Colorado--Utah area were unable to advise us as to the correct procedure, this apparently being a rather unusual case.

RECEIVED
JUL - 5 1957
SOC. SOLICITOR
MINERAL RESOURCES

We appreciate your help in this matter, and if there is any other information you need, we shall be happy to be of assistance.

Very truly yours,

NORBUTE CORPORATION

Kenneth Kriegel

Kenneth Kriegel
Assistant to the President

KK:ac

OFFICIAL FILE COPY DMEA RECEIVED APR 18 1957		
DATE	INITIALS	CODE
4/18	C	220
4/18	[illegible]	800
		225

224 New Customhouse
Denver 2, Colorado

April 16, 1957

Mr. Abbott Charles, Manager
Western Mining Division
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Royalty payments, Docket DMEA 3962 (Uranium), Contract Idm-E928, Norbute Corporation (Sec. 36, T 22 S, R 21 W) Grand County, Utah

Dear Mr. Charles:

We acknowledge receipt of your check in the amount of $426.88, and one settlement sheet and load detail sheet under Liq. No. 3271. Our office requires four (4) copies of each applicable settlement sheet; also four (4) copies of a load detail sheet when settlement is made with one settlement covering a series of individual shipments.

In the future please furnish the required evidence of sales.

Very truly yours,

Original signed by
E. N. HARSHMAN

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

vj

cc: Royalty File E928
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Marshall
Chron.

NORBUTE CORPORATION
Uranium Center Building
P. O. Box 1700
GRAND JUNCTION, COLORADO

OFFICIAL FILE COPY
DMEA
RECEIVED APR 17 1957

DATE	INITIALS	CODE
4/17	C	220
4/17		800
		225

DMEA
DEPARTMENT OF THE INTERIOR
APR 15 1957
REGION III
DENVER, COLORADO

April 12, 1957

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

Re: Royalty payments, Docket DMEA 3962 (Uranium)
Contract Idm-E928, Norbute Corporation
(Sec. 36 T 22 S, R 21 W) Grand County, Utah

Dear Mr. Harshman:

In reply to your letter of April 8, you are advised that the original report accompanying the application for the subject DMEA loan, dated August 8, 1955, showed that the initial production bonus had been fully liquidated prior to that date. The ore zone explored by this project has not been approved by the A.E.C. for an additional bonus. Accordingly, we are not receiving bonus payments and are not eligible for such payments. VINA

I am enclosing the latest liquidation, No. 3271, for the month of March, 1957. Also enclosed is our check in the amount of $426.88, to cover royalty due upon this liquidation. Future payments will be sent to you, as in the past, by Climax Uranium Company, each month.

If there is any additional information that we can offer, please feel free to contact us.

Very truly yours,

Abbott Charles, Manager
Western Mining Division

Enc.
AC/b

COORTSP
SHAW (2)
HARSER
CHAIR (2)

224 New Customhouse
Denver 2, Colorado

April 8, 1957

ORIGINAL FILE COPY
DATA
RECEIVED
DATE 1957
4/11 CODE
4/11 220
800
225

Mr. Abbott Charles, Manager
Western Mining Division
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Royalty payments, Docket DMEA 3962 (Uranium), Contract Idm-E928, Norbute Corporation (Sec. 36 T. 22 S., R 21 W) Grand County, Utah

Dear Mr. Charles:

The Government's royalty under the terms of the captioned contract applies to any payments received in connection with production made from DMEA subordinated land. This includes AEC bonus payments on the production of the first 10,000 lbs of contained U_3O_8 made from the property.

Since we normally have no prior information as to the Operator's status of eligibility to receive such payments, request is made for additional royalties at the time the settlement sheets covering production subject to DMEA royalties is received at this office.

The listed settlement sheets have been received and the royalties due on bonus payments which may have been made for contained U_3O_8 are as follows:

Liq. No.	Bonus Roy. Due
3116	$ 29.16
3182	63.66
3228	88.14
3229	68.89
Total Bonus Roy. Due	$249.85

If you are receiving bonus payments, you are requested to submit your check for $249.85 to this office by return mail; otherwise, submit an original and nine copies of a statement which give justification for non-payment of this amount by reason of your eligibility status regarding AEC bonus payments.

All checks are to be made payable to the Defense Minerals Exploration Administration and sent to the Executive Officer, DMEA Field Team, Region III, 224 New Customhouse, Denver 2, Colorado.

Very truly yours,

original signed by
E. N. MARSHMAN

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

MHM/vj

cc: Royalty File E928
Corres. File E928
Chair. Opr. Comm. (2)
J. F. S haw (2)
Marshall
Chron.

NORBUTE CORPORATION
383 MADISON AVENUE
NEW YORK 17, N. Y.

March 15, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 18 1957

DATE	INITIALS	CODE
3/18	C	220
3/21	EW	800

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

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Norbute Corporation
Sec.36, T. 22 S., R. 21 W.
Grand County, Utah

Gentlemen:

Enclosed herewith is a rider to be attached to and form a part of Bond No. 252218 on behalf of Norbute Corporation and in favor of the United States of America.

In accordance with your letter of February 20, 1957, to the Indemnity Insurance Company of North America, the Bond has been reduced to $8,582.84.

Very truly yours,

NORBUTE CORPORATION

Philip Davidowitz

Philip Davidowitz
Asst. Secy., Asst. Treas.

PD:es
Encl (1)

Rider filed with original contract.
EW
3/21/57

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

224 New Customhouse
Denver 2, Colorado

February 21, 1957

ORIGINAL FILE COPY
DMEA
RECEIVED FEB 25 1957

DATE	INITIALS	CODE
2/25	C	220
2/26/57	[illegible]	130
2/4	C	220
11	[illegible]	100

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket No. DMEA 3962 (Uranium), Contract No. Idm-E928, Norbute Corporation (School Section 36, T 22 S, R 21 W), Grand County, Utah - FINAL REPORT

Enclosed are the original and three copies of a joint final engineering and geologic report, dated February 1957, by D. P. Elston, Geologist, Geological Survey, and Carl Belser, Mining Engineer, Bureau of Mines, and transmittal thereof, dated February 21, 1957, from John F. Shaw and E. N. Harshman, pertaining to work completed under the subject Contract.

The original and one copy of the Operator's final report were forwarded by memorandum of June 15, 1956.

The Contract was terminated before completion of all work provided for, by an agreement dated July 27, 1956, which was made effective May 11, 1956.

The exploration work completed consisted of 52 hours of bulldozing in preparation of access roads and 22 drill sites, the drilling of 22 holes, aggregating 1,070.4 feet of core drilling and 4,734.3 feet of non-core drilling, incidental allowance on 5,804.7 feet of drilling, and analysis of 62 samples for U_3O_8 content; all at a total accepted cost of $11,520.31, toward which the Government contributed 75%, or an amount of $8,640.23.

Final payment to the Operator was processed by this office August 28, 1956, in conformance with the Report of Review of reported project costs, dated August 16, 1956, by the Contract Administration and Audit Division, DMEA.

Reviewed by
DMEA OPERATING COMMITTEE
3-1-57
(date)

The exploration work resulted in the discovery or development of a significant quantity of uranium ore, on which a Certification was issued July 6, 1956. ?

DMEA Field Team, Region III See next report

By E. N. Harshman
E. N. Harshman
Acting Executive Officer

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado

February 21, 1957

DMEA
DEPARTMENT OF THE INTERIOR
FEB 20 1957
REGION III
DENVER, COLORADO

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 25 1957

DATE	INITIALS	CODE
		130
		220

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: Docket No. DMEA 3962, Contract Idm-E928, (Uranium) Norbute Corporation ~~(Utah State~~ Mineral Lease No. 3971), Grand County, Utah

Enclosed are original and 9 copies of the Final Engineer and Geological Report by D. P. Elston and Carl Belser.

Norbute Corporation originally applied for DMEA aid in exploring for uranium in W1/2 sec. 36, T. 22 S., R. 21 E., Yellow Cat Mining District, San Juan County, Utah. The ground is a school section that was held under lease from the state. The application, submitted August 29, 1955, was recommended for denial and, in December 1955, an amended application was filed requesting DMEA aid of similar nature on 38.5 acres, part of which overlapped, and part of which lay east of the ground the original application concerned. This area appeared to be more favorable to ore occurrence because of its location relation to the producing Ringtail mine, and therefore the amended application was approved.

A contract was signed March 9, 1956, providing for 17,818 feet of non-core and core drilling in 55 holes. The drilling was to be done in three stages at an estimated cost of $45,000.00, in which the Government was to participate to the extent of 75 percent or $33,750.00.

Work under the contract commenced April 5, 1956, and was stopped May 10, 1956. During that period, 5,804.7 feet of drilling, in 22 holes, was completed at a cost of $11,544.31 of which the Government paid $8,640.23.

Reviewed by
DMEA OPERATING COMMITTEE
3-1-57
(date)

Only one hole (X-25) penetrated ore-grade material. This, along with discoveries made in two holes that had been drilled previously by the Geological Survey, indicated the presence of about 650 tons of ore containing 0.42 percent U_3O_8 and 0.91 percent V_2O_5. An additional 200 tons of similar-grade ore is inferred.

Having completed approximately one-third of the program with discouraging results, the contract was terminated as of May 11, 1956, and a Certificate of Discovery was issued July 16, 1956.

A S Kowalchuk for
John F. Shaw
Supervising Mining Engineer

E. N. Harshman

E. N. Harshman
Member, Field Team

cc 9
Idm-E928
E. N. Harshman
Chron.

ASK:ph

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

JOINT FINAL REPORT BY EXAMINING TEAM
REGION III

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 25 1957

DATE	INITIALS	CODE
		130
		220

DMEA 3962
CONTRACT Idm-E928

UTAH STATE MINERAL LEASE NO. 3971

NORBUTE CORPORATION

Grand County, Utah

Uranium

Joint Final Engineering and Geologic Report

By

D. P. Elston
Geologist
Geological Survey

Carl Belser
Mining Engineer
Bureau of Mines

February, 1957

Reviewed by
DMEA OPERATING COMMITTEE
3-1-57
(date)

DMEA 3962
Contract Idm-E928
UTAH STATE MINERAL LEASE NO: 3971
NORBUTE CORPORATION
GRAND COUNTY, UTAH

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Location and accessibility 3
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Geology 4
Ore Deposits 5
Ore Reserves 7
The Project 7
  Original Program and Modifications 7
  Description of work completed 8
Summary of Factual Data 9
Conclusions and Recommendations 11

ILLUSTRATIONS

Figure — Follows Page

1. Location map, section 36, T. 22 S., R. 21 E., S.L.M., Utah State Mineral lease no. 3971, Norbute Corp., Grand County, Utah 1

2. Sketch map of section 36, T. 22 S., R. 21 E., S.L.M., showing geology, U.S. Geological Survey Drilling, and area of amended application, Norbute Corporation, Yellow Cat area, Grand County, Utah 3

3. Isopach map and geologic section of "fourth sandstone" in part of section 36, T. 22 S., R. 21 E., S.L.M., showing location of U. S. Geological Survey and DMEA drill holes, Norbute Corp., Yellow Cat Are, Thompson District, Grand County, Utah 13

TABLE

1. List of holes drilled under contract Idm-E928 and some Geological Survey holes drilled in subjugated ground 12

OFFICIAL FILE COPY
D M E A
RECEIVED FEB 25 1957

DATE	INITIALS	CODE

DMEA 3962
Contract Idm-E928

NORBUTE CORPORATION
Utah State Mineral Lease No. 3971
Grand County, Utah

INTRODUCTION AND SUMMARY

The Norbute Corporation, P. O. Box 1700, Grand ~~Junction, Colorado,~~ submitted an application to the Defense Minerals Exploration Administration on August 29, 1955, for aid in exploring for uranium on Utah State Mineral Lease No. 3971 (fig. 1). The application, DMEA 3962, requested aid in completing 35,073 feet (64 holes) of exploratory drilling at a total estimated cost of $111,292.54, in W 1/2 sec. 36, T. 22 S., R. 21 E., SLM, Grand County, Utah.

The property was examined on October 20, 1955, by M. H. Salsbury, mining engineer, U. S. Bureau of Mines, and D. D. Haynes, geologist, U. S. Geological Survey. Portions of the area already had been drilled by the Geological Survey, and denial of the application was recommended.

In December, 1955, the applicant submitted a different program to explore a different portion of the same leased ground, embracing an area 970 feet by 1,730 feet in extent (38.524 acres), and covering the center of section 36.

Adjoining this area on the east is the Ringtail property, from which the Norbute Corporation produced, through July, 1955, a total of 3,263 tons of ore averaging 0.24 percent U_3O_8 and 1.08 percent V_2O_5, and as of the end of September, 1956, production totaled 7.921 tons averaging 0.22 percent U_3O_8 and 1.12 percent V_2O_5. Three shipments of about 22 tons each were made January 11-13, 1957, from the small ore body on DMEA-subordinated ground west of the Ringtail shaft.

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
JANUARY 1957 CONTRACT Idm-E728 DOCKET 3962

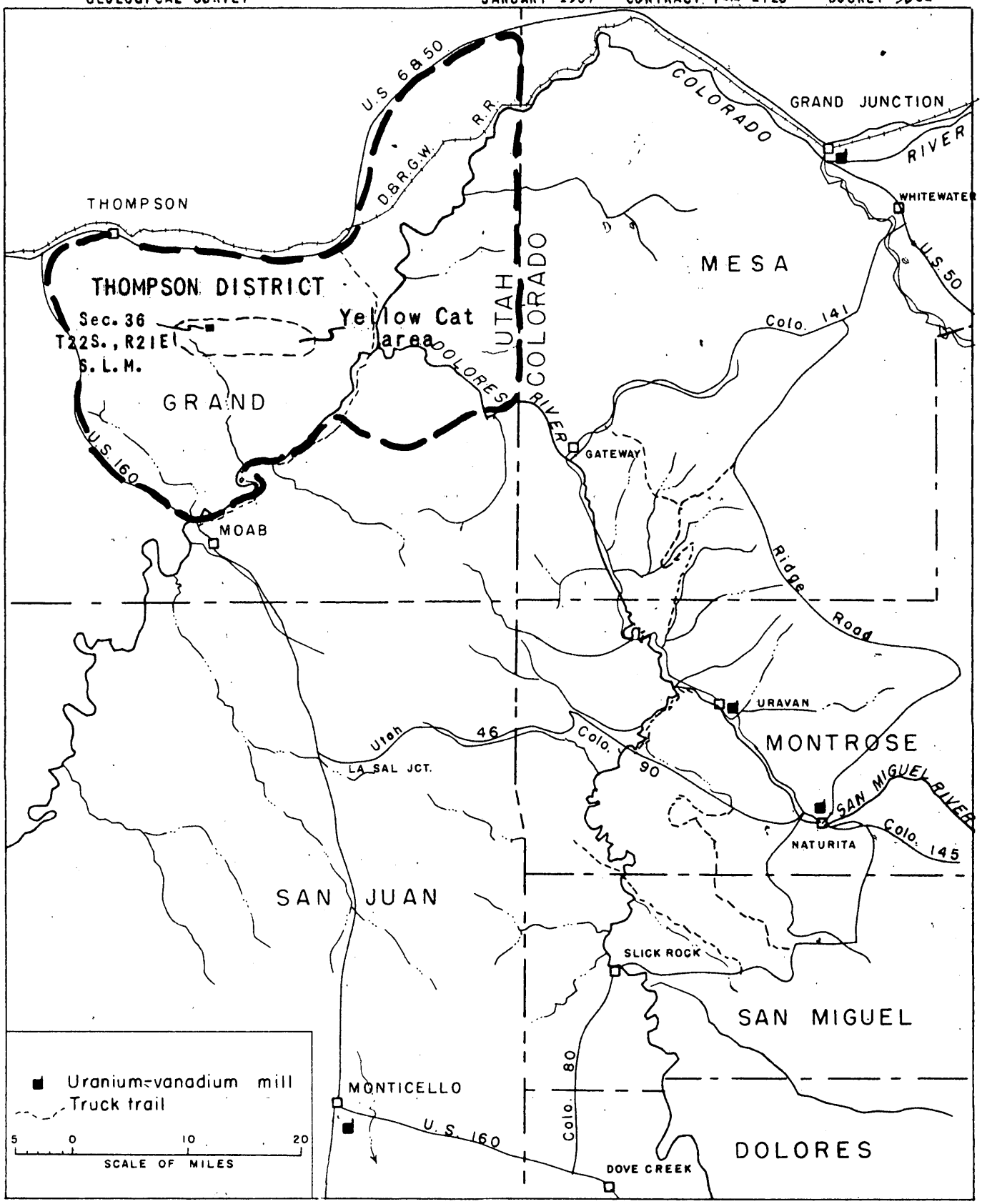


FIGURE 1.--LOCATION MAP, SECTION 36, T.22 S., R.21 E., S.L.M., UTAH STATE MINERAL LEASE NO. 3971, NORBUTE CORP., GRAND COUNTY, UTAH.

The strata which outcrop on the property are the Brushy Basin member of the Morrison formation of Jurassic age and, in the extreme northwest corner, the Burro Canyon formation of Cretaceous age.

The major ore-producing stratum is a lower sandstone layer in the Salt Wash member of the Morrison formation. The thicker parts of this sandstone layer, and immediately adjacent ground, appear to be the most favorable for the occurrence of uranium-vanadium deposits. The deposits in and near the applicant's Ringtail mine are in an easterly trending channel-like sandstone and are of variable sizes. Individual ore bodies appear to be controlled by festoon structures and, in the mine workings, such ore bodies become smaller and more scattered to the west.

A contract, Idm-E928, was signed on March 9, 1956. This contract called for a three-stage drilling program consisting of a maximum of 17,818 feet (55 holes) of drilling at a total cost of $45,000.00 with Government participation at 75 percent amounting to $33,750.00.

Drilling started on April 5, 1956, and was finished on May 10, 1956, with 5,804.7 feet (22 holes) of drilling completed at a total cost of $11,544.31. Government participation at 75 percent amounted to $8,640.23. Only one hole, X-25 penetrated ore. This hole and two previously drilled Government holes delineate an ore body which contains an estimated 650 tons of indicated ore that averages 0.42 percent U_3O_8 and 0.91 percent V_2O_5. Inferred reserves may total about 200 tons.

LOCATION AND ACCESSIBILITY

Sec. 36, T. 22 S., R. 21 E., SLM, is in the Yellow Cat mining district, 8.5 miles south of U. S. Highway 6-50, 85 miles west of Grand Junction, Colorado, the nearest supply center (figs. 1 and 2).

The region is one of moderate relief, and drilling areas are easily accessible. The winters are generally mild and year-round surface operations are usually feasible. Vegetation on the semi-arid land is sparse. Precipitation averages 11 inches annually and is very unevenly distributed throughout the year.

Ore can be trucked to the ore buying stations at Thompsons, Utah, or Grand Junction, Colorado.

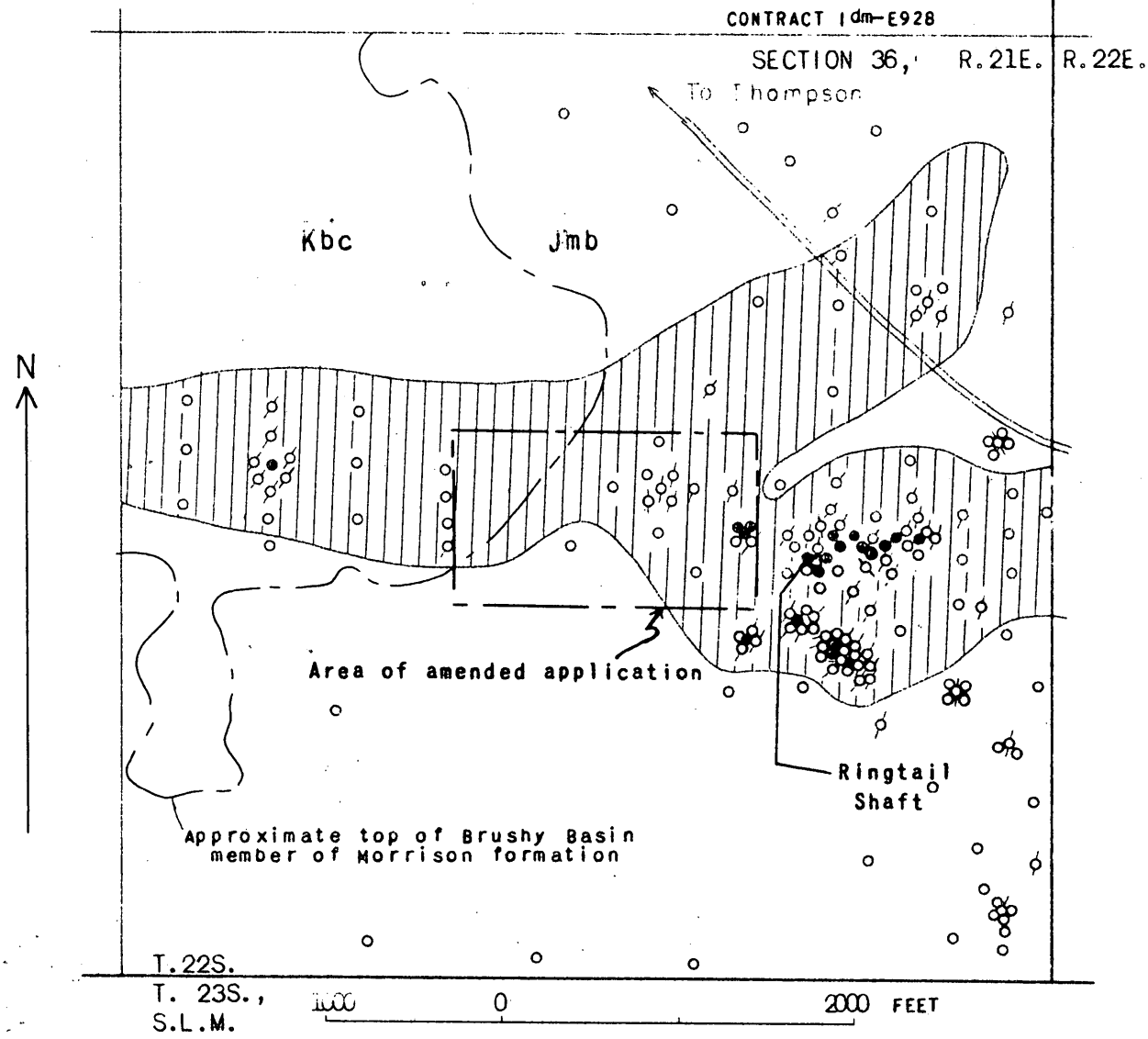
HISTORY AND PRODUCTION

In the Yellow Cat area, a limited production of uranium-vanadium ore for its radium content dates back to 1911. In 1939, the area became active and some ore was produced for its vanadium content. Following the introduction of the Government uranium-ore buying schedules in 1948, the ore has been produced chiefly for its uranium content. The mining operation at the Ringtail shaft is based on the results of the Geological Survey drilling in the east half of section 36.

Production from the area subordinated under this contract, has just begun, with three shipments totaling about 66 tons made January 11-13, 1957. The total production at the Ringtail mine through September, 1956, is 7,921 tons, averaging 0.22 percent U_3O_8 and 1.12 percent V_2O_5.

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3962 JANUARY 1957
CONTRACT Idm-E928



EXPLANATION

Kbc	CRETACEOUS BURRO CANYON FORMATION
Jmb	JURASSIC BRUSHY BASIN MEMBER OF MORRISON FORMATION
	GROUND UNDERLAIN BY FAVORABLE NO. 4 ORE-BEARING SANDSTONE OF SALT WASH MEMBER OF MORRISON FORMATION
	DRILL HOLES, U.S. GEOLOGICAL SURVEY
o	BARREN
ø	MINERALIZED
●	ORE-BEARING

Note: BASE FROM U.S. GEOLOGICAL SURVEY REPORT MAP.

FIGURE 2. SKETCH MAP OF SECTION 36, T. 22 S., R. 21 E., S.L.M., SHOWING GEOLOGY, U.S. GEOLOGICAL SURVEY DRILLING, AND AREA OF AMENDED APPLICATION, NORBUTE CORPORATION, YELLOW CAT AREA, GRAND COUNTY, UTAH

OWNERSHIP AND EXTENT

The subject property consists of 38.524 acres, and is described as follows: "Beginning at a point 420 feet north of the center point of said section 36, thence 960 feet east to the northeast corner, thence south 970 feet to the southeast corner, thence west 1,730 feet to the southwest corner, thence north 970 feet to the northwest corner, thence east 770 feet to the point of beginning". This tract is at the center of section 36, T. 22 S., R. 21 E., SLM, Grand County, Utah, and is part of Utah State Mineral Lease No. 3971, dated April, 1952, to Strategic Minerals Exploration Company and transferred to the Norbute Corporation on February 25, 1955. The lease is for 20 years and carries a royalty of 12-1/2 percent.

A performance bond for $33,750.00 was furnished by the Norbute Corporation through the Indemnity Insurance Company of North America.

GEOLOGY

Sec. 36, T. 23 S., R. 21 E., SLM is on the northeast flank of the Salt Valley anticline, in Grand County, Utah. Outcrops consist of nearly flat-lying sediments of the Jurassic Brushy Basin member of the Morrison formation, and the Cretaceous Burro Canyon formation. The Salt Wash member of the Morrison formation underlies the Brushy Basin member and contains the uranium-vanadium deposits of the Yellow Cat area.

The Salt Wash member is about 240 feet thick and consists of interbedded layers and lenses of sandstone and mudstone. The layers of sandstone have varying lateral continuity and are composed of a series of coalescing lenses each of which may be partly bounded by mudstone. The sandstone is fine- to medium-grained and is characterized by a "scour and fill" type of bedding which

suggest a fluviatile origin. Carbonaceous trash and fossil wood is locally abundant. The sandstone varies from red through shades of brown and yellow to dark gray.

Most of the uranium-vanadium deposits of the Salt Wash member in the general area occur in a lower series of coalescing lenses of sandstone known as the "fourth sandstone". The lower-most sandstone layer, the "fifth sandstone", and an intermediate sandstone layer, the "third sandstone", also locally contain ore. These sandstone layers are thinner and are less persistent than the fourth sandstone.

The contact between the Salt Wash member and the overlying Brushy Basin member is gradational and, locally, is difficult to determine accurately. The Brushy Basin member commonly is about 300 feet thick and consists of varicolored mudstone and minor interbedded fine-grained sandstone and conglomerate.

The Burro Canyon formation of Cretaceous age conformably overlies the Brushy Basin member and is about 110 feet thick. The lower part consists of conglomeratic sandstone, quartzite and interbedded mudstone; the upper part consists of mudstone and shale with minor beds of conglomerate and sandstone.

ORE DEPOSITS

The uranium-vanadium deposits in the Yellow Cat area are similar to the deposits in the Uravan mineral belt of southwestern Colorado. However, in the Yellow Cat area, many small deposits occur in the lower sandstones of the Salt Wash member, while in the Uravan mineral belt most of the deposits are in sandstone layers in the upper part of the Salt Wash member.

Most of the known ore deposits in the "fourth sandstone" are spacially related to channel-like scours which are incised in the mudstone which underlies the thinner parts of the layer. The filling of such "channels" results in a locally thickened sandstone layer, but thickened sandstone layers also are found where deposition of sandstone has persisted and the thickening has been at the expense of mudstones which overlie the sandstone layer.

Layers of ore minerals mainly occur in the lower and middle parts of the sandstone layer near places where there is a change in thickness, or where mudstone seams or layers disrupt the lateral continuity of the sandstone. The thick sandstone, and ground classed as favorable for ore on combined features of thickness and on altered color of the sandstone and mudstone, extends as an easterly trending belt across section 36 through the subordinated ground. Within this belt, the west one-half of the section, is classed as less favorable for ore than the part in the east one-half. DMEA exploration was confined to the eastern part of the subordinated ground east, of the center of section 36 (fig. 3).

The results of drilling are comparable to results obtained by Government and private drilling, as well as by mining, on sections immediately south and southwest of section 36 (DMEA 3360, DMEA 4167). Ore deposits in these sections are in the "fourth sandstone" and apparently consist mostly of small, discontinuous ore bodies which are localized in detail by festoon cross-bedded sandstone. Such ore bodies commonly occur in clusters so that a relatively large percentage of holes drilled on closely-spaced (50-foot) centers will penetrate ore or mineralized ground. However, the layers of ore minerals usually are not continuous between holes. Some layers may extend for distances of as much as 50 to 100 feet, but many will have limits of only 10 feet.

ORE RESERVES

Of the 22 holes drilled, four penetrated ore (minimum of 1 foot thick containing at least 0.10 percent U_3O_8 or 1.0 percent V_2O_5) and eleven penetrated mineralized rock (ore grade but less than 1 foot thick, or less than 0.10 percent U_3O_8 or 1.0 percent V_2O_5 but more than 0.02 percent U_3O_8 or 0.1 percent V_2O_5). Two previously drilled Geological Survey holes YC-880 and YC-884 penetrated material classed as ore. A drift from the Ringtail workings was driven, in December, 1956 and January, 1957, to intersect hole YC-884 but failed to find the hole or ore. The drift was then extended to hole X-25 where ore was found, and the drift is still in ore about 10 feet beyond this hole. The ore trend appears to be about N. 45° E. (personal communication, Mr. Derringer, Norbute Corp.) and may be part of a mineralized layer which apparently extends from hole X-3 to hole X-1 (fig. 3). For reserve calculations ore in hole YC-880 has been connected with ore in hole X-25. The area of indicated reserves is 4,800 square feet and the average thickness of ore is 1.9 feet. Indicated reserves are 650 tons containing .42 percent U_3O_8 and 0.91 percent V_2O_5. Inferred reserves, including holes X-6 and X-31, where the ore layers are at different elevations, are about 200 tons but these reserves probably never will be mined.

THE PROJECT

Original Program and Modifications

The program originally proposed consisted of drilling of 64 non-core and core drill holes, in two stages, in the west one-half of section 36, at an estimated total cost of $111,292.54. A different proposal covering a block in the central part of section 36 was submitted later by the applicant. The

program called for 17,818 feet of non-core and core drilling in a maximum of 55 holes, in two stages, at an estimated cost of $58,527.64.

The contract, signed March 9, 1956, provided for a three-stage project consisting of 17,818 feet of drilling at a total cost of $45,000.00. In the revised proposal, Stage I was divided into two phases. In the contract, these two phases were called Stage I and Stage II while Stage II of the original proposal was called Stage III.

Stage I provided for drilling on the east end of the block, and Stage II provided for drilling on the west end. Stage III provided for offsetting favorable or ore holes drilled in Stage I and Stage II.

Drilling started on April 5, 1956. The operator requested that Stage II drilling be authorized on April 25, 1956. This request was deferred by the Field Team on May 8, 1956, but 11 holes of Stage III were authorized. Drilling was completed on May 12, 1956 with essentially negative results. The operator requested that the contract be terminated on May 18, 1956.

Description of Work Completed

Eleven Stage I holes, totaling ~~2,991.1~~ 2,813.6 feet and eleven Stage III holes totaling ~~2,813.6~~ 2,991.1 feet, were completed according to the original contract (Annex I).

Discouraging results of Stage I drilling on the west end of the tract indicated that Stage II drilling should not be done, and the contract was terminated as of May 11, 1956.

SUMMARY OF FACTUAL DATA

The contract called for a maximum of 17,818 feet of drilling to be done in three stages at the following stipulated costs:

Stage I

22 hrs. bulldozing at $12.00/hr.	$ 264.00	
2,065 ft. of non-core drilling at $1.82/ft.	3,758.30	
825 feet of core drilling at $3.15/ft.	2,598.75	
25 chemical assays at $5.00 ea.	125.00	
Incidental allowance, 2,890 ft. at $0.30/ft.	867.00	
Total estimated cost Stage I drilling		$7,613.05

Stage II

36 hrs. bulldozing at $12.00/hr	$ 432.00	
3,660 ft. of non-core drilling at $1.82/ft.	6,661.20	
900 ft. of core drilling at $3.15/ft.	2,835.00	
30 chemical analyses at $5.00 ea.	150.00	
Incidental allowance 4,560 ft. at $0.30/ft.	1,368.00	
Total estimated cost of Stage II		$11,446.20

Stage III

30 hrs. bulldozing at $12.00/hr.	$ 360.00	
7,968 ft. of non-core drilling at $1.82/ft.	14,501.76	
2,400 ft. of core drilling at $3.15/ft.	7,560.00	
80 chemical analyses at $5.00 ea.	400.00	
Incidental allowance 10,368 ft. at $0.30/ft.	3,110.40	
Total estimated cost of Stage III		$25,932.16
Total estimated cost of project (rounded)		$45,000.00
Government participation, 75 percent or		$33,750.00

Actual Costs

The contract was terminated after Stage I and eleven holes of Stage III were completed. Actual allowed costs follow:

Stage I

22 hrs. bulldozing at $12.00/hr.	$ 264.00	
2,330.3 ft. of non-core drilling at $1.41/ft.	3,275.45	
483.3 ft. of core drilling at $2.05/ft.	990.77	
26 chemical analyses at $4.82+ ea.	125.44	
Incidental allowance, 2813.6 ft. at $0.30/ft.	844.08	
Total actual cost of Stage I		$5,499.74

Stage III

30 hrs. bulldozing at $12.00/hr.	$ 360.00	
2,200 ft. non-core drilling at $1.40/hr.	3,080.00	
204.0 ft. of non-core drilling at $1.50/hr.	306.00	
587.1 ft. of core drilling at $2.05/ft.	1,203.55	
36 chemical analyses at $4.82+ ea.	173.69	
Incidental allowance 2,991.1 ft. at $0.30/ft.	897.33	
Total actual cost of Stage III		$6,020.57
Total actual cost of project		$11,520.31
Government participation 75 percent or		$8,640.23

Equipment consisted of a bulldozer furnished by K. L. Etter Construction Co., a diesel-drive Davey rotary drill with chain pulldown and two Sullivan No. 22 rigs furnished by B. H. Mott and Sons, Inc., and a probe and surveying instruments furnished by Norbute Corporation.

CONCLUSIONS AND RECOMMENDATIONS

The work progressed smoothly and core recovery was 97.2 percent. Results from the holes drilled near the north-south center line indicate little probability of discovering ore to the west.

One hole, X-25, penetrated ore of mineable grade. Estimated reserves total 650 short tons of indicated ore which averages 0.42 percent U_3O_8 and 0.91 percent V_2O_5. Inferred reserves are about 200 tons.

No recommendations are made, as final actions pursuant to the exploration contract have been made and a Certification of Discovery or Development was issued July 16, 1956.

TABLE 1

List of holes drilled under contract Idm-E928 and some Geological Survey holes drilled in subjugated ground

Hole	Collar Eleva.	Footage Core	Total Depth	Mineralized intervals (chem. assay) Base	Thick	U_3O_8	V_2O_5	Classif. & Thick. of 4th sandston
Stage I								
X-1	4844	50.8	250.8	226.0	1.0	0.02	0.73	Fav. 37
				227.0	1.0	0.09	0.56	
X-2	4848	23.4	223.4	Barren				Unfav. 16
X-3	4860	63.1	283.1	250.0	0.5	0.02	0.09	Fav. 56
				250.8	0.8	0.01	0.55	
				251.3	0.5	0.05	0.07	
X-4	4854	43.8	243.8	233.8	0.4	0.03	0.24	Semi-fav. 27
X-5	4864	43.8	264.8	Barren				Unfav. 28
X-6	4859	56.3	268.3	242.6	0.8	0.03	0.02	Fav. 25
				243.3	0.7	0.03	0.02	
				244.1	0.8	0.10	0.07	
				245.0	0.9	0.15	0.47	
				246.0	1.0	0.01	0.07	
				252.6	0.5	0.01	0.51	
				253.6	0.4	0.28	0.11	
X-7	4866	36.6	252.6	Barren				Unfav. 24
X-8	4864	53.2	283.2	254.2	0.4	0.17	0.05	Fav. 41
X-9	4866	33.8	263.8	Barren				Unfav. 24
X-22	4842	59.5	259.5	241.3	0.6	0.18	nil	Fav. 41
X-23	4846	19.0	220.3	Barren				Unfav. 16
Total (11)		483.3	2813.6					
Stage III								
X-25	4857	52.0	267.0	235.6	0.2	0.04	0.07	Fav. 47
				236.0	0.2	0.05	1.11	
				236.3	0.3	0.12	0.88	
				237.0	0.7	0.79	0.70	
				238.0	1.0	0.81	0.35	
				238.7	0.7	0.58	2.98	
				240.0	1.3	0.03	0.54	
				240.7	0.7	0.04	0.78	
				241.7	1.0	0.02	0.07	
				252.8	0.8	0.04	nil	
X-26	4844	52.5	257.5	232.5	1.3	0.04	0.70	Fav. 48
				234.0	1.5	0.02	0.06	
				235.0	1.0	0.06	nil	
X-27	4843	70.5	275.5	247.3	0.8	0.02	0.31	Semi-fav. 63
				247.8	0.5	0.06	2.00	
				248.6	0.8	0.02	1.03	
				249.4	0.8	0.15	0.86	

TABLE 1 (cont.)

Hole	Collar Elev.	Footage Core	Total Depth	Mineralized intervals (chem. assay) Base	Thick	U_3O_8	V_2O_5	Classif. & Thick. of 4th sandstone
Stage III (con't)								
X-28	4862	54.7	269.7	251.7	0.7	0.02	0.44	Fav. 45
				252.8	1.1	0.02	0.11	
X-29	4854	44.0	256.0	235.6	1.4	0.02	0.03	Fav. 31
				253.7	0.9	0.02	0.03	
X-30	4849	59.2	271.2	233.7	1.1	0.07	0.26	Fav. 47
				238.2	0.6	0.03	0.02	
				245.7	0.9	0.03	nil	
				260.2	0.8	0.06	0.07	
X-31	4858	47.3	267.3	240.4	0.5	0.05	1.01	Fav. 29
				241.5	1.1	0.14	0.51	
				245.1	1.0	0.03	0.06	
				246.0	0.9	0.05	0.12	
				247.2	1.2	0.03	0.13	
X-32	4860	28.4	253.4	250.0	0.7	0.02	0.49	Semi-fav. 14
				250.7	0.7	0.01	0.16	
X-33	4859	59.2	294.2	Barren				Semi-fav. 49
X-34	4873	74.5	304.5	Barren				Fav. 48
X-35	4861	44.8	274.8	254.4	0.8	0.05	0.01	Fav. 37
				255.0	0.6	0.02	nil	
Total (11)		589.1	2991.1					
Geological Survey drill holes								
YC-703	4854		274.7	232.6	0.6	0.16	1.19	Fav. 60
				232.8	0.2	0.16	0.14	
				234.0	1.2	0.023	0.1	
				235.0	0.6	0.043	0.12	
				236.8	0.2	0.062	0.1	
YC-880	4858		284.8	238.2	0.6	0.50	2.17	Fav. 63
				238.8	0.6	0.14	0.26	
				239.4	0.3	e0.027	0.10	
YC-883	4852		264.7	224.3	0.3	0.18	1.20	Fav. 55
				224.7	0.4	0.020	0.23	
YC-884	4855		274.8	232.4	0.6	0.96	1.30	Fav. 62
				233.3	0.9	e0.026	0.31	
				233.9	0.6	0.36	0.94	
				234.5	0.6	0.021	0.10	
				234.8	0.3	0.13	0.23	
				236.0	1.2	0.16	0.10	
				236.8	0.8	0.058	0.10	

DMEA Form 7
(12-56)

700

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Date	Surname	Code
2-19	Murphy	700
2-19	Ellis	700
2-20	Chambers	800
"	Johnson	110
		~~700~~
2-20	C	220

225

FEB 20 1957

Mr. V. J. Stahl
Indemnity Insurance Company of North America
99 John Street
New York 38, New York

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Norbute Corporation
Sec. 36, T. 22 S., R. 21 W.
Grand County, Utah

Dear Mr. Stahl:

This is in response to your letter of February 15, 1957, relating to Performance Bond No. 252218 executed by your company as surety on the above-referenced contract.

The value of the subject bond is $33,750.00, the amount anticipated as the Government's share of the contract. However, the contract was terminated by mutual agreement after the Government had contributed $8,640.23 as its share of the costs.

We have received no royalty to date on production from the project area; therefore, the bond should be reduced to $8,640.23. A letter, dated February 1, 1957, by our Executive Officer, Region III, to Norbute Corporation, indicated that royalty payments on production would be starting soon. It is suggested that you contact the Corporation and if royalty payments have been made, the bond could be reduced correspondingly.

Sincerely yours,

Frank E. Johnson
ACTING Administrator

FMMurphy/izm 2-19-57
cc to: Code 700
Mr. Murphy
Admr.'s Reading File
THKiilsgaard, 5224
JKratchman, AEC
DMEA FT Reg. 3 (2)

8623

Indemnity Insurance Company of North America

New York Office

99 John Street, New York 38, N. Y.

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DMEA		
RECEIVED FEB 18 1957		
DATE	INITIALS	CODE
2-18	C	220
"	CM	100
2-18	Fmcyk	700
		225

February 15, 1957

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

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-E928
Norbute Corporation
Sec. 36, T. 22 S., R. 21 W.
Grand County, Utah
Our Bond No. 252,218

Dear Sir:

We refer to your letter of July 6, 1956 enclosing a copy of the certification of discovery or development under the captioned Exploration Project Contract. Since the initial premium period for our bond expires March 9, 1957 we would like to know the current status of royalty payments and whether or not it is in order for us to terminate our bond or reduce the penalty thereof to the current amount due to the government.

Very truly yours,

V.J.Stahl,
Bonding Department

VJS:slw

2 copies of this letter sent to Reg III.

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

OFFICIAL FILE COPY DMEA RECEIVED 7 1957		
DATE	INITIALS	CODE
2-8		220
2/8		800
		225

224 New Customhouse
Denver 2, Colorado

February 4, 1957

Mr. Abbott Charles, Manager
Western Mining Division
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Royalty payments, Docket DMEA 3962 (Uranium), Contract Idm-E928, Norbute Corporation (Sec. 36, T 22 S, R 21 W) Grand County, Utah

Dear Mr. Charles:

By copy of your letter dated December 28, 1956 to Climax Uranium Corporation, Grand Junction, Colorado, we were informed that royalty on production from the land included under the subject contract would be forthcoming in the near future. To date, we have received no report of production or royalties.

Although you have advised your ore purchasers of the manner in which DMEA royalties are to be deducted, you should request each purchaser to forward with the royalty checks four (4) copies of each applicable settlement sheet. At the same time, request that we be furnished with four (4) copies of a load detail sheet when settlement is made with one settlement sheet covering a series of individual shipments. The load detail sheet must show the dry weight and assay of each shipment. This assures the Operator and the Government of accuracy and serves as a permanent record which may be subjected to inspection in the future.

Very truly yours,

Original signed by
W. M. TRAVER

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

MHM/vj

cc: Royalty File E928
Corres. File E928
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Marshall
Chron.

Square copy

700

Murphy

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

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

DEC 31 1956

Re: Field Team final reports
(Uranium contracts)

Dear Mr. Traver:

A review of the files on DMEA uranium contracts, where the work has been completed by the Operator or the work has been terminated for over six months, reveals that the final Field Team reports have not been received for the contracts listed below:

Contract No.	Docket number	Operator
Idm-[illegible]381	DMEA-2135	Sunnyside Uranium Company (Stage III)
Idm-[illegible]517	DMEA-28[illegible]7	Sodak Uranium & Mining Company, Inc.
Idm-[illegible]631	DMEA-3032	Rare Earth Mining Company
Idm-[illegible]638	DMEA-3060	Thornburg Uranium Mines
Idm-[illegible]691	DMEA-3239	Urova Co.
Idm-[illegible]723	DMEA-3360	Mid-Continent Uranium Corp.
Idm-[illegible]796	DMEA-3582	J. Walter Duncan, Jr.
Idm-[illegible]823	DMEA-3514	Climax Uranium Co.
Idm-[illegible]860	DMEA-3613	Chatu Uranium Mining Company, Inc.
Idm-[illegible]870	DMEA-3762	Shannon Oil Co.
Idm-[illegible]877	DMEA-3767	Uranium Prospectors Co., Ltd.
Idm-[illegible]906	DMEA-3868	La Salle Mining Co.
Idm-[illegible]910	DMEA-3896	Beela Mining Company
Idm-[illegible]928	DMEA-3962	Norbute Corporation

Kindly advise the status of the preparation of these reports and the date they may be expected in Washington. It is requested that these reports be given priority wherever possible in order that our dockets may be cleared of these older projects.

Sincerely yours,

APPROVED:
D. W. Moore

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

Chairman, Operating Committee
EMC/gla 12-28-56
cc to: Admr.'s Reading File
Operating Committee
J. [illegible] Crawford, 3643
T. H. Kiilsgaard, 5224 DL dockets
J. [illegible]orted, 3210, TA
Code 700

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

RECEIVED
SEP 1 0 1956

224 New Customhouse
Denver 2, Colorado

September 7, 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3962 (Uranium) Contract Idm-E928, Norbute Corporation (School Section 36, T22S, R21W) Grand County, Utah - FINAL PAYMENT

Enclosed are two copies of a memorandum to T. A. Christensen, dated August 28, 1956, relative to final payment under the terms of the subject contract.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
SEP 18 1956

224 New Customhouse
Denver 2, Colorado

August 28, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3962 (Uranium) Contract Idm-E928, Norbute Corporation (School Section 36, T22S, R21W) Grand County, Utah - FINAL PAYMENT

Reference is made to our memorandum of June 21, 1956, whereby we transmitted the final Form MF-104, Operator's Monthly Report and Voucher, for the month of May, 1956 and instructed you to withhold the amount of $500.00 from reimbursement to the Operator pending resolution of matters relative to closing the account.

The Operator's final report has been received; therefore, we recommend that final payment to the Operator be made on the following basis, which is in conformance with the Report of Review of contract expenditures by the Contract Administration and Audit Division, dated August 16, 1956, which was released to this office August 27, 1956.

Basis for Final Payment

Total Accepted Cost -	$11,520.31
Government Participation at 75 Percent- - - - - - -	8,640.23
Total Prior Payments- - - - - - - - - - - - - - - - - -	8,140.23
Balance due the Operator	$ 500.00

$500.00
9/4/56 Dma 57-27

W. M. TRAVER

W. M. Traver

JDC:jy
cc: Corresp. E928
MF-104 File E796
Sec. Op. Comm. (2)
Shaw (2)
Townsend
Chron.

Talbert

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

1956

Mr. Thomas H. Breding
DMEA Auditor
224 New Customhouse Building
Denver 2, Colorado

Re: Reports of Review
Uranium Prospectors, Ltd.
Idm-2877, DMEA-3767
and
Norbute Corporation
Idm-2928, DMEA-3962

Dear Mr. Breding:

Receipt is acknowledged of your Reports of Review covering the above-cited projects.

The Reports are acceptable and normal distribution may be effected.

Sincerely yours,

(Signed) E. D. Talbert

E. D. Talbert, Acting Chief
Contract Administration
and Audit Division

WBorovies/wb
August 22, 1956

Copy to: Docket (2)
Admr. Reading File
Mr. Chambers

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

RECEIVED
JUL 30 1956

224 New Customhouse
Denver 2, Colorado

July 27, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3962 (Uranium), Contract Idm-E928, Norbute Corporation (Sec. 36, T 22 S, R 21 W), Grand County, Utah

Enclosed are the Government's, Division, and Docket copies of the TERMINATION AGREEMENT forwarded by your letter of July 6, 1956, for signature by this office and the Operator.

Copies of the executed TERMINATION AGREEMENT have been distributed to the Operator, the Finance Office, Region III, and to other offices concerned.

W. M. Traver

W. M. Traver

Enclosures

Surname copy

700

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

Murphy
Ellis
Indritz 6/29/56
Spencer
Abrahamson
Paone
Crawford
Johnson
Kilsgaard
Selfridge

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

JUL 6 - 1956

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-2928
Sec. 36, T. 22 S., R. 21 W.
Grand County, Utah

Gentlemen:

Enclosed is a "Certification by the United States of America of a Discovery or Development Under an Exploration Project Contract." This certification covers all the land described in Article 2 of the subject contract.

By the terms of the Exploration Project Contract, and of the certification, all uranium and other valuable minerals produced from the claims described in Article 2 of the contract, from March 9, 1956, the date of the contract, are subject to the Government's percentage royalty as set forth in the contract until the sum of $8,666.36 (subject to audit) is repaid, or until March 9, 1966, whichever occurs first.

Payments should be made to Mr. W. M. Traver, Executive Officer, DMEA Field Team, Region III, 224 New Customhouse Building, Denver 2, Colorado. Checks should be payable to the Defense Minerals Exploration Administration. The purchaser should be advised to deduct the royalties from the amount due on each shipment and forward the check directly to the Executive Officer. Any bonus payments or allowances received by you from the sale of ore are considered to be a part of the purchase price to which the Government's royalty applies. Royalty payments to the Government should be accompanied by suitable evidence, such as copies of settlement sheets, showing quantity and grade of the products sold, the name of the purchaser, and the price and charges, certified to be correct by the purchaser.

You are requested to notify Mr. Traver of any changes in ownership or production rights that might have any effect on the Government's right to its percentage royalty. Also, if production ceases at any time for an extended period, please notify Mr. Traver at six-month intervals that no production has been made, when that is the case.

Sincerely yours,

G. O. Mittendorf

Administrator

Enclosure

cc to: Indemnity Insurance Company of North America

Docket
Rare & Misc. Metals Division
Contract Adm. & Audit Division
F. E. Johnson
F. M. Murphy

FMMurphy/gla 6-27-56
cc to: Admr.'s Reading File
Operating Committee
Robert W. Geehan, Rm. 3608
T. H. Kilsgaard, Rm. 5224
Field Team, Region III (2)

Surname copy

700

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

Murphy
Ellis
Indrix 6/29/56
Lamp
Chambers
Paone
Crawford
Geehan
Kiilsgaard
Selfridge

JUL 6 - 1956

Indemnity Insurance Company
of North America
99 John Street
New York 38, New York

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-2928
Norbute Corporation
Sec. 36, T. 22 S., R. 21 W.
Grand County, Utah

Gentlemen:

For your information, a certification of discovery or development has been issued to the Operator as a result of the exploration program under the above-referenced contract.

The property as set forth in the contract is the same property referred to in Performance Bond No. 252,218, executed by your company on March 9, 1956.

We are enclosing the following for your records:

1. A copy of a "Certification by the United States of America of a Discovery or Development Under an Exploration Project Contract."

2. A copy of a transmittal letter to Norbute Corporation.

Sincerely yours,

G. O. Mittendorf

Administrator

Enclosures

FMMurphy/gla 6-27-56
cc to: Admr.'s Reading File
Operating Committee
Robert W. Geehan, Rm. 3608
T. H. Kiilsgaard, Rm. 5224
Field Team, Region III (2)
Docket
Rare & Misc. Metals Division
Contract Adm. & Audit Division
F. E. Johnson
F. M. Murphy

R.C.S.

700

FILE COPY
Surname:
Murphy
Edwards
Selfridge 6/29/56
Appd. Dir. Off."
Chandler
Paone
Crawford
Selfridge

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

JUL 6 - 1956

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

Re: Docket No. DMEA-3962 (Uranium)
Contract No. Idm-5928
Norbute Corporation
Sec. 36, T. 22 S., R. 21 W.
Grand County, Utah

Dear Mr. Traver:

Enclosed are the original and five copies of a proposed mutual termination agreement relating to the captioned contract, prepared in accordance with your recommendation of June 15, 1956. Also enclosed are two extra copies for Field Team use.

If you and the Operator find the proposed termination agreement in order, please insert the date of execution after you and an authorized representative of the corporation have signed the original and all copies. Thereafter, kindly distribute the copies in the usual manner.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Enclosure

APPROVED:

/s/ Robert W. Geehan
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

FMMurphy/izm 6-28-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5 224
JOHosted, Rm. 3 210, GSA

R.C.S.

Supply

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

224 New Customhouse
Denver 2, Colorado

June 26, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Gamma-ray log interpretations

Enclosed are four copies each of gamma-ray long interpretations for the following DMEA contracts.

Docket DMEA-3555, Contract Idm-E791, Four Corners Exploration Co., San Miguel and Montrose Counties, Colorado

Docket DMEA-3868, Contract Idm-E906, LaSalle Mining Co., San Juan County, Utah

Docket DMEA-3962, Contract idm-E928, Norbute Mining Co., Grand County, Utah

W. M. Traver

Enclosures

Norbute Mining Company
Yellow Cat, Utah
DMEA DOCKET NO. 3962

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
X-1	251.0	None	Plugged							
X-2	223.4	None	0.0-190.6	Barren (Hole plugged at 190.6--)						
X-3	283.1	240.0 $2\frac{1}{2}$" Pipe	0.7-283.1	249.2 - 250.6	1.4	260			<0.005	
				250.6 - 252.2	1.6	880			0.022	
				260.8 - 262.3	1.5	540			0.012	
X-6	268.3	None	118.3-258.0	240.3 - 242.4	2.1	400			<0.010	
				242.4 - 243.3	0.9	340			<0.010	
				245.3 - 246.3	1.0	1,600			0.042	
				246.3 - 247.0	0.7	800			0.032	
				247.0 - 248.3	1.3	3,600			0.11	
				255.1 - 255.8	0.7	240			<0.010	
X-7	252.6	215.0 BX	9.9-252.0	Barren						
X-22	259.5	None	Plugged at 35.0 feet							
X-23	219.0	Barnaby broke down--could not log hole								
X-25	267.0	None	Plugged at 11.0 feet							
X-26	257.5	None	Plugged at 188.0 feet							
X-27	275.5	205.0 $2\frac{1}{2}$" Pipe	104.7-272.8	221.2 - 222.1	0.9	200			<0.005	
				245.9 - 246.7	0.8	1,800			0.054	
				246.7 - 247.5	0.8	800			0.029	
				247.5 - 248.6	1.1	5,400			0.19	
				253.5 - 254.5	1.0	600			0.017	
				270.5 - 271.1	0.6	200			<0.005	
X-28	269.7	None	6.8-249.0	245.8 - 246.5	0.7	1,200			0.035	

RECEIVED
JUN 28 1956

* From top to bottom depths

Norbute Mining Company
Yellow Cat, Utah
DMEA DOCKET NO. 3962

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
X-29	256.0	212.0	111.5-255.7	235.6 - 236.7	1.1	700			0.020	
		$2\frac{1}{2}$" Pipe		239.5 - 241.5	2.0	320			<0.010	
				241.5 - 242.8	1.3	540			0.013	
				253.5 - 254.5	1.0	970			0.033	
X-30	271.2	212.0	125.7-270.0	233.7 - 234.5	0.8	4,800			0.21	
		$2\frac{1}{2}$" Pipe		236.3 - 238.3	2.0	220			<0.005	
				238.3 - 239.3	1.0	1,000			0.033	
				241.8 - 242.8	1.0	2,000			0.058	
				244.1 - 245.1	1.0	3,600			0.12	
				245.1 - 247.8	2.7	800			0.018	
				264.8 - 266.1	1.3	300			<0.010	
				266.7 - 268.1	1.4	220			<0.005	
X-31	267.3	220	121.8-266.2	240.2 - 241.0	0.8	3,000			0.11	
		$2\frac{1}{2}$" Pipe		241.0 - 241.8	0.8	800			0.029	
				241.8 - 242.7	0.9	5,400			0.23	
				242.7 - 245.2	2.5	200			<0.005	
				245.2 - 246.4	1.2	2,800			0.080	
				250.7 - 252.1	1.4	940			0.025	
				252.1 - 254.3	2.2	220			<0.005	
				254.3 - 257.0	2.7	260			<0.010	
				257.0 - 258.5	1.5	640			0.016	
				260.1 - 260.8	0.7	280			<0.010	
X-32	253.4	225.0	132.8-253.0	247.8 - 248.6	0.8	4,000			0.17	
		BX		248.6 - 251.0	2.4	280			<0.010	
X-33	294.2	235.0	148.9-293.2	249.0 - 251.5	2.5	400			<0.010	
		$2\frac{1}{2}$" Pipe		251.5 - 252.3	0.8	980			0.039	
				252.3 - 257.2	4.9	400			<0.010	
				257.6 - 258.9	1.3	420			<0.010	

* From top to bottom depths

Norbute Mining Company
Yellow Cat, Utah
DMEA DOCKET NO. 3962

GAMMA-RAY LOG INTERPRETATION

Hole No.	Depth Drilled	Depth Cased	Depth Logged From* To	Anomaly Detected From* To	Anomaly Thickness	Counts per minute	CPM Corrected for Casing	CPM Corrected for G-M Tube	Grade $\%_e U_3O_8$	Remarks
X-34	304.5	270 BX	161.4-304.5	250.9 - 251.8	0.9	310			<0.010	
				258.7 - 259.6	0.9	320			<0.010	
				264.3 - 267.1	2.8	220			<0.005	
				267.1 - 268.3	1.2	500			0.012	
				222.8 - 224.1	1.3	280			<0.010	
				286.9 - 287.8	0.9	480			0.017	
				295.8 - 298.2	2.4	230			<0.005	
				298.2 - 300.0	1.8	420			<0.010	
X-35	274.8	230 BX	129.3-273.6	235.5 - 236.6	1.1	200			<0.005	
				243.2 - 244.3	1.1	300			<0.010	
				251.2 - 252.6	1.4	1,400			0.032	
				252.6 - 253.6	1.0	2,800			0.088	
				253.6 - 254.3	0.7	1,800			0.064	
				254.3 - 256.0	1.7	640			0.015	
				259.5 - 260.5	1.0	1,800			0.049	
				263.7 - 265.0	1.3	250			<0.005	

* From top to bottom depths

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

RECEIVED
JUN 25 1956

224 New Customhouse
Denver 2, Colorado

June 21, 1956

Mr. Abbott Charles, Manager
Western Mining Division
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket DMEA-3962 (Uranium)
Contract Idm-E928
Norbute Corporation
Sec. 36, T22S, R21W
Grand County, Utah

Dear Mr. Charles:

We have received your Monthly Progress Report and Voucher for the month of May, 1956, and we are processing the voucher for payment. The following deductions have been recommended by this office.

a) an amount of $24.00 has been disallowed for two hours of bulldozer work at $12.00 per hour. The contract allowance has been exceeded by this amount.

b) the amount of $500.00 is withheld pending the performance of additional work. If no additional work is approved by the Government or performed by your company, the amount will be held pending resolution of matters relative to closing the account, which includes the rendering by your company of a final geological and engineering report as stipulated under Article 7 (c) of the contract form, and the release to this office of a report of review of contract expenditures by the Contract Administration and Audit Division, DMEA.

If you have any questions regarding the above, please feel free to contact this office or Mr. Shaw's office.

Very truly yours,

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

JDC:jy
cc: Corresp. E928
Sec. Op. Comm. (2)
Shaw (2)
Townsend
Chron.

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

RECEIVED
JUN 18 1956

224 New Customhouse
Denver 2, Colorado

June 15, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3962 (Uranium), Contract Idm-E928, Norbute Corporation, (Ring Tail mine), Grand County, Utah

Enclosed are the original and one copy of the Operator's letter of May 28, 1956, wherein it is requested that Contract Idm-E928 be terminated. Enclosed with the letter is the Operator's final report on the DMEA work completed under the contract.

Also enclosed are the original and three copies of a joint memorandum, dated June 12, 1956, from J. W. Hasler, Geologist, Geological Survey, and M. H. Salsbury, Mining Engineer, Bureau of Mines.

The field examiners recommend that the contract be terminated without performing additional work and that the project be certified as a discovery or development as a result of the DMEA exploration work completed. This office concurs in the recommendation of the field examiners and further recommends that a suitable Termination Agreement be prepared in your office.

W. M. Traver

W. M. Traver

Enclosures

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

RECEIVED
JUN 18 1956

MINERAL DEPOSITS
IN REPLY REFER TO:
DMEA
RECEIVED
JUN 13 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

DMEA
Date Rec'd.
JUN 15 1956
BUREAU OF MINES
Denver, Colorado

June 12, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
E. N. Harshman

From: J. W. Hasler
M. H. Salsbury

Subject: DMEA docket 3962 (Uranium), contract Idm-E 928, The Norbute Corporation (Ringtail Mine), Grand County, Utah. Recommendations on termination of contract.

Operations under the subject contract were carried on in April and May 1956. Eleven authorized holes in stage I have been drilled. Eleven out of a maximum of 32 holes in stage III were authorized in a work approval dated May 8, 1956, and have been drilled. Approval of drilling under stage II was withheld pending completion of stage III work. On the whole, results of drilling have been poor; in first-stage work one ore hole, No. X-6, was drilled, four were mineralized, and one weakly mineralized. The operator reports that criteria found in drilling were favorable. However, no ore was found in any of the holes offsetting hole No. X-6. In stage III, one ore hole, No. X-25, was drilled. Other stage III holes were barren.

While hole No. X-6 is low-grade ore by Atomic Energy Commission standards, offset holes did not penetrate any additional mineralization. It is, therefore, concluded that no reserve should be computed on the basis of hole No. X-6. No further effort is likely to be made to explore or develop the area surrounding hole No. X-6.

Hole No. X-25 was an offset hole between two mineralized stage I holes and two previously drilled Geological Survey ore holes to which a small reserve tonnage had been assigned. The operator estimates that hole No. X-25 adds 600 tons of ore averaging 0.375 percent U_3O_8 and 1.18 percent V_2O_5 to this reserve.

It is recommended that a certification of discovery be made on the basis of the additional ore reserve resulting from drilling under contract Idm-E 928. The ore body in this reserve will probably be developed sooner or later as it is adjacent to workings of the Ringtail mine and can be easily reached.

DMEA 3962 6/12/56

The operator does not consider that results to date justify any further stage III drilling, or the stage II drilling which was requested, but not approved. The DMEA inspecting team believes that the essentially negative results of drilling in the western part of the stage I area do not form a good basis for the drilling still further west which was proposed in stage II.

The operator is requesting termination of the contract without further work. The DMEA inspecting ream concurs.

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

J. William Hasler,
U. S. Geological Survey

MHS/mlr

NORBUTE CORPORATION
Uranium Center Building
P. O. Box 1700
GRAND JUNCTION, COLORADO

RECEIVED
JUN 18 1956

May 28, 1956

Norbute Corporation
P. O. Box 1700
Grand Junction, Colo.

Re: Docket DMEA 3962 (Uranium)
Contract No. Idm-E928

DMEA
Date Rec'd.
MAY 31 1956
BUREAU OF MINES
Denver, Colorado

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

Dear Mr. Traver:

We are asking that our DMEA drilling contract No. Idm-E928 be terminated.

In light of the results obtained by the first and third stages of drilling, the expenditure of further funds for drilling the second stage cannot be justified.

I am enclosing herewith a report covering the drilling completed (stages 1 and 3) during the months of April and May, 1956, under Docket DMEA 3962, Contract No. Idm-E928.

Also included are maps, copies of the geologic logs, results of radiometric probing and chemical assay returns.

Very truly yours,

Vernon T. Dow

Vernon T. Dow, Mine Manager

Enc
VTD/b

NORBUTE CORPORATION
Uranium Center Building
P. O. Box 1700
GRAND JUNCTION, COLORADO

RECEIVED
JUN 18 1956

May 28, 1956

NORBUTE CORPORATION
P. O. Box 1700
Grand Junction, Colo.

FINAL REPORT ON DMEA DIAMOND DRILLING
in Section 36, T 22 S, R 21 E, S.L.M.
Grand County, Utah

Docket DMEA 3962 (Uranium)
Contract No. Idm-E928

Work under DMEA contract No. Idm-E928 was begun March 23, 1956, with the construction of a reservoir, drill roads and drill sites for the first stage of drilling. This construction work and the subsequent bulldozer work for the third stage of drilling was contracted to the Etter Construction Company of Grand Junction, Colorado. A D-7 Caterpillar bulldozer was used for this work, with a total of 56 hours of bulldozer work being necessary for the first and third stages of drilling.

The drilling under this contract was awarded to B. H. Mott and Sons, diamond drilling contractors, of Grand Junction, Colorado, and Huntington, West Virginia. Drilling of the first stage commenced April 5, 1956, and was completed on April 21, 1956. The results of the first stage of drilling justified the drilling of eleven holes offsetting the ore and mineralized holes found in the first stage. The third stage of drilling was approved April 24, 1956, and work under this stage was started April 25th and completed May 10, 1956.

Mapes

Norbute Corporation
Box 1700
Grand Junction, Colo.

Of the twenty-two holes drilled under the first and third stages, three (X-6, X-25 and X-31) were ore holes; ten were mineralized (X-1, X-22, X-3, X-8, X-26, X-27, X-29, X-30, X-32 and X-33); three (X-4, X-34 and X-35) were slightly mineralized; and six (X-2, X-23, X-5, X-7, X-9 and X-28) were barren. (See map Plate 5 amended).

Drilling to date has indicated the presence of a well defined, steep-walled mineralized channel with a concentration of uranium and vanadium minerals in the vicinity of diamond drill holes X-6 and X-31. These holes are considered ore holes according to U.S.G.S. and A.E.C. definition (1.0 feet of 0.10% U_3O_8), but ore of this grade and thickness cannot be economically mined in the Yellow Cat area. The area around the holes X-6 and X-31 was considered to have the greatest chance for ore deposition as the channel made a change of direction in this immediate area and the sandstone had all the criteria necessary for the deposition of uranium and vanadium minerals.

It is not expected that any ore bodies of any greater size or better grade than that around holes X-6 and X-31 would be found by further drilling of the channel to the west. U. S. G. S. drilling 900 feet to the west in the vicinity of drill holes YC 940, 941, 942, and 943, showed unfavorable ground in that area.

One ore hole (X-25) which is in the vicinity of ore hole YC-880 and YC-884 drilled by the U. S. G. S., has added 600 tons of ore with a grade of 0.37% U_3O_8 and 1.18% V_2O_5 to the ore body. This ore body can be economically mined.

Below is a table showing hole numbers, footage drilled solid bit, and footage cored.

First and Third Stage Drilling April and May, 1956

Hole No.	Solid Bit (no core)	Coring	Total
X- 1	200.0'	50.8'	250.8'
X- 2	200.0	23.4	223.4
X-22	200.0	59.5	259.5
X=23	201.3	19.0	220.3
X- 3	220.0	63.1	283.1
X- 4	200.0	43.8	243.8
X- 5	221.0	43.8	264.8
X - 6	212.0	56.3	268.3
X- 7	216.0	36.6	252.6
X- 8	230.0	53.2	283.2
X- 9	230.0	33.8	263.8
X-25	215.0	42.0	267.0
X-26	205.0	52.5	257.5
X-27	205.0	70.5	275.5
X-28	215.0	54.7	269.7
X-29	212.0	44.0	256.0
X-30	212.0	59.2	271.2
X-31	220.0	47.3	267.3
X-32	225.0	28.4	253.4
X-33	235.0	59.2	294.2
X-34	230.0	74.5	304.5
X-35	230.0	44.8	274.8
Totals	4,734.3'	1,070.4'	5,804.7'

Below is a table showing drilling costs, stages 1 and 3.

Independent Contracts

54	hours bulldozing @ $12.00 per hour	$ 648.00
4400	feet noncore drilling @ $1.40 per foot	6,160.00
334.3	" " " @ $1.50 " "	501.41
1070.4	" core drilling @ $2.05 " "	2,194.32
		$9,503.73

Fixed Unit Costs

62 samples analyzed chemically for U_3O_8 and V_2O_5 @ $5.00 per sample	310.00

Incidental Allowance

5804.7 feet @ $0.30 per foot	1,741.41
TOTAL COSTS	$11,555.14

Vernon T. Doe

VTD/b

RADIOMETRIC LOGS

NORBUTE CORPORATION DMEA

Probed by V. Dow 4th scale Minerals Counter #127

	Depth	E. U_3O_8	
Hole X-1 - 4-13-56	0 to 225.0'	Barren	Mineralized hole
	225.0	0.02	
	225.5	0.02	
	226.0	0.06	
	226.5	0.06	
	227.0	0.08	
	227.3	0.12	
	227.5	0.12	
	227.8	0.15	
	228.0	0.13	
	228.4	0.15	
	228.7	0.06	
	228.9	0.02	
	229.0 to 251.0	0.00	Probed to 251.0'
Hole X-2 - 4-14-56	0 to 223.4'	o.00	Barren hole Probed to 223.4'
Hole X-22 - 4-16-56	0 to 240.7'	0.00	Mineralized hole
	240.7	0.02	
	241.4	0.10	
	241.6	0.16	
	242.0	0.12	
	242.3	0.08	
	242.3 to 243.0	0.02	
	243.0 to 244.2	0.03	
	244.2	0.04	
	244.3	0.00	
	250.8	0.02	
	250.8 to 259.5	0.00	Probed to 259.5'
Hole X-23 - 4-16-56	0 to 220.3'	no count	Barren Probed to 220.3'
Hole X-3 - 4-16-56	0 to 249.4'	0.00	Mineralized hole
	249.5 to 250.0	0.04	
	250.0 to 250.8	0.03	
	250.8 to 251.3	0.06	
	251.4	0.02	
	251.4 to 283.1	0.00	Probed to 283.1'
Hole X-4 - 4-18-56	0 to 233.1'	0.00	Weakly mineralized
	233.1	0.02	
	233.8	0.05	
	234.0	0.02	
	234.0 to 244.8	0.00	Probed to 244.8'

RADIOMETRIC LOGS

NORBUTE CORPORATION DMEA

Probed by V. Dow 4th scale Minerals Counter #127

	Depth	E. U_3O_8	
Hole X-5 - 4-18-56	0 to 264.8'	0.00	Barren hole Probed to 264.8'
Hole X-6 - 4-19-56	0 to 242.0'	0.00	Ore hole
	242.5	0.02	
	242.6	0.04	
	242.7	0.02	
	242.8	0.04	
	242.9 to 243.7	0.06	
	243.7 to 244.0	0.08	
	244.1	0.10	
	244.2 to 244.4	0.12	
	244.5 to 244.6	0.14	
	244.7	0.15	
	244.8	0.16	
	244.9	0.17	
	245.0 to 245.3	0.18	
	245.3 to 245.5	0.20	
	245.6	0.22	
	245.7	0.18	
	245.7 to 245.9	0.15	
	246.0	0.10	
	246.1	0.04	
	246.2 to 252.1	0.02	
	252.2 to 252.3	0.04	
	252.4	0.06	
	252.5	0.10	
	252.6	0.16	
	252.7	0.18	
	252.8 to 252.9	0.22	
	253.0	0.20	
	253.1 to 253.3	0.08	
	253.6	0.02	
	253.7 to 268.3	0.02	Probed to 268.3'
Hole X-7 - 4-19-56	0 to 252.8'	0.00	Barren hole
Hole X-8 - 4-20-56	0 to 253.3'	0.00	Mineralized hole
	253.4	0.02	
	253.6	0.06	
	253.8	0.04	
	253.9 to 254.3	0.04	
	254.6	0.08	
	254.7	0.10	
	254.8	0.14	
	254.9	0.18	
	255.0	0.24	
	255.1	0.24	
	255.2	0.20	
	255.3	0.10	
	255.4	0.10	
	255.5 to 255.8	0.08	
	255.9	0.04	256.0 to 283.2' 0.00
	256.0	0.02	Probed to 283.2'

RADIOMETRIC LOGS

NORBUTE CORPORATION DMMA

Probed by V. Dow 4th scale Minerals Counter #127

	Depth	E U_3O_8	
Hole X-9 - 4-21-56	0 to 263.8'	0.00	Barren hole
Hole X-25 - 4-27-56	0 to 235.0'	0.00	Ore hole
	235.0 to 236.0	0.04	
	236.0 to 236.4	0.08	
	236.4	0.12	
	236.5	0.16	
	236.6	0.22	
	236.7	0.36	
	236.8	0.40	
	237.0	0.60	
	237.1	0.80	
	237.2	0.95	
	237.4	1.00	
	237.6	0.90	
	237.8	0.95	
	238.0	1.00+	
	238.2	1.00+	
	238.4	1.00	
	238.6	0.95	
	238.8	1.00	
	239.0	0.90	
	239.2	0.60	
	239.4	0.42	
	239.6	0.54	
	239.8	0.42	
	240.0	0.36	
	240.2	0.14	
	240.4	0.10	
	240.6	0.08	
	240.8	0.06	
	241.0	0.04	
	241.2 to 252.0	0.02	
	252.4	0.10	
	252.6	0.06	
	252.8	0.06	
	253.0	0.06	
	253.1	0.04	
	254.0	0.02	
	254.0 to 267.4	0.00	

240.6
236.4
4.2

RADIOMETRIC LOGS

NORBUTE CORPORATION DMEA

Probed by V. Dow Minerals Counter No. 127

RECEIVED
JUN 18 1955

	Depth	E. U_3O_8	
H ole X-26 - 4-28-56	0 to 231.0′	0.00	Mineralized hole
	231.2	0.06	
	231.4	0.08	
	231.6	0.06	
	231.8	0.04	
	232.0	0.06	
	232.4	0.05	
	232.6	0.04	
	232.8	0.02	
	233.0	0.00	
	233.0 to 234.4	0.00	
	234.5	0.06	
	234.6	0.08	
	234.8	0.10	
	235.0	0.06	
	235.2	0.02	
	235.6	0.00	
	235.6 to 257.5	0.00	
Hole X-27 - 5-2-56	0 to 245.9	0.00	Mineralized hole
	246.0	0.02	
	246.4	0.05	
	246.6	0.10	
	246.8	0.06	
	247.0 to 247.3	0.05	
	247.4	0.06	
	247.6	0.07	
	247.8	0.10	
	248.0	0.13	
	248.29	0.14	
	248.5	0.14	
	248.6	0.12	
	248.7	0.12	
	248.8	0.12	
	248.9	0.10	
	249.0	0.10	
	249.2	0.08	
	249.6	0.04	
	249.8	0.02	
	249.8 to 275.5	0.00	
Hole X-28 - 5-2-56	0 to 269.7′	0.00	Barren

RADIOMETRIC LOGS

NORBUTE CORPORATION DMEA

Probed by V. Dow Minerals Counter No. 127

	Depth	E. U_3O_8	
Hole X-29 - 5-3-56	0 to 235.9	0.00	Mineralized hole
	236.0	0.06	
	236.1 to 241.1	0.00	
	241.1 to 241.9	0.00	
	242.0	0.04	
	242.6	0.02	
	242.7 to 253.3	0.00	
	253.3	0.02	
	253.9	0.08	
	254.3	0.07	
	254.4	0.03	
	254.4 to 256.0	0.00	
Hole X-30 - 5-8-56	233.5	0.02	Mineralized
	234.0	0.06	
	234.4	0.12	
	234.6	0.12	
	234.8	0.06	
	235.3	0.04	
	237.0	0.00	
	239.0	0.02	
	241.5	0.02	
	242.8	0.06	
	243.4	0.04	
	244.0	0.04	
	244.8	0.06	
	245.1	0.10	
	245.2	0.12	
	245.6	0.08	
	246.0	0.06	
	246.4	0.04	
	246.4 to 271.9	0.00	
H ole X-31 5-10-56	0 to 239.6	0.00	Ore hole
	239.7	0.04	
	239.8	0.08	
	240.0	0.12	
	240.2	0.14	
	240.4	0.12	
	240.6	0.16	
	240.8	0.18	
	241.0	0.14	243.8 0.16
	241.2	0.14	244.0 0.06
	241.4	0.06	244.2 -246.0 0.00
	241.8	0.04	246.2 0.04
	242.0	0.00	246.8 0.08
	242.4	0.04	247.0 0.10
	242.6	0.10	247.4 0.06
	242.8	0.20	247.6 0.04
	243.0	0.28	247.8 0.02
	243.2	0.32	248.04-267.3 0.00
	243.4	0.26	
	243.6	0.22	

RADIOMETRIC LOGS

NORBUTE CORPORATION DMEA

Probed by V. Dow Minerals Counter No. 127

RECEIVED
JUN 18 1956

	Depth	E. U_3O_8	
Hole X-32 - 5-10-56	0 to 247.4'	0.00	Mineralized hole
	247.5	0.04	
	247.6	0.08	
	247.8	0.12	
	248.0	0.28	
	248.2	0.22	
	248.4	0.16	
	248.6	0.12	
	248.8	0.04	
	250.0	0.00	
	251.0 to 275.5	0.00	
Hole X-33 5-8-56	0 to 250.8	0.00	Mineralized
	250.9	0.04	
	251.5	0.04	
	251.9	0.06	
	252.3	0.04	
	252.5	0.00	
	252.6 to 294.2	0.00	
Hole X-34 5-9-56	0 to 267.0	0.00	Slightly mineralized
	261.1	0.04	
	267.4	0.04	
	267.5	0.02	
	267.6 to 286.8	0.00	
	286.9	0.02	
	287.4	0.04	
	287.6	0.02	
	287.7 to 298.4	0.00	
	298.5	0.02	
	299.0	0.02	
	299.6	0.02	
	299.8	0.00	
	299.9 to 304.5	0.00	
Hole X-35 5-9-56	0 to 252.0	0.00	Mineralized hole
	252.1	0.04	
	252.8	0.06	
	253.4	0.08	
	253.6	0.10	
	253.8	0.12	
	253.9	0.13	
	254.1	0.10	
	254.7	0.06	
	255.0	0.02	
	255.2 to 274.8	0.00	

GEOLOGIC AND ASSAY LOGS Norbute Corp

Drill-hole No. X-1 ( )
Inclination Vert Bearing
Total depth 250.8
Collar elev. T 4844 P
Area Yellow Cat

Map sheet (T)
Map sheet (P)
Sec. 36 T 22S R 21E
Co. State Grand, Utah

Claim School Section
Date completed 4-13-56
Date logged 4-16-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable OBSS from 206.0 to 243.2 thick 37.2' ; SS color Gy ; MS Gy Gr Cbn Yes

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec. ft.	Base	Thick	Rec. %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0		200.0	200.0								Plug bit No core
200.0	4.5	206.0	6.0	75.0	MS	Gy Gr					
206.0	4.0	210.0	4.0	100	SS	LGy	MF F		N	A Gr	
210.0	14.0	224.0	14.0	100	SS	Gy-Br	MF	L	N	A Gr Gy	
224.0	10.3	234.3	10.3	100	SS	Gy Br	MF	L	S	N	carbon streaks V_2O_5
234.3	0.3	234.6	0.3	100	Coal	Blk	—	Gyp P	A	—	cbn sulphides inc BN
234.6	4.4	239.0	4.4	100	SS	Gy Br	MF	L	N	Gn Gy	
239.0	4.2	243.2	4.2	100	SS	Gy br	MF	L	N	N	
243.2	7.6	250.8	7.6	100	Sl. MS	Gy Gr Rd	—		N		sandy

2508

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8	V_2O_5	$CaCO_3$	Base	Thick	U_3O_8	V_2O_5	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
226.0																
227.0	1.0	0.09	0.56													
228.4	1.4	0.01	0.02													

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-1

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-2 ( )
Inclination Vert Bearing
Total depth 223.4
Collar elev. I 4848 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-19-56
Date logged 4-17-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable: OBSS from 200.0 to 216.4 thick 16.4 ; SS color Gy-Br ; MS A Gy Gr ; Cbn. N

Graphic log

223.4

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		200.0	200.0								Plug bit No Core
200.0	8.4	208.4	8.4	100	SS	LGy	MF-F		N	A Gr	
208.4	8.0	216.4	8.0	100	SS	Gy Br	MF-C	L	N	Gr Gy	
216.4	6.9	223.4	7.0	98.6	MS	Gy Gr			-		sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma ray readings

GPO 815041

Hole No. X-2

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X-3 ( )
Inclination Vert Bearing
Total depth 283.1
Collar elev. T 4860 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec 36 T 22S R 21E
Co. State Grand Utah

Claim School Section
Date completed 4-17-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable · OBSS from 222.0 to 278.5 thick 56.5' · SS color Gy L Gy · MS Gr-Gy · Cbn. S

Graphic log

283.1'

DRILL LOG / LITHOLOGIC LOG

Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's	Cbn	MS in SS	Remarks
0.0		220.0	220.0								
220.0	2.0	222.0	2.0	100	St	W	F	N	N		Plug bit No Core
222.0	27.5	249.5	27.5	100	SS	Gy L Gy	F MF	Limonite	N	Gr Gy	Limonite Mottled
249.5	7.5	257.0	7.5	100	SS	DGy Gy	MF		S	Gy Gr	sparce cbn (V.05)
257.0	0.8	257.8	0.8	100	Ms	Gy		–	S		
257.8	20.7	278.5	20.7	100	SS	Gy	MF F	L	N	Gr Gy	
278.5	4.6	283.1	4.6	100	Ms St	Gy Gr Rd			N		sandy

Sample Base	Sample Thick	Lab assay (%) U_3O_8*	V_2O_5/Cu	$CaCO_3$	Sample Base	Sample Thick	Lab assay (%) U_3O_8*	V_2O_5/Cu	$CaCO_3$
249.5									
250.0	0.5	0.02	0.09						
250.8	0.8	0.01	0.55						

Interval Base	Interval Thick	γ-ray eq U_3O_8	γ-ray (eq) or Field est Base	Thick	U_3O_8	

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-3

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X - 4
Inclination Vert Bearing
Total depth 243.8
Collar elev. 4854 P
Area Yellow Cat

Map (T)
Map (P)
Sec. 36 T 22S R 21E
County Grand, Utah

Claim School Section
Date completed 4-18-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS semi Favorable OBSS from 205.9 to 233.0 thick 27.1' SS color Gy LGy MS GrGyBlRd Cbn. S

Graphic log

243.0

LITHOLOGIC LOG

DRILL LOG Depth	Rec'd ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
											solid bit - No Core
0.0		200.0	200.0								
200.0	5.9	205.9	5.9	100	MS	Gy Gr			N		
205.9	25.8	233.0	27.1	95.2	SS	LGy Gy	F MF	Limonite	S	Gr Gy	.4' .06 U_3O_8 count
233.0	10.0	243.0	10.0	100	MS St	Gr Gy Bl Rd			N		sandy

Sample Base	Sample Thick	Lab assay (%) U_3O_8*	V_2O_5/Cu	$CaCO_3$	Sample Base	Sample Thick	Lab assay (%) U_3O_8*	V_2O_5/Cu	$CaCO_3$
233.4									
233.8	0.4	0.03	0.24						

Interval Base	Interval Thick	γ-ray %e U_3O_8	γ-ray (%e) or Field est. Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

Hole No. X - 4

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X - 5 ( )
Inclination Vert Bearing
Total depth 264.8
Collar elev. 4863.6 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec 36 T 22S R 21E
Co., state Grand Utah

Claim School Section
Date completed 4-18-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable OBSS from 224.5 to 252.5 thick 28.0 ; SS color Gy LGy ; MS GyGrBlkRd Cbn yes

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		221.0	221.0								Solid bit - No Core
221.0	4.5	224.5	4.5	100	MS	Gy-Gr			N		sandy
224.5	26.9	252.5	28.0	96.1	SS	Gy LGy	F MF	Limonite Cbn	S	Gr Gy	Cbn streaks abundant
252.5	12.3	264.8	12.3	100	MS St	Gy BlK Rd			N		sandy

264.8

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No. X-5

GEOLOGIC AND ASSAY LOGS Norbute Corp

Drill-hole No. X-6 ( )
Inclination Vert. Bearing
Total depth 268.3
Collar elev. T 4859.5 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T 22S R 21E
Co. State Grand Utah

Claim School Section
Date completed 4-19-56
Date logged 4-20-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 230.7 to 255.4 thick 24.7' ; SS color Gy LGy ; MS GyGrRd ; Chn. Abundant

Graphic log

DRILL LOG

Depth	Rec ft.
0.0	
212.0	18.6
230.7	7.0
237.7	17.7
255.4	12.4

LITHOLOGIC LOG

Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
212.0	212.0								Plug bit No Core
230.7	18.7	99	MS Sl	RdGyGr					A sandy
237.7	7.0	100	SS	LGy Gy	F	Limonite	N	Gr Gy	
255.4	17.7	100	SS	Gy LGy	MF	Limonite Sulphide	A	A Gr	Sulphides in Cbn
268.3	12.9	96	MS	Gy Gr Rd					Sandy

268.3

Sample Base	Sample Thick	Lab assay (%) U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Sample Base	Sample Thick	Lab assay (%) U_3O_8 *	V_2O_5/Cu	$CaCO_3$
241.8					255.3	0.7	0.1	0.02	
242.6	0.8	0.03	0.02						
243.3	0.7	0.03	0.02						
244.1	0.8	0.10	0.07						
245.0	0.9	0.15	0.47						
246.0	1.0	0.01	0.07						
252.1 252.6	0.5	0.01	0.51						
253.2 253.6	0.4	0.28	0.11						
254.6	1.0	0.01	0.01						

Interval Base	Interval Thick	γ-ray %e U_3O_8	γ-ray (%e) or Field est Base	Thick	U_3O_8	V_2O_5

* Assays marked "e" are from lab gamma-ray readings

Hole No. X-6

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill hole No. X-7 ( )
Inclination Vert Bearing
Total depth 252.6
Collar elev. 4866 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T 22S R 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-19-56
Date logged 4-20-56
Logged by V. Dow

Rev		
Ed		

Summary of log: 4th SS Unfavorable OBSS from 221.5 to 245.8 thick 24.3 ; SS color Gy LGy ; MS A Gy Gr ; Cbn. Some

Graphic log

252.6

DRILL LOG / LITHOLOGIC LOG

Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		216.0	216.0								Solid bit - No Core
216.0	5.5	221.5	5.5	100	MS St	Rd Gy Gr					sandy
221.5	22.9	245.8	24.3	95	SS	Gy LGy	F-MF	Limonite stain	S	Gr-Gy	sparse cbn str.
245.8	6.8	252.6	6.8	100	MS St	Gy Blk Rd			N		sandy

Sample Base	Sample Thick	Lab assay (%) U_3O_8	V_2O_5/Cu	$CaCO_3$	Sample Base	Sample Thick	Lab assay (%) U_3O_8	V_2O_5/Cu	$CaCO_3$

Interval Base	Interval Thick	γ-ray %e U_3O_8	γ-ray (%e) or Field est Base	Thick	U_3O_8	V_2O_5

*Assays marked 'e' are from ser. gamma-ray readings

Hole No. X-7

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X-8 ( )
Inclination Vert Bearing
Total depth 268.2
Collar elev T 4864 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T 22S R 21E
Co State Grand, Utah

Claim School Section
Date completed 4-20-56
Date logged 4-20-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable, OBSS from 239.8 to 281.0 thick 41.2, SS color Gy L Gy; MS Gr Gy, Cbn. Abundant

Graphic log

DRILL LOG		LITHOLOGIC LOG										
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks	
0.0		230.0	230.0								Solid bit No Core	
230.0	9.2	239.8	9.8	94	MSSt	R Gr Gy					Sandy	
239.8	11.5	253.0	13.2	87	SS	L Gy Gy	MF F	Limonite	S	AGr Gy	Cbn Bands Numerous	
253.0	14.7	268.2	15.2	97	SS	DGy Gy	MF	L sulphides	A	Gr Gy	" " " sulphide in Cbn	
268.2	11.5	281.0	12.8	90	SS	Gy DGy	MF	L	A	Gr Gy	" " "	
281.0	2.2	283.2	2.2	100	MS St	Gy Gr					Sandy	

283.2

Sample		Lab assay (%)		Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8	V_2O_5	Base	Thick	U_3O_8	V_2O_5	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
253.0															
253.2	0.2	0.02	Nil												
253.6	0.4	0.01	0.02												
253.8	0.2	0.01	0.00												
254.2	0.4	0.17	0.05												
254.6	0.4	0.01	0.02												
255.2	0.6	0.01	Nil												
255.8	0.6	tr	Nil												

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-8

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-9 ( )
Inclination Vert Bearing
Total depth 263.8
Collar elev. 4866 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec 36 T 22S R 21E
Co. State Grand, Utah

Claim School Section
Date completed 4-21-56
Date logged 4-21-56
Logged by V. Dow

Rev		
Ed		

Summary of log: 4th SS Unfavorable OBSS from 233.0 to 257.3 thick 24.3 ; SS color Br. Gy ; MS Gy Rd ; Cbn No.

Graphic log

263.8

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		230.0	230.0								Solid bit - No Core
230.0	3.0	233.0	3.0	100	Ms	Rd Gr					
233.0	24.3	257.3	24.3	100	SS	Br Gr	F MF	Limonite	N	Gr - Gy	
257.3	6.5	263.8	6.5	100	MSSt	Gy Rd					Sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8	V_2O_5/Mo	$CaCO_3$	Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked * are from radiometric assay readings

Hole No. X-9

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X - 22
Inclination Vert. Bearing
Total depth 259.5
Collar elev. 4841.6 T 36 T 22S R 21E
Area Yellow Cat State Grand Utah

Claim School Section
Date completed 4-16-56
Date logged 4-16-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable SS from 208.1 to 249.3 thick 41.1 SS color Lt Gy Gy MS Gr Gy Rd Cbn. S

Graphic log

259.5'

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec. %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		200.0	200.0								Plug bit No Core
200.0	7.0'	208.1	8.1	86.4	Ms St	R Gy Gr			N	Gr	Sandy A-Gr
208.1	21.4	229.5	21.4	100	SS	LGy	F-MF		N	A Gr gy	
229.5	11.0	240.5	11.0	100	SS	LGy	MF	Limonite	N	Gr Gy	
240.5	0.4	240.9	0.4	100	MS	Br	MF	"	N		
240.9	8.4	249.3	8.4	100	SS	Gy	MF	" Cbn	S	None	sulphides in cbn
249.3	10.1	259.5	10.2	99	MS-St	Gy Gr Rd					sandy

Sample		Lab. assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ ray (%e) or Field est			
Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
240.7																
241.3	0.6	0.18	N.1													
242.3	1.0	0.01	N.1													

*Assays marked 'e' are from lab gamma-ray readings

Hole No. X-22

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X-23 ( )
Inclination _____ Bearing _____
Total depth 220.3
Collar elev. _____ T 4846 P
Area Yellow Cat

Map coord (T) _____
Map coord (P) _____
Sec. 36 T 22S R 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-17-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable OBSS from 200.0 to 216.1 thick 16.1 ; SS color Gy LGy ; MS Gy Gr ; Cbn. N

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's	Cbn	MS in SS	Remarks
0.0		201.3	201.3								Plug bit No Core
201.3	14.9	216.2	14.9	100	SS	Gy LGy	F MF	L	N	Gr Gy	
216.2	4.1	220.3	4.1	100	MS St	Gy			N		sandy

220.3

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-23

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-25 ( )
Inclination Vert Bearing
Total depth 267.0
Collar elev. 485.7 ft
Area Yellow Cat

Map coord (T)
Map coord (R)
Sec. 36 T 22S R 21E
Co. State Grand Utah

Claim School Section
Date completed 4-27-56
Date logged 4-28-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable OBSS from 215.6 to 261.0 thick 45.4 SS color Gy L.Gy BlK ; MS GyGr ; Cbn. Abundant

Graphic log

DRILL LOG

Depth	Rec'd	Base	Thick	Rec'd	Rock	Color	Grain	Access Min's.	Cbn	MS in SS	Remarks
0.0		215.0	215.0								Solid bit No core
215.0	0.6	215.6	0.6	100	MS	GyGr					Altered
215.6	7.0	229.0	13.4	52	S.S	LGy Gy	MF-F	None	N	None	Ground Core - Defective core spring
229.0	5.0	234.0	5.0	100	SS	LGy Gy	MF	Limonite	N	Gr-Gy	
234.0	8.2	244.0	10.0	82.0%	SS	LGy Gy BlK	MF	Cbn pyrite H_2O Limonite	A		Lost 1.8' core in ore zone - (Very soft)
[illegible].0	17.0	261.0	17.0	100	SS	LGy Gy	MF	Cbn	S	Gr Gy	Abd. Cbn at 252.4 to 252.8
261.0	4.8	267.0	6.0	80	Ms	Gy Gr					A sandy

LITHOLOGIC LOG

215.0

267.0

Sample Base	Sample Thick	Lab assay (%) U_3O_8	Lab assay (%) V_2O_5/Cu	Lab assay (%) $CaCO_3$	Sample Base	Sample Thick	Lab assay (%) U_3O_8	Lab assay (%) V_2O_5/Cu	Lab assay (%) $CaCO_3$
235.4					241.7	1.0	0.02	0.07	
235.6	0.2	0.04	0.07						
236.0	0.4	0.05	1.11						
236.3	0.3	0.12	0.88						
237.0	0.7	0.79	0.70						
238.0	1.0	0.81	0.35						
238.7	0.7	0.58	2.98						
240.0	1.3	0.03	0.54						
240.7	0.7	0.04	0.78						

Interval Base	Interval Thick	γ-ray %e U_3O_8	γ-ray (%e) or Field est Base	Thick	U_3O_8	V_2O_5

*Assays marked 'e' are from lab gamma-ray readings

CPO 8150 11

Hole No.

GEOLOGIC AND ASSAY LOGS Norbute Corp

Drill hole No. X-26 ( )
Inclination Vert
Total depth 257.5
Collar el. 4844 T P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22S R 21E
Co. State Grand, Utah

Claim School Section
Date completed 4-28-56
Date logged 4-30-56
Logged by V. Dow

Rev		
Ed		

Graphic log

Summary of log: 4th SS Favorable ; OBSS from 205.0 to 252.5 thick 47.5 ; SS color Gy-LGy DGy ; MS gy gr Cbn. Some

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		205.0	205.0								Solid bit No Core
205.0	28.8	233.8	28.8	100	SS	Gy LGy	F.M.F		No	A Gy Gr	
233.8	18.7	252.5	18.7	100	SS	Gy DGy Blk	M F	Lim Cbn V_2O_5	S	Gr Gy A	
252.5	5.0	257.5	5.0	100	MS	Gr Gy					A Sandy

205.0

257.5

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8	V_2O_5	$CaCO_3$	Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
231.2																
232.5	0.3	0.04	0.70													
234.0	1.5	0.02	0.06													
235.0	1.0	0.06	Nil													

Assays marked "e" are from gamma-ray readings

GPO 835041

Hole No.

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-27 ( )
Inclination Vert Bearing
Total depth 275.5
Collar elev 4843 T P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T 22S R 21E
Co. State Grand - Utah

Claim School Section
Date completed 5-2
Date logged 5-2
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Semi favorable ; OBSS from 210.0 to 272.5 thick 62.5 ; SS color L Gy Gy ; MS A Gr Gy ; Cbn. Some

Graphic log

DRILL LOG		LITHOLOGIC LOG										
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		205.0	205.0								Solid bit No Core
205.0	5.0	210.0	5.0	100	MS	Gy Gr					A
210.0	34.7	245.5	35.0	99.1	SS	LGy Gy	F-MF		No	A Gr Gy	
245.5	26.0	272.5	27.0	94.1	SS	Gy	MF	Cbn V_2O_5	S	A Gr-Gy	V_2O_5 Minerals
272.5	2.6	275.5	3.0	86.7	St MS	Gy Gr					sandy MS Altered

Graphic log: 205.0 — 275.5

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8	V_2O_5	$CaCO_3$	Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
246.5																
247.3	0.8	0.02	0.31													
247.8	0.5	0.06	2.00													
248.6	0.8	0.02	1.03													
249.4	0.8	0.15	0.86													

*Assays marked 'e' are from all gamma-ray readings

Hole No.

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-28 ( )
Inclination Vert. Bearing
Total depth 269.7
Collar elev. 4862 T P
Area Yellow Cat

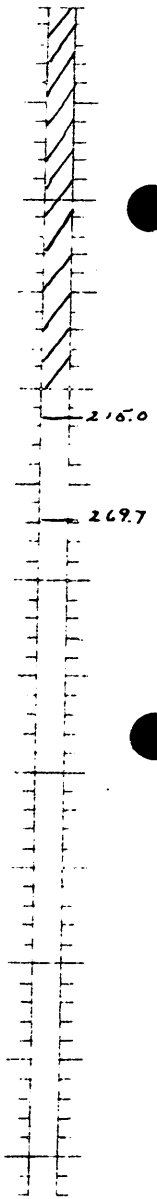
Map coord (T)
Map coord (P)
Sec. 36 T 22S R 21E
Co., State Grand Utah

Claim School Section
Date completed 5-2-56
Date logged 5-3-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 218.0 to 263.0 thick 45.0 ; SS color LGy Gy DGy ; MS A Gy Gr. Cbn Some

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's	Cbn	MS in SS	Remarks
0.0		215.0	215.0								Solid bit. No Core
215.0	3.0	218.0	3.0	100	MS St	Gy Gr					A
218.0	26.7	244.7	26.7	100	SS	LGy Gy	F-MF	Limonite	No	A Gr	
244.7	18.2	263.0	18.3	99.0	SS	Gy D Gy	MF	Cbn Lim	S	Gr A	V_2O_5 Minerals
263.0	6.4	269.7	6.7	93.4	MS St	Gy Gr					A

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%eq) or Field est.			
Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	%eq U_3O_8	Base	Thick	U_3O_8	
251.0																
251.7	0.7	0.02	0.44													
252.8	1.1	0.02	0.11													

*Assays marked "e" are from lab gamma-ray readings

Hole No.

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-29 ( )
Inclination Vert. Bearing
Total depth 256.0
Collar elev. 4854 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand Utah

Claim School Section
Date completed 5-3-56
Date logged 5-4-56
Logged by V. Dow

Rev		
Ed		

Summary of log: 4th SS Favorable: OBSS from 223.0 to 253.8 thick 30.8 ; SS color LGy Gy DGy ; MS Rd Gr Gy ; Cbn. Abundant

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		212.0	212.0								Solid bit No Core
212.0	10.4	223.0	11.0	94.5	MS-St	Rd Gr Gy					A sandy
223.0	10.0	234.2	11.2	89.3	SS	Gy LGy	F MF		No	Gr-Gy	
234.2	9.7	244.0	9.8	98.0	SS	Gy DGy	MF	Lim. Cbn	yes	Gr A	Cbn streaks Numerous
244.0	9.7	253.8	9.8	98.0	SS	DGy Gy	F-MF	Lim Cbn	yes		
253.8	2.1	256.0	2.2	95.4	MS	Gr					A Sandy

212.0

256.0

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
234.2																
235.6	1.4	0.02	0.04													
237.9	2.3	0.01	Nil													
252.8																
253.7	0.9	0.02	0.03													

*Assays marked "e" are [illegible] gamma-ray readings

GPO 835041

Hole No

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X - 30 ( )
Inclination Vert. Bearing
Total depth 271.2
Coordinates 4848.5 T ( )
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co. State Grand, Utah

Claim School Section
Date completed 5-8-56
Date logged 5-8-56
Logged by V. Dow

Rev		
Ed		

Summary: 4th SS Favorable OBSS from 219.2 to 266.5 thick 47.3 ; SS color LGy Gy DGy ; MS Gr Gy ; Cbn. Some

Graphic log

DRILL LOG

Depth	Rate
0.0	
212.0	6.9
219.2	8.7
227.9	15.4
244.5	21.9
266.5	4.7

LITHOLOGIC LOG

Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
212.0	212.0	—							Solid bit - No Core
219.2	7.2	95.8	MS St	RdGyGr					A
227.9	8.7	100	SS	Ltgy Gy	F	A.M.S.	No	Gr-Gy A	
244.5	16.6	92.7	SS	Gy DGy	MF	Lim. Cbn.	S	Gr A	A
266.5	22.0	99.5	SS	Gy DGy	MF	Lim Cbn	S	Gy Gr A	
271.2	4.7	100	MS St	Gr Gy					A sandy

Graphic log: 212.0 — 271.2

Sample Base	Thick	Lab assay (%) U_3O_8	V_2O_5	$CaCO_3$
232.6				
233.7	1.1	0.07	0.26	
234.5	0.8	0.01	Nil	
237.6				
238.2	0.6	0.03	0.02	
244.8				
245.7	0.9	0.03	Nil	
259.4				
260.2	0.8	0.06	0.07	

Sample Base	Thick	Lab assay (%) U_3O_8	V_2O_5/Cu	$CaCO_3$

Interval Base	Thick	γ-ray %e U_3O_8

γ-ray (%e) or Field est Base	Thick	U_3O_8	V_2O_5

*Assays marked * are from γ-ray readings

GPO 8350 41

Hole No. _____

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-31
Inclination Vert
Total depth 267.3
Collar elev. 4858 T P
Area Yellow Cat

Map coord. if
Map sec. no. if
Sec. 36 T 22S R 21E
Co. State Grand Utah

Claim School Section
Date completed 5-10-56
Date logged 5-10-56
Logged by V. Dow

Rev
Ed

Summary of ind. 4th SS Favorable OBSS from 231.6 to 260.8 thick 29.2 SS color Gy Br MS A Rd Gr Gy Yes

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's	Cbn	MS in SS	Remarks
0.0		220.0	220.0								Solid bit No Core
220.0	10.9	231.6	11.6	93.9	MS Sl.	Rd Gr Gy					A
231.6	8.3	239.9	8.3	100	SS	Gy Br	MF		No		
239.9	10.3	250.2	10.3	100	SS	DGy br	MF	Lim cbn	A	Gy	
250.2	10.6	260.8	10.6	100	SS	Br Gy	MF	Lim cbn	S	Gy	
260.8	6.4	267.3	6.5	98	MS	Gy Gr					A Sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	[illegible]	[illegible]	[illegible]	Base	Thick	U_3O_8	V_2O_5	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
239.9																
240.4	0.5	0.05	1.01													
241.5	1.1	0.14	0.51													
244.1																
245.1	1.0	0.03	0.06													
246.0	0.9	0.05	0.12													
247.2	1.2	0.03	0.13													

*Assays marked "e" are from lab gamma-ray readings

Hole No.

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X-32 ( )
Inclination Vert Bearing
Total depth 253.4
Collar elev. 4860 T P
Area Yellow Cat

Map coord. E
Map coord. N
Sec 36 T 22S R 21E
Co. State Grand Utah

Class School Section
Date complete 5-10-56
Date started 5-10-56
Logged by Y. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 236.0 to 249.6 thick 13.6 ; SS color DGy Br Gy MS Gy Gr A Cbn yes

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access Min's.	Cbn	MS in SS	Remarks
0.0		225.0	225.0								Solid bit No Core
225.0	11.0	236.0	11.0	100	St MS	Rd Gy					
236.0	7.8	244.0	8.0	97.5	SS	Gy	MF			None	
244.0	3.8	249.6	5.6	67.9	SS	DGy Gy	MF	Lim. Cbn	yes	Gy	
249.6	3.8	253.4	3.8	100	MS St	Gy					sandy

Graphic log: 220.0; 253.4

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5/Cu
249.3																
250.0	0.7	0.02	0.49													
250.7	0.7	0.01	0.16													

*Assays marked "e" are from lab gamma-ray readings

Drill No.

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-33 ( )
Inclination Vert. Bearing
Total depth 294.2
Collar elev 4859 T P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T 22S R 21E
Co State Grand Utah

Claim School Section
Date completed 5-8-56
Date logged 5-8-56
Logged by V. Dow

Rev.
Ext.

Graphic log

Summary of log 4th SS Semi Fav. ; OBSS from 238.5 to 287.2 thick 48.7' SS color Gy LGy DGy Mx Gr Gy Cbn Some

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's	Cbn	MS in SS	Remarks
0.0	–	235.0	235.0	–							
235.0	3.5	238.5	3.5	100	Ms St	Gr Gy					Altered
238.5	10.5	249.2	10.7	98.1	SS	LGy	F-MF		No	Gy Gr	
249.2	29.9	279.2	30.0	99.6	SS	Gy DGy	MF	Lim Cbn	Some	Gy	Cbn streaks 251 to 262
279.2	8.0	287.2	8.0	100	SS	Gy	MF		No	Gy	
287.2	7.0	294.2	7.0	100	Ms	Gr Gy					A

235.0

294.2

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ ray	γ ray (%eq) or Field			
Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	%eq U_3O_8	Base	Thick	U_3O_8	

*Assays marked "e" are from lab gamma-ray readings

Sheet Hole

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-34 ( )
Inclination Vert Bearing
Total depth 304.5
Collar elev. 4873 T P
Area Yellow Cat

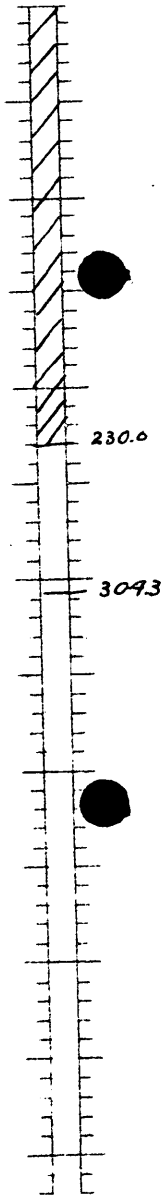
Map coord (L)
Map coord (P)
Sec. 36 T 22S R 21E
Co. State Grand Utah

Claim School Section
Date completed May 9, 1956
Date logged May 10, 1956
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable OBSS from 249.6 to 297.5 47.9 SS color Gy ; MS Gy Gr Rd ; Cbn Some

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		230.0	230.0	-							Solid bit No-Core
230.0	15.9	249.6	19.6	81.1	MS St	Rd Gy Gr				A	
249.6	14.7	264.3	14.7	100	SS	Gy	F-MF	MS. Cbn streaks	yes	Gy	
264.3	33.2	297.5	33.2	100	SS	Gy DGy	MF	Cbn	yes	Gy Gr	Cbn streaks
297.5	6.7	304.5	7.0	95.7	MS St	Gy Gr					Sandy

Sample		Lab. assay (%)			Sample		Lab. assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8*	V_2O_5	$CaCO_3$	Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from gamma-ray readings

Hole No.

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-35 ( )
Inclination: Vert Bearing
Total depth: 274.8
Collar elev. 4861 T P
Area: Yellow Cat

Map coord (T
Map coord (P
Sec 36 T 22S R 21E
C State Grand, Utah

Claim: School Section
Date completed: 5-9-56
Date logged: 5-10-56
Logged by: V. Dow

Rev		
Ed		

Summary of log: 4th SS Favorable OBSS from 234.3 to 270.9 thick 36.6 SS color Gy Br DGy MS Gy Gr Cbn. Some

Graphic log

DRILL LOG		LITHOLOGIC LOG										
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's	Cbn	MS in SS	Remarks
0.0		230.0	230.0								solid bit No Core
230.0	4.3	234.3	4.3	100	MS St	Gy					
234.3	18.2	252.6	18.3	99.5	SS	Gy LBr	F MF	Lim.	No	Gr Gy	
252.6	1.3	253.9	1.3	100	SS	DGy	MF	Lim V_2O_5	Abund	Gy	
253.9	17.0	270.9	17.0	100	SS	Gy LBr	MF	Lim	No		
270.9	3.9	274.8	3.9	100	MS St	Gy Gr			No		Sandy

Graphic log: 230.0 — 274.8

Sample		Lab assay (%)			Sample		Lab assay (%)			Reserve		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8*	V_2O_5	$CaCO_3$	Base	Thick	U_3O_8	V_2O_5	$CaCO_3$		Thick	% U_3O_8	Base	Thick	U_3O_8	V_2O_5
253.6																
254.4	0.8	0.05	0.01													
255.0	0.6	0.02	Nil													

*Assays marked * are from radiometric assay readings

Page No.

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

Norbute Corp.
P.O. Box 1799
Grand Junction, Colorado

Date 4-19-56
Order No. 6396-8

Ore Samples-9
4-18-56
Analysis

Material:
Received:
For:

Lab. No.	Your No.	Description	%U_3O_8	%V	%$CaCO_3$
6396-1	X-1	225.0-226.0			
6396-2	X-1	226.0-227.0	0.09	0.56	
6396-3	X-1	227.0-228.4	0.01	0.02	
6396-4	X-3	249.5-250.0	0.02	0.09	
6396-5	X-3	250.0-250.8	0.01	0.55	
6396-6	X-3	250.8 - 251.3	0.05	0.07	
6396-7	X-4	233.4 - 233.8	0.03	0.24	
6396-8	X-22	240.7 - 241.3	0.18	Nil	
6396-9	X-22	241.3 - 242.3	0.01	Nil	

Analyst.

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

- [illegible]
- [illegible]
- [illegible]

Date [illegible]

Order No. [illegible]

[illegible]

Material: [illegible]

Received:

For:

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

Analyst.

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

Kermac Corp.
P. O. Box 1738
Grand Junction, Colorado

Date 5-4-56
Order No. 6518-

Material: Core samples - 13
Received: 5-3-56
For: analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6518-1	Hole # 25	235.4-235.6	0.04	0.07	
6518-2	"	235.6-236.0	0.05	1.11	
6518-3	"	236.0-236.3	0.12	0.88	
6518-4	"	236.3-237.0	0.79	0.70	
6518-5	"	237.0-238.0	0.81	0.35	
6518-6	"	238.0-238.7	0.56	2.98	
6518-7	"	238.7-240.0	0.03	0.54	
6518-8	"	240.0-240.7	0.04	0.78	
6518-9	"	240.7-241.7	0.02	0.07	
6518-10	"	252.0-252.8	0.04	0.11	
6518-11	Hole # 26	231.2-232.5	0.04	0.70	
6518-12	"	232.5-234.0	0.02	0.06	
6518-13	"	234.0-235.0	0.06	0.11	

Kingfield & McE
VOC

Analyst.

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

- [illegible] Corp.
- P. O. Box 17[illegible]
- Grand Junction, Colorado
-

Date [illegible]-8-56
Order No. 6547-[illegible]

Material: [illegible] - 7
Received: 5-7-56
For: Analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6547-1	Hole [illegible] 27	246.5-247.3	[illegible]	0.31	
6547-2	"	247.3-247.9	[illegible]	2.[illegible]	
6547-3	"	247.9-34[illegible].6	[illegible]	[illegible]	
6547-4	"	2[illegible].6-[illegible].4	[illegible].15	[illegible]	
6547-5	Hole [illegible] 28	[illegible]-251.7	[illegible].02	[illegible].44	
6547-6	"	251.7-[illegible].5	[illegible]	0.11	
6547-7	Hole [illegible] 29	[illegible].2-[illegible]5.6	[illegible]	[illegible]	
6547-8	"	[illegible]5.6-[illegible]	0.01	[illegible]	
6547-9	"	[illegible].2-[illegible].7	[illegible]	[illegible]	

Analyst.

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

Norbute Corp.
P. O. Box 1700
Grand Junction, Colorado

Date 5-17-56
Order No. 6589-8

Material: Ore Samples - 14
Received: 5-11-56
For: Analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6589-1	X-30	232.0-233.7	0.07	0.26	
6589-2	"	233.7-234.5	0.01	Nil	
6589-3	"	237.6-238.2	0.03	0.12	
6589-4	"	244.8-245.7	0.03	Nil	
6589-5	"	259.4-260.2	0.06	0.07	
6589-6	X-31	239.9-240.4	0.05	1.02	
6589-7	"	240.4-241.5	0.14	0.51	
6589-8	"	244.1-245.1	0.03	0.06	
6589-9	"	245.1-246.0	0.05	0.12	
6589-10	"	246.0-247.2	0.03	0.13	
6589-11	X-32	249.3-250.0	0.02	0.49	
6589-12	"	250.0-253.7	0.01	0.14	
6589-13	X-35	253.6-254.4	0.05	0.01	
6589-14	"	254.4-255.0	0.02	Nil	

Analyst.

RECEIVED
JUN 1 8 1956

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

RECEIVED
JUN 4 1956

224 New Customhouse
Denver 2, Colorado

June 1, 1956

Memorandum

To: E. H. Harshman - w/enclosure
John F. Shaw - " "

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3962 (Uranium), Contract Idm-3966, Barbata Corporation (Sec. 36, T 22 S, R 21 E S.L.M.), Grand Co., Utah

Enclosed is a copy of the Operator's letter of May 28, 1956 wherein it is requested that Contract Idm-3966 be terminated, and by which was forwarded the Operator's report covering the drilling completed under Stages I and III of the contract.

Please submit a joint memorandum report of your recommendations relative to terminating the contract.

If the contract is to be terminated without performing additional work, the enclosed report will constitute the Operator's final report pertaining to work completed under the contract.

When the enclosed report has served your needs, it is imperative that it be returned to this office.

W. M. TRAVER

W. M. Traver

Enclosure

JST:gri
cc: Chairman, Oper. Comm. (2)
Hasler - w/copy of enclosed report, which is to be returned
Townsend
Corres. file
Chron.

6/27/56

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

RECEIVED
JUN 27 1956

Administrative Audit Difference Statement

FINAL DISTRIBUTION MADE JUN 25 1956

[illegible]

Date: [illegible]
Payee's Reference: [illegible]

DMEA-396 ✓

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ [illegible]

Difference $ [illegible]

Amount Approved $ [illegible]

The reason for the difference was due to:

[illegible]

[illegible]

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-III-B & F Form No. 4
4-15-52 D

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

RECEIVED
JUN 27 1956

224 New Customhouse
Denver 2, Colorado

June 21, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3962 (Uranium) Contract Idm-E928, Norbute Corporation (School Sec. 36, T22S, R21W) Grand County, Utah - Operator's Monthly Progress Report for the month of May, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

It is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended for 75 percent of the amount as reported on Form MF-104, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations, except for the following deductions.

<u>Disallow</u> an amount of $24.00, the cost of two hours bulldozing at $12.00 per hour. The contract allowance for this item was exceeded by two hours.

<u>Withhold</u> an amount of $500.00 pending additional work. If no further work is approved by the Government and performed by the Operator, continue to hold the amount pending resolution of matters relative to closing the account. The presently approved work has been completed, and the Operator requested termination on May 28, 1956.

Remarks

Date of Report----------June 18, 1956
Date Received in Field Office---------- June 19, 1956
Date Received in Region Office---------- June 20, 1956

W. M. TRAVER

W. M. Traver

Enclosures

JBC:jy
cc: MF-104 File E928
Sec. Op. Comm. (2)
Shaw (2)
Townsend w/copy engr's report
Chron.

DMEA
Date Rec'd.

JUN 20 1956

Region III

BUREAU OF MINES
Denver, Colorado

Building 20
Denver Federal Center
Denver 2, Colorado
June 12, 1956

DMEA
Date Rec'd.

JUN 12 1956

BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Carl Belser
Through: John F. Shaw
Supervising Mining Engineer

Subject: DMEA 3962 (Uranium), Contract Idm-[illegible], Kerbete Corporation, (School Section 36), Grand County, Utah — Progress Report for May 1956.

Drilling progress was inspected on June 4, 1956. Drilling of Stage III holes was completed on May 10 and the operator requested that the contract be terminated on May 18, 1956. The following holes were drilled in May:

	Hole	Footage Non-Core	Footage Core	Footage Total	% Core Recd.	Uranium Mineralization
	I-27	205	70.5	275.5		246.5'-247.3'-0.08%, 247.3'-247.8'-0.06% 247.8'-248.6'-0.08%, 248.6'-249.4'-0.15%
	I-28	215	54.7	269.7		251.0'-252.8'-0.08%
	I-29	212	44.0	256.0		234.2'-235.6'-0.08%, 235.6'-237.9'-0.03% 252.8'-253.7'-0.08%
	I-30	212	59.2	271.2		232.6'-233.7'-0.07%, 233.7'-234.5'-0.02% 237.6'-238.2'-0.08%, 244.8'-243.7'-0.09% 259.4'-260.2'-0.06%
	I-31	220	47.3	267.3		239.9'-240.4'-0.09%, 240.4'-241.5'-0.14% 244.1'-246.0'-0.06%, 246.0'-247.2'-0.09%
	I-32	225	28.4	253.4		249.3'-250.7'-0.08%
	I-33	235	59.2	294.2		Slightly mineralized Cu
	I-34	230	74.5	304.5		" " "
Stage II	I-35	230	44.8	274.8		253.6'-255.0'-0.06%
Total	(9)	1,984	482.6	2,466.6		
Previous	(2)	420	104.5	524.5		
Total Stage III	(11)	2,404.0	587.1	2,991.1		
Stage I Holes	(11)	2,330.3	483.3	2,813.6		
Total	(22)	4,734.3	1,070.4	5,804.7		

The cost of 1800 feet of non-core drilling at $1.40 per ft. is $2,520.00; the cost of 184 feet of non-core drilling at $1.50 per ft. is $276.00; the cost of 482.6 feet of core drilling at $2.05 per ft. is $989.33; the cost of 30 hours of bulldozing at $12.00 per hour is $360.00; the cost of 23 chemical assay at $4.82+ is $110.97 and the incidental allowance for 2,466.6 feet of drilling at $0.30 per ft. is $739.98 or a total of $4,996.28.

Payment of 75 percent of the amount claimed or $3,747.21 is valid.

The drillers' logs have been retained at this office.

It is recommended that the sum of $300.00 be withheld from the operator's May payment pending receipt of his final report.

The Stage III drilling costs follow:

587.1 feet of core drilling at $2.05 a foot	$1,203.55	
2200.0 ft. of non-core drilling at $1.40/ft.	3,080.00	
204.0 ft. of non-core drilling at $1.50/ft.	306.00	
Incidental allowance, 2991.1 ft. at $0.30/ft.	897.33	
36 chemical assays at $4.82+ each	173.69	
32 hours bulldozing at $12.00 per hour	384.00	
Total cost for Stage III drilling		$6,044.57
Total cost for Stage I drilling		5,499.74
Total cost for project		$11,544.31
Government participation 75%, or		$8,658.23

The contract allows for 24.68 percent cored in Stage I plus Stage III. Actual core drilled amounted to 18.44 percent. Overall core recovery was 97.2 percent. All core was of BX size.

Carl Belcher

Carl Belcher
Mining Engineer

cc 6
Mm-8928
Ohrem.

CB/ek

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

RECEIVED
JUN 27 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1956 Docket No. DMEA 3962 Contract No. Idm E-928
Operator's Name Norbute Corporation Minerals Uranium
Address Box 1700, Grand Junction, Colo.
Contract Amount, $45,000.00 Government Participation: 75% Amount, $33,750.00
45,000.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	$3,785.33	$5,070.44	$8,855.77			
Bulldozing	360.00	288.00	648.00			
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	110.97	188.16	299.13			
Payroll Taxes						
Liability Insurance						
Incidental Allowance	739.98	1,001.43	1,741.41			
(8) Contingencies (specify):						
TOTALS	4,996.28	6,548.03	11,544.31	4,972.28	6,548.03	11,520.31

I certify that the above bill is correct and just and that payment therefor has not been received.

Date June 18, 1956 *Payee Norbute Corp.

Per Norman T. Dow Title Mine Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$3229.21

Signature [illegible]
(Authorized Certifying Officer)

Date 6/25/56 Voucher DMA 56-124
(See other side)

Note: Withhold $500.00

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 7dxE 928 in accordance with the terms of the contract.

Signature [illegible] ($3,747.21) Title Mining Engineer Date 6/11/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Craver Title Executive Officer Date JUN 21 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUN 27 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 1956 Docket No. DMEA 3982 Contract No. Icm-E928
Operator's Name Norbute Corporation Minerals Uranium
Address Box 1700, Grand Junction, Colorado

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	feet	$ 989.33	482.6	$2,194.32	1070.4	2.05	3,225	$ 3.15
~~Chip~~ non-core	feet	2,796.00	1984.0	6,661.45	4734.3	1.41	10,033	1.82
Auger								
~~Sample~~ sample analysis	each	110.97	23	299.13	62	4.82	105	5.00
Trenching								
Test Pits								
Roads and Trails bulldozing	hrs.	360.00	30	648.00	54	12.00	52	12.00
Incidental allowance	feet	739.98	2466.6	1,741.41	5804.7	0.30	13,248	0.30
TOTAL DISTRIBUTED COSTS		$4,996.28		$11,544.31				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$4,996.28		$11,544.31				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date June 18, 1956 Operator NORBUTE CORPORATION

Per Vernon T. Dow Title Mine Manager

REMARKS:

→ NOTE.—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.

(Instructions on reverse)

(For Government use only) Earl Belen

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc.". The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

RECEIVED
JUN 27 1956

May 18, 1956

NORBUTE CORPORATION
Box 1700
Grand Junction, Colo.

Re: Docket DMEA 3962 (Uranium)
Contract No. Idm. E 928

Mr. John F. Shaw
U. S. Bureau of Mines
Room 137, Building 20
Denver Federal Center
Denver 2, Colorado

Dear Mr. Shaw:

Enclosed herewith is a report covering diamond drilling during the month of May and our request for termination of drilling under Docket DMEA 3962, Contract No. Idm E-928.

Also enclosed are maps, contract driller reports, copies of geologic logs, results of radiometric probing, chemical assays returns, invoices for the drilling, invoices for the bulldozer work, invoices for chemical analysis and copies of Forms 104 and 104A.

Very truly yours,

Vernon T. Dow

Vernon T. Dow, Mine Manager

VTD/b
Enc.

RECEIVED
JUN 27 1956

May 18, 1956

NORBUTE CORPORATION
P. O. Box 1700
Grand Junction, Colorado

REPORT ON D.M.E.A. DIAMOND DRILLING
for the month of May, 1956, in
Section 36, T 22 S, R 21 E, S. L. M.
Grand County, Utah

During the month of May the bulldozer work for the third stage of drilling was completed with a total of thirty hours of work.

Drilling under the third stage was finished May 10, with nine holes being completed during the month. Of the nine holes completed, one (X-31) was an ore hole, six were mineralized (X-27, X-29, X-30. X-32. X-33 and X-35) one hole (X-35) was slightly mineralized, and one hole (X-28) was barren. (See map Plage 5 amended).

Drilling to date has proven the existence of a mineralized channel, with a concentration of uranium and vanadium minerals in the vicinity of drill holes X-6 and X-31. These holes are considered ore holes according to U. S. G. S. and A. E. C. definition (1.0 feet of 0.10% U_3O_8), but ore of this grade and thickness can not be economically mined.

One ore hole (X-25) which is in the vicinity of ore holes YC-880 and YC-884 drilled by the U. S. G. S., has added 600 tons of ore with a grade of 0.37% U_3O_8 and 1.18% V_2O_5 to the ore body. This ore can be economically mined.

NORBUTE CORPORATION

JUN 27 1956

In light of the results obtained from the first and third stages of drilling, we do not deem it advisable to drill the proposed second stage, and are asking that our D.M.E.A. contract be terminated.

Below is a table showing hole numbers, footage drilled solid bit and footage cored.

Third Stage Drilling May, 1956

Hole No.	Solid bit (no core)	Coring	Total
X-27	205.0	70.5	275.5
X-28	215.0	54.7	269.7
X-29	212.0	44.0	256.0
X-30	212.0	59.2	271.2
X-31	220.0	47.3	267.3
X-32	225.0	28.4	253.4
X-33	235.0	59.2	294.2
X-34	230.0	74.5	304.5
X-35	230.0	44.8	274.8
Totals	1,984.0	482.6	2,466.6

Below is a table showing drilling costs for May.

Stage 3

Independent contracts

30 hours bulldozing @ $12.00 per hour	$ 360.00	
1800 feet non-core drilling @ $1.40 per foot	2,520.00	
184 feet " " " @ $1.50 " "	276.00	
482.6 " core drilling @ $2.05 per foot	989.33	
		$4,145.33

Fixed Unit Costs

" 23 samples analyzed chemically for U_3O_8 and V_2O_5 @ $4.83 per sample	110.97

Incidental Allowance

2,466.6 feet @ $0.30 per foot	739.98
Total amount spent during May	$4,996.28
Amount previously spent in April	6,548.03
TOTAL AMOUNT SPENT	$11,544.31

Vernon T. Dow

NORBUTE CORPORATION D.M.E.A.

Probed by V. Dew Minerals Counter No. 127

RECEIVED
JUN 7 1956

Hole No.		Depth	E. U_3O_8	
X-27	5- 2-56	0 to 245.9	0.00	Mineralized hole
		246.0	0.02	
		246.4	0.05	
		246.6	0.10	
		246.8	0.06	
		247.0 to 247.3	0.05	
		247.4	0.06	
		247.6	0.07	
		247.8	0.10	
		248.0	0.13	
		248.2	0.14	
		248.5	0.14	
		248.6	0.12	
		248.7	0.12	
		248.8	0.12	
		248.9	0.10	
		249.0	0.10	
		249.2	0.08	
		249.6	0.04	
		249.8	0.02	
		249.8 to 275.5	0.00	
X-28	5- 2-56	0 to 269.7	0.00	Barren
X-29	5- 3-56	0 to 235.9	0.00	Mineralized hole
		236.0	0.06	
		236.1 to 241.1	0.00	
		241.1 to 241.9	0.00	
		242.0	0.04	
		242.6	0.02	
		242.7 to 253.3	0.00	
		253.3	0.02	
		253.9	0.08	
		254.3	0.07	
		254.4	0.03	
		254.4 to 256.0	0.00	

NORBUTE CORPORATION D. M. E. A.

Probed by V. Dow Minerals Counter No. 127

Hole No.		Depth	E. U_3O_8	
X-30	5- 8-56	233.5	0.02	Mineralized
		234.0	0.06	
		234.4	0.12	
		234.6	0.12	
		234.8	0.06	
		235.3	0.04	
		237.0	0.00	
		239.0	0.02	
		241.5	0.02	
		242.8	0.06	
		243.4	0.04	
		244.0	0.04	
		244.8	0.06	
		245.1	0.10	
		245.2	0.12	
		245.6	0.08	
		246.0	0.06	
		246.4	0.04	
		246.4 to 271.9	0.00	
X-31	5-10-56	0 to 239.6	0.00	Ore hole
		239.7	0.04	
		239.8	0.08	
		240.0	0.12	
		240.2	0.14	
		240.4	0.12	
		240.6	0.16	
		240.8	0.18	
		241.0	0.14	
		241.2	0.14	
		241.4	0.06	
		241.8	0.04	
		242.0	0.00	
		242.4	0.04	
		242.6	0.10	
		242.8	0.20	
		243.0	0.28	
		243.2	0.32	
		243.4	0.26	
		243.6	0.22	
		243.8	0.16	
		244.0	0.06	
		244.2-246.0	0.00	
		246.2	0.04	
		246.8	0.08	
		247.0	0.10	
		247.4	0.06	
		247.6	0.04	
		247.8	0.02	
		248.04 to 267.3	0.00	

NORBUTE CORPORATION D.M.E.A.

Probed by V. Dow Minerals Counter No. 127

Hole No.		Depth	E. U_3O_8	
X-32	5-10-56	0 to 247.4	0.00	Mineralized hole
		247.5	0.04	
		247.6	0.08	
		247.8	0.12	
		248.0	0.28	
		248.2	0.22	
		248.4	0.16	
		248.6	0.12	
		248.8	0.04	
		250.00	0.00	
		251.0 to 275.5	0.00	
X-33	5- 8-56	0 to 250.8	0.00	Mineralized
		250.9	0.04	
		251.5	0.04	
		251.9	0.06	
		252.3	0.04	
		252.5	0.00	
		252.6 to 294.2	0.00	
X-34	5- 9-56	0 to 267.0	0.00	Slightly mineralized
		267.1	0.04	
		267.4	0.04	
		267.5	0.02	
		267.6 to 286.8	0.00	
		286.9	0.02	
		287.4	0.04	
		287.6	0.02	
		287.7 to 298.4	0.00	
		298.5	0.02	
		299.0	0.02	
		299.6	0.02	
		299.8	0.00	
		299.9 to 304.5	0.00	
X-35	5- 9-56	0 to 252.0	0.00	Mineralized hole
		252.1	0.04	
		252.8	0.06	
		253.4	0.08	
		253.6	0.10	
		253.8	0.12	
		253.9	0.13	
		254.1	0.10	
		254.7	0.06	
		255.0	0.02	
		255.2 to 274.8	0.00	

HUNTINGTON, W. VA. INVOICE BIRMINGHAM, ALA.

B. H. MOTT & SONS, INC.

CORE DRILLING CONTRACTORS AND MANUFACTURERS

830 EIGHTH AVENUE

HUNTINGTON, W. VA.

RECEIVED JUN 27 1956

TESTING
COAL, CLAY AND MINERAL PROPERTIES
FOUNDATION TESTING
PRESSURE GROUTING
LARGE DIA. HOLES

DATE MAY 17, 1956

CONTRACT DMEA NO.

TERMS: NET

TO NORBUTE CORPORATION
URANIUM CENTER BUILDING
GRAND JUNCTION, COLORADO

DIAMOND CORE DRILLING

ITEM	FEET	UNIT PRICE	TOTAL
1	1800.0	$1.40	$2520.00
2	184.0	1.50	276.00
5	482.6	2.05	989.33
7	7 HOURS	10.00	70.00
FOR HOLES X 27, 28, 29, 30, 31 32, 33, 34, 35		DMEA Ringlid VAG	$3855.33

INVOICES ARE MAILED AS PER CONTRACT TERMS, OR UPON THE COMPLETION OF EACH HOLE, IF TERMINATED AT A DEPTH OF MORE THAN FIVE HUNDRED FEET.

B. H. MOTT & SONS, INC.
JOHN C. McELDOWNEY
BY

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

Norbute Corp.
P. O. Box 1700
Grand Junction, Colorado

Date 5-8-56
Order No. 6547-S

Material: Ore Samples - 9
Received: 5-7-56
For: Analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6547-1	Hole X 27	246.5-247.3	0.02	0.31	
6547-2	"	247.3-247.8	0.06	2.00	
6547-3	"	247.8-248.6	0.02	1.03	
6547-4	"	248.6-249.4	0.15	0.86	
6547-5	Hole X 28	251.0-251.7	0.02	0.44	
6547-6	"	251.7-252.8	0.02	0.11	
6547-7	Hole X 29	234.2-235.6	0.02	0.04	
6547-8	"	235.6-237.9	0.01	Nil	
6547-9	"	252.8-253.7	0.02	0.03	

W. E. Brown
Analyst.

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

Norbute Corp.
P. O. Box 1700
Grand Junction, Colorado

Date 5-12-56
Order No. 6589-S

Material: Ore Samples - 14
Received: 5-11-56
For: Analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6589-1	X-30	232.6-233.7	0.07	0.26	
6589-2	"	233.7-234.5	0.01	Nil	
6589-3	"	237.6-238.2	0.03	0.02	
6589-4	"	244.8-245.7	0.03	Nil	
6589-5	"	259.4-260.2	0.06	0.07	
6589-6	X-31	239.9-240.4	0.05	1.01	
6589-7	"	240.4-241.5	0.14	0.51	
6589-8	"	244.1-245.1	0.03	0.06	
6589-9	"	245.1-246.0	0.05	0.12	
6589-10	"	246.0-247.2	0.03	0.13	
6589-11	X-32	249.3-250.0	0.02	0.49	
6589-12	"	250.0-250.7	0.01	0.16	
6589-13	X-35	253.6-254.4	0.05	0.01	
6589-14	"	254.4-255.0	0.02	Nil	

Analyst.

THE BROWN LABORATORY, Grand Junction, Colo.
2263 Broadway
Phone 1543-W

RECEIVED
JUN 27 1956

Entry Date 5-3-56
Order No.
Requisition No.

Our Order No. 6518-S

INVOICE

Invoice No. 6518-S
Invoice Date 5-4-56

CHARGED TO Norbute Corp.
P. O. Box 1700
Grand Junction, Colorado

SENT TO Same

Instructions Uranium & Vanadium Determinations

Terms From Invoice Date

Quantity	Description	Unit Price	Discount	Extension
13	Uranium Determinations	3.50		45.50
13	Vanadium "	1.50		19.50
				65.00
	Discount Less on U_3O_8		5%	2.28
				$ 62.72

DMEA Ringlair
VLO

THE BROWN LABORATORY, Grand Junction, Colo.
2263 Broadway
Phone 1543-W

Entry Date 5-7-56
Order No.
Requisition No.

Our Order No. 6547-S

INVOICE

Invoice No. 6547-S
Invoice Date 5-8-56

CHARGED TO Norbute Corp.
P. O. Box 1700
Grand Junction, Colorado

SENT TO Same

RECEIVED
JUN 27 1956

Instructions Uranium & Vanadium Determinations

Terms From Invoice Date

	Quantity	Description	Unit Price	Discount	Extension	
	9	Uranium Determinations	3.50		31.50	
	9	Vanadium "	1.50		13.50	
					45.00	
		Discount - Less on U_3O_8		5%	1.58	
					$ 43.42	

Dr. C. A. Ringtail
VOC

THE BROWN LABORATORY, Grand Junction, Colo.
2263 Broadway
Phone 1543-W

Entry Date 5-11-56
Order No.
Requisition No.

Our Order No. 6589-S

INVOICE

Invoice No. 6589-S
Invoice Date 5-12-56

CHARGED TO Norbute Corp.
P. O. Box 1700
Grand Junction, Colorado

SENT TO Same

RECEIVED
JUN 27 1956

Instructions Uranium & Vanadium Determinations

Terms From Invoice Date

	Quantity	Description	Unit Price	Discount	Extension
	14	Uranium Determinations	3.50		49.00
	14	Vanadium "	1.50		21.00
					70.00
		Discount - Less on U_3O_8		5%	2.45
					$ 67.55

Oil Well Locations

Roads

K. L. ETTER Construction Co.

1637 Gunnison Blvd.—Phone 0547-J1
GRAND JUNCTION, COLORADO
P. O. BOX 924

MAY 10 1956
RECEIVED
JUN 27 1956

Date May 9 1956

TO NORGUTE CORPORATION
BOX 1700
Address GRAND JUNCTION, COLO.

RINGTAIL MINE YELLOW CAT AREA

Date	Hours	Description	Amount
		D7 BULLDOZER WITH OPERATOR	
4-30	2	Moving tractor to job	
5-1	7	Work on Drill Sites and Roads	
5-2	7	" " " " " "	
5-3	8	" " " " " "	
5-8	4	" " " " " "	
5-9	2	Moving tractor from job	
	30	TOTAL @ $ 12.00 Per Hour -	$ 360.00
		D.M.E.A. Ringtail V.O.	
		ck 719 5-17-56 TB	
		Total	$ 360.00

GRAND PRINTING CO.

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-35 ( )
Inclination Vert Bearing
Total depth 274.8
Collar elev. 4861 T P
Area Yellow Cat

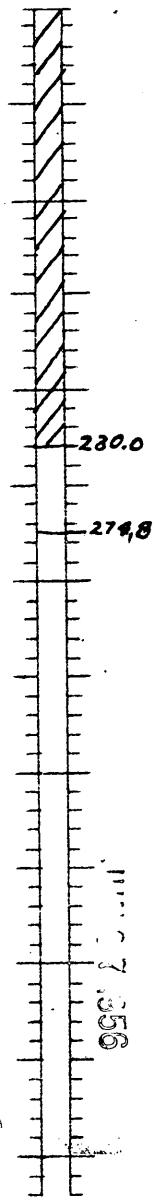
Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand, Utah

Claim School Section
Date completed 5-9-56
Date logged 5-10-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 234.3 to 270.9 thick 36.6 ; SS color Gy Br DGy ; MS Gy Gr ; Cbn. Some

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		230.0	230.0								solid bit No Core
230.0	4.3	234.3	4.3	100	MS St	Gy					
234.3	18.2	252.6	18.3	99.5	SS	Gy LBr	F MF	Lim.	No	Gr Gy	
252.6	1.3	253.9	1.3	100	SS	DGy	MF	Lim V_2O_5	Abund	Gy	
253.9	17.0	270.9	17.0	100	SS	Gy LBr	MF	Lim	No		
270.9	3.9	274.8	3.9	100	MS St	Gy Gr			No		sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
253.6																
254.4	0.8	0.05	0.01													
255.0	0.6	0.02	Nil													

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No.

RECEIVED

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-34 ( )
Inclination Vert Bearing
Total depth 304.5
Collar elev. 4873 T P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand Utah

Claim School Section
Date completed May 9, 1956
Date logged May 10, 1956
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable; OBSS from 249.6 to 297.5 thick 47.9; SS color Gy; MS Gy Gr Rd; Cbn. Some

Graphic log

230.0

304.3

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		230.0	230.0	–							
230.0	15.9	249.6	19.6	81.1	MS St	RdGyGr					Solid bit No-Core
249.6	14.7	264.3	14.7	100	SS	Gy	F-MF	MS. Cbn streaks	yes	A Gy	
264.3	33.2	297.5	33.2	100	SS	Gy DGy	MF	Cbn	yes	Gy Gr	Cbn streaks
297.5	6.7	304.5	7.0	95.7	MS St	Gy Gr					Sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 11

Hole No.

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-33 ( )
Inclination Vert Bearing
Total depth 294.2
Collar elev. 4859 T P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand Utah

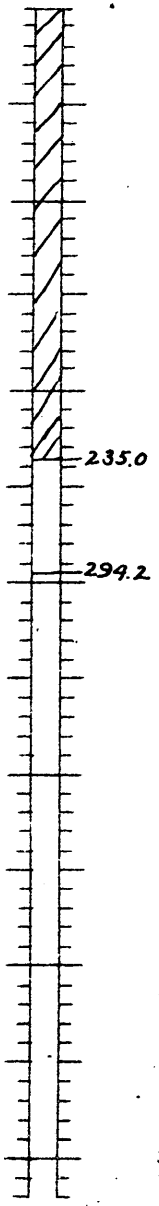
Claim School Section
Date completed 5-8-56
Date logged 5-8-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Semi Fav. ; OBSS from 238.5 to 287.2 thick 48.7' ; SS color Gy LGy DGy ; MS Gr Gy ; Cbn. Some

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0	—	235.0	235.0	—							
235.0	3.5	238.5	3.5	100	MS St	Gr Gy					Altered
238.5	10.5	249.2	10.7	98.1	SS	LGy	F-MF		No	Gy Gr	
249.2	29.9	279.2	30.0	99.6	SS	Gy DGy	M.F	Lim Cbn	Some	Gy	Cbn Streaks 251 to 262
279.2	8.0	287.2	8.0	100	SS	Gy	MF		No	Gy	
287.2	7.0	294.2	7.0	100	MS	Gr Gy					A

Graphic log



Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No.

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X-32 ( )
Inclination Vert Bearing
Total depth 253.4
Collar elev. 4860 T P
Area Yellow Cat

Map coord. (T)
Map coord. (G)
Sec. 36 T 22S R 21E
Co. State Grand Utah

Claim School Section
Date comp. 5-10-56
Date 5-10-56
Logged Y. Dow

Rev
E

Summary of log 4th SS Favorable OBSS from 236.0 to 249.6 Thick 13.6 Sandstone DGy Br Gy Gy Gr A Core yes

Graphic log

DRILL LOG		LITHOLOGIC LOG										
Depth	Rec ft	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks	
0.0		225.0	225.0								Solid bit No Core	
225.0	11.0	236.0	11.0	100	St MS	Rd Gy						
236.0	7.8	244.0	8.0	97.5	SS	Gy	MF			None		
244.0	3.8	249.6	5.6	67.9	SS	DGy Gy	MF	Lim. Cbn	yes	Gy		
249.6	3.8	253.4	3.8	100	Ms St	Gy					sandy	

Graphic log: 225.0 — 253.4

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		Gamma	Gamma (feet) or Field est.			
Base	Thick	U_3O_8	V_2O_5	Cu	Base	Thick	U_3O_8	V_2O_5	$CaCO_3$	Base	Thick	Sample	Base	Thick	U_3O_8	Cu
249.3																
250.0	0.7	0.02	0.49													
250.7	0.7	0.01	0.16													

*Assays marked [illegible] readings

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-31 ( )
Inclination Vert. Bearing
Total depth 267.3
Collar elev. 4858 T P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand Utah

Claim School Section
Date completed 5-10-56
Date logged 5-10-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4 SS Favorable; OBSS from 231.6 to 260.8 thick 29.2; SS color Gy Br; MS A Rd Gr Gy; Cbn. Ves

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		220.0	220.0								Solid bit No Core
220.0	10.9	231.6	11.6	93.9	MS St	Rd Gr Gy					A
231.6	8.3	239.9	8.3	100	SS	Gy Br	MF		No		
239.9	10.3	250.2	10.3	100	SS	DGy br	MF	Lim cbn	A	Gy	
250.2	10.6	260.8	10.6	100	SS	Br Gy	MF	Lim cbn	S	Gy	
260.8	6.4	267.3	6.5	98	MS	Gy Gr					A Sandy

Graphic log: 220.0; 267.3

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
239.9																
240.4	0.5	0.05	1.01													
241.5	1.1	0.14	0.51													
244.1																
245.1	1.0	0.03	0.06													
246.0	0.9	0.05	0.12													
247.2	1.2	0.03	0.13													

*Assays marked "e" are from lab gamma-ray readings

GPO 835041

Hole No.

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X - 30 ( )
Inclination Vert. Bearing
Total depth 271.2
Collar elev. 4848.5 T P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T 22S R. 21E
Co., State Grand, Utah

Claim School Section
Date completed 5-8-56
Date logged 5-8-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 219.2 to 266.5 thick 47.3 ; SS color LGy Gy DGy ; MS Gr Gy ; Cbn. Some

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		212.0	212.0	—							Solid bit - No Core
212.0	6.9	219.2	7.2	95.8	MS St	Rd Gy Gr					A
219.2	8.7	227.9	8.7	100	SS	Ltgy Gy	F	A M.S	No	Gr-Gy A	
227.9	15.4	244.5	16.6	92.7	SS	Gy DGy	MF	Lim. Cbn.	S	Gr A	A
244.5	21.9	266.5	22.0	99.5	SS	Gy DGy	MF	Lim Cbn	S	Gy Gr A	
266.5	4.7	271.2	4.7	100	MS St	Gr Gy					A Sandy

212.0

271.2

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
232.6																
233.7	1.1	0.07	0.26													
234.5	0.8	0.01	Nil													
237.6																
238.2	0.6	0.03	0.02													
244.8																
245.7	0.9	0.03	Nil													
259.4																
260.2	0.8	0.06	0.07													

*Assays marked "e" are from gamma-ray readings

GPO 835041

Hole No.

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-29 ( )
Inclination Vert. Bearing
Total depth 256.0
Collar elev 9854 T P
Area Yellow Cat

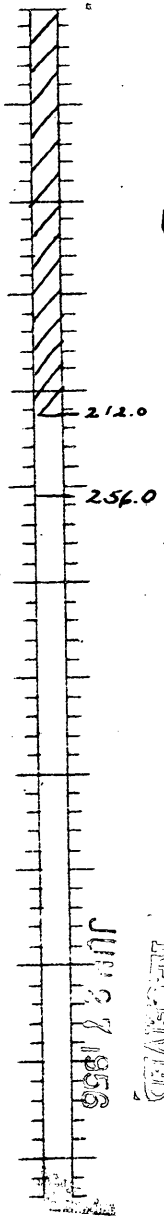
Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand Utah

Claim School Section
Date completed 5-3-56
Date logged 5-4-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable; OBSS from 223.0 to 253.8 thick 30.8 ; SS color LGy Gy DGy ; MS Rd Gr Gy ; Cbn. Abundant

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's	Cbn	MS in SS	Remarks
0.0		212.0	212.0								Solid bit No Core
212.0	10.4	223.0	11.0	94.5	MS-St	Rd Gr Gy					A sandy
223.0	10.0	234.2	11.2	89.3	SS	Gy LGy	F MF		No	Gr-Gy	
234.2	9.7	244.0	9.8	98.0	SS	Gy DGy	MF	Lim. Cbn	yes	Gr A	Cbn streaks Numerous
244.0	9.7	253.8	9.8	98.0	SS	DGy Gy	F-MF	Lim Cbn	yes		
253.8	2.1	256.0	2.2	95.4	MS	Gr					A Sandy

Sample		Lab assay (%)			Sample		Lab assay (%)		
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$
234.2									
235.6	1.4	0.02	0.04						
237.9	2.3	0.01	Nil						
252.8									
253.7	0.9	0.02	0.03						

Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No.

RECEIVED JUN 27 1956

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-28 ( )
Inclination Vert. Bearing
Total depth 269.7
Collar elev. 4862 T P
Area Yellow Cat

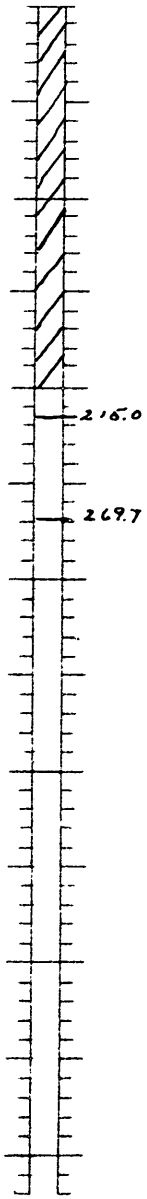
Map coord (T)
Map coord (P)
Sec. 36 T 22S R. 21E
Co., State Grand Utah

Claim School Section
Date completed 5-2-56
Date logged 5-3-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 218.0 to 263.0 thick 45.0 ; SS color LGy Gy DGy ; MS A Gy Gr. ; Cbn. Some

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		215.0	215.0								Solid bit No Core
215.0	3.0	218.0	3.0	100	MS St	Gy Gr					A
218.0	26.7	244.7	26.7	100	SS	LGy Gy	F-MF	Limonite	No	A Gr	
244.7	18.2	263.0	18.3	99.0	SS	Gy D Gy	MF	Cbn Lim	S	Gr A	V_2O_5 Minerals
263.0	6.4	269.7	6.7	93.4	MS St	Gy Gr					A

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
251.0																
251.7	0.7	0.02	0.44													
252.8	1.1	0.02	0.11													

*Assays marked "e" are from lab gamma-ray readings

GPO 835041

Hole No.

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-27 ( )
Inclination Vert. Bearing
Total depth 275.5
Collar elev. 4843 T P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand - Utah

Claim School Section
Date completed 5-2
Date logged 5-2
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Semi favorable ; OBSS from 210.0 to 272.5 thick 62.5 ; SS color L Gy Gy ; MS A Gr Gy ; Cbn. Some

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		205.0	205.0								solid bit No Core
205.0	5.0	210.0	5.0	100	MS	Gy Gr					A
210.0	34.7	245.5	35.0	99.1	SS	LGy Gy	F-MF		No	A Gr Gy	
245.5	26.0	272.5	27.0	94.1	SS	Gy	MF	Cbn V_2O_5	S	A Gr-Gy	V_2O_5 Minerals
272.5	2.6	275.5	3.0	86.7	St MS	Gy Gr					sandy MS Altered

Graphic log: 205.0 — 275.5

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5
246.5																
247.3	0.8	0.02	0.31													
247.8	0.5	0.06	2.00													
248.6	0.8	0.02	1.03													
249.4	0.8	0.15	0.86													

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No.

RECEIVED JUL 27 1956

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

RECEIVED
MAY 25 1956

224 New Customhouse
Denver 2, Colorado

May 23, 1956

Mr. Abbott Charles, Manager
Western Mining Division
Narbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket DMEA-3962 (Uranium)
Contract Idm-E928
Sec. 36, T 22 S, R 21 W
Grand County, Utah

Dear Mr. Charles:

In processing your Monthly Progress Report and Voucher for the month of April, 1956, we find that the original of Form MF-104 was not included with the report. We assume that the original was retained by your company.

Please mail the original form to Mr. Shaw's office as soon as possible in order that we may continue to process the voucher for payment. Mr. Shaw will forward the form on to this office.

We are enclosing one Form MF-104 in blank which you may use to make a copy for your files.

Very truly yours,

J. W. Townsend

J. W. Townsend
Acting Executive Officer,
DMEA Field Team, Region III

Enclosure
JDC:jy
cc: Corresp. E928
Sec. Op. Comm. (2)
Shaw (2)
Cooper
Chron.

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

RECEIVED
MAY 23 1956

224 New Customhouse
Denver 2, Colorado

May 21, 1956

Mr. Abbott Charles, Manager
Western Mining Division
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket DMEA-3962 (Uranium)
Contract Idm-E928
School Section 36, T 22 S, R 21 W
Grand County, Utah

Dear Mr. Charles:

Your Monthly Progress Report and Voucher for April, 1956 is being processed for payment.

On Form MF-104A you have reported 24 hours of bulldozing for Stage I. The allowable maximum under the contract is 22 hours. Inasmuch as the examining engineer has indicated that a part of the bulldozing performed during April was for Stage III work, we have tentatively allowed the excess two hours under Stage III.

If this breakdown is not correct, please make the proper distribution in your next report, and advise this office of the correction. In your future reports the bulldozing costs must be properly distributed to Stages I and III as are the other items of cost.

We note that you have not reported the full amount allowable for sample analyses. The "Fixed Unit Cost" for this item is $5.00 per sample. You need submit only the "Certificates of Analysis" showing the percent U_3O_8 and V_2O_5, as invoices are not required in the case of "Fixed Unit Costs."

Yours very truly,

J. W. Townsend

J. W. Townsend
Acting Executive Officer,
DMEA Field Team, Region III

JDC:jy
cc: Corresp. E928
Sec. Op. Comm. (2)
Shaw (2)
Townsend
Chron.

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

RECEIVED
MAY 14 1956

224 New Customhouse
Denver 2, Colorado

May 10, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3962 (Uranium), Contract Idm-E928, Norbute Corporation (John Group of Claims), Grand County, Utah.

Enclosed are four copies of project work approval issued by the DMEA Field Team, Region III.

Also enclosed are two copies of the Operator's request and four copies of a joint memorandum from M. H. Salsbury and Frank M. Byers, Jr., relative to the work approval.

W. M. Traver

W. M. Traver

Enclosures

Maps, Plate 4 & Plate 5
in packet

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

RECEIVED
MAY 14 1956

[illegible] Rue Corporation
Denver 2, Colorado

May 8, 1956

Mr. Elbert Cranlan, Manager
Western Mining Division
Rubate Corporation
P. O. Box [illegible]
Grand Junction, Colorado

Re: Project DMEA [illegible] (Bounton)
Contract [illegible]
Rubate Corporation
(John Gray of Claims)
Grand County, Utah

Dear Mr. Cranlan:

In reference to your request of April 25, 1956, and confirming verbal approval by the DMEA Field Team, Region III, of April 27, 1956, the following holes will be drilled under the provisions applicable to work under Stage III of the contract:

> Holes Nos. 3 to 11, inclusive, eleven in all, will be drilled as offsets to Holes Nos. 3, 4, and 5, at the locations indicated by the symbol X on the map entitled, "Figure 1. Sketch Map of Part of Section 36, T. 20 S., R. 21 E., S.L.M., Showing Drill Holes and Location of Authorized Stage III Drill Holes, Rubate Corporation, Yellow Cat Area, Grand County, Utah," which is attached hereto and made a part of this work approval.

Action on your request for approval of drilling under Stage IV of the contract will be deferred until the results of the above authorized Stage III drilling are known.

Nothing in this work approval shall be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, the fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "maximum."

Very truly yours,

DMEA Field Team, Region III

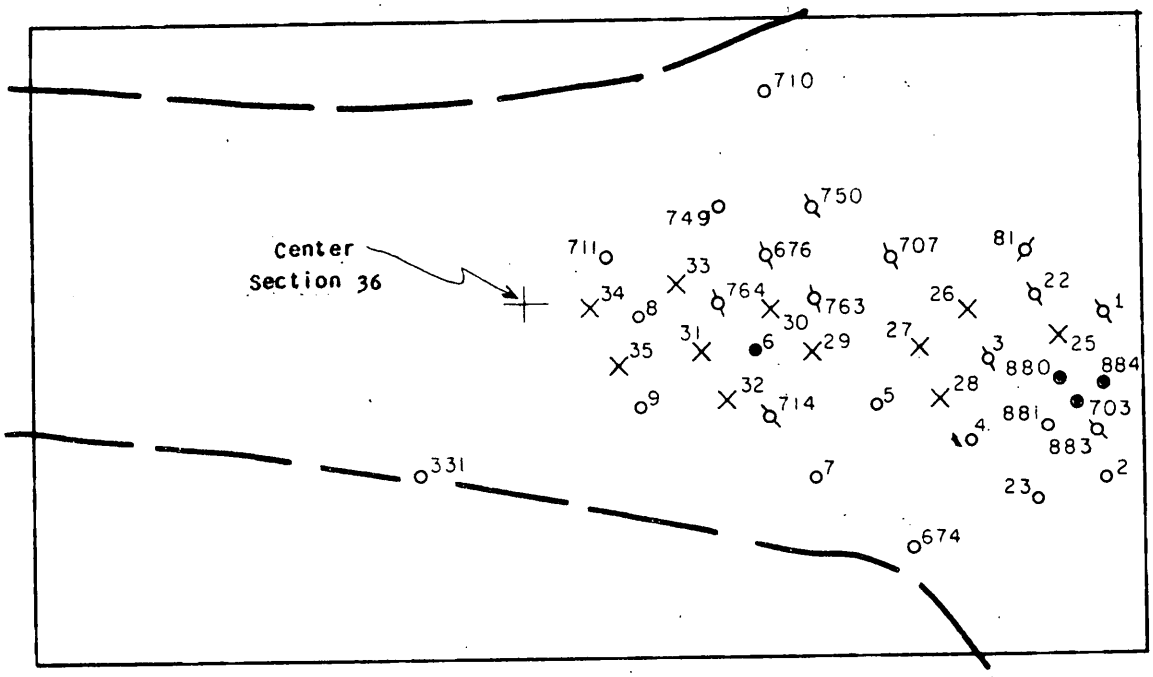
W. E. Trower

E. E. Hartman

JEF:yrl
cc: Chairman, Oper. Comm. (4)
Finance Office, Reg. III
Amendment file
Hartman
Hasler
Shaw (2)
Townsend
Surres. file
Green.

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERAL EXPLORATION ADMINISTRATION
APRIL 1956
DOCKET 3962
CONTRACT idm-E 928



PART OF SECTION 36, T. 22 S., R. 21 E., S.L.M.

EXPLANATION

BOUNDARY OF INDICATED CHANNEL

DRILL HOLES. (HOLE 81, AND THOSE OVER 300 DRILLED BY U.S. GEOLOGICAL SURVEY; HOLES NUMBERED 23 AND UNDER ARE DMEA STAGE I HOLES)

o2 BARREN

3 WEAKLY MINERALIZED

●6 ORE BEARING

X33 LOCATION AND NUMBER OF STAGE III DRILL HOLE SITE AUTHORIZED BY DMEA

N

Note; GEOLOGY AND LOCATION OF DRILL HOLES FROM APPLICANTS MAP.

300 0 900 FEET

FIGURE 1. SKETCH MAP OF PART OF SECTION 36, T.22S.,R.21E., S.L.M., SHOWING DRILL HOLES AND LOCATION OF AUTHORIZED STAGE III DRILL HOLES, NORDUTE CORPORATION, YELLOW CAT AREA, GRAND COUNTY, UTAH.

RECEIVED
MAY 14 1956

IN REPLY REFER TO:

MINERAL DEPOSITS
DMEA
RECEIVED
MAY 3 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
MAY 14 1956

U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

P. O. Box 360
Grand Junction, Colorado

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

April 27, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

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

From: M. H. Salsbury
Frank M. Byers, Jr.,

Subject: DMEA docket 3962 (Uranium) contract Idm-E 928, Norbute Corporation (John's group of claims), Grand County, Utah. Authorization of stage III drilling.

On April 23, 1956, the subject operator, in a letter to the Executive Officer, DMEA Field Team, Region III, requested authorization of work under stages II and III of contract Idm-E 928. Complete results of drilling done to date, together with maps, were presented. Authorization of 12 holes (Nos. X-10 through X-21 under stage II, and 13 stage III offsetting mineralized holes drilled in stage I, holes (Nos. X-24 through X-36) was requested.

Eleven holes completing stage I have been drilled, of which hole No. X-6 penetrated material of ore grade as verified by analyses of the core as well as probing, holes Nos. X-1, X-22, and X-8 were mineralized, and hole X-9 was weakly mineralized. The prefix X- is omitted from the designations on the accompanying illustration (fig. 1) and in the remainder of this memorandum in order to avoid confusion of X's on the illustration.

Following are comparisons of chemical analyses and probing results:

Hole No. (X prefix omitted)	Non-core depth in feet	Cored depth in feet	Total depth in feet	Mineralization depth from to	thickness feet	Chemical analysis percent U_3O_8	V_2O_5	Radiometric percent eU_3O_8
1	200.0	50.8	250.8	225.0-226.0	1.0	0.02	0.73	
				226.0-227.0	1.0	0.09	0.56	
				227.3-228.4	1.1			0.12-0.15
2	200.0	23.4	223.4	Barren				
22	200.0	59.5	259.5	240.7-241.3	0.6	0.18	nil	
				241.4-242.0	0.6			0.10-0.16
23	201.3	19.0	220.3	Barren				
3	220.0	63.1	283.1	249.5-251.3	1.8	0.027	0.24	0.03-0.06
4	200.0	43.8	243.8	233.4-233.8	0.4	0.03	0.24	0.02-0.05
5	221.0	43.8	264.8	Barren				
6	212.0	56.3	268.3	243.3-245.0	1.7	0.125	0.27	
				244.1-246.0	1.9			0.10-0.22
				253.2-253.6	0.4	0.28	0.11	
				252.5-253.0	0.5			0.10-0.22
7	216.0	36.6	252.6	Barren				
8	230.0	53.2	283.2	254.7-255.3	0.6	--		0.10-0.24
9	230.0	33.8	263.8	Barren				
Totals 11 holes	2330.3	483.3	2813.5					

The operator had established good control of depths to the ore horizon and was able to keep coring to a minimum. As a result, the allowable maximum for non-core drilling in stage I was exceeded, but was not reached for core drilling. This can be adjusted by the terms of the contract which permit use of drilling footage from other stages.

It is recommended that holes Nos. 25 to 35 inclusive, as shown on figure 1 attached, 11 holes in all, be authorized as offset holes at a minimum of 75 feet from previously drilled holes as provided in stage III of the subject contract. The holes being offset are X-3, X-6, and X-8. Hole No. X-24 is not recommended because it appears to be in an area which has already been tested with negative results. Hole No. X-36 is not recommended because it was found, on checking the records, that Geological Survey hole 764 had been completed through the ore horizon at the designated site, and the operator's information that the hole number was actually 704 was in error. (Rejected holes X-24 and X-36 are shown on operator's map, but not on accompanying map.)

It is also recommended that stage II drilling, which has been requested, be deferred until completion of the stage III drilling authorized but not yet drilled.

The recommended stage III holes were authorized by the Denver DMEA office on April 25, 1956, in a phone conference, and the operator was notified the same day.

F. M. Byers, Jr.
F. M. Byers, Jr.,
U. S. Geological Survey

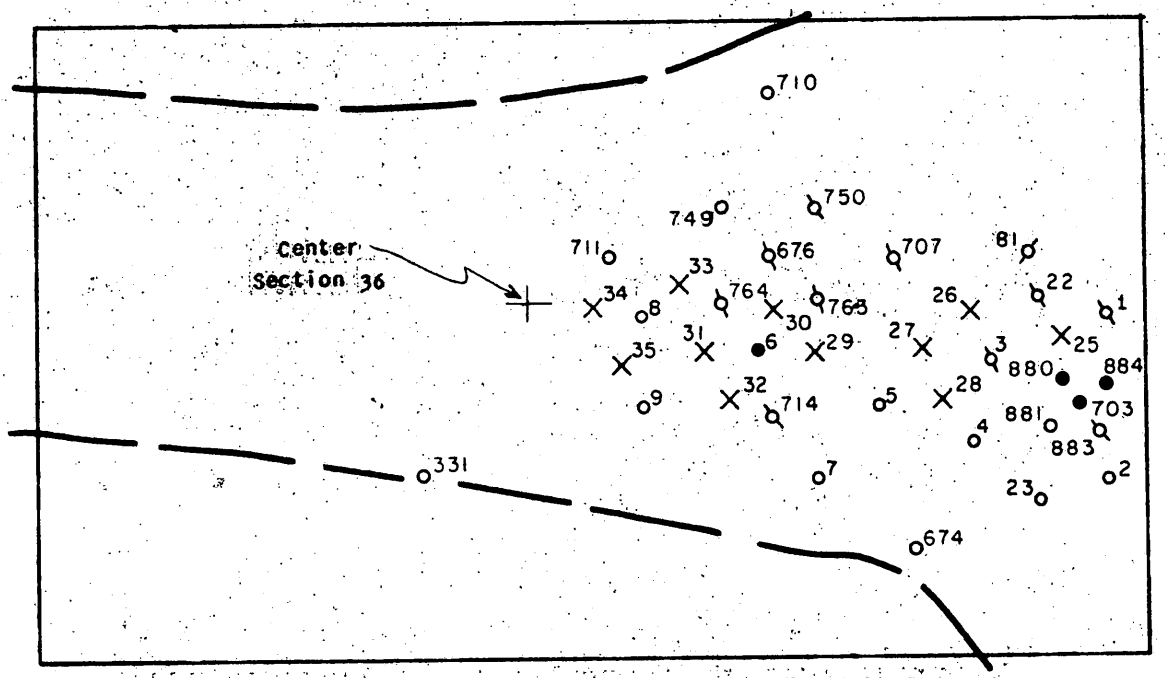
M. H. Salsbury
M. H. Salsbury
U. S. Bureau of Mines

MHS/mlr

Enclosure

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
APRIL 1956
DOCKET 3962
CONTRACT Idm-E 928



PART OF SECTION 36, T. 22 S., R. 21 E., S.L.M.

EXPLANATION

BOUNDARY OF INDICATED CHANNEL

DRILL HOLES. (HOLE 81, AND THOSE OVER 300 DRILLED BY U.S. GEOLOGICAL SURVEY; HOLES NUMBERED 23 AND UNDER ARE DMEA STAGE I HOLES)

o2 BARREN

3 WEAKLY MINERALIZED

●6 ORE BEARING

X33 LOCATION AND NUMBER OF STAGE III DRILL HOLE SITE AUTHORIZED BY DMEA

N

Note: GEOLOGY AND LOCATION OF DRILL HOLES FROM APPLICANTS MAP.

300 0 900 FEET

FIGURE 1. SKETCH MAP OF PART OF SECTION 36, T.22S., R.21E., S.L.M., SHOWING DRILL HOLES AND LOCATION OF AUTHORIZED STAGE III DRILL HOLES, NORBUTE CORPORATION, YELLOW CAT AREA, GRAND COUNTY, UTAH.

RECEIVED
MAY 14 1956

April 23, 1956

NORBUTE CORPORATION
P. O. Box 1700
Grand Junction, Colo.

Docket DMEA 3962 (Uranium)
Contract No. Idm-E928

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

Dear Mr. Traver:

Enclosed herewith are the chemical assay returns for drill hole X-8 which had not been received from the assay office at the time we submitted our report covering the first stage of drilling under the above numbered contract.

These are being forwarded in accordance with our letter of April 23, 1956.

Very truly yours,

Abbott Charles, Manager
Western Mining Division

b
Enc.

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

RECEIVED
MAY 14 1956

CERTIFICATE OF ANALYSIS

TO

- Herbute Corp.
  P. O. Box 1703
- Grand Junction, Colorado
-

Date 4-24-56
Order No. 6431-8

Material: Ore Samples - 8
Received: 4-23-56
For: Analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6431-1	x-6	241.9-242.9	0.02	Nil	
6431-2	x-8	253.0-253.2	0.01	0.02	
6431-3	x-8	253.2-253.6	0.01	0.02	
6431-4	x-8	253.6-253.8	0.01	Nil	
6431-5	x-8	253.8-254.2	0.17	0.05	
6431-6	x-8	254.2-254.6	0.01	0.02	
6431-7	x-8	254.6-255.2	0.01	Nil	
6431-8	x-8	255.2-255.8	Trace	Nil	

Analyst.

DMEA
Date Rec'd.

APR 24 1956

BUREAU OF MINES
Denver, Colorado

NORBUTE CORPORATION
P. O. Box 1700
Grand Junction, Colo.

RECEIVED
MAY 14 1956

April 23, 1956

Re: Docket DMEA 3962 (Uranium)
Contract No. Idm-E928

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

Dear Mr. Traver:

Enclosed herewith is a report covering the first stage of drilling under Docket DMEA 3962, Contract No. Idm-E928 and our request for authorization of stage II and partial stage III drilling.

Also included are maps, copies of geologic logs, results of radiometric probing and chemical assay returns. The chemical assay returns for drill hole X-8 are not included as we have not as yet received them back from the assayer. They will be forwarded to you as soon as they are received.

We would appreciate your decision as to our request at your earliest convenience to cut down the delay time between stages to the minimum.

Very truly yours,

Vernon T. Dow

Vernon T. Dow, Mine Manager

VTD/b
Enc.

NORBUTE CORPORATION
P. O. Box 1700
Grand Junction, Colo.

RECEIVED
MAY 14 1956

REPORT ON FIRST STAGE DMEA DIAMOND DRILLING
in Section 36, T. 22 S., R. 21 E., S. L. M.
Grand County, Utah

Re: Docket DMEA 3962 (Uranium
Contract No. Idm-E928

The first work undertaken under this contract was the bulldozer work for the first stage of drilling, contracted to the Etter Construction Company of Grand Junction, Colorado. A D-7 Caterpillar bulldozer was used for the construction of roads and drill sites, commencing March 23, 1956, and being completed March 26, 1956, with a total of 24 hours of work. This is two hours more than is allowed under the first stage.

Drilling under this contract was contracted to B. H. Mott and Sons of Grand Junction, Colorado, and Huntington, West Virginia. Actual drilling commenced April 5, 1956, with one rotary drill in operation. This drill completed the solid bit drilling on all of the Stage One holes. One diamond drill was put in operation April 12, 1956, and another on April 17, 1956. In drilling the eleven holes of the first stage which were completed April 21, 1956, the contractor gave satisfactory drilling results with a drilling rate of 99.6 feet per drill shift and a core recovery of 96.9%.

Of the eleven holes drilled, one (x-6) was an ore hole, four were mineralized (x-1, X-22, x-3 and x-8), and one (x-4) was weakly mineralized. See map plate 5 amended.

Below is a table showing hole numbers, footage drilled solid bit, and footage cored.

Hole No.	Solid Bit (no core)	Coring	Total
X-1	200.0'	50.8'	250.8'
X-2	200.0'	23.4'	223.4'
X-22	200.00'	59.5'	259.5'
X-23	201.3'	19.0'	220.3'
X-3	220.0'	63.1'	283.1'
X-4	200.0'	43.8'	243.8'
X-5	221.0'	43.8'	264.8'
X-6	212.0'	56.3'	268.3'
X-7	216.0'	36.6'	252.6'
X-8	230.0'	53.2'	283.2'
X-9	230.0'	33.8'	263.8'
Totals	2,330.3'	483.3'	2,813.6'

Drilling to date has indicated the presence of a well defined, steep walled channel in which the Salt Wash sand filling has all the criteria necessary for the deposition of uranium and vanadium ore, namely, a porous sandstone, mudstone alteration, presence of abundant carbon, iron staining, and the presence of uranium and vanadium minerals in the sandstone. This channel extends into the area included in the second stage of drilling.

The area included in the second stage is largely unexplored, having only one drill hole (YC-331) which is located on the south flank of the channel. There is a possibility that one or more good sized ore bodies are located in the channel in this area.

In light of the ore and mineralized holes drilled to date and the presence of the mineralized channel extending into the second stage drilling area, we are requesting that the second stage of drilling be authorized, namely drill holes X-10 through X-21. (See map plate 4 amended).

We also request that offsetting drill holes under stage 3 be allowed around ore hole X-6 and mineralized holes X-1, X-22, X-3 and x-8. The offset drill holes requested are numbered x-24 through x-35 as shown on map-plate 5 amended.

We also request that proposed hole x-36 be allowed on or near the location of U. S. G. S. drill hole YC-704 because this drill hole did not penetrate to the fourth sandstone horizon and it lies on the projected center line of the mineralized channel. We believe the information gained from drilling this hole would be most valuable.

Below is a table showing the cost of drilling to date.

Independent Contracts		
24 hours (22 allowable) bulldozing @ $12.00/hr	$ 288.00	
2200 feet non core drilling @ $1.40/ft	3080.00	
130.3 " " " " @ $1.50/ft	195.45	
483.3 " core drilling @ $2.05/ft	990.77	$4,554.22
Fixed Unit Costs		
24 samples analyzed chemically for U_3O_8 and V_2O_5 @ $4.83/sample	$ 115.92	115.92
Incidental allowance 2,813.6 feet @ $0.30/ft		844.08
Total Cost Stage 1		$5,514.22
Estimated cost of Stage 1		7,613.05

Vernon T. Dow

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

APR 20 1956

RECEIVED
MAY 14 1956

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

Norbute Corp.
P. O. Box 1700
Grand Junction, Colorado

Date 4-19-56
Order No. 6396-S

Material: Ore Samples - 9
Received: 4-18-56
For: analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6396-1	X-1	225.0-226.0	0.02	0.73	
6396-2	X-1	226.0-227.0	0.09	0.56	
6396-3	X-1	227.0-228.4	0.01	0.02	
6396-4	X-3	249.5-250.0	0.02	0.09	
6396-5	X-3	250.0-250.8	0.01	0.55	
6396-6	X-3	250.8-251.3	0.05	0.07	
6396-7	X-4	233.4-233.8	0.03	0.24	
6396-8	X-22	240.7-241.3	0.18	Nil	
6396-9	X-22	241.3-242.3	0.01	Nil	

Analyst.

D

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

Norbute Corporation
P.O. Box 1700
Grand Junction, Colorado

Date 4-21-56
Order No. 6410-S

Material: Ore Samples 9
Received: 4-20-56
For: Analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6410-1	241.8-242.6	X-6	0.03	0.02	
6410-2	242.6-243.3	"	0.03	0.02	
6410-3	243.3-244.1	"	0.10	0.07	
6410-4	244.1-245.0	"	0.15	0.47	
6410-5	245.0-246.0	"	0.01	0.07	
6410-6	252.1-252.6	"	0.01	0.51	
6410-7	253.2-253.6	"	0.28	0.11	
6410-8	253.6-254.6	"	0.01	0.01	
6410-9	254.6-255.3	"	0.01	0.02	

Analyst.

RADIOMETRIC LOGS

NORBUTE CORPORATION DMEA

Probed by V. Dow 4th scale Minerals Counter #127

	Depth	E. U_3O_8	
Hole X-1 - 4-13-56			
	0 to 225.0'	Barren	Mineralized hole
	225.0	0.02	
	225.5	0.02	
	226.0	0.06	
	226.5	0.06	
	227.0	0.08	
	227.3	0.12	
	227.5	0.12	
	227.8	0.15	
	228.0	0.13	
	228.4	0.15	
	228.7	0.06	
	228.9	0.02	
	229.0 to 251.0	0.00	Probed to 251.0'
Hole X-2 - 4-14-56	0 to 223.4	0.00	Barren hole Probed to 223.4'
Hole X-22 - 4-16-56	0 to 240.7'	0.00	Mineralized hole
	240.7	0.02	
	241.4'	0.10	
	241.6	0.16	
	242.0	0.12	
	242.3	0.08	
	242.3 to 243.0	0.02	
	243.0 to 244.2	0.03	
	244.2	0.04	
	244.3	0.00	
	250.8	0.02	
	250.8 to 259.5	0.00	Probed to 259.5'
Hole X-23 - 4-16-56	0 to 220.3	no count	Barren Probed to 220.3
Hole X-3 - 4-16-56	0 to 249.4	0.00	Mineralized hole
	249.5 to 250.0	0.04	
	250.0 to 250.8	0.03	
	250.8 to 251.3	0.06	
	251.4	0.02	
	251.4 to 283.1	0.00	Probed to 283.1'

RADIOMETRIC LOGS

NORBUTE CORPORATION DMEA

Probed by V. Dow 4th scale Minerals Counter #127

	Depth	E. U_3O_8	
Hole X-4 - 4-18-56	0 to 233.1'	0.00	Weakly mineralized
	233.1	0.02	
	233.8	0.05	
	234.0	0.02	
	234.0 to 244.8	0.00	Probed to 244.8'
Hole X-5 - 4-18-56	0 to 264.8'	0.00	Barren hole Probed to 264.8'
Hole X-6 - 4-19-56	0 to 242.00'	0.00	Ore hole
	242.5	0.02	
	242.6	0.04	
	242.7	0.02	
	242.8	0.04	
	242.9 to 243.7	0.06	
	243.7 to 244.0	0.08	
	244.1	0.10	
	244.2 to 244.4	0.12	
	244.5 to 244.6	0.14	
	244.7	0.15	
	244.8	0.16	
	244.9	0.17	
	245.0 to 245.3	0.18	
	245.3 to 245.5	0.20	
	245.6	0.22	
	245.7	0.18	
	245.7 to 245.9	0.15	
	246.0	0.10	
	246.1	0.04	
	246.2 to 252.1	0.02	
	252.2 to 252.3	0.04	
	252.4	0.06	
	252.5	0.10	
	252.6	0.16	
	252.7	0.18	
	252.8 to 252.9	0.22	
	253.0	0.20	
	253.1 to 253.3	0.08	
	253.6	0.02	
	253.7 to 268.3	0.02	Probed to 268.3

RADIOMETRIC LOGS

NORBUTE CORPORATION DMEA

Probed by V. Dow 4th scale Minerals Counter #127

	Depth	E. U_3O_8	
Hole X-7 - 4-19-56	0 to 252.6'	0.00	Barren hole
Hole X-8 - 4-20-56	0 to 253.3'	0.00	Mineralized hole
	253.4	0.02	
	253.6	0.06	
	253.8	0.04	
	253.9 to 254.3	0.04	
	254.6	0.08	
	254.7	0.10	
	254.8	0.14	
	254.9	0.18	
	255.0	0.24	
	255.1	0.24	
	255.2	0.20	
	255.3	0.10	
	255.4	0.10	
	255.5 to 255.8	0.05	
	255.9	0.04	
	256.0	0.02	
	256.0 to 283.2	0.00	Probed to 283.2'
Hole X-9 - 4/21-56	0 to 263.8'	0.00	Barren hole

GEOLOGIC AND ASSAY LOGS Norbute Corp

[redacted]

Drill-hole No. X-1 ( )
Inclination Vert Bearing
Total depth 250.8
Collar elev. T. 4844 P
Area Yellow cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22S. R. 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-13-56
Date logged 4-16-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable OBSS from 206.0 to 243.2 thick 37.2'; SS color Gy; MS Gy Gr; Cbn. Yes

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0		200.0	200.0								Plug bit No core
200.0	4.5	206.0	6.0	75.0	MS	Gy Gr					
206.0	4.0	210.0	4.0	100	SS	L Gy	MF F		N	A Gr	
210.0	14.0	224.0	14.0	100	SS	Gy-Br	MF	L.	N	A Gr Gy	
224.0	10.3	234.3	10.3	100	SS	Gy Br	MF	L	S	N	carbon streaks V_2O_5-
234.3	0.3	234.6	0.3	100	Coal	Blk	—	Gyp P	A	—	cbn sulphides in cBN
234.6	4.4	239.0	4.4	100	SS	Gy Br	MF	L	N	Gn Gy	
239.0	4.2	243.2	4.2	100	SS	Gy br	MF	L	N	N	
243.2	7.6	250.8	7.6	100	st MS	Gy Gr Rd	—		N		sandy

250.8'

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No. X-1

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

[redacted]

Drill-hole No. X-2 ( )
Inclination Vert Bearing
Total depth 223.4
Collar elev. T 4848 P
Area Yellow Cat

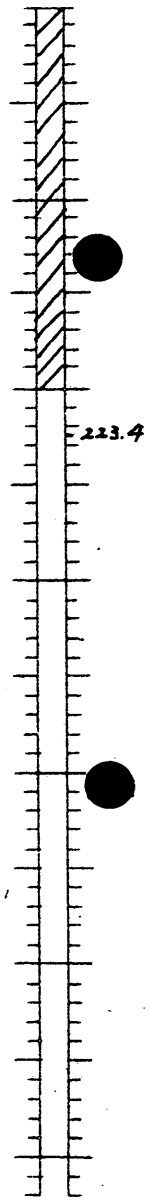
Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-14-56
Date logged 4-17-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable; OBSS from 200.0 to 216.4 thick 16.4 ; SS color Gy-Br ; MS A Gy Gr ; Cbn. N

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		200.0	200.0								Plug bit No Core
200.0	8.4	208.4	8.4	100	SS	LGy	MF-F		N	A Gr	
208.4	8.0	216.4	8.0	100	SS	Gy Br	MF-C	L-	N	Gr Gy	
216.4	6.9	223.4	7.0	98.6	MS	Gy Gr			-		sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO P350 41

Hole No. X-2

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

[redacted]

Drill-hole No. X-3 ( )
Inclination Vert Bearing
Total depth 283.1
Collar elev. T 4860 P
Area Yellow Cat

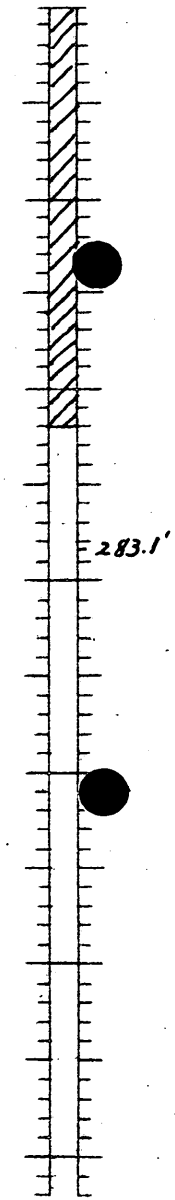
Map coord (T)
Map coord (P)
Sec. 36 T. 22 S R. 21 E
Co., State Grand Utah

Claim School Section
Date completed 4-17-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 222.0 to 278.5 thick 56.5' ; SS color Gy L Gy ; MS Gr-Gy ; Cbn. S

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		220.0	220.0								Plug bit No Core
220.0	2.0	222.0	2.0	100	St	W	F	N	N		
222.0	27.5	249.5	27.5	100	SS	Gy L Gy	F MF	Limonite	N	Gr Gy	Limonite Mottled
249.5	7.5	257.0	7.5	100	SS	DGy Gy	MF		S	Gy Gr	sparce Cbn (V2O5)
257.0	0.8	257.8	0.8	100	Ms	Gy		–	S		
257.8	20.7	278.5	20.7	100	SS	Gy	MF F	L	N	Gr Gy	
278.5	4.6	283.1	4.6	100	MS St	Gy Gr Rd			N		sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings.

GPO 8350 41

Hole No. X-3

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X - 4 ( )
Inclination Vert Bearing
Total depth 243.8
Collar elev. T 4854 P
Area Yellow Cat

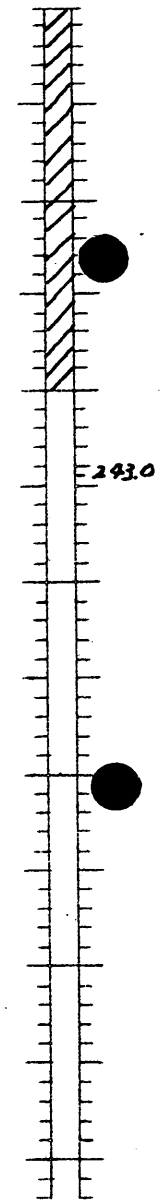
Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-18-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS semi Favorable OBSS from 205.9 to 233.0 thick 27.1' ; SS color Gy LGy ; MS GrGyBlRd ; Cbn. S

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		200.0	200.0								solid bit - No core
200.0	5.9	205.9	5.9	100	MS	Gy Gr			N		
205.9	25.8	233.0	27.1	95.2	SS	LGy Gy	F MF	Limonite	S	Gr Gy	.4' .06 CU_3O_8 count
233.0	10.0	243.0	10.0	100	MS SL	GrGyBlRd			N		sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No. X - 4

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X - 5 ( )
Inclination Vert Bearing
Total depth 264.8
Collar elev. T 4863.6 P
Area Yellow Cat

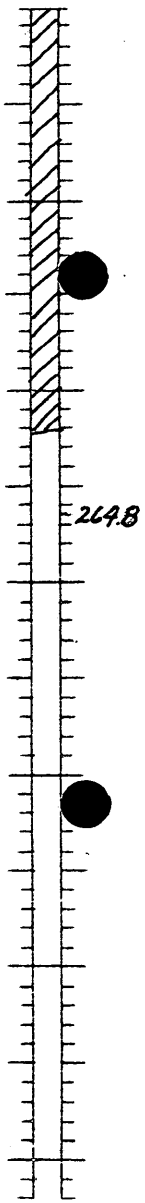
Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand Utah

Claim School Section
Date completed 4-18-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable; OBSS from 224.5 to 252.5 thick 28.0 ; SS color Gy LGy ; MS GyGrBlkRd Cbn. yes

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		221.0	221.0								Solid bit- No Core
221.0	4.5	224.5	4.5	100	MS	Gy-Gr			N		sandy
224.5	26.9	252.5	28.0	96.1	SS	Gy LGy	F MF	Limonite Cbn	S	Gr Gy	Cbn streaks abundant
252.5	12.3	264.8	12.3	100	MS St	Gy BlkRd			N		sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No. X-5

GEOLOGIC AND ASSAY LOGS Norbute Corp

Drill-hole No. X-6 ( )
Inclination Vert. Bearing
Total depth 268.3
Collar elev. T 4859.5 P
Area Yellow Cat

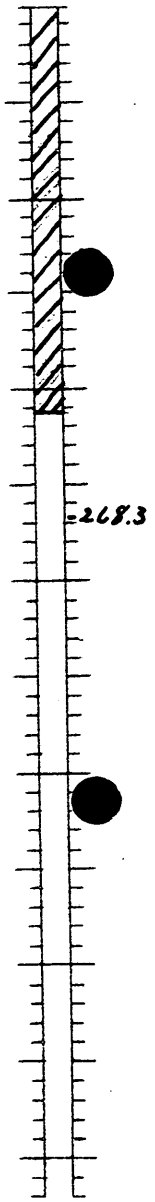
Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand Utah

Claim School Section
Date completed 4-19-56
Date logged 4-20-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 230.7 to 255.4 thick 24.7' ; SS color Gy LGy ; MS GyGrRd ; Cbn. Abundant

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		212.0	212.0								Plug bit No Core
212.0	18.6	230.7	18.7	99	MS St	RdGyGr					A sandy
230.7	7.0	237.7	7.0	100	SS	LGy Gy	F	Limonite	N	Gr Gy	
237.7	17.7	255.4	17.7	100	SS	Gy LGy	MF	Limonite Sulphide	A	A Gr	Sulphides in Cbn
255.4	12.4	268.3	12.9	96	MS	Gy Gr Rd					Sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No. X-6

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

[redacted]

Drill-hole No. X-7 ( )
Inclination Vert Bearing
Total depth 252.6
Collar elev. T 4866 P
Area Yellow Cat

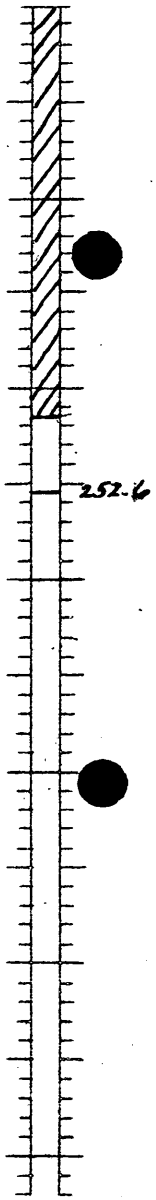
Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-19-56
Date logged 4-20-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable OBSS from 221.5 to 245.8 thick 24.3 ; SS color Gy L Gy ; MS A Gy Gr ; Cbn. Some

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		216.0	216.0								Solid bit - No Core
216.0	5.5	221.5	5.5	100	MS St	Rd Gy Gr					sandy
221.5	22.9	245.8	24.3	95	SS	Gy L Gy	F-MF	Limonite stain	S	Gr-Gy	sparse cbn str.
245.8	6.8	252.6	6.8	100	MS St	Gy Blk Rd			N		sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No. X-7

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X-8 ( )
Inclination Vert Bearing
Total depth 268.2
Collar elev. T 4864 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-20-56
Date logged 4-20-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 239.8 to 281.0 thick 41.2 ; SS color Gy L Gy ; MS Gr Gy ; Cbn. Abundant

Graphic log

283.2

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		230.0	230.0								Solid bit No Core
230.0	9.2	239.8	9.8	94	MSSt	R Gr Gy					Sandy
239.8	11.5	253.0	13.2	87	SS	L Gy Gy	MF F	Limonite	S	AGr Gy	Cbn Bands Numerous
253.0	14.7	268.2	15.2	97	SS	DGy Gy	MF	L Sulphides	A	Gr Gy	" " " Sulphide in Cbn
268.2	11.5	281.0	12.8	90	SS	Gy DGy	MF	L	A	Gr Gy	" " "
281.0	2.2	283.2	2.2	100	Ms St	Gy Gr					Sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No. X-8

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-9 ( )
Inclination Vert Bearing
Total depth 263.8
Collar elev. T 4866 P
Area Yellow Cat

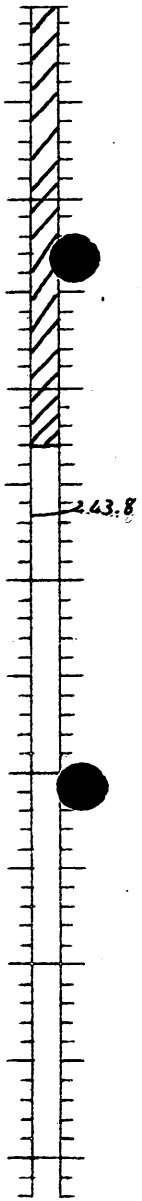
Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-21-56
Date logged 4-21-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable; OBSS from 233.0 to 257.3 thick 24.3 ; SS color Br.-Gy ; MS Gy Rd ; Cbn. No

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		230.0	230.0								Solid bit - No Core
230.0	3.0	233.0	3.0	100	Ms	Rd Gr					
233.0	24.3	257.3	24.3	100	SS	Br Gr	F-MF	Limonite	N	Gr-Gy	
257.3	6.5	263.8	6.5	100	MSSt	Gy Rd					Sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No. X-9

GEOLOGIC AND ASSAY LOGS Norbute Corp.

Drill-hole No. X - 22 ( )
Inclination Vert Bearing
Total depth 259.5
Collar elev. T 4841.6 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22 S R. 21 E
Co., State Grand Utah

Claim School Section
Date completed 4-16-56
Date logged 4-16-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable; OBSS from 208.1 to 249.3 thick 41.1 ; SS color Lt Gy Gy ; MS Br Gy Rd; Cbn. S

Graphic log

259.5'

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		200.0	200.0								Plug bit No Core
200.0	7.0'	208.1	8.1	86.4	Ms St	R Gy Gr			N	Gr	Sandy A-Gr
208.1	21.4	229.5	21.4	100	SS	LGy	F-MF		N	A Gr gy	
229.5	11.0	240.5	11.0	100	SS	LGy	MF	Limonite	N	Gr Gy	
240.5	0.4	240.9	0.4	100	MS	Br	MF	"	N		
240.9	8.4	249.3	8.4	100	SS	Gy	MF	" Cbn	S	None	sulphides in cbn
249.3	10.1	259.5	10.2	99	MS-St	Gy Gr Rd					sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings.

GPO 8350 41

Hole No. X - 22

GEOLOGIC AND ASSAY LOGS Norbute Corp

Drill-hole No. X-23 ( )
Inclination _____ Bearing _____
Total depth 220.3
Collar elev. _____ T 4846 P
Area Yellow Cat

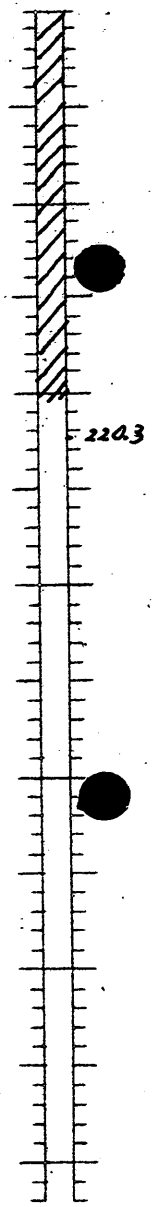
Map coord (T) _____
Map coord (P) _____
Sec. 36 T. 22S R. 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-17-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable OBSS from 200.0 to 216.1 thick 16.1 ; SS color Gy LGy ; MS Gy Gr ; Cbn. Nonest

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		201.3	201.3								Plug bit No Core
201.3	14.9	216.2	14.9	100	SS	Gy LGy	F MF	L	N.	Gr Gy	
216.2	4.1	220.3	4.1	100	MS St	Gy			N		sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No. X-23

RECEIVED
MAY 14 1956

6-4-56

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

224 New Customhouse
Denver 2, Colorado

FINAL DISTRIBUTION

MADE JUN 1 1956

May 18, 1956

RECEIVED
JUN - 1 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3962 (Uranium) Contract Idm-E928, Morbute Corporation (School Section 36, T 22 S, R 21 W) Grand County, Utah - Operator's Monthly Progress Report for the month of April, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

It is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended for 75 percent of the amount as reported on Form MF-104, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

The Operator has reported 24 hours of bulldozing under Stage I, whereas the contract allows only 22 hours. The examining engineer has indicated that a portion of the bulldozing was performed on Stage III work, therefore, the excess two hours has been tentatively allowed under Stage III. The Operator has been requested to make proper distribution in his next report.

The total non-core footage reported under Stage I exceeds the total estimated non-core footage provided for Stage I. However,

as the aggregate total non-core and core footage does not exceed the aggregate total non-core and core footage provided for the stage, the variation is deemed allowable.

Remarks

Date of Report----------May 7, 1956
Date Received in Field Office---------- May 9, 1956
Date Received in Region Office--------- May 15, 1956

W. M. TRAVER

W. M. Traver

Enclosures

JDC:jy
cc: MF-104 File E928
Sec. Op. Comm. (2)
Shaw (2)
Chron.

DMEA
Date Rec'd.

MAY 15 1956

BUREAU OF MINES
Denver, Colorado

May 11, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: Carl Belser

Subject: DMEA 3962 (Uranium) Contract Idm-2928
Norbute Corporation (School Section 36)
Grand County, Utah - Progress report for April, 1956

Drilling progress was inspected on April 30, 1956.

The ore occurs in the fourth or lower sandstone rim of the Salt Wash. The individual contractor is F. E. Mott and Sons. Equipment consists of a diesel driven Davey rotary with chain pulldown and two Sullivan No. 22 rigs. Actual drilling began on April 5, 1956. The drills were not in operation on the day of the inspection. The following holes were completed in April:

STAGE I

Hole	Footage Non-core	Footage Core	Footage Total	% Core Recovery	Remarks
X-1	200.0	90.8	290.8	98.0	225'-226' - 0.015% U_3O_8 226'-227' - 0.095% " 227'-228.4'-0.015% "
X-2	200.0	23.4	223.4	99.5	Barren
X-3	200.0	63.1	263.1	99.5	249.5'-251.5'-.0195% U_3O_8
X-4	200.0	43.8	243.8	97.0	233.4'-233.8'-.035% " U_3O_8
X-5	221.0	43.8	264.8	95.4	Barren
X-6	212.0	56.3	268.3	98.9	241.8'-243.3'-.035% U_3O_8 243.3'-245.0'-.18% " U_3O_8 251.8'-253.8'-.20% "
X-7	216.0	36.6	252.6	96.1	Barren
X-8	230.0	53.2	283.2	89.2	253.0'-253.8'-.02% U_3O_8 253.8'-254.2'-.175% " U_3O_8 254.2'-255.8'-.015% "
X-9	230.0	33.8	263.8	97.3	Barren
X-22	200.0	59.5	259.5	97.3	240.7'-241.3'-.18% U_3O_8 241.3'-242.3'-.22% " U_3O_8
X-23	221.1	19.0	240.1	100.0	Barren
II	2,330.1	483.5	2,813.6	Core equals 17.18 % of total drilled	

STAGE III

X-25	215.0	52.0	267.0	82.3	235.4'-236.0'-.06 [illegible]
					236.0'-238.7'-.675 "
					238.7'-239.0'-.075 "
X-26	225.0	52.5	277.5	100.0	331.0'-335.0'-.0266 "
X	[illegible]	104.5	544.5	% Core equals 19.92	

Grand Total

13	8,790.3	587.8	3,338.1	% Core equals 17.61

A total of 26 chemical assays were made from Stage I cores and 13 chemical assays from Stage III cores. All cores taken were of "BX" size. Two hours of bulldozing has been taken from Stage III to allow for the assays showing on the 104's, over the Stage I allowance. Actually several Stage III drill sites had been prepared during April and two holes were completed.

The actual costs of Stage I drilling follows:

483.3 feet of core drilling at $2.05/ft.	$990.77
2,330.3 feet of non-core drilling at $1.41/ft.	3,275.45
22 hours bulldozing at $12.00/hr.	264.00
Incidental allowance 2,813.6 feet at $.30/ft.	844.08
26 assays at $4.83 each	125.44
	5,499.74

The cost of 587.8 feet of core drilling at $2.05 a foot is $1,204.99. The cost of 2,330.3 feet of non-core drilling at $1.41 a foot is given as $3,275.45. The cost of 480 feet of non-core drilling at $1.40 a foot is given as $990.00. The cost of incidental allowance for 3,338.1 feet of drilling at $.30 a foot is $1,001.43. The cost of 24 hours of bulldozing at $12.00 an hour is $288.00, and the cost of 39 chemical assays at $4.83 each is given as $188.16, or a total of $6,948.03. Some of the above calculations are in error but the total is correct.

Payment of 75 percent of the above amount, or $4,911.02 is recommended.

A number of mistakes were noticed in 1944:
Non-core drilling 2330.3 ft. at $1.41 equals $3,[illegible].72 not $3,275.45
Non-core drilling 480 ft. at $1.40 equals [illegible] not 990.00
2810.3 ft. $3,[illegible]

However, Hatt and Son's statement for the month has:
2600.0 ft. at $1.40 or $3,640.00
158.3 ft. at $1.90 or [illegible]
2758.3 ft. $3,[illegible]

The figure $4.83 each for chemical analyses is rough and the applicant's figure of $188.16 is $.24 low but is ahead. Hatt's statements could not be followed.

The driller's logs were retained in this office.

Carl Belser
Carl Belser
Mining Engineer

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED
JUN - 4 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April 6 1956 Docket No. DMEA 3962 Contract No. Idn E-928

Operator's Name Morbute Corporation Minerals Uranium

Address P. O. Box 1700, Grand Junction, Colo.

Contract Amount, $ 45,000.00 Government Participation: 75 % Amount, $ 33,750.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	5,070.44		5,070.44			
Bulldozing	288.00		288.00			
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment	188.16		188.16			
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
Incidental Allowance	1,001.43		1,001.43			
(8) Contingencies (specify):						
TOTALS	6,548.03		6,548.03	6,548.03	—	6,548.03

I certify that the above bill is correct and just and that payment therefor has not been received.

Date May 7, 1956 *Payee Morbute Corp.

Per Vernon T. Dow Title Mine Manager

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 4911.02

Signature [illegible]
(Authorized Certifying Officer)

Date 5/31/56 Vou. No. DMA 56-115

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Iau-E-928 in accordance with the terms of the contract.

Signature Earl Nelson (64,911.02) Title Mining Engineer Date 5/11/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Jones Title Executive Officer Date MAY 29 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

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JUN - 4 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of April 1956 Docket No. DMEA 3962 Contract No. Idm-E928

Operator's Name Norbute Corporation Minerals

Address Box 1700, Grand Junction, Colorado

Stage	OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
	Drifting								
	Crosscutting								
	Raising								
	Shafts								
	Winzes			483.3		483.3			
1	Drilling: Core	feet	$ 990.77	4,833	$ 990.77	4,833	$2.05	825	$3.15
1	~~Diamond~~ non-core	"	3,275.45	2330.3	3,275.45	2330.3	1.41	2065	1.82
3	~~Auger~~ core	"	214.22	104.5	214.22	104.5	2.05	2400	3.15
3	~~Auger~~ non-core	"	590.00	420.0	590.00	420.0	1.40	7968	1.82
1	~~Assaying~~ sample analy	each	125.44	26	125.44	26	4.83	25	5.00
3	~~Extra~~ " analysis	"	62.72	13	62.72	13	4.83	80	5.00
1	Roads and Trails bulldozing	hrs	288.00	24	288.00	24	12.00	22	12.00
1 & 3	Incidental all.	ft	1001.43	3338.1	1,001.43	3338.1	0.30	13,248	0.30
	TOTAL DISTRIBUTED COSTS		$6,548.03		$6,548.03				TOTAL COSTS AUTHORIZED BY CONTRACT
	Operating Equipment Purchased								
	Initial Rehabilitation and Repairs								
	New Buildings, Improvements, etc.								
	TOTAL COSTS		$6,548.03		$6,548.03				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date May 7, 1956 Operator Norbute Corporation

Per Vernon T. Dow Title Mine manager

REMARKS:

NOTE.—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.

(Instructions on reverse)

(For Government use only) Earl Bellows

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

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May 8, 1956

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket DMEA 3962 (Uranium)
Contract No. Idm-E 922

Mr. John F. Shaw
U. S. Bureau of Mines
Room 137, Building 20
Denver Federal Center
Denver 2, Colorado

Dear Mr. Shaw:

Enclosed herewith is a report covering diamond drilling during the month of April under Docket DMEA 3962, Contract No. Idm-E928.

Also included are maps, contract driller reports, copies of geologic logs, results of radiometric probing, chemical assay returns, invoices for the drilling, invoices for the bulldozer work, invoices for assaying, and copies of Forms 104 and 104A.

Very truly yours,

Vernon T. Dow

Vernon T. Dow
Mine Manager

VTD/b
Enc.

Norbute Corporation
P. O. Box 1700
Grand Junction, Colo.

REPORT ON D.M.E.A. DIAMOND DRILLING
for the month of April, 1956
in Section 36
T.22 S., R.21 E., S.L.M.
Grand County, Utah

The bulldozer work for the construction of a reservoir, drill roads and drill sites for the first stage of drilling was contracted to the Etter Construction Company of Grand Junction, Colorado. A D-7 Caterpillar bulldozer was used for this work, commencing March 23, 1956, and being completed on March 26, 1956, with a total of 24 hours of work. This is two hours more than is allowed under the first stage.

The drilling under this contract was contracted to B. H. Mott and Sons of Grand Junction, Colorado, and Huntington, West Virginia. Drilling commenced on April 5, 1956, with one rotary drill in operation. This drill has done all of the solid-bit drilling. One diamond drill was put in operation on April 12, 1956, and another on April 17, 1956. The eleven holes of the first stage of drilling were completed on April 26, 1956.

The results of the first stage of drilling justified the drilling of eleven holes offsetting the ore and mineralized holes found in the first stage. This third stage of drilling was approved April 24, 1956, and work under this stage was begun April 25, 1956. At the end of April, two holes drilled under the third stage had been completed.

Of the eleven holes completed under the first stage of drilling, one (x-6) was an ore hole, four were mineralized (X-1, X-22, X-3 and X-8), one (X-4) was weakly mineralized, and five (X-2, X-22, X-5, X-7 and X-9) were barren. See map Plag8 5 amended.

Norbute Corporation
P. O. Box 1700
Grand Junction, Colo.

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Of the two holes completed under the third stage of drilling, one (X-25) an offset from drill hole X-1 was an ore hole and the other (X-26) was a mineralized hole.

Drilling under the first stage indicated the presence of a well defined, steep walled channel in which the Salt Wash sand filling has all the criteria necessary for the deposition of uranium ore, namely a porous sandstone, mudstone alteration, presence of abundant carbon, iron staining and the presence of uranium and vanadium minerals in the sandstone. This Salt Wash channel extends into the area included in the proposed second stage of drilling.

Below is a table showing hole numbers, footage drilled solid bit and footage cored.

First Stage Drilling - April, 1956

Hole No.	Solid bit (no core)	Coring	Total
X-1	200.0'	50.8'	250.8'
X-2	200.0	23.4	223.4
X-22	200.0	59.5	259.5
X-23	201.3	19.0	220.3
X-3	220.0	63.1	283.1
X-4	200.00	43.8	243.8
X-5	221.0	43.8	264.8
X-6	212.0	56.3	268.3
X-7	216.0	36.6	252.6
X-8	230.00	53.2	283.2
X-9	230.0	33.8	263.8
Totals	2,330.3	483.3	2,813.6

Second Stage Drilling - April, 1956

X-25	215.0	52.0	267.0
X-26	205.0	52.5	257.5
Totals	420.0	104.5	524.5
Totals (Stage 1 and Stage 3)	2,750.3	587.8	3,338.1

Below is a table showing the cost of drilling to date.

Stage 1 (completed)

Independent contracts:

24 hours (22 allowable) bulldozing @ $12.00/hr.	$288.00	
2200 feet non-core drilling @ $1.40/ft.	3080.00	
130.3 feet non-core drilling @ $1.50/ft.	195.45	
483.3 feet core drilling @ $2.05/ft.	990.77	
		$ 4,554.22

Fixed Unit Costs

26 samples analyzed chemically for U_3O_8 and V_2O_5 @ $4.83/ sample	125.44
Incidental allowance 2813.6feet @ $0.30/ft	844.08
Total Cost Stage 1	$5,523.74
Estimated cost Stage 1	7,613.05

Stage 3 (incomplete)

Independent contracts

Bulldozing incomplete		
400 feet non-core drilling @ $1.40/ft	$ 560.00	
20 " " " @ $1.50/ft	30.00	
104.5 " core drilling @ $2.05/ft	214.22	
		$ 804.22

Fixed Unit Costs

13 samples analyzed chemically for U_3O_8 and V_2O_5 @ $4.83/sample	62.72
Incidental allowance - 524.5 feet @ $0.30/ft.	157.35
Total amount spent on Stage 3	$1,024.29

Vernon T. Dow

NORBUTE DMEA Hole X-25 4-27-56

Probed by V. Dow 4th scale Mineral Counter No. 127

Depth	E U_3O_8
0-235.0'	0.00
235.0 - 236.0	0.04
236.0 - 236.4	0.08
236.4 -	0.12
236.5	0.16
236.6	0.22
236.7	0.36
236.8	0.40
237.0	0.60
237.1	0.80
237.2	0.95
237.4	1.00
237.6	0.90
237.8	0.95
238.0	1.00+
238.2	1.00+
238.4	1.00
238.6	0.95
238.8	1.00
239.0	0.90
239.2	0.60
239.4	0.42
239.6	0.54
239.8	0.42
240.0	0.36
240.2	0.14
240.4	0.10
240.6	0.08
240.8	0.06
241.0	0.04
241.2 to 252.0	0.02
252.4	0.10
252.6	0.06
252.8	0.06
253.0	0.06
253.1	0.04 (0.04)
254.0	0.02
254.0 to 267.4	0.00

Norbute Corporation DMEA Hole X-26 4-28-56

Probed by V. Dow Minerals Counter No. 127

Depth	E U_3O_8	
0 - 231.0	0.00	Mineralized hole
231.2	0.06	
231.4	0.08	
231.6	0.06	
231.8	0.04	
232.0	0.06	
232.4	0.05	
232.6	0.04	
232.8	0.02	
233.0	0.00	
233.0 - 234.4	0.00	
234.5	0.06	
234.6	0.08	
234.8	0.10	
235.0	0.06	
235.2	0.02	
235.6	0.00	
235.6 -257.5	0000	

RADIOMETRIC LOGS

NORBUTE CORPORATION DMEA

Probed by V. Dow 4th scale Minerals Counter #127

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	Depth	E. U_3O_8	
Hole X-1 - 4-13-56	0 to 225.0'	Barren	Mineralized hole
	225.0	0.02	
	225.5	0.02	
	226.0	0.06	
	226.5	0.06	
	227.0	0.08	
	227.3	0.12	
	227.5	0.12	
	227.8	0.15	
	228.0	0.13	
	228.4	0.15	
	228.7	0.06	
	228.9	0.02	
	229.0 to 251.0	0.00	Probed to 251.0'
Hole X-2 - 4-14-56	0 to 223.4	0.00	Barren hole Probed to 223.4'
Hole X-22 - 4-16-56	0 to 240.7'	0.00	Mineralized hole
	240.7	0.02	
	241.4	0.10	
	241.6	0.16	
	242.0	0.12	
	242.3	0.08	
	242.3 to 243.0	0.02	
	243.0 to 244.2	0.03	
	244.2	0.04	
	244.3	0.00	
	250.8	0.02	
	250.8 to 259.5	0.00	Probed to 259.5'
Hole X-23 - 4-16-56	0 to 220.3	no count	Barren Probed to 220.3'
Hole X-3 - 4-16-56	0 to 249.4'	0.00	Mineralized hole
	249.5 to 250.0	0.04	
	250.0 to 250.8	0.03	
	250.8 to 251.3	0006	
	251.4	0.02	
	251.4 to 283.1	0.00	Probed to 283.1'

RADIOMETRIC LOGS

NORBUTE CORPORATION DMEA

Probed by V. Dow 4th scale Minerals Counter #127

	Depth	E U_3O_8	
Hole X-4 - 4-18-56	0 to 233.1'	0.00	Weakly mineralized
	233.1	0.02	
	233.8	0.05	
	234.0	0.02	
	234.0 to 244.8	0.00	Probed to 244.8'
Hole X-5 4-18-56	0 to 264.8'	0.00	Probed to 264.8' Barren hole
Hole X-6 - 4-19-56	0 to 242.0'	0.00	Ore hole
	242.5	0.02	
	242.6	0.04	
	242.7	0.02	
	242.8	0.04	
	242.9 to 243.7	0.06	
	243.7 to 244.0	0.08	
	244.1	0.10	
	244.2 to 244.4	0.12	
	244.5 to 244.6	0.14	
	244.7	0.15	
	244.8	0.16	
	244.9	0.17	
	245.0 to 245.3	0.18	
	245.3 to 245.5	0.20	
	245.6	0.22	
	245.7	0.18	
	245.7 to 245.9	0.15	
	246.0	0.10	
	246.1	0.04	
	246.2 to 252.1	0.02	
	252.2 to 252.3	0.04	
	252.4	0.06	
	252.5	0.10	
	252.6	0.16	
	252.7	0.18	
	252.8 to 252.9	0.22	
	253.0	0.20	
	253.1 to 253.3	0.08	
	253.6	0.02	
	253.7 to 268.3	0.02	Probed to 268.3'

RADIOMETRIC LOGS

NORBUTE CORPORATION DMEA

Probed by V. Dow 4th scale Minerals Counter #127

	Depth	E. U_3O_8	
Hole X-7 - 4-19-56	0 to 252.8	0.00	Barren Hole
Hole X-8 - 4-20-56	0 to 253.3'	0.00	Mineralized hole
	253.4	0.02	
	253.6	0.06	
	253.8	0.04	
	253.9 to 254.3	0.04	
	254.6	0.08	
	254.7	0.10	
	254.8	0.14	
	254.9	0.18	
	255.0	0.24	
	255.1	0.24	
	255.2	0.20	
	255.3	0.10	
	255.4	0.10	
	255.5 to 255.8	0.08	
	255.9	0.04	
	256.0	0.02	
	256.0 to 283.2'	0.00	Probed to 283.2'
Hole X-9 - 4-21-56	0 to 263.8'	0.00	Barren hole

HUNTINGTON, W. VA. | INVOICE | BIRMINGHAM, ALA.

B. H. MOTT & SONS, INC.

CORE DRILLING CONTRACTORS AND MANUFACTURERS

210 FIRST NATIONAL BANK BLDG.

GRAND JUNCTION, COLO.

RECEIVED
JUN 4 1956

TESTING
COAL, CLAY AND MINERAL PROPERTIES
FOUNDATION TESTING
PRESSURE GROUTING
LARGE DIA. HOLES

DATE
MAY 1, 1956

CONTRACT
OMEA

NO.

TERMS: NET

TO MORGUTE CORPORATION
GRANTON CENTER BUILDING
GRAND JUNCTION, COLORADO

DIAMOND CORE DRILLING

ITEM 1	2600.0 FEET	01.40	03,640.00
ITEM 2	150.3	1.50	225.45
ITEM 5	987.8	2.05	1,204.99
ITEM 7	5 3/4 HOURS	10.00	57.50
			45,127.94

FOR HOLES # 1, 2, 3, 4, 5, 6, 7, 8, 9, 22, 23, 25, 26

D. M. E. a Ringtail
V.D.

INVOICES ARE MAILED AS PER CONTRACT TERMS, OR UPON THE COMPLETION OF EACH HOLE, IF TERMINATED AT A DEPTH OF MORE THAN FIVE HUNDRED FEET.

B. H. MOTT & SONS, INC.

BY JOHN C. McELOONEY

STATEMENT

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO
4-30-56

Lorbute Corp.
P. O. Box 1700
Grand Junction, Colorado

RECEIVED
MAY 4 1956

Overdue invoices render all invoices due and subject to sight draft.
Legal rate of interest charged on past due accounts

Invoice Number	Terms and Memoranda	Date	DEBITS Assays	DEBITS Other	Credits	Balance
			BALANCE FORWARD →			
6396-S		4-18-56	43.42			43.42
6410-S		4-20-56	43.42			86.84
6431-S		4-23	38.60			$ 125.44

Kenneth D McCee
V.P.

THE BROWN LABORATORY

Keep For Your Record. Your Check Is Sufficient Receipt

Last Amount In This Column Is Your Balance

THE BROWN LABORATORY, Grand Junction, Colo.
2263 Broadway
Phone 1543-W

Entry Date 4-18-56
Order No.
Requisition No.

Our Order No. 6396-S

INVOICE

Invoice No. 6396-S
Invoice Date 4-19-56

CHARGED TO
Norbute Corp.
P. O. Box 1700
Grand Junction, Colorado

SENT TO
Same

RECEIVED
APR -- 4 1956

Instructions Uranium & Vanadium Determinations

Terms From Invoice Date

Quantity	Description	Unit Price	Discount	Extension
9	Uranium Determinations -	3.50		31.50
9	Vanadium "	1.50		13.50
				45.00
	Discount - Less		35	1.58
				$ 43.42

Kingtail M. E. C.
V T D

THE BROWN LABORATORY, Grand Junction, Colo.
2263 Broadway
Phone 1543-W

Entry Date 4-20-56
Order No.
Requisition No.

Our Order No. 6410-S

INVOICE

Invoice No. 6410-S
Invoice Date 4-21-56

CHARGED TO
Norbute Corp.
P. O. Box 1700
Grand Junction, Colorado
Same

SENT TO

Instructions Uranium & Vanadium Determinations

Terms From Invoice Date

	Quantity	Description	Unit Price	Discount	Extension
	9	Uranium Determinations	3.50		31.50
	9	Vanadium "	1.50		13.50
					45.00
		Discount - Less		5%	1.58
					$ 43.42

Kingtard & Mr. E. A.
V. A.

THE BROWN LABORATORY, Grand Junction, Colo.
2263 Broadway
Phone 1543-W

Entry Date 4-23-56
Order No.
Requisition No.

Our Order No. 6431-S

INVOICE

Invoice No. 6431-S
Invoice Date 4-24-56

CHARGED TO Borbate Corp.
P. O. Box 1700
Grand Junction, Colorado

SENT TO Same

RECEIVED
JUN - 4 1956

Instructions Uranium & Vanadium Determinations

Terms From Invoice Date

Quantity	Description	Unit Price	Discount	Extension
8	Uranium Determinations	3.50		28.00
8	Vanadium "	1.50		12.00
				$ 40.00
	Discount - Less on U_3O_8		5%	1.40
				$ 38.60

King tail Dm & a
V.&C.

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

Norbute Corp.
P. O. Box 1700
Grand Junction, Colorado

Date 5-4-56
Order No. 6518-S

RECEIVED

Material: Ore Samples - 13
Received: 5-3-56
For: Analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6518-1	Hole X 25	235.4-235.6	0.04	0.07	
6518-2	"	235.8-236.0	0.05	1.11	
6518-3	"	236.0-236.3	0.12	0.88	
6518-4	"	236.3-237.0	0.79	0.70	
6518-5	"	237.0-238.0	0.81	0.35	
6518-6	"	238.0-238.7	0.58	2.98	
6518-7	"	238.7-240.0	0.03	0.54	
6518-8	"	240.0-240.7	0.04	0.78	
6518-9	"	240.7-241.7	0.02	0.07	
6518-10	"	252.0-252.8	0.04	Nil	
6518-11	$ X 26	231.2-232.5	0.04	0.70	
6518-12	"	232.5-234.0	0.02	0.06	
6518-13	"	234.0-235.0	0.06	Nil	

Ringtail & McEe
V.O.

H. D. Brown
Analyst.

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO Nerbute Corporation
P.O. Box 1700
Grand Junction, Colorado

Date 4-21-56

Order No. 6410-C

Material: Ore Samples 9
Received: 4-20-56
For: Analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6410-1	241.8-242.6	X-6	0.03	0.02	
6410-2	242.6-243.3	"	0.03	0.02	
6410-3	243.3-244.1	"	0.10	0.07	
6410-4	244.1-245.0	"	0.15	0.47	
6410-5	245.0-246.0	"	0.01	0.07	
6410-6	252.1-252.6	"	0.01	0.51	
6410-7	253.2-253.6	"	0.28	0.11	
6410-8	253.6-254.6	"	0.01	0.01	
6410-9	254.6-255.3	"	0.01	0.02	

Analyst.

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

RECEIVED
JUL 4 1956

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

Norbute Corpo
P& O& Box 1709
Grand Junction, Colorado

Date 4$19-56
Order No. 6386-S

Material: Ore Samples-9
Received: 4$18$56
For: Analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6396-1	X-1	225.9-226.0	0.02	0.73	
6396-2	X-1	226.0-227.0	0.09	0.56	
6396-3	X-1	227.0$228.4	0.01	0.02	
6396-4	X-3	249.5-250.0	0.02	0.09	
6396-5	X-3	250.0$250.8	0.01	0.55	
6396-6	X-3	250.8 - 251.3	0.05	0.07	
6396-7	X-4	233.4 - 233.8	0.03	0.24	
6396-8	X-22	240.7 - 241.3	0.18	Nil	
6396-9	X-22	241.3 - 242.3	0.01	Nil	

W. D. Brown
Analyst.

THE BROWN LABORATORY

2263 Broadway
GRAND JUNCTION, COLORADO

ANALYTICAL DEPARTMENT

PHONE 1543-W

CERTIFICATE OF ANALYSIS

TO

Norlute Corp.
P. O. Box 1700
Grand Junction, Colo.

Date 4-24-56

Order No. ~~XXXXXX~~ 6431-S

Material: Ore samples 8
Received: 4-23-56
For: Analysis

Lab. No.	Your No.	Description	%U_3O_8	%V_2O_5	%$CaCO_3$
6431-1	x-6	241.9 242.9	0.02	Nil	
6431-2	X-8	253.0 - 253.2-	0.01	0.02	
6431-3	x-8	253.2 253.6	0.01	0.02	
6431-4	x-8	253.6 253.8	0.01	Nil	
6431-5	x-8	253.8 254.2	0.17	0.05	
6431-6	x-8	254.2 254.6	0.01	0.02	
6431-7	x-8	254.6 255.2-	0.01	Nil	
6431-8	x-8	255.2 255.8	Trace	Nil	

W. D. Brown
Analyst.

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X-23 ( )
Inclination _____ Bearing _____
Total depth 220.3
Collar elev. _____ T 4846 P
Area Yellow Cat

Map coord (T) _____
Map coord (P) _____
Sec. 36 T 22S R 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-17-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable OBSS from 200.0 to 216.1 thick 16.1 : SS color Gy LGy MS Gy Gr Cbn. N

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's	Cbn	MS in SS	Remarks
0.0		201.3	201.3								Plug bit No Core
201.3	14.9	216.2	14.9	100	SS	Gy LGy	F MF	L	N	Gr Gy	
216.2	4.1	220.3	4.1	100	MS St	Gy			N		sandy

220.3

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%eq) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-23

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X - 22 ( )
Inclination Vert Bearing
Total depth 259.5
Collar elev. T 4841.6 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T 22S R 21E
Co., State Grand Utah

Claim School Section
Date completed 4-16-56
Date logged 4-16-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable OBSS from 208.1 to 249.3 thick 41.1 ; SS color Lt Gy Gy ; MS Gr Gy Rd Cbn. S

Graphic log

259.5'

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec. %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		200.0	200.0								Plug bit No Core
200.0	7.0'	208.1	8.1	86.4	Ms St	R Gy Gr			N	Gr	Sandy A-Gr
208.1	21.4	229.5	21.4	100	SS	LGy	F-MF		N	A Gr gy	
229.5	11.0	240.5	11.0	100	SS	LGy	MF	Limonite	N	Gr Gy	
240.5	0.4	240.9	0.4	100	MS	Br	MF	"	N		
240.9	8.4	249.3	8.4	100	SS	Gy	MF	" Cbn	S	None	sulphides in cbn
249.3	10.1	259.5	10.2	99	MS-St	Gy Gr Rd					sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ ray (%e) or Field est			
Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-22

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-9 ( )
Inclination Vert Bearing
Total depth 263.8
Collar elev. T 4866 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec 36 T 22S R 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-21-56
Date logged 4-21-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable; OBSS from 233.0 to 257.3 thick 24.3; SS color Br. Gy; MS Gy Rd, Con No

Graphic log

263.8

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Con	MS in SS	Remarks
0.0		230.0	230.0								Solid bit - No Core
230.0	3.0	233.0	3.0	100	Ms	Rd Gr					
233.0	24.3	257.3	24.3	100	SS	Br Gr	F MF	Limonite	N	Gr - Gy	
257.3	6.5	263.8	6.5	100	MSSt	Gy Rd					Sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-9

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X-8 ( )
Inclination Vert. Bear.
Total depth 268.2
Collar elev. T 4864 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T 22S R. 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-20-56
Date logged 4-20-56
Logged by V. Dow

Rev	
Ed	

Summary of log 4th SS Favorable, OBSS from 239.8 to 281.0 thick 41.2, SS color Gy LGy, MS Gr Gy, Cbn Abundant

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		230.0	230.0								Solid bit No Core
230.0	9.2	239.8	9.8	94	MSSt	R Gr Gy					sandy
239.8	11.5	253.0	13.2	87	SS	L Gy Gy	MF E	Limonite	S	AGr Gy	Cbn Bands Numerous
253.0	14.7	268.2	15.2	97	SS	DGy Gy	MF	L sulphides	A	Gr Gy	" " " sulphide in Cbn
268.2	11.5	281.0	12.8	90	SS	Gy DGy	MF	L	A	Gr Gy	" " "
281.0	2.2	283.2	2.2	100	Ms St	Gy Gr					sandy

283.2

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	Type

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-8

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-7 ( )
Inclination Vert Bearing
Total depth 252.6
Collar elev. T 4866 P
Area Yellow Cat

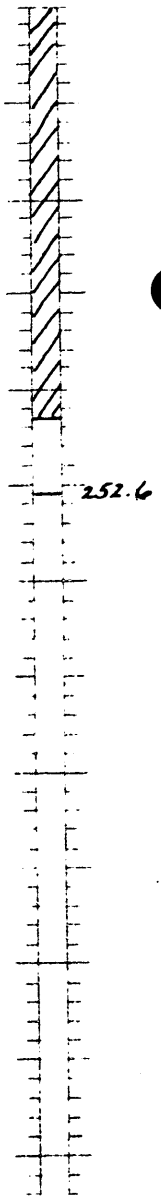
Map coord (T)
Map coord (P)
Sec. 36 T 22S R 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-19-56
Date logged 4-20-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable OBSS from 221.5 to 245.8 thick 24.3 : SS color Gy L Gy MS A Gy Gr : Cbn. Some

Graphic log



DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		216.0	216.0								Solid bit - No Core
216.0	5.5	221.5	5.5	100	MS St	Rd Gy Gr					sandy
221.5	22.9	245.8	24.3	95	SS	Gy L Gy	F-MF	Limonite stain	S	Gr-Gy	sparse Cbn str.
245.8	6.8	252.6	6.8	100	MS St	Gy Blk Rd			N		sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-7

GEOLOGIC AND ASSAY LOGS Norbute Corp

Drill-hole No. X-6 ( )
Inclination Vert. Bearing
Total depth 268.3
Collar elev. T 4859.5 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T 22S R 21E
Co., State Grand Utah

Claim School Section
Date completed 4-19-56
Date logged 4-20-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 230.7 to 255.4 thick 24.7' ; SS color Gy LGy ; MS GyGrRd ; Cbn. Abundant

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		212.0	212.0								Plug bit No Core
212.0	18.6	230.7	18.7	99	MS Sl	RdGyGr					A Sandy
230.7	7.0	237.7	7.0	100	SS	LGy Gy	F	Limonite	N	Gr Gy	
237.7	17.7	255.4	17.7	100	SS	Gy LGy	MF	Limonite Sulphide	A	A Gr	Sulphides in Cbn
255.4	12.4	268.3	12.9	96	MS	Gy Gr Rd					Sandy

268.3

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est.			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-6

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X - 5 ( )
Inclination Vert Bearing
Total depth 264.8
Collar elev. T 4863.6 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec 36 T 22S R 21E
Co., State Grand Utah

Claim School Section
Date completed 4-18-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable. OBSS from 224.5 to 252.5 thick 28.0 ; SS color Gy LGy ; MS GyGrBlkRd Cbn. yes

Graphic log

DRILL LOG

Depth	Rec ft
0.0	
221.0	4.5
224.5	26.9
252.5	12.3

LITHOLOGIC LOG

Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
221.0	221.0								Solid bit - No Core
224.5	4.5	100	MS	Gy-Gr			N		sandy
252.5	28.0	96.1	SS	Gy LGy	F MF	Limonite Cbn	S	Gr Gy	Cbn streaks abundant
264.8	12.3	100	MS St	Gy Blk Rd			N		sandy

264.8

Sample Base	Sample Thick	Lab assay (%) U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Sample Base	Sample Thick	Lab assay (%) U_3O_8 *	V_2O_5/Cu	$CaCO_3$

Interval Base	Interval Thick	γ-ray %e U_3O_8	γ-ray (%e) or Field est Base	Thick	U_3O_8	V_2O_5

* Assays marked 'e' are from lab gamma ray readings

Hole No. X-5

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X - 4 ( )
Inclination Vert Bearing
Total depth 243.8
Collar elev. T 4854 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec 36 T. 22S R 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-18-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS semi Favorable OBSS from 205.9 to 233.0 thick 27.1' ; SS color Gy LGy ; MS GrGyBlRd ; Cbn. S

Graphic log

243.0

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		200.0	200.0								solid bit - No Core
200.0	5.9	205.9	5.9	100	MS	Gy Gr			N		
205.9	25.8	233.0	27.1	95.2	SS	LGy Gy	F MF	Limonite	S	Gr Gy	.4' .06 eU3O8 count
233.0	10.0	243.0	10.0	100	MS St	GrGyBlRd			N		sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or field est.			
Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	[illegible]	[illegible]

*Assays marked "e" are from lab gamma-ray readings

Hole No. X - 4

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X-3 ( )
Inclination Vert Bearing
Total depth 283.1
Collar elev T 4860 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec 36 T 22S R 21E
Co., State Grand Utah

Claim School Section
Date completed 4-17-56
Date logged 4-18-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable : OBSS from 222.0 to 278.5 thick 56.5' : SS color Gy L Gy , MS Gr-Gy : Cbn. S

Graphic log

283.1'

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		220.0	220.0								Plug bit No Core
220.0	2.0	222.0	2.0	100	St	W	F	N	N		
222.0	27.5	249.5	27.5	100	SS	Gy L Gy	F MF	Limonite	N	Gr Gy	Limonite Mottled
249.5	7.5	257.0	7.5	100	SS	DGy Gy	MF		S	Gy Gr	Sparce Cbn (V.O.S.)
257.0	0.8	257.8	0.8	100	MS	Gy		–	S		
257.8	20.7	278.5	20.7	100	SS	Gy	MF F	L	N	Gr Gy	
278.5	4.6	283.1	4.6	100	MS St	Gy Gr Rd			N		Sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (Chart or Field est)			
Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8*	V_2O_5/Cu	$CaCO_3$	Base	Thick	eU U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-3

GEOLOGIC AND ASSAY LOGS *Norbute Corp.*

Drill-hole No. X-2 ( )
Inclination Vert Bearing
Total depth 223.4
Collar elev. T 4848 P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T 22S R 21E
Co., State Grand, Utah

Claim School Section
Date completed 4-19-56
Date logged 4-17-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Unfavorable OBSS from 200.0 to 216.4 thick 16.4 ; SS color Gy-Br ; MS A Gy Gr ; Cbn. N

Graphic log

223.4

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		200.0	200.0								Plug bit No Core
200.0	8.4	208.4	8.4	100	SS	LGy	MF-F		N	A Gr	
208.4	8.0	216.4	8.0	100	SS	Gy Br	MF-C	L	N	Gr Gy	
216.4	6.9	223.4	7.0	98.6	MS	Gy Gr			-		sandy

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

Hole No. X-2

GEOLOGIC AND ASSAY LOGS Norbute Corp

Drill-hole No. X-1 ( )
Inclination Vert Bearing
Total depth 250.8
Collar elev. T 4844 P
Area Yellow cat

Map coord (T)
Map coord (P)
Sec. 36 T 22S R 21E
Co State Grand, Utah

Claim School Section
Date completed 4-13-56
Date logged 4-16-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable OBSS from 206.0 to 243.2 thick 37.2' SS color Gy MS Gy Gr Cbn Yes

Graphic log

DRILL LOG / LITHOLOGIC LOG

Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		200.0	200.0								
200.0	4.5	206.0	6.0	75.0	MS	Gy Gr					Plug bit No core
206.0	4.0	210.0	4.0	100	SS	L Gy	MF F		N	A Gr	
210.0	14.0	224.0	14.0	100	SS	Gy-Br	MF	L	N	A Gr Gy	
224.0	10.3	234.3	10.3	100	SS	Gy Br	MF	L	S	N	carbon streaks V_2O_5
234.3	0.3	234.6	0.3	100	Coal	Blk	—	Gyp P	A	—	cbn sulphides inc BN
234.6	4.4	239.0	4.4	100	SS	Gy Br	MF	L	N	Gn Gy	
239.0	4.2	243.2	4.2	100	SS	Gy br	MF	L	N	N	
243.2	7.6	250.8	7.6	100	Sl SS	Gy Gr Rd	—		N		sandy

250.8

Sample Base	Sample Thick	Lab assay (%) U_3O_8	Lab assay (%) V_2O_5/Cu	Lab assay (%) $CaCO_3$	Sample Base	Sample Thick	Lab assay (%) U_3O_8	Lab assay (%) V_2O_5/Cu	Lab assay (%) $CaCO_3$	Interval Base	Interval Thick	γ-ray %e U_3O_8	γ-ray (%e) or Field est Base	γ-ray (%e) or Field est Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 8350 41

Hole No X-1

GEOLOGIC AND ASSAY LOGS *Norbute Corp*

Drill-hole No. X-25 ( )
Inclination Vert Bearing
Total depth 267.0
Collar elev. 485.7 ' P
Area Yellow Cat

Map coord (F)
Map coord (P)
Sec 36 T 22S R 21E
County State Grand Utah

Claim School Section
Date completed 4-27-56
Date logged 4-28-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 215.6 to 261.0 thick 45.4 ; SS color Gy L.Gy BlK ; MS GyGr ; Cbn. Abundant

Graphic log

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		215.0	215.0								Solid bit No core
215.0	0.6	215.6	0.6	100	MS	GyGr					Altered
215.6	7.0	229.0	13.4	52	SS	LGy Gy	MF-F	None	N	None	Ground core - Defective core spring
229.0	5.0	234.0	5.0	100	SS	LGy Gy	MF	Limonite Fe_2O_3 min	N	Gr-Gy	
234.0	8.2	244.0	10.0	82.0%	SS	LGy Gy BlK	MF	Cbn pyrite Limonite	A		Lost 1.8' core in ore zone - (Very soft)
244.0	17.0	261.0	17.0	100	SS	LGy Gy	MF	Cbn	S	Gr Gy	Abd. Cbn at 252.4 to 252.8
261.0	4.8	267.0	6.0	80	MS	Gy Gr					A sandy

215.0

267.0

Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ ray (%e) or Field est			
Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays [illegible] radiometric readings

CPO 8150-41

Hole No.

GEOLOGIC AND ASSAY LOGS Norbute Corp.

Drill-hole No. X-26 ( )
Inclination Vert Bearing
Total depth 257.5
Collar elev 4844 T P
Area Yellow Cat

Map coord (T)
Map coord (P)
Sec. 36 T. 22S R. 21E
Co State Grand, Utah

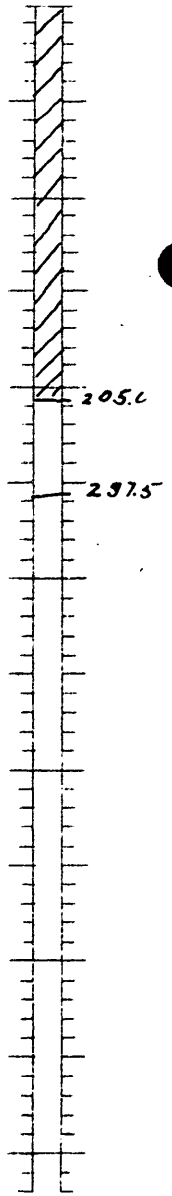
Claim School Section
Date completed 4-28-56
Date logged 4-30-56
Logged by V. Dow

Rev		
Ed		

Summary of log 4th SS Favorable ; OBSS from 205.0 to 252.5 thick 47.5 ; SS color Gy-LGy DGy ; MS gy gn ; Cbn. Some

DRILL LOG		LITHOLOGIC LOG									
Depth	Rec ft.	Base	Thick	Rec %	Rock	Color	Grain	Access. Min's.	Cbn	MS in SS	Remarks
0.0		205.0	205.0								Solid bit No Core
205.0	28.8	233.8	28.8	100	SS	Gy LGy	F-MF		No	A Gy Gr	
233.8	18.7	252.5	18.7	100	SS	Gy DGy Blk	MF	Lim Cbn V_2O_5	S	Gr Gy A	
252.5	5.0	257.5	5.0	100	MS	Gr Gy					A Sandy

Graphic log



Sample		Lab assay (%)			Sample		Lab assay (%)			Interval		γ-ray	γ-ray (%e) or Field est			
Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	U_3O_8 *	V_2O_5/Cu	$CaCO_3$	Base	Thick	%e U_3O_8	Base	Thick	U_3O_8	V_2O_5

*Assays marked "e" are from lab gamma-ray readings

GPO 835041

Hole No

Oil Well Locations

Roads

K. L. ETTER Construction Co.

1637 Gunnison Blvd.—Phone 0547-J1
GRAND JUNCTION, COLORADO
P. O. BOX 924

RECEIVED
JUN - 4 1955

Date April 10 1956

TO NORBUTE CORPORATION
BOX 1700
Address GRAND JUNCTION, COLORADO

RINGTAIL MINE YELLOW CAT AREA

Date	Hours	Description	Amount
		INTERNATIONAL TD18A WITH OPERATOR	
3-24	2	Moving tractor to job	
3-24	6	Roads and drill sites	
3-25	11	Roads and drill sites	
3-26	5	Roads and drill sites	
	24	TOTAL @ $ 12.00 Per Hour -	$ 288.00
		Total	$ 288.00

J. M. E. A. Ringtail 533

ck # 670
9 5 C.

COLORADO PRINTING CO.

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

RECEIVED
MAR 30 1956

224 New Customhouse
Denver 2, Colorado

March 26, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3962 (Uranium), Contract No. Idm-E928
Norbute Corporation (Part of sec. 36. T. 22 S., R. 21 E.)
Grand County, Utah

Enclosed are the Government's, Division and Docket copies of Exploration Project Contract No. Idm-E928, which was forwarded by your letter of March 9, 1956, for signature by the Operator. Also enclosed are two copies of letter from this office to the Operator dated March 26, 1956, by which we forwarded the Operator's copy of the contract, MF-104 and MF-104A forms, and instructions relative to reporting on work performed under the contract.

Starting date of April 15, 1956, has been inserted under Article 3 and copies of the performance bond in the amount of $33,750.00 have been attached to each copy of the contract, as instructed in your letter of March 9.

Copies of the contract have been distributed to the Finance Office, Region III, and other offices concerned.

W. M. Traver
W. M. Traver

Enclosures

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

224 Rex Gustenhaver
Denver 2, Colorado

March 26, 1956

[redacted]

Mr. Albert Charles, Mgr.
Western Mining Division
Kerbaugh Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket DMEA-3962 (Uranium)
Contract No. Ida-3926

Dear Mr. Charles:

Enclosed herewith is your copy of Exploration Project Contract No. Ida-3926, Docket DMEA-3962.

Also enclosed are six copies of form DF-104, "Operator's Monthly Report and Voucher," and six copies of form DF-104A, "Operator's Unit Cost and Progress Report." At the completion of the first calendar month of operation and monthly thereafter you are required to submit five copies of the forms to Mr. Shaw, U. S. Bureau of Mines, Room 137, Building 20, Denver Federal Center, Denver 2, Colorado. The sixth form is for your records.

Please note that the monthly accounting report requires a narrative report which should be accompanied by maps or sketches showing the work performed. The narrative report must be signed by the operator. The monthly report will not be processed for payment unless accompanied by a narrative report. Additional copies of forms DF-104 and DF-104A will be furnished to you each month on receipt of your completed report for the prior month.

The U. S. Geological Survey and the U. S. Bureau of Mines maintain a field office in the A.E.C. Compound at Grand Junction, Colorado. DMEA representatives of the two Services can be contacted as follows:

J. W. Hunter, U. S. Geological Survey, Telephone Grand Junction 3000, Ext. 282
H. H. Salsbury, U. S. Bureau of Mines, Telephone Grand Junction 3000, Ext. 274

Both men can be reached by mail at Post Office Box 368, Grand Junction, Colo.

For your information and in reply to many questions that have been asked, after forms DF-104 and DF-104A are received an engineer will check progress and approve your accounts, after which they will be sent to the Regional

Office, Region III, U. S. Bureau of Mines, 224 New Customhouse, Denver 2, Colorado, for auditing and vouchering. If the report is in order, a check will be issued by the Treasury Department for the Government's portion of the costs. If you have any difficulty in completing these forms and the reports, please call on either the field representatives, Mr. Shaw, or this office for assistance.

In the matter of your claim for reimbursement of drilling costs, reimbursement to you under the terms of the contract will be on the basis of a hole or holes completed to the objective that have been logged geologically and probed for radio-activity, and the records of such logging and probing together with assay certificates of any core samples included with your claim for reimbursement. Therefore, your monthly report should include only such holes that are completed to that extent.

The contract is prepared on form NF-200 and under the provisions of Exhibit "A", which is a part of the contract, the allowable costs are a combination of actual incurred costs, with an allowable maximum unit cost established for the work under Category (1) on all stages and fixed unit costs for performing the remaining items of work or service. Under the provisions of the contract the work under Category (1) is to be performed by subcontract. Your claim for reimbursement for such work must be supported each month by a copy of the billing from the Independent Contractor, or submit for our records a copy of the Subcontract Agreement.

In the event you desire to perform the work under Category (1) on company account, instead of subcontracting it as provided in the contract, it will be necessary that you obtain written approval from this office prior to commencing any of the work.

Your request to this office for work approval, changes in the contract, or any other communication pertaining to operations under the contract, must be in writing, of which please supply the original and five copies, each copy complete with maps or other pertinent data.

The locations of the holes to be drilled under Stage I are indicated as approximate on the map, Figure 2, attached to the contract. Should there be any material change in the location of any of the holes, approval of this office for the change must be obtained prior to the performance of the work. Otherwise, the work may not be acceptable for reimbursement to you under the terms of the contract.

Your attention is directed to the provision that the work under both Stages II and III is contingent on the results of the work completed under the prior stage and that performance of the work is subject to the prior written approval of the Government.

When the work under a stage is completed, you must request approval from this office for the work you propose to perform under the next stage. Your request for the work approval must be in sextuplicate, each copy complete with a map showing the location of holes previously drilled and the location of the holes you propose to drill under the next stage. Your request should be complete

with drill logs, results of radioactive probing, chemical analysis returns, and any other pertinent data which will be of value to the Government in appraising the work performed under the prior stage.

You should anticipate a suspension of operation between stages of work to enable the Government geologist and engineer to evaluate the results of the work performed and make their recommendations to this office relative to the additional work you propose.

To eliminate as much delay to operations as possible, if that is of serious consideration, you should expedite forwarding of the results of the work completed and your request for the Government's approval of the additional work you propose.

No oral statement of any person shall be construed to modify or change the terms of the contract. Field representatives of the Government are not authorized to approve any changes in the work program or contract provisions. Such approval can only be given by the Washington office, DMEA, or by the DMEA Field Team, Region III.

It is a regulation that reimbursement for the cost of work accomplished prior to the date of the contract will not be allowed. It is a requirement and inasmuch that you notify this office in writing the date work actually commenced under the contract, with a copy of your letter to Mr. Kent.

Very truly yours,

W. M. TRAVER

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

JWT:bh

Enclosures

cc - M. M. Salge
Magnetic Corporation
245 Madison Avenue
New York 17, N. Y.

cc - Chairman, Op. Comm. (2)
Finance Office, Region III
Amendment File, Region III
Harshman
Shaw (2)
Hasler
Townsend
Corres. File E-928
Chron.

3/19/56

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

RECEIVED MAR 14 1956

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

March 12, 1956

Mr. Abbott Charles, Manager
Western Mining Division
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket DMEA 3962 (Uranium),
Norbute Corporation,
Part of Sec. 36-T. 22S.-R. 21 E.,
Grand County, Utah, Proposed
Exploration Project Contract
Idm-E928

Dear Mr. Charles:

In conformance with advice to you in our letter of March 5, 1956, we are enclosing a copy of proposed Exploration Project Contract Idm-E928 for your use in obtaining a performance bond, Standard Form 25, in the amount of $33,750.00.

Please supply this office with the original and two copies of the performance bond and return the copy of the contract therewith.

When the performance bond and the copy of the contract are returned, please advise the date on or before which you contemplate work will be commenced, for our insertion under Article 3 of the contract form before the contract is sent to you for signature.

The contract will be forwarded to you for signature by an official of the corporation authorized to sign such, immediately upon receipt in this office of the executed performance bond.

Very truly yours,

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

Enc,
JWT:prl
cc: Chairman, Oper. Comm. (2)
Harshman
Hasler
Shaw (2)
Townsend
Docket file
Chron.

700

FILE COPY
Surname:
Murphy
Chambers
Selfridge

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 9 1956

Re: Docket No. DMEA-3962 (Uranium)
Norbute Corporation
Part of sec. 36 T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Traver:

Enclosed are the original and five copies of a proposed long-form contract between the Government and Norbute Corporation. Also enclosed are two extra copies of Exhibit "A".

Attached to each contract form MF-2DO are Annex I, Exhibit "A", and two maps, Figure 1 and Figure 2.

The proposed contract has been signed by the Administrator, subject to the attachment of the Performance Bond in the sum of $33,750.00, mentioned in our letter, dated February 27, 1956, to your office.

If you and the Applicant find the proposed contract in order, please insert in Article 3 of the contract form the date work shall commence, then have an authorized representative of the corporation sign the original and all copies. Thereafter, kindly distribute the copies in the usual manner.

If any part of the proposed contract does not meet with your or the Applicant's approval, then the original and all copies, including the extra copies of Exhibit "A", are to be returned to this office with the proposed changes for consideration.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosures

APPROVED:

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

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

FMMurphy/izm 3-2-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee

R.C.B.

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

MAR - 7 1956

Memorandum

To: The Administrator, DMEA
Attention: Chief, Rare & Miscellaneous Metals Div.

From: Associate Solicitor, Division of Mineral Resources

Subject: Docket No. DMEA-3962, Norbute Corporation (Uranium)

As informally requested by Mr. Murphy, we have prepared the attached contract. The Exhibit "A" is in the same form as the Exhibits for the Food Machinery and Chemical Company contracts.

It should be noted that the mining lease contains, in paragraph Fifth of Article III, an option in the State of Utah to approve any plan of Mining. This will not be of any effect concerning the drilling project, but may be of importance later.

The contract should not be executed in behalf of the Government prior to the Operator's submission of the Surety Company Performance Bond referred to in the contract.

Robert P. Dwyer

Attachments

3/8/56 - Lgm

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: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3962 (Uranium), Norbute Corporation, Part of Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

Enclosed are two copies of a letter dated March 2, 1956 from the subject applicant stating it will be necessary for him to have a copy of the contract to enable him to obtain Standard Performance Bond 25. Also enclosed are two copies of our letter of reply to the applicant.

W. M. Traver

W. M. Traver

Enclosures

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

Mr. Abbott Charles, Manager
Western Mining Division
Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket DMEA 3962 (Uranium), Part of Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

Dear Mr. Charles:

This will acknowledge receipt of your letter dated March 2, 1956, copy of which has been forwarded to the Washington office, DMEA. Upon receipt of the contract in this office, we will forward you a copy so that you may obtain Standard Performance Bond 25.

Very truly yours,

W. M. TRAVER,

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

HMC:ab

cc: Chair. Op. Comm. (2)
Townsend
Docket 3962
Chron.

NORBUTE CORPORATION
Uranium Center Building
P. O. Box 1700
GRAND JUNCTION, COLORADO

March 2, 1956

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

RECEIVED
MAR - 8 1956

Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Attention: Mr. J. M. Traver

Docket DMEA ~~8968~~ 3962 (Uranium)
Part of Sec. 36, T.22 S.,
R. 21 E., Grand County, Utah.

Dear Sir:

In regard to your letter of March 1, 1956, advising that performance bond in the amount of $33,750.00 is needed, it will be necessary for us to have a copy of the contract in order to obtain such bond and I would appreciate a copy of the contract, in duplicate, as soon as possible.

Very truly yours,

Abbott Charles

Abbott Charles, Manager
Western Mining Division
NORBUTE CORPORATION

AC/b

3/5/56 Gm

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

RECEIVED
MAR - 5 1956

March 1, 1956

224 New Customhouse
Denver 2, Colorado

Norbute Corporation
Box 1700
Grand Junction, Colorado

Re: Docket DMEA 3962 (Uranium), Part of Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

Gentlemen:

We have been advised by the Washington office, DMEA, that they are presently processing a proposed contract for exploration work on the captioned property. They will require a Performance Bond, Standard Performance Bond No. 25, in the amount of $33,750.00.

Such a bond may be obtained from any bonding agency. We doubt that you will be able to obtain this Performance Bond without first showing the bonding company's representative a copy of the contract. If this is the case, please notify us, and we will forward you a copy of the contract as soon as it is received in this office.

Very truly yours,

W. M. TRAVER,

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

HMC:ab

cc: Chair. Op. Comm. (2)
Harshman
Docket 3962
Chron.

3/2/56 [illegible]

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

February 29, 1956

RECEIVED
MAR - 1 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: Supplemental Report of Examination, DMEA Docket 3962, Norbute Corporation, Utah State Mineral Lease No. 3971, Part of Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

I have reviewed the supplemental report of examination, Norbute Corporation, DMEA Docket 3962, dated February 15 and received in this office February 23. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The Field Team expresses approval of an exploration project on Utah School Sec. 36; previously the Field Team recommended denial of exploration assistance on the subject section.

The revised proposal includes 17,818 feet of non-core and core drilling in two stages at an estimated cost of $44,991.61, or approximately half of the estimated cost of the original proposal. Government participation at 75 percent would be $33,743.71. The drilling project is designed to find mineralized sandstone in stage one and to locate ore bodies in stage two. The Field Team submits a complicated hole pattern to be drilled in successive stages and phases in an effort to achieve the hoped-for results.

Although the property may warrant some exploration, perhaps a more simplified and economically efficient drilling project could be conceived. Mr. Hosted concurs with the recommendation of the field examiners.

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

John E Crawford
John E. Crawford

700

FILE COPY
Surname:
Murphy
Selfridge
Rittenhouse

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

FEB 27 1956

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

Re: Docket No. DMEA-3962 (Uranium)
Morbate Corporation
Part of sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Traver:

We are presently processing a proposed contract in accordance with the Field Team's recommendation relating to the captioned application. The total cost of the contract will be $45,000.00, with Government participation at 75 percent, or the sum of $33,750.00.

Will you kindly advise the Applicant that we will require a Performance Bond with a value equal to the Government's participation.

If approved, the contract will be signed by the Administrator, subject to the attachment of the Performance Bond when the contract is executed. If the Applicant submits only two copies of the bond, one should be attached to the Docket copy and the other to the Government copy of the executed contract.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

APPROVED:

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

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

FMMurphy/izm 2-21-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JCHosted, Rm. 3210, GSA

R.C.S.

DRAFT
2-23-56
FMMurphy/izm

Docket Copy

MF-200
(Revised June 1954)

Docket No. DMEA 3962

Commodity Uranium

Contract No. Idm–E

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]

It is agreed this ..... day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Norbute Corporation, a Minnesota Corporation, whose mailing address is P. O. Box 1700 Grand Junction, Colorado, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF–200), the attached Exhibit "A," Annex I, and maps Figure 1 and Figure 2

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Colorado, County of Grand, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] See Annex I, [7] ..... recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

of the land (lessor, seller, optionor, etc.), are attached, as follows: Performance Bond

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Uranium The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before October 1, 1956 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall either have completed the work or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A."

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Independent contracts.*—To the extent that the allowable costs are estimated in Exhibit "A" with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed; but if the reference in Exhibit "A" to any such independent contract requires the Government's approval thereof, payments under such contract will not be allowable costs unless the Government gives its written approval of the contract. Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract and regardless of the Government's approval thereof, the Government will participate in payments to the independent contractor only on account of work performed in accordance with the provisions of this exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $45,000.00 The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $33,750.00 : *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last

voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work or not in excess of the amount of the Government's contribution to the cost of property which is or may become subject to disposal as provided in Article 9(c), whichever is greater. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 7(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. "Costs incurred" mean costs that have been paid or have become due and payable, or that in the opinion of the Government have become an obligation. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; but except for any such necessary excesses in categories, subcategories, or items thereunder the Operator is not obligated to incur more than his agreed percentage of the estimated, total allowable cost of the work.

To the extent specified in this article or in Exhibit "A" the following categories, subcategories, and elements thereof are maximums; but if not so specified either here or in Exhibit "A" they are not maximums, and may be exceeded within the limit of the estimated total allowable cost of the work:

CATEGORY (1)—INDEPENDENT CONTRACTS.—Work to be performed under independent contracts (see Article 4(b)). The estimated total amount of this category and the estimated cost of each unit of work for performance under an independent contract are maximums.

CATEGORY (2)—PERSONAL SERVICES.

Subcategory (a)—Supervision.—All elements of this subcategory (number of supervisors, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)—Technical services.—All elements of this subcategory (number of technicians, periods of employment, rates of pay, and total) are maximums.

Subcategory (c)—Labor.

CATEGORY (3)—OPERATING MATERIALS AND SUPPLIES.—Includes such items as drill bits and steel, explosives, fuel, pipe, power, small tools costing less than $50 each, timber, track.

CATEGORY (4)—OPERATING EQUIPMENT.

Subcategory (a)—Rental.—The number of each object to be rented [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)—Purchases.—The estimated total of this subcategory is a maximum.

Subcategory (c)—Depreciation.—All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)—INITIAL REHABILITATION AND REPAIRS.—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

Subcategory (a)—Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).—The estimated total of this subcategory is a maximum.

Subcategory (b)—Initial rehabilitation and repairs of operating equipment.—The estimated total of this subcategory is a maximum.

CATEGORY (6)—NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

CATEGORY (7)—MISCELLANEOUS.—Repairs and maintenance (other than initial) of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, communications, and any other items of requirement or cost that do not fall within any of the first 6 categories.

THE ESTIMATED TOTAL ALLOWABLE COST of the work is a maximum.

(b) *Nonallowable costs.*—The following costs are not allowable for contribution by the Government:

(1) *Costs of the land,* such as rental, depreciation, depletion, or other cost of acquiring, owning, or holding possession;

(2) *Indirect costs,* such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) *Previous work* performed or costs incurred before the date of this contract; and

(4) *Deferred payments.*—Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods; unless the purchase agreement is approved by the Government in writing.

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9.

ARTICLE 7. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. If the Government elects to audit said records and accounts relating to the exploration work by certified public accountant, it may do so as a cost of the work to which the Operator shall contribute. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing detailed costs incurred during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and costs incurred for each type of work; and (3) a Narrative Report of the work performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and related costs incurred.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 8. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 7) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value therof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½)

percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 9. *Interests in purchased property.*—(a) *Title and ownership.*—All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions, although title thereto shall be taken in the name of the Operator.

(b) *Preservation of property.*—Until the final disposal of any property in which the Government has an interest the Operator shall preserve and protect same for the best interest of the Government, any reasonable and necessary costs thereof to be treated as an allowable cost of the project. After the completion of the work or termination of the Government's obligation to contribute, or when such property is not in use for or needed for the work, the Operator shall neither use it without the written consent of the Government nor without paying a reasonable rental to be fixed by the Government for its interest.

(c) *Disposal of property.*—Upon the completion of the work or termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator or the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government the Operator shall not sell at any price any item of property the cost of which was more than $500, and shall not sell at less than 25 percent of the purchase price any item of property which cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or himself cares to give. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, or explosives, or pipe, or rails), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the project.

(d) *Default of the Operator re disposal.*—If within 90 days after the completion of the work or termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, or after such further time as the Government may in writing allow, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may pursue one of the following two courses: (1) the Government, by written notice to the Operator, may place upon such property what in its opinion is a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the

date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; or (2) the Government may enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 10. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon: (1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon: (1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 10 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 11. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 12. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 13. *Changes and added provisions.*—

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By .....

.....
(Operator)

By .....

.....

I, ..., certify that I am the ..... secretary of the corporation named as Operator herein; that ..... who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70617-1

DRAFT
2/23/56
FHMurphy/lam

EXPLORATION PROJECT CONTRACT
NORBUTE CORPORATION
DOCKET NO. DMEA-3962

ANNEX I

The land referred to in Article 2 of the contract form is part of Utah State Land section 36, Township 22 South, Range 21 East, Salt Lake Base and Meridian, and is described under these meets and bounds:

"Beginning at a point 420 feet north of the center point of said section 36, thence 960 feet east to the northeast corner; thence south 970 feet to the southeast corner; thence west 1,730 feet to the southwest corner; thence north 970 feet to the northwest corner; thence east 770 feet to the point of beginning."

The approximate location of the area, above-described, is shown on map "Figure I - Sketch Map of Section 36, T. 22 S., R. 21 E., SLM ..... and Area of Amended Application, Norbute Corporation, Yellow Cat Area, Grand County, Utah," attached hereto and made part hereof.

Norbute Corporation has the right of possession of the above-described land under a Utah State Land Board approval of Assignment of Mineral Lease No. 3971 from Strategic Minerals Exploration Company, as of February 25, 1955.

DRAFT
2/23/56
FMMurphy/lmm

EXPLORATION PROJECT CONTRACT
NORBUTE CORPORATION
DOCKET NO. DMEA-3962

EXHIBIT "A"

DESCRIPTION OF THE WORK

General Provisions:

The object of this project is to explore, by means of drilling, for uranium ore deposits which might occur in the lowermost sandstone unit of the Salt Wash member of the Jurassic Morrison formation.

The holes shall be drilled non-core to the inferred upper contact of the potential ore-bearing sandstone unit and then core drilled, recovering not less than Ex size core, through the lower contact of this sandstone unit. It is estimated that 75 feet of each hole will be core-drilled.

Sections of the drill core showing significant uranium shall be split. One-half of the split core shall be analyzed for its U_3O_8 and V_2O_5 content. The remainder shall be stored, for Government use, with the rest of the core, in boxes properly labeled as to drill hole number. Markers shall be placed in the sections of core to indicate the depth represented.

All holes shall be logged and probed for radioactivity. Records of such logging and probing, together with the assay certificates of the core samples, shall be submitted with the Operator's monthly progress report.

A competent supervisor shall be employed half-time and an assistant supervisor shall be employed full time in connection with the performance of the project work.

The extent and method of sampling and logging drill holes, the manner of storing drill core, the location and depth of the drill holes are all subject to Government approval.

The work shall be divided into three stages. The Operator shall perform all the work in Stage I and so much of each succeeding stage as is approved in advance in writing by the Government.

Stage I

Stage I shall consist of drilling not in excess of 11 holes, totaling an estimated 2,065 feet of non-core and 825 feet of core drilling. The approximate locations of the holes are indicated by an X with the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 22, and 23, on map entitled "Figure 2.Sketch Map of part of Section 36, T. 22 S., R. 21 E., SLM, showing U. S. Geological Survey Drilling and Location of Proposed Stage I Drill Holes ..... .", attached hereto and made a part hereof.

Not in excess of 22 hours of bulldozer work shall be performed on access roads to drill sites, nor more than 25 samples shall be analyzed for their U_3O_8 and V_2O_5 content under this Stage I of the contract.

If the footage estimated for Stage I is not sufficient to complete the 11 holes, then with previous written approval by the Government a part of the drill footage allowed for Stage III may be used.

Stage II

Stage II shall consist of drilling not in excess of 12 holes, totaling an estimated 3,660 feet of non-core and 900 feet of core

drilling. The approximate locations of the holes are indicated by an X with the numbers 10 through 21 inclusive, on the map Figure 2 described under Stage I.

Not in excess of 36 hours of bulldozer work shall be performed on access roads to drill sites, nor in excess of 30 samples shall be analyzed for their U_3O_8 and V_2O_5 content under this Stage II of the contract.

If the footage estimated for Stage II is not sufficient to complete the number of holes authorized under this stage, then with previous written approval by the Government a part of the drill footage allowed for Stage III may be used to complete such holes.

Stage III

Stage III shall consist of drilling not in excess of 32 holes as offsets to holes drilled under either Stage I or Stage II that penetrated rock containing significant uranium mineralization. No hole under this Stage shall be drilled closer than approximately 75 feet to any other drill hole, nor closer than 100 feet to the outer boundaries of the property encumbered under the contract.

Not in excess of 7,968 feet of non-core and 2,400 feet of core drilling, less any drill footage transferred to either Stage I or Stage II, shall be performed under this Stage III of the contract.

Not in excess of 30 hours of bulldozer work on access roads to drill sites shall be performed, nor in excess of 80 samples shall be analyzed for their U_3O_8 and V_2O_5 content under this Stage III of the contract.

ESTIMATED COSTS

Stage I

Category (1) Independent Contracts:[1]

22 hours bulldozing @ $12/hr.[2]	$264.00	
2,065 feet non-core drilling @ $1.82/ft.	3,758.30	
825 feet core drilling @ $3.15/ft.	2,598.75	

Fixed Unit Costs:

25 samples analyzed chemically for U_3O_8 and V_2O_5 @ $5/sample	125.00	
Incidental allowance[3] for each foot of drilling completed, 2,890 feet @ $0.30/ft.	867.00	
Estimated Total Cost Stage I		$7,613.05

Stage II

Category (1) Independent Contracts:[1]

36 hours bulldozing @ $12/hr.[2]	432.00	
3,660 feet non-core drilling @ $1.82/ft.	6,661.20	
900 feet core drilling @ $3.15/ft.	2,835.00	

Fixed Unit Costs:

30 samples analyzed chemically for U_3O_8 and V_2O_5 @ $5/sample	150.00	
Incidental allowance[3] for each foot of drilling completed, 4,560 feet @ $0.30/ft.	1,368.00	
Estimated Total Cost Stage II		$11,446.20

Stage III

Category (1) Independent Contracts:[1]

30 hours bulldozing @ $12/hr.[2]	$360.00	
7,968 feet non-core drilling @ $1.82/ft.	14,501.76	
2,400 feet core drilling @ $3.15/ft.	7,560.00	

[illegible]

Fixed Unit Costs:

80 samples analyzed chemically for W_3O_8 and V_2O_5 @ $5/sample	$400.00	
Incidental allowance[3] for each foot of drilling completed, 10,368 feet @ $0.30/ft.	3,110.40	
Estimated Total Cost Stage III		$25,932.16

SUMMARY

Total Estimated Cost Stage I	$7,613.05
Total Estimated Cost Stage II	$11,446.20
Total Estimated Cost Stage III	$25,932.16

Total Estimated Cost of Project (rounded) $45,000.00

Government Participation @ 75 percent $33,750.00

1/ Categories (2) through (7) of the contract form do not apply to this contract.

2/ D-7 Caterpillar tractor or equivalent.

3/ Includes all costs whatsoever that are not included in the estimates for "Independent Contracts" and the "Fixed Unit Costs" for sample analyses, and include such items as supervision, payroll taxes, accounting, supplies, depreciation of company owned equipment, etc., which would otherwise be allowable under Categories (2) through (7) of the contract form.

2-24-56 lgm

IN REPLY REFER TO:

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

RECEIVED
FEB 24 1956

February 23, 1956.

Memorandum

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

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

Subject: Review of Supplemental Report of Examination, DMEA 3962, Norbute Corporation, Utah State Mineral Lease No. 3971, part of sec. 36, T. 22 S., R. 21 E., Yellow Cat District, Grand County, Utah.

The examining team, in a supplemental report covering a revised application, reverses an earlier recommendation for denial and now recommends approval for exploration drilling west of the Ringtail mine.

In view of the fact that the site of the proposed drilling is only a few hundred feet from the producing Ringtail shaft, that ore holes have already been drilled on the property, and that the property lies within a favorable belt established by Government drilling, it seems likely that an exploration project would have a good chance for success.

The examining team's complicated proposals for drill holes in phases and stages would be feasible, in all likelihood; but since ore holes have been drilled west of the property the drilling on the east part of the tract probably won't give much indication of what's to be expected on the west half of the tract. A contract would be simplified by combining all the wide-spaced drilling into Stage I and putting all offset drilling in Stage II.

I agree with the examining team that the subject property warrants DMEA participation in an exploration project.

W P Williams

W. P. Williams

Mr. George Selfridge

RECEIVED

FEB 17 1956

DN 235 BUR MINES 2-16-56 4-29

CHAIRMAN, OPERATING COMMITTEE, DMEA

REURTT 2-16-56 DOCKET DMEA 3962 NORBUTE CORP. JOINT SUPPLEMENTAL REPORT OF EXAIMXX EXAMINATION RECOMMENDING APPROVAL TRANSMITTED YOUR. OFFICE 2-15-56.

W M TRAVER

Denver, Colo.

FEB 17 8 45 AM '56
BUREAU OF MINES
MAIL ROOM
WASHINGTON D. C.

FILE COPY
Surname:

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

FEB 1 0 1956

Department of the Interior

DMEA

1h14.01(01) Revolving Fund,
Defense Production Act, Interior
(Allocated Working Fund to the Office of
the Secy.)

T E L E T Y P E

W. M. TRAVER
EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

RE: DOCKET DMEA-3964, MORBUTE CORPORATION, WHEN MAY WE EXPECT REPLY TO OUR LETTER OF JANUARY 26.

George C. Selfridge

GEORGE C. SELFRIDGE (245)
CHAIRMAN, OPERATING COMMITTEE

FMMurphy/izm 2-16-56

cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Confirmation to
Region III

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

RECEIVED
FEB 20 1956

February 15, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Supplemental Report of Examination, Docket DMEA 3962 (Uranium), Norbute Corporation, Utah State Mineral Lease No. 3971, Part of Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

Enclosed are the original and three copies of a Joint Supplemental Report of Examination on the subject property requested in your letter of January 26, 1956. A Joint Report of Examination recommending denial of the original application was transmitted to your office January 3, 1956.

The field examiners recommend a two-stage exploration project on the revised program submitted by the applicant. We concur in this recommendation.

Attached are nine copies each of Figures 1 and 2 for possible use in the contract. If you require a Performance Bond, will you please advise this office or the applicant the amount of such bond.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
2-24-56
(date)

DMEA
Date Rec'd
FEB 14 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region III

TRANSMITTED
FEB 15 1956

Building 20
Denver Federal Center
Denver 2, Colorado
February 9, 1956

BUREAU OF MINES
Denver, Colorado
RECEIVED
FEB 20 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III
Through: J. W. Hasler
John F. Shaw

From: D. D. Haynes, U.S. Geological Survey
M. H. Salsbury, U.S. Bureau of Mines

Subject: DMEA 3962 (Uranium), Norbute Corporation, Utah State Mineral Lease No. 3971, Grand County, Utah - Revised exploration proposal submitted by applicant

The subject property was examined on October 20, 1955 in connection with an application for Government assistance in exploration of leased Utah State School land in the Yellow Cat district Grand County, Utah. A joint examination report recommending denial was prepared at that time. In December 1955, the applicant proposed a different program on another part of the same lease, but closer to the Ringtail mine, and in an area where Geological Survey drilling has indicated one apparent, small ore body and an additional area of mineralized ground.

The data in the original denial report on the subject property are applicable to the revised proposal. The conclusions drawn in the current evaluation are different, however, because of different geologic and economic factors which affect the new proposal. These factors are:

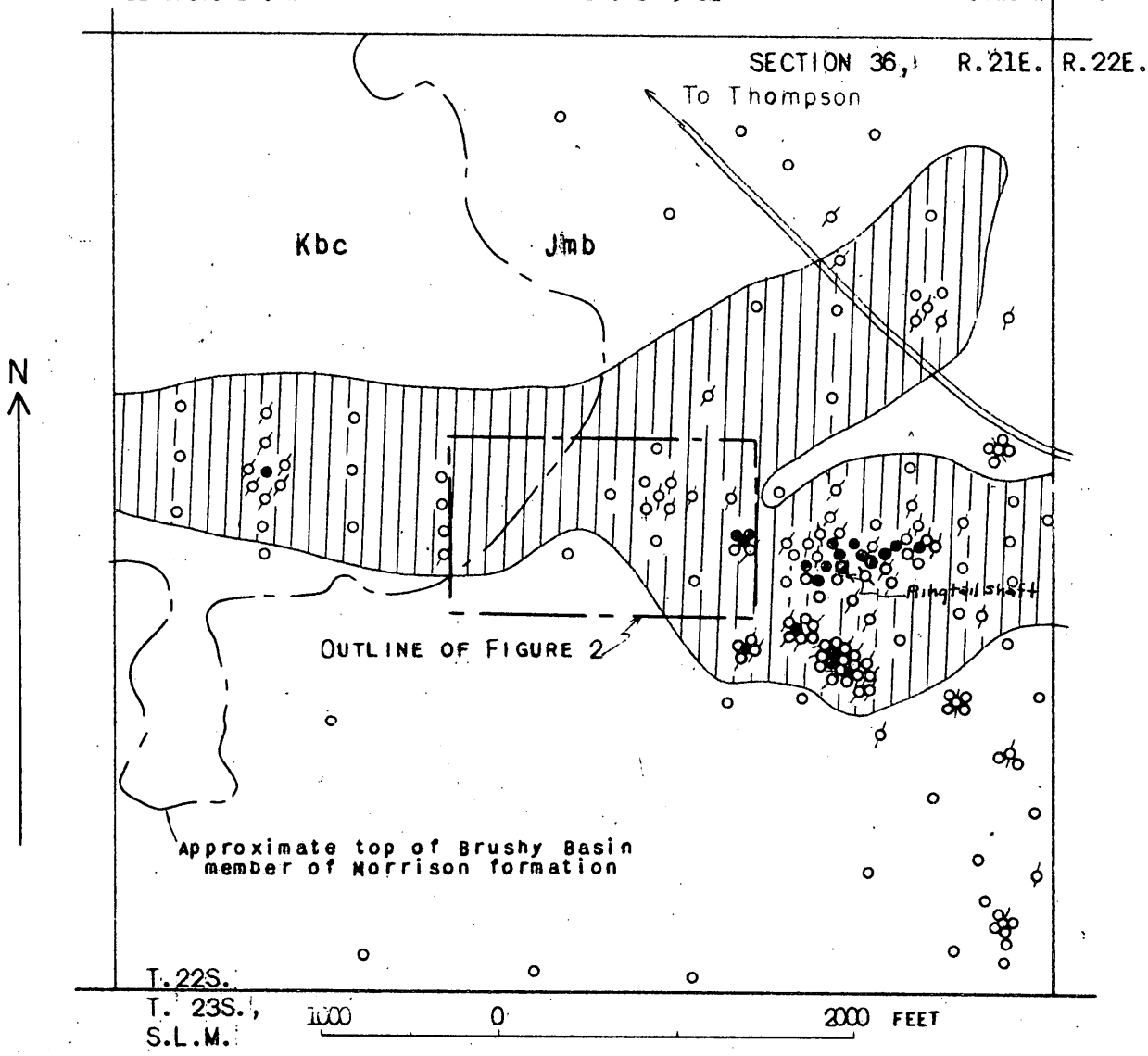
(1) Previous drilling results which show the newly proposed area to be more favorable,
(2) Proximity to an area that has been partly explored and developed and in which the known deposits are larger,
(3) Accessibility of any discovered ore bodies from the Ringtail mine which would probably result in lower development costs, and
(4) Decreased drilling depths with resultant lower exploration costs.

Reviewed by DMEA OPERATING COMMITTEE 2-24-56 (date)

The revised proposal covers a block of Utah School Sec. 36, 970 feet by 1730 feet straddling the north-south center line of the section (figure 1). The applicant's revised proposal calls for 17,818 feet of non core and core drilling in a maximum of 55 holes to be drilled in two stages at an estimated cost of $58,527.64 or approximately half of the estimated cost of the original proposal. Government participation at 75 percent would be $43,895.73.

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3982
JANUARY 1956



EXPLANATION

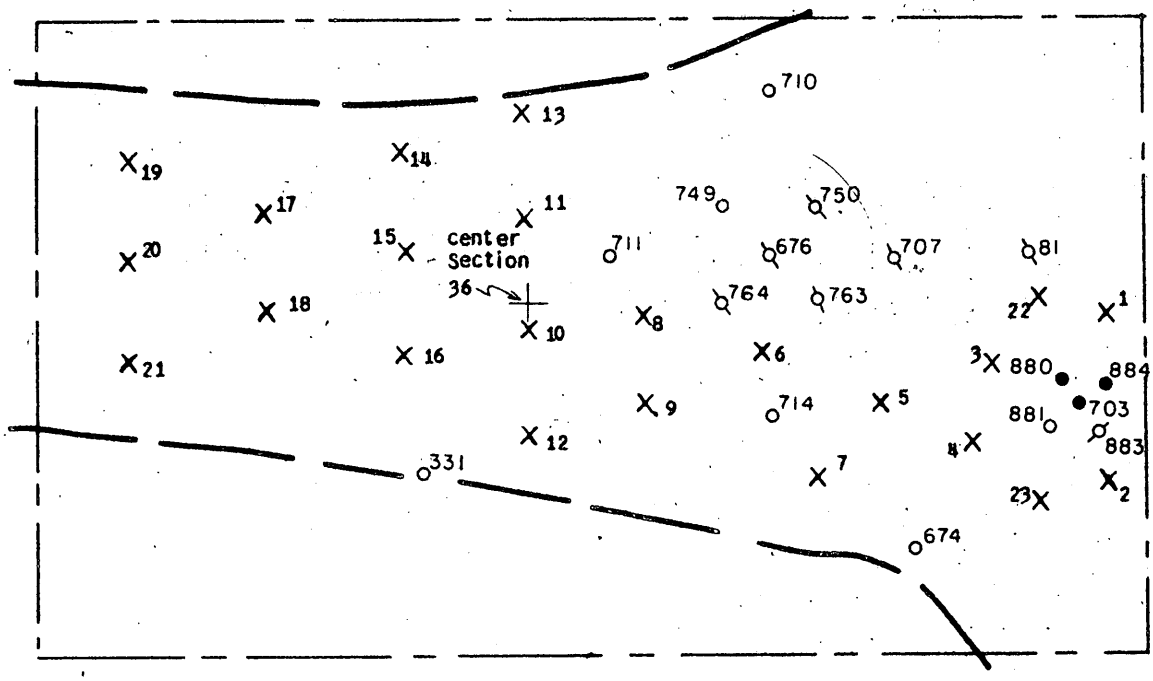
Kbc	CRETACEOUS BURRO CANYON FORMATION
Jmb	JURASSIC BRUSHY BASIN MEMBER OF MORRISON FORMATION
▨	GROUND UNDERLAIN BY FAVORABLE NO. 3 ORE-BEARING SANDSTONE OF SALT WASH MEMBER OF MORRISON FORMATION

DRILL HOLES, U.S. GEOLOGICAL SURVEY

○	BARREN
ø	MINERALIZED
●	ORE-BEARING

Note: BASE FROM U.S. GEOLOGICAL SURVEY REPORT MAP.

FIGURE 1. SKETCH MAP OF SECTION 36, T. 22 S., R. 21 E., S.L.M., SHOWING GEOLOGY, U.S. GEOLOGICAL SURVEY DRILLING, AND AREA OF AMENDED APPLICATION, NORBUTE CORPORATION, YELLOW CAT AREA, GRAND COUNTY, UTAH.



SECTION 36, T. 22 S., R. 21 E., S.L.M.

N

EXPLANATION

AREA OF AMENDED APPLICATION

BOUNDARY OF INDICATED CHANNEL

DRILL HOLES, U.S. GEOLOGICAL SURVEY.

711 BARREN

764 WEAKLY MINERALIZED

703 ORE-BEARING

X_{12} LOCATION OF PROPOSED STAGE I DRILL HOLE

Note: GEOLOGY, BOUNDARY OF AMENDED APPLICATION AND LOCATION OF DRILL HOLES FROM APPLICANTS MAP.

300 0 900 FEET

FIGURE 2. SKETCH MAP OF PART OF SECTION 36, T. 22 S., R. 21 E., S.L.M., SHOWING U.S. GEOLOGICAL SURVEY DRILLING AND LOCATION OF PROPOSED STAGE I DRILL HOLES, NORBUTE CORPORATION, YELLOW CAT AREA, GRAND COUNTY, UTAH.

Attention is called to differences in the hole data as presented by the applicant, and evaluation of the same holes by the Geological Survey. The Geological Survey evaluations which differ indicate that the ground is more favorable. Following is a comparison of the data:

Hole No. (Prefix YC omitted)	Applicant Classification	U.S.G.S. Classification
703	Mineralized	Ore 1/
676	Barren	Mineralized 2/
707	Barren	Mineralized
750	Barren	Mineralized
763 3/	Barren	Mineralized
764 3/	Barren	Mineralized

The applicant's revised drilling plan is satisfactory and has been adopted by the examining team, with a revision of staging (figure 2). The applicant has asked for preference of drilling nearest the Ringtail mine if any part of the proposal is deleted.

To the examining team, the drilling proposal falls naturally into three categories, and a revised proposal on this basis is recommended for approval, subject to a reservation because of economic factors involved.

The drilling categories are listed below:

(1) Drill offset holes on about 125 foot centers to extend a small ore body previously discovered near the east edge of the exploration block. Of 5 closely grouped Geological Survey holes (50 foot centers), in or near this ore, three were ore holes and one was mineralized. DMEA drilling here appears to be justified, because the known ore delineated so far is too limited in extent to justify development. The applicant's proposed holes R-1, 2, 3, 4, 22 and 23 fall in this category for extension of the ore body.

(2) Drill "fill in" holes on the remainder of the block east of the north-south center line of section 36. There are 10 Geological Survey holes already drilled here on a partially completed hole pattern of about 100 foot centers north and south, and 150 to 200 foot centers east and west. Mineralization was cut in 5 holes. The proposed drilling here consisting of holes R-5, 6, 7, 8 and 9 completes the pattern along the axis of the channel.

1/ Ore = over 1 foot containing more than 0.10 percent U_3O_8 or 1.0 percent V_2O_5.
2/ Mineralized = between 0.02 and 0.10 percent U_3O_8.
3/ Hole 763 and 764 are shown as mineralized on applicant's plate 3 amended, and as barren on applicant's plate 5 amended. Hole 764 is incorrectly designated hole 704 on plate 5.

(3) Drill a number of staggered holes on 150 foot centers in 4 north-south fences about 200 feet apart to explore the block west of the north-south center line of section 36. These holes are numbered R-10 to 21 inclusive. This part of the block has not been drilled, and there is little direct evidence concerning it, except that it lies across the channel as projected westward from the Ringtail mine. Four holes already drilled just west of this block in a north-south fence are barren, although good sandstone thickness was encountered. Unless results of exploration in the eastern part of the block are good and an extension of mineralization westward appears probable, exploration of the western part of the block does not appear to be justified. There is a tendency for ore bodies to become progressively smaller and more scattered westerly from the Ringtail shaft, as shown by results of drilling and underground exploration. Therefore, it is believed that the presence of ore in the eastern part of the block should be established before undertaking exploration of the western part. Authorization of holes R-10 to 21 inclusive should therefore, be dependent on the results of exploration under categories (1) and (2).

For the purposes of this report, categories (1) and (2) described above are designated as phase 1, and category (3) as phase 2, both to be parts of Stage I. Stage II (applicant's phase 3) would consist of a maximum of 32 holes, averaging 324 feet in depth for an estimated total of 10,368 feet of drilling, to offset mineralized ore holes drilled in Stage I. No hole spacing was specified by the applicant. A minimum hole spacing of 50 feet from any previously drilled holes is recommended by the examining team.

The applicant's cost estimate is based on the average of bids by Minerals Engineering Company, Johnson and Youvon, and Sprague and Henwood. The details of the bids were not included in the brochure and were furnished later by the applicant's local representative. They are as follows:

Bid Price Per Foot

	Non-core drilling			Core drilling (BX size)		
Bidder	feet 0-200	feet 200-400	feet 400-600	feet 0-200	feet 200-400	feet 400-600
Minerals Engr. Co.	2.25	2.50	3.50	2.75	3.75	4.75
Johnson & Youvon	2.00	2.50	3.00	2.65	3.15	4.25
Sprague & Henwood	1.75	1.95	2.50	2.50	3.00	4.25

The Sprague and Henwood bid is the lowest of the three and is used as the basis for the cost estimate in this memorandum.

The specifications used in the examining team's slightly revised proposal, such as 50 foot minimum spacing for Stage II drilling and an average of 75 feet of coring per hole, were discussed with and agreed to by the applicant's representative.

The estimated drilling footages as adapted from the applicant's data, based on past drilling experience in the area, are as follows:

	Stage I Phase (1) Hole No. (R prefix omitted)	NON-CORE Feet 0-200	200-400	400-600	Total Non-Core	CORE Feet 0-200	200-400	400-600	Total Core	Total for Hole
	1	185			185	15	60		75	260
	2	170			170	30	45		75	245
	3	200	10		210		75		75	285
	4	180			180	20	55		75	255
	5	185			185	15	60		75	260
	6	180			180	20	55		75	255
	7	180			180	20	55		75	255
	8	200	5		205		75		75	280
	9	190			190	10	65		75	265
	22	190			190	10	65		75	265
	23	190			190	10	65		75	265
Total Phase 1	11 holes	2,050	15		2,065	150	675		825	2,890
	Phase (2)									
	10	200	15		215		75		75	290
	11	200	15		215		75		75	290
	12	200	25		225		75		75	300
	13	200	5		205		75		75	280
	14	200	25		225		75		75	300
	15	200	15		215		75		75	290
	16	200	20		220		75		75	295
	17	200	145		345		55	20	75	420
	18	200	145		345		55	20	75	420
	19	200	200	75	475			75	75	550
	20	200	200	100	500			75	75	575
	21	200	200	75	475			75	75	550
Total Phase 2	12 holes	2,400	1,010	250	3,660		635	265	900	4,560
Total Stage I	23 holes	4,450	1,025	250	5,725	150	1,310	265	1,725	7,450

Average depth - 324 feet

Calculated Cost in accordance with the low bid

		Per foot	Total
	4450 feet non-core drilling 0-200 feet	$1.75	$7,787.50
	1025 feet non-core drilling 200-400 feet	1.95	1,998.75
	250 feet non-core drilling 400-600 feet	2.50	625.00
Total	5,725 feet non-core drilling	1.82	$10411.25

		Per foot	Total
	150 feet core drilling 0-200 feet	$ 2.50	$375.00
	1310 feet core drilling 200-400 feet	3.00	3,930.00
	265 feet core drilling 400-600 feet	4.25	1,126.25
Total	1725 feet core drilling	3.15	5,431.25

Average cost for both types of drilling $\frac{\$15,842.50}{7,450}$ or $2.13 per foot

Stage II

Maximum of 32 holes averaging 324 feet requiring 7,968 feet of non-core and 2,400 feet of core drilling for a total of 10,368 feet.

It is proposed to use two drills on one shift, 25 days per month, with an average drilling speed of 75 feet per drill shift. The estimated time for completion is therefore 4.7 months actual drilling time. Five months is used in the cost estimate to allow for possible delays in connection with DMEA appraisals after completion of Phase 1 and Stage I.

Following is a cost estimate:

Stage I

Phase 1 estimated time for completion 0.8 month

1. Independent contracts

Bulldozing for access roads and drill sites, 22 hours at $12.00 per hr. $264.00

Total for access roads and drill sites $264.00

Drilling
2065 feet non-core drilling at an average unit price of $1.82 .....$3,758.30
825 feet core drilling at an average unit price of $3.15 ..... 2,598.75
Total drilling $6,357.05
Total independent contracts $6,621.05

2. Labor and supervision

Labor ..... None
Supervision and technical services
1 engineer-supervisor, half time
0.8 month at $800.00 per mo. ..... $ 320.00
1 assistant, full time
0.8 month at $400.00 per mo. 320.00

Total supervision and technical services $640.00

3. Operating materials and supplies

Gasoline, oil, and repairs on vehicle for supervisor and assistant at $50.00 per mo. for 0.8 month	$ 40.00	
24 Core Boxes per 825 feet of core at $3.50 each	84.00	
Engineering supplies and map reproduction at $20.00 per mo. for 0.8 mo. ...	16.00	
Total operating materials and supplies		$140.00

4. Operating equipment

Rental	None	
Purchase	None	
Depreciation on vehicle for supervisor and assistant at $50.00 per 0.8 mo...	40.00	
Total operating equipment		40.00

5. and 6. No initial rehabilitation or repairs or new buildings or equipment

7. Miscellaneous

Accounting 0.8 mo. at $25.00 per mo. ..	$ 20.00	
Sampling and analyses 25 samples analyzed chemically for U_3O_8 and V_2O_5 at $5.00 per sample	125.00	
Compensation insurance, payroll taxes, etc. on salaries at 6% of $640.00	38.40	
Total miscellaneous		$183.40

Total Cost Phase 1 $7,624.45

Phase 2 estimated time for completion 1.3 months

1. Independent contracts

Bulldozing for access roads and drill sites, 36 hrs. at $12.00 per hr.	$ 432.00	
Drilling		
3660 feet non-core drilling at an average unit price of $1.82	6,661.20	
900 feet core drilling at an average unit price of $3.15	2,835.00	
Total drilling	9,496.20	
Total independent contracts		$9,928.20

2. Labor and Supervision

Labor	None	
Supervision and technical services		
1 engineer-supervisor, half time, 1.3 mos. at $800.00 per mo.	$ 520.00	
1 assistant, full time, 1.3 mos. at $400.00 per mo.	520.00	
Total supervision and technical services		$1,040.00

3. Operating materials and supplies

Gasoline, oil and repairs on vehicle for supervisor and assistant at $50.00 per mo. for 1.3 mos.	65.00	
26 core boxes for 900 feet of core at $3.50 each	91.00	
Engineering supplies and map reproduction at $20.00 per mo. ..... for 1.3 mos.	26.00	
Total operating materials and supplies		$182.00

4. Operating equipment

Rental	None	
Purchase	None	
Depreciation on vehicle for supervisor and assistant at $50.00 per mo. for 1.3 mo.	65.00	
Total operating equipment		$ 65.00

7. Miscellaneous

Accounting at $25.00 per mo. for 1.3 mos.	$ 32.50	
Sampling and analyses		
30 samples analyzed chemically for U_3O_8 and V_2O_5 at $5.00 per sample	150.00	
Compensation insurance, payroll taxes, etc. on salaries of $1,040.00 at 6 percent	62.40	
Total miscellaneous		$244.90

Total Cost Phase II	$11,460.10
Total Cost Stage I	$19,084.55

Stage II estimated time for completion 2.9 months

1. Independent contracts

Bulldozing for access roads and drill sites, 30 hrs. at $12.00/hr.	$360.00	
Drilling		
7968 ft. of non-core drilling at an average unit cost of $1.82..	$14,501.76	
2400 ft. of core drilling at an average unit cost of $3.15	7,560.00	
Total drilling	$22,061.76	
Total independent contracts		$22,421.76

2. Labor and supervision

Labor	None	
Supervision and technical services		
1 engineer-supervisor, half time, 2.9 mos. at $800.00/mo.	$1,160.00	
1 assistant full time, 2.9 mos. at $400.00 per mo.	1,160.00	
Total supervision and Technical Services		2,320.00

3. Operating materials and supplies

Gasoline, oil and repairs on vehicle for supervisor and assistant at $50.00/mo. for 2.9 mos.	$145.00	
70 Core boxes for 2500 feet of core at $3.50 ea.	245.00	
Engineering supplies and map reproduction at $20.00/mo. for 2.9 mos.	58.00	
Total Operating Materials & Supplies		$ 448.00

4. Operating equipment

Rental	None	
Purchase	None	
Depreciation on vehicle for supervisor and assistant at $50.00/mo. for 2.9 mos.	$145.00	
Total operating equipment		$ 145.00

7. Miscellaneous

Accounting at $25.00/mo. for 2.9 mos.	$ 72.50	
Sampling and analyses		
80 samples analyzed chemically for U_3O_8 and V_2O_5 at $5.00 per sample	400.00	
Compensation insurance, payroll taxes, etc. on salaries of $2320.00 at 6 percent	139.20	
Total Miscellaneous		$ 611.70

Total Stage II $25,946.46
Total for Project $45,031.01

Calculated overall cost per foot = $\frac{\$45,031.01}{17,818 \text{ ft.}}$ or $2.53

Calculated cost less bulldozing and sample analysis (per foot) = $\frac{\$43,300.01}{17,818 \text{ ft.}}$ or $2.43

Calculated cost per foot for all items except independent contracts and sample analysis = $\frac{\$5,385.00}{17,010 \text{ ft.}}$ or $0.30

The last item would constitute "incidental allowance" as used in DMEA contracts.

Summary of costs suggested for contract use:

Stage I
Phase 1

Independent Contracts
22 hrs. bulldozing at $12.00/hr. .....$ 264.00
2065 ft. non-core drilling at $1.82/ft. 3,758.30
825 feet core drilling at $3.15/ft. ... 2,598.75

Fixed Costs
25 samples analyzed chemically for U_3O_8 and V_2O_5 at $5.00 per sample ....$ 125.00
Incidental allowance for 2890 ft. of drilling at $0.30 per ft. 867.00

Total cost Phase 1 $7,613.05

Phase 2

Independent Contracts
36 hrs. bulldozing at $12.00/hr. .....$ 432.00
3660 ft. non-core drilling at $1.82/ft. 6,661.20
900 ft. core drilling at $3.15/ft. 2,835.20

Fixed Costs
30 samples analyzed chemically for U_3O_8 and V_2O_5 at $5.00 ea. 150.00
Incidental allowance for 4560 ft. of drilling at $0.30 per ft. 1,368.00

Total cost Phase 2 $11,446.40
Total cost Stage I $19,059.45

Stage II

Independent Contracts
30 hrs. bulldozing at $12.00/hr. .....$ 360.00
7968 ft. non-core drilling at $1.82/ft. 14,501.76
2400 ft. of core drilling at $3.15/ft. 7,560.00

Fixed Costs
80 samples analyzed chemically for U_3O_8 and V_2O_5 at $5.00 ea. 400.00
Incidental allowance for 10,368 ft. of drilling at $0.30 per ft. 3,110.40

Total cost Stage II $25,932.16
Total Cost of Project $44,991.61

The applicant's estimated cost for drilling only was high and the items which went to make up "incidental allowance" los so that the calculated "incidental allowance" of $0.30 per foot of drilling is much lower than the figure which has been used in current DMEA contracts. To arrive at an even $0.30 per foot, the examining team raised the amount of some of the applicant's estimated costs.

The drilling program is designed to locate, in the first stage, mineralized sandstone lenses, not necessarily all ore, with minimum lateral dimensions of about 100- by- 200-feet with the long axis east and west. The hole spacing varies because holes have been placed in relation to previously drilled holes which are not spaced uniformly. Stage II is planned to locate ore bodies with a minimum dimension of 50 feet. It is believed that the presence of mineralized sandstone lenses and ore bodies of these dimensions is a reasonable possibility. The proposed minimum hole spacing of 50 feet in Stage II is rather small, considering the drilling depths, particularly in the western part of the exploration block, but a greater minimum spacing is not believed to be advisable in view of the probable size of ore lenses.

It is not possible economically to set up Stage I drilling on close enough centers to insure hitting every ore body of the size likely to occur. It was necessary therefore, to plan a drill pattern to complete that partially established by Geological Survey drilling in an effort to establish mineralized areas which should surround the ore bodies and depend on Stage II to complete exploration.

Analysis of exploration cost and probable development costs indicates that the proposed project is barely feasible from an economic standpoint. The initial production bonus for the property has been exhausted, so possible income from production is less. An ore body with a lateral dimension of 100- by- 50-feet with a thickness of 2 feet would contain about 700 tons. Using the average content of the Ringtail Mine reserves, 0.22 percent U_3O_8 and 1.63 percent V_2O_5, a return of $28.00 per ton, including development allowance, is obtained. Mining cost under the conditions at the Ringtail mine is estimated at $20.00 per ton, and Government royalty at 5% at $1.40 per ton leaving a net of $6.60 per ton toward exploration, development, and profit.

25,000 Tons
[illegible]
35- [illegible]
[illegible]
pay back
[illegible]

Estimated cost of exploration and development are as follows; assuming that the ore will be mined through the Ringtail shaft:

Applicant's share of exploration cost 25% of $44,991.61 - roughly	$11,250.00
Development 1000 feet of lateral work at $35.00/ft.?	35,000.00
Total cost to prepare for mining	$46,250.00
Income from mining available to apply to above expenditure.....	$6.60 per ton

Minimum tonnage to return exploration and development costs $\frac{\$46,250.00}{\$6.60}$ or 7,000 tons.

About ten 700-ton ore bodies, or the equivalent, would be required to return the estimated cost of exploration and development. This would be roughly one-fourth of the combined production and reserves of the Ringtail mine. Discovery of this much ore in the proposed exploration block is a possibility. To return in royalties, the Government's expenditure, a production of more than 24,000 tons would be required.

Subject to consideration of the economic aspects of the problem, an exploration project at an estimated cost of $44,991.61 is recommended for approval. Government participation at 75 percent would be $33,743.71.

It is also recommended that authorization of Phase 2 of Stage I be dependent on the results of Phase 1. Phase 2 should require written authorization by the DMEA Field Team, Region III.

Possible denial of Phase 2 of Stage I should not affect authorization of Stage II drilling around Phase 1 holes, nor should authorization of Stage II drilling around Phase 1 holes necessarily wait on completion of Phase 2.

Figure 2 with this memorandum is suggested as a contract map.

The usual general contract provisions should be specified, including hole-probing by the operator with either recording or non-recording equipment, a provision for interchange of drilling footage between stages and phases, as well as interchangeability of core and non-core drilling if authorized by the Field Team.

It is assumed that a performance bond would be required in lieu of an owner's consent to lien which is not obtainable on Utah State Land.

E. N. Harshman

for D. D. Haynes
Geologist

Scott W. Hagen Jr.

for M. H. Salsbury
Mining Engineer

cc 9
ENHarshman
MHSalsbury
DMEA 3962
Chron.

ch

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

February 14, 1956

Memorandum

To: The Files

From: George C. Selfridge
Special Assistant

Subject: Docket No. DMEA-3962 - Uranium
Norbute Corporation
Yellow Cat Area
Grand County, Utah

Mr. Abbott Charles called today to learn of the status of the subject application. The writer informed him that the Washington office had recently requested additional information from the Field Team and that as soon as the information was received the application would be processed with all possible dispatch.

Since Mr. Charles' call we have received a supplementary report recommending an alternate exploration program. The Field Team denied the applicant's original proposal.

George C. Selfridge

George C. Selfridge

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

RECEIVED
FEB - 3 1956

January 31, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3962 (Uranium), Mortate Corporation, Part of Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

The weekly report indicates that a Joint Supplemental Report of Examination on the subject docket is expected to be completed in a short time.

The enclosed copy of a letter from the Chairman of the Operating Committee has just been received in this office and is forwarded to you for your information.

W. M. TRAVER,

W. M. Traver

Enclosure
HMC:ab

cc: Chair. Op. Comm. (2)
Harshman
Docket 3962
Chron.

1/30/56 gla

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

RECEIVED
JAN 30 1956

January 27, 1956

Mrmorandum

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

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

Subject: Report of Examination, DMEA Docket 3962, Norbute Corporation, Yellow Cat area, Grand County, Utah

I have reviewed the report of examination of DMEA Docket 3962, dated January 3, 1956, and received in this office January 24. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The report of examination was made prior to the submittal of an amended application by Norbute Corporation.

My memorandum of January 19, 1956, contains suggestions and recommendations regarding the amended application.

In view of the circumstances, comment on the report of examination should be deferred in favor of my memorandum of January 19, 1956.

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

John E Crawford
John E. Crawford

Surname copy

700

Murphy
Lil
Selfridge
Wyman
Mittendorf

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

JAN 26 1956

Re: Docket No. DMEA-3962 (Uranium)
Norbute Corporation
Part of Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Traver:

This is to acknowledge your memorandum, dated January 3, 1956, and the attached copies of a report pertaining to the above-docketed application, in which the Field Team and field examiners recommended the application should be denied.

We note that E. N. Harshman, Acting Executive Officer, on December 12, 1955, forwarded an amendment to the original application to J. F. Shaw and J. W. Hasler and mentioned that this amendment might have some bearing on the Report of Examination. A copy of this amendment was also forwarded to Washington.

Enclosed are memoranda, dated January 17 and 19, 1956, from W. P. Williams, USGS, and J. E. Crawford, USBM, respectively, containing their comments relating to the above-mentioned Field Team's report and recommendations, and also to the Applicant's amended application.

In view of the commodity members' comments, it appears that the revised project submitted by the Applicant merits careful consideration. Therefore, it is suggested that the Field Team again review the amended application and submit its recommendation in regard to the proposed new drilling program.

Sincerely yours,

George C. Selfridge

Enclosures

Chairman, Operating Committee (JHS)

APPROVED:

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

Thor H. Kiilsgaard (JHS)
Member, Geological Survey

FMMurphy/gla
1-24-56

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

RGA

1-20-56 Lgm

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

RECEIVED
JAN 20 1956

January 19, 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: Amendment to application for assistance, DMEA Docket 3962, Norbute Corporation, W ½ Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

I have reviewed the attached amendment to the application for assistance of Norbute Corporation, DMEA Docket 3962, dated January 9 and received in this office January 11. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

This amendment is a revision of the original application for Federal assistance. The amended exploration plan reduces the drilling footage from 35,073 feet at a cost of $111,292.00 to 17,818 feet at a cost of $58,527.64; the area to be explored is also shifted eastward and closer to the ore body presently being mined.

In view of the changes from the original application which make the project more effective, it is suggested that consideration be given to a modified exploration project that will consist of drilling the four holes, R-1, R-3, R-4, and R-22, as indicated on Plate V, amended application.

John E Crawford
John E. Crawford

Attachment

1-18-56 dgm

IN REPLY REFER TO:

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

RECEIVED
JAN 18 1956

January 17, 1956

Memorandum

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

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

Subject: Review of field examination report, DMEA 3962, Norbute Corporation, Yellow Cat area, Grand County, Utah.

The examining team, in their report of field examination, recommends denial of a proposed project which, from all information available, appears to have a good chance of finding new uranium ore reserves.

The original application described the west half of school section 36 as the proposed area. Later the applicant asked to amend the described lands by limiting the project to a relatively small area which lies astride the center line of the section.

The following favorable characteristics are known of the property and are discussed in the examination report:

1) The property is located in a westerly-trending belt of favorable ground that was discovered and defined by Government drilling.

2) T.E.M. Report 834 shows that four Government holes penetrated ore, on the amended tract, and six holes were mineralized. One ore hole and six mineralized holes were drilled by the Government west of the amended project area.

3) The east boundary of the new project area is only about 300 feet west of the producing Ringtail shaft and only about 125 feet from the west extremity of the underground workings. The examining team states, "In addition to production from the Ringtail mine, there has been considerable production from other properties in the immediate area . . . The total production of the Ringtail mine (covering a year's operation) . . . was 3,263.43 tons, averaging 0.24 percent U_3O_8 and 1.08 percent V_2O_5."

The examining team's strongest point for denial of the application seems to be their observation that, "The ore bodies appear to have been trapped by intersecting festoon structures. . . . In the eastern part of the mine the festoon structures are broad and contain fairly large ore bodies. In the western part of the mine the festoon structures become smaller and, therefore, the ore bodies also become smaller and more widely scattered."

Festoon structures are relatively small, erratic, and unpredictable. The examining team's statement that the festoon structures will continue to become smaller throughout the western length of the favorable belt is a tenuous assumption. It is difficult to understand, from the report, what the examining team's guesses are based on regarding estimated sizes of ore bodies that would be found by the project.

The examining team's justifications for denial of the proposed project are weak and unconvincing. On the contrary, the report actually presents much more evidence for approval of the proposal than for denial.

From all information that is available it appears that an exploration project, as proposed by the applicant, would have a good chance of discovering either an extension of the Ringtail ore body or new, separate ore bodies, or both. I recommend that a DMEA contract be approved to provide for the applicant's proposed exploration work.

WPWilliams

W. P. Williams

1-10-56 dzm

IN REPLY REFER TO:

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

RECEIVED
JAN 10 1956

January 9, 1956

DMEA 3962
Norbute Corporation, part
of sec. 36, T. 22 S.,
R. 21 E
Grand County, Utah

Memorandum

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

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

Subject: Review of amendment to Application

The applicant has reconsidered his original application and wishes to amend the application by 1) greatly reducing the area to be explored, and moving the area eastward, and 2) reducing the proposed project from a total drilling footage of 35,073 feet at a cost of $111,292.00 to a total of 17,818 feet at an estimated total cost of $58,528.00.

The amended proposal seems to be well conceived because moving the exploration area eastward places the area in a better position in a favorable belt established by Government drilling. The amended hole locations will be closer to the producing Ringtail mine, and some of the proposed holes will be 100 feet from previously drilled holes that penetrate ore.

The subject property is well located close to active mines, and two ore holes have already been drilled on the property. A field examination has been made of the property, but unless the examining team has found serious, specific objections a DMEA contract seems warranted.

An objection to drastically reducing the exploration area is that the area from which royalties will be due the Government is correspondingly reduced in the event the project is certified—as seems likely. It would be appropriate, in this case, to ask the the applicant to subordinate all the ground west of the proposed, amended area to the west boundary of section 36 and within the favorable belt as defined by Government drilling and as shown on the applicant's map.

W P Williams

W. P. Williams

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

RECEIVED
DEC 15 1955

December 12, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (With Amendment to Application)
J. W. Kesler (With Amendment to Application)

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

Subject: Docket DMEA 3962 (Uranium), Morbete Corporation, W ½ Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

Enclosed is an amendment to the original application which has been submitted by the applicant.

It it noted from the Weekly Reports that the field examination has been completed, and it is possible that this amendment may have some bearing on the Report of Examination.

E. N. Hurabman

E. N. Hurabman

Enclosures

HMC:ab

cc: Sec. Op. Comm. (2)
Docket 3962
Chron.

1-12-56 dzm

RECEIVED
JAN 6 1956

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

224 New Customhouse
Denver 2, Colorado

January 3, 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, DMEA Docket 3962 (Uranium), Norbute Corporation, Yellow Cat area, Grand County, Utah

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

The field examiners conclude that significant amounts of uranium would not be discovered as a result of the proposed exploration.

They recommend that the application be denied and we concur with this recommendation.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
1-11-56
(date)

IN REPLY REFER TO:

TRANSMITTED
JAN 3 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

December 22, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman
John F. Shaw

Subject: DMEA Docket 3962 (Uranium), Norbute Corporation, Yellow Cat area, Grand County, Utah.

Enclosed are the original and nine copies of a joint geologic and engineering report by M. N. Salsbury, Bureau of Mines, and D. D. Haynes, Geological Survey, covering their examination of the subject property.

The applicant proposes to explore the west half of sec. 36, T. 22 S., R. 21 E. for uranium ore bodies in the Salt Wash at depths of from 300 to over 600 feet below the ground surface. The applicant's proposed program consists of 64 holes in two stages at an estimated total cost of $111,292.54.

The examining team concludes that although small ore deposits may be found by the proposed program, it is quite improbable that significant deposits occur on the applicant's property. They recommend that the application for exploration assistance, DMEA Docket 3962 be denied.

We concur with this recommendation.

E. N. Harshman
E. N. Harshman
Member, Field Team

John F. Shaw
John F. Shaw
Supervising Mining Engineer

Enclosures (10)

ENHarshman:mp

Reviewed by
DMEA OPERATING COMMITTEE
1-11-56
(date)

TRANSMITTED
JAN 3 1956

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

MINERAL DEPOSITS DATA
RECEIVED
DEC 15 1955
U. S. GEOLOGICAL SURVEY
DENVER, COLORADO

DMEA
Date Rec'd.
DEC 23 1955
BUREAU OF MINES
Denver, Colorado

December 12, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman

From: J. William Hasler

Subject: DMEA docket 3962 (Uranium), Norbute Corporation, Yellow Cat area, Thompson Mining District, Grand County, Utah.

Enclosed is a joint geologic and engineering report on the Norbute Corporation, Utah State Mineral Lease, in the Yellow Cat District, Grand County, Utah. The report was prepared by M. H. Salsbury, U. S. Bureau of Mines, and D. D. Haynes, U. S. Geological Survey, as a result of a field examination October 20, 1955.

The company applied to the Defense Minerals Exploration Administration for assistance to test the westerly extension of the trend of the Salt Wash sandstone channel, which had previously been successfully mined at the Ringtail mine, as well as having been drilled by the U. S. Geological Survey. The major ore-producing beds on the property are in the lowermost sandstone unit of the Salt Wash member of the Morrison formation of Jurassic age. The applicant is, at present, mining the ore discovered in the Ringtail mine and has produced a considerable amount of tonnage. The ore, however, is becoming less frequent as the workings progress in a westward direction. However, the Survey has defined an ore body about 500 feet west of the Ringtail mine.

Reviewed by
DMEA CLEARANCE COMMITTEE
1-11-56
(date)

Results of Survey drilling in the west portion of Section 36, T. 22 S., R. 21 E. were not encouraging. It was the purpose of the Survey to test a thick channel of Salt Wash sand that extended for several thousands of feet through the Yellow Cat District, and has been very productive toward the eastern part of the district. It was found that the channel in section 36 became thinner, as well as being more lenticular in nature, and the ratio of mudstone to sandstone increased materially.

Drilling depths in this area range from 300 to 600 feet. One ore hole discovered material of ore grade; however, this is on the basis of high vanadium rather than uranium contact. This hole was offset on 50 feet centers and the surrounding holes were only slightly mineralized. It is concluded that the ore bodies in the west half of section 36 are likely to be sparsely distributed, as well as being too small to mine profitably at depths of 300 to 600 feet. The possibility of finding large enough ore bodies to be economically mined are poor. It is, therefore, recommended that the application be denied. I concur with the conclusions and recommendations of the examining team.

The Atomic Energy Commission was consulted relative to the appraisal of the property.

Enclosed are the necessary maps for inclusion in the report as well as the applicant's brochure.

J. William Hasler
J. Willliam Hasler
Geologist

JWH/mlr

Enclosures

DMEA
Date Rec'd.
DEC 23 1955
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED
JAN 3 1956

DMEA 3962

Norbute Corporation

Yellow Cat area

Thompson Mining District

Grand County, Utah

Uranium

Joint Engineering and Geologic Report

by by

M. H. Salsbury
Bureau of Mines

D. D. Haynes
Geological Survey

December 21, 1955

Reviewed by
DMEA OPERATING COMMITTEE
1-11-56
(date)

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DMEA 3962

NORBUTE CORPORATION
YELLOW CAT AREA
THOMPSON MINING DISTRICT
GRAND COUNTY, UTAH

By M. H. Salsbury and D. D. Haynes

INTRODUCTION AND SUMMARY

On August 29, 1955, the Norbute Corporation, P. O. Box 1700, Grand Junction, Colorado, applied for Defense Minerals Exploration assistance in a drilling project on a Utah State Mineral lease in the Yellow Cat district, Grand County, Utah. The project consists of 35,073 feet of drilling in a maximum of 64 holes averaging 548 feet in depth at an estimated cost of $111,292.54. Government participation at 75 percent would be $83,469.53.

The property was visited on October 20, 1955, in company with Vernon T. Dow, the mine superintendent.

The proposed exploration is planned to test further the westerly extension of a Salt Wash trend already successfully developed at the Ringtail mine by U. S.Geological Survey drilling and now being mined by the applicant company.

The subject area has already been drilled on a wide-spaced pattern by the Geological Survey and the proposed DMEA drilling would attempt to outline, around previously drilled mineralized holes, ore bodies which could be mined profitably at a depth of 350 to 615 feet.

The major ore-producing horizon on the property is the lowermost sandstone unit of the Salt Wash member of the Jurassic Morrison formation. The thicker sandstone lenses are the most favorable for the occurrence of uranium-vanadium deposits. The deposits in the applicant's Ringtail mine are found in an east-west trending Salt Wash channel and are of substantial size. They appear to be controlled by festoon structures and, in the mine workings, are becoming smaller and more scattered to the west. The result of USGS drilling in the west half of section 36 bears out this tendency. Uranium mineralization in holes 944 and 946 is not of ore grade and thickness by USGS and AEC standards, although the applicant reports them as such.

It is concluded that the individual ore bodies in the west half of sec. 36 are likely to be sparsely distributed and in the order of 10 to 15 feet wide and 20 to 30 feet long, containing about 100 tons of ore grade material each. The targets these would present are not suitable for a drill pattern with a minimum hole spacing of 100 feet, the least which it would be economical to drill at 350- to 600-foot depth.

The possibility of finding ore bodies large enough to be significant appears to be poor, and denial of the application under DMEA 3962 is recommended.

ACKNOWLEDGMENTS

Data on the property was furnished by the applicants, and included a geological and engineering report by John I. Schumacher and I. R. Taylor. Representatives of the Atomic Energy Commission were consulted, and the results of Geological Survey drilling in the area were used in evaluating the proposed project.

LOCATION, TOPOGRAPHY, AND CLIMATE

Sec. 36, T. 22 S., R. 21 E., SLM is in the Yellow Cat district, 8.5 miles south of U. S. Highway 6-50, 83 miles west of Grand Junction, Colorado, the nearest major supply center.

The region is one of moderate relief, and drilling areas are easily accessible. Vegetation on the semi-arid land is sparse. Precipitation averages 11 inches per year, and is very unevenly distributed throughout the year. The winters are generally mild at the altitude of about 5,000 feet, and year around surface operations are usually feasible.

Water for mining purposes is available from springs and pumping operations at the Ringtail mine. Timber, as well as other supplies, must come from Grand Junction, Colo. Power needs for mining purposes must be supplied by the operator with gasoline or diesel-powered equipment. Ore can be hauled to an AEC buying station at Thompson, Utah, or hauled to Grand Junction, Colorado. Labor for the proposed project would be furnished by the drilling contractor. Crews can live at the site in house trailers, or commute from Thompson, Utah,

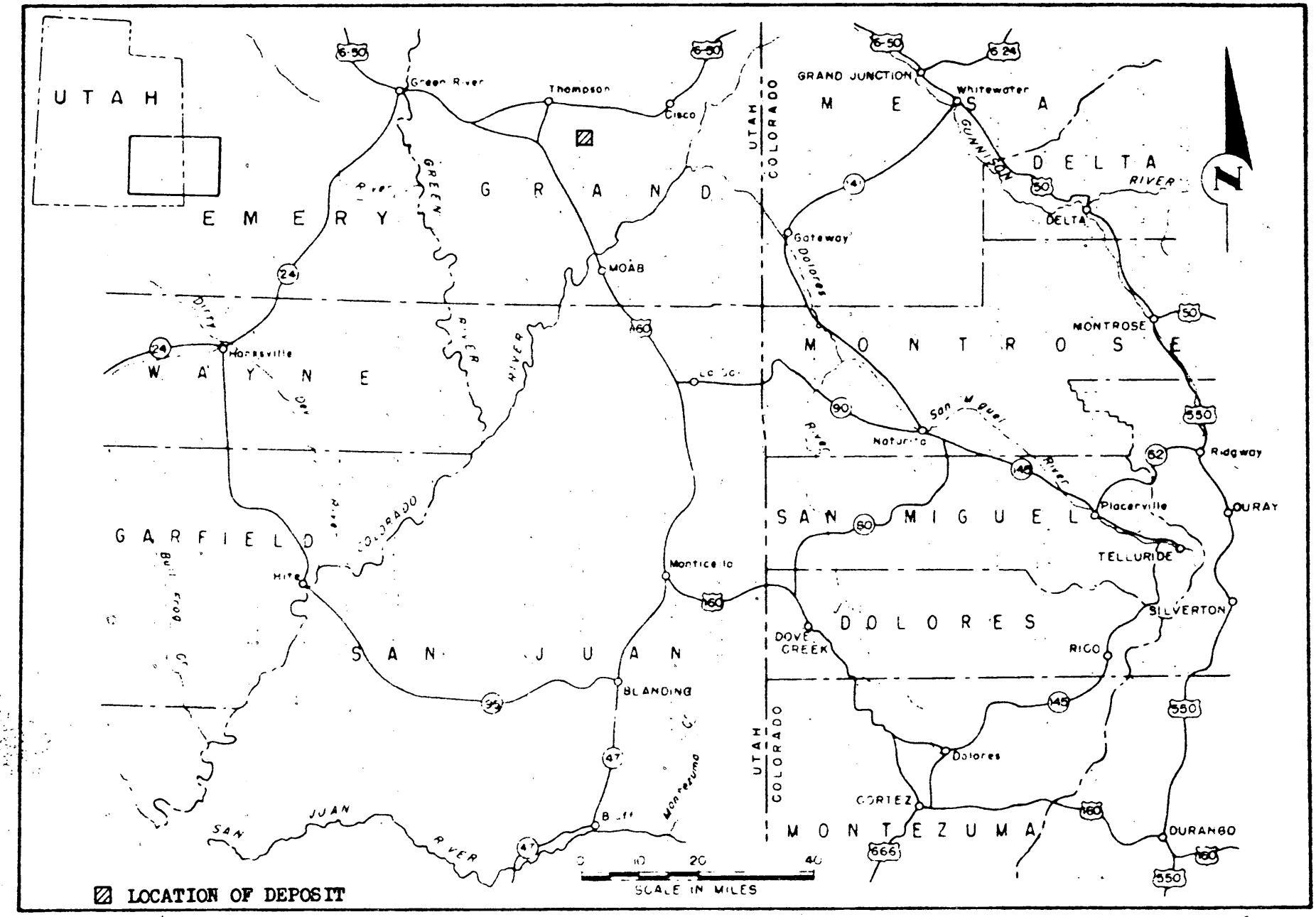


FIGURE 1 - LOCATION MAP, NORBUTE CORPORATION CLAIMS, YELLOW CAT AREA, GRAND COUNTY, UTAH. DMEA 3962

on U. S. Highway 6-50, about 15 miles north and west of the property.

HISTORY AND PRODUCTION

The history of the Yellow Cat area as a vanadium-radium producing region dates back to 1911, but production was small and intermittent until 1939 when production of vanadium was stepped up. Since 1948, the area has been mined for uranium although the ores have a high vanadium content.

Effective January 4, 1952, the Atomic Energy Commission withdrew from mineral entry a block of 22 sections surrounding the subject section 36. The land has never been restored. There were many claims in the area which antedated the withdrawal. Exploration by drilling was carried on by the Geological Survey in the Yellow Cat area in 1952, 1953, and 1954, with about 44,000 feet drilled on sec. 36. The mining operation at the Ringtail is based on the result of the Survey drilling in the east half of sec. 36.

In addition to production from the Ringtail mine, there has been considerable production from other properties in the immediate area. Among these are the Blackstone mine and the Utah Alloys Company property which is farther east on the Ringtail channel.

The total production of the Ringtail mine through July 1955, was 3,263.43 tons, averaging 0.24 percent U_3O_8 and 1.08 percent V_2O_5. This production covers a year's operation, and represents the tenor of the larger ore deposits of the Yellow Cat district.

OWNERSHIP AND EXTENT

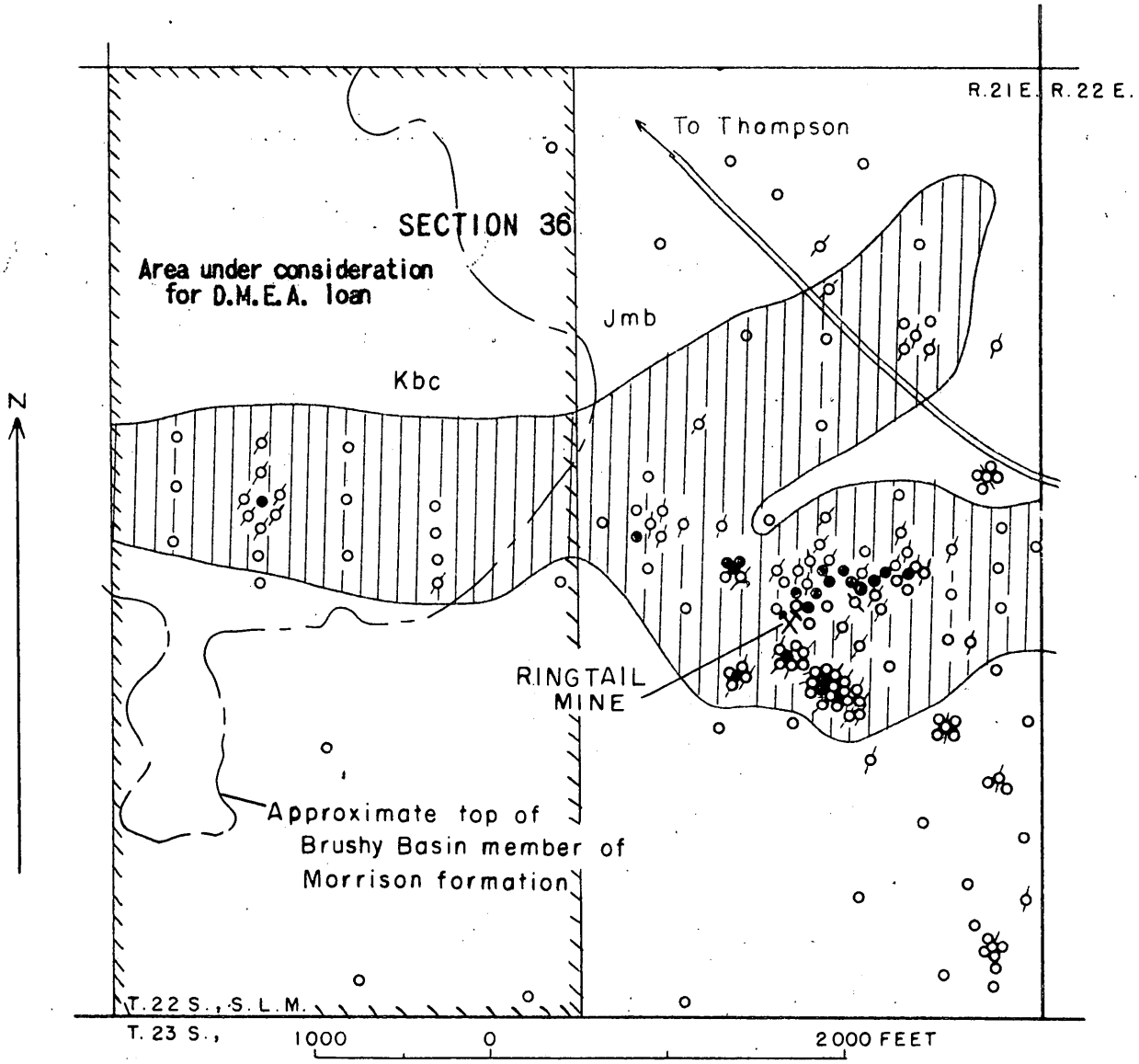
The subject property is held under a lease issued in April 1952 by the State of Utah on all of sec. 36, T. 22 S., R. 21 E., SLM, designated mineral lease No. 3971. The original lessee is a partnership doing business as Strategic Minerals Exploration Company of Grand Junction, Colorado. Standard provisions in Utah State Land Board Mineral leases provide for a 12-1/2 percent royalty on all proceeds from ore sales less assay charges and transportation to point of sale, and a rental of $0.50 per acre per year to be credited on royalties due. The lease is for a period of 20 years and can be extended. The main requirement is diligent and continuous operation. Written consent of the Land Board to any suspension of operations or to any assignment of a lease is required. Mineral Lease No. 3971 has been assigned to the Norbute Corporation. Consent of the Utah State Land Board to the transfer was given in a letter to the Norbute Corporation dated February 25, 1955, a copy of which was furnished with the application. The Ringtail mining operation, a joint venture with the Great Western Uranium Corporation, is on the east half of sec. 36 and only the west half is included under the proposed DMEA project in which only the Norbute Corporation is concerned.

PRESENT STATUS

Exploration and Development

The east half of sec. 36 has been extensively drilled, and underground exploration of the Ringtail mine totals about 1,000 feet, including a 225-foot vertical shaft. The mine has been developed by driving laterals below the ore horizon and raising into it. At the west end of the present workings, the ore horizon is dipping down and has reached the level of the main lateral, so that further work westward would require a flat incline.

On the west half of sec. 36, the area of the proposed DMEA exploration, 21 holes have been drilled by the Geological Survey within the probable channel area as projected westerly (fig. 2). By Geological Survey and AEC standards, none of the uranium mineralization encountered was ore grade (more than 1.0 foot thick and over 0.10 percent U_3O_8). One hole, YC 946, as shown in table 1 cut ore-grade vanadium mineralization (4.3 feet averaging 1.19 percent V_2O_5). This is the only ore hole indicated on figure 2. The thickness and grade of the uranium-bearing material in holes YC 944 and YC 946 was not enough to be termed more than very good mineralization. These are the two holes reported by the applicant as having penetrated ore. There are seven mineralized holes in a group around hole YC 946 which are shown on figure 2. These are in the favorable channel area about 800 feet east of the west boundary of sec. 36.



EXPLANATION

Kbc	CRETACEOUS BURRO CANYON FORMATION
Jmb	JURASSIC BRUSHY BASIN MEMBER OF MORRISON FORMATION
	GROUND UNDERLAIN BY FAVORABLE NO. 3 ORE-BEARING SANDSTONE OF SALT WASH MEMBER OF MORRISON FORMATION
	DRILL HOLES, U.S. GEOLOGICAL SURVEY
o	BARREN
ø	MINERALIZED
●	ORE- BEARING

Note: BASE FROM U.S.G.S. REPORT MAP

Figure 2. MAP OF SECTION 36, T. 22 S., R. 21 E., S.L.M. SHOWING GEOLOGY AND U.S. GEOLOGICAL SURVEY DRILLING, NORBUTE CORPORATION, YELLOW CAT AREA, GRAND COUNTY, UTAH

Mining and milling equipment and other facilities

The Norbute Corporation has a completely equipped shaft mining operation at the Ringtail mine. Presumably a similar installation would be made to mine any ore developed in the west half of sec. 36, because the tramming distances would be excessive in attempting to utilize the present shaft.

GEOLOGY

The rocks exposed in the Yellow Cat district range in age, in ascending order, from the Jurassic Morrison formation to the Cretaceous Dakota sandstone.

The Jurassic Morrison formation consists of two members, the Salt Wash and the Brushy Basin. The Salt Wash member is the principal ore-producing horizon of the area and is about 240 feet thick. It consists of interbedded sandstone, shales, siltstones, and conglomerates. The lowermost sandstone unit of the Salt Wash member is the major ore producing horizon on sec. 36. The thickness of this unit ranges from less than 15 feet to more than 75 feet. The potential ore-bearing unit is very lenticular and the thicker parts of the sandstone are the most favorable for the occurrence of uranium deposits. The Brushy Basin member is about 300 feet thick and consists predominantly of variegated mudstones and shales with minor lenses of siltstone and sandstone.

The Cretaceous Burro Canyon formation overlies the Brushy Basin member and is about 110 feet thick. The basal part consists of lenses

of conglomerate, quartzite, siltstone, and sandstone. The upper part of the formation is light colored mudstone or shale with minor conglomerate or sandstone lenses.

The Cretaceous Dakota sandstone overlies the "Burro Canyon" formation and ranges from 40 to 110 feet in thickness. It consists of interbedded sandstone, shale, and conglomerate with minor carbonaceous beds.

The depth to the base of the potential ore-bearing unit, on the subject property, would range from 350 feet near the east boundary to 615 feet near the west boundary.

Ore Deposits

The ore bodies on sec. 36 are localized in the lowermost sandstone unit of the Salt Wash. This lower unit appears to have been deposited in an old stream channel having an east-west trend. The larger ore bodies are localized in the thicker parts of the sandstone.

The ore bodies appear to have been trapped by intersecting festoon structures. In the Ringtail mine these festoon structures are well exposed. In the eastern part of the mine the festoon structures are broad and contain fairly large ore bodies. In the western part of the mine the festoon structures become smaller and, therefore, the ore bodies also become smaller and more widely scattered.

The size of ore bodies, or targets, that could be expected, if present at all, in the western part of the channel on sec. 36 would range from 10 to 15 feet in width and from 20 to 30 feet in length.

With an ore thickness of 4 to 8 feet only about 100 tons of ore would be present in one of these small ore bodies.

Assuming that the festoon structures continue to become smaller and more widely scattered in the western part of the channel on sec. 36, any exploration program undertaken would have to provide for holes to be drilled on no greater than 50-foot centers and preferably 25-foot centers. Drilling on a 25- or 50-foot grid to 500-foot depths for ore bodies that are widely scattered and contain only about 100 tons of ore could not be considered economical.

ORE RESERVES

No ore reserves can be calculated on results of drilling exploration on the west half of sec. 36.

The applicant calculates for the Ringtail mine, as of July 1955, an indicated reserve of 17,974 tons, averaging 0.22 percent U_3O_8 and 1.63 percent V_2O_5, and an inferred reserve of 9,987 tons averaging 0.22 percent U_3O_8 and 1.46 percent V_2O_5.

In sec. 35, about 2,000 feet west of the proposed DMEA project, four small mineralized areas were found by Geological Survey drilling. The drilling included four offset holes at 200- and 100-foot centers around one ore hole. However, no ore reserves could be computed on the basis of results.

The data on the four significant holes in the west half of sec. 36 are given in table 1 following. In figure 2 hole YC 946 is the ore hole; the other three are the holes adjacent to it on the east, west, and north.

Mineralization in four other holes in this group was less significant.

Hole No.	Sampled from	Ore thickness in feet	Chemical analysis U_3O_8 Percent	Chemical analysis V_2O_5 Percent	U.S.G.S. classification
YC-944	536.8 - 537.1	0.3	0.30	1.18	mineralized
	537.1 - 537.4	0.3	0.077	0.16	
	537.4 - 537.7	0.3	0.20	0.21	
YC-946	537.7 - 538.4	0.7	0.12	0.14	ore hole (V_2O_5)
	538.4 - 540.3	1.9	0.09	1.45	mineralized (U_3O_8)
	540.3 - 542.0	1.7	e 0.012	1.02	
	542.0 - 542.7	0.7	e 0.011	0.88	
YC-982	545.5 - 545.8	0.3	0.39	5.13	mineralized
	550.1 - 550.3	0.2	0.056	2.67	
YC-984	527.2 - 527.8	0.6	0.012	0.46	mineralized (V_2O_5)

PROPOSED EXPLORATION

The applicant's proposed DMEA program calls for 64 holes, requiring an estimated 35,073 feet of plug-bit and core drilling. The two types of drilling were not segregated. Costs were calculated on the basis of the average of three bids by independent drilling contractors. The estimated cost was $111,292,54, in which Government participation at 75 percent would be $83,469.53.

The applicant considers the project as a three-phased undertaking in which phase I has already been accomplished by USGS drilling. Phase II would consist of 28 holes in north-south fences to cover the areas between the wide-spaced USGS holes, and phase III of 36 offset holes around any ore holes found.

The drilling plan appears to be well thought out and suitable. The estimated overall cost of $3.17 per foot is reasonable, although distribution of costs is disproportionate. The average bid price quoted in the estimate of $2.98 per foot is high because of the large proportion of plug-bit drilling included in it. The estimate for supervision, engineering, and other costs is low.

No cost estimate was prepared by the examining team.

CONCLUSIONS AND RECOMMENDATIONS

It was concluded from the evidence in the Ringtail mine and from drilling in the proposed exploration area, that the tenor of the Ringtail ore deposits was not maintained westerly and there appears to be little possibility that significant ore reserves would be disclosed by the proposed exploration. While there are undoubtedly a number of small ore bodies in the proposed exploration area, the probable tonnage would hardly justify a drilling project on close enough centers to explore the ground adequately at the great depth of the potential ore-bearing horizon.

In view of the economic limitations resulting from the depth of the ore horizon and the probable small size and frequency of ore occurrences, the area can be considered to have been adequately tested by the Geological Survey project, and the ore possibilities around the one ore hole (ore on vanadium only) found fully exploited by offset drilling with practically negative results. It can thus be concluded that further drilling on closer spacing is not advisable.

It appears that the correct approach to exploration and mining operations on the west half of sec. 36 might be by drifting as far west of the Ringtail shaft as feasible, considering the haulage limitations, as well as the cost of drifting in relation to the frequency and size of ore deposits encountered.

Denial of the application under DMEA 3962 is recommended.

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

RECEIVED
DEC 15 1955

December 12, 1955

224 New Customhouse
Denver 2, Colorado

Morbute Corporation
Box 1700
Grand Junction, Colorado

Re: Docket DMEA 3962 (Uranium), W ½
Sec. 36, T. 22 S., R. 21 E.,
Grand County, Utah

Gentlemen:

This will acknowledge receipt of the amendment to the subject application for DMEA assistance. Copies of this amendment are being forwarded to the Washington office and to the field examiners.

Very truly yours,

E. N. Harshman

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

HMC:ab

cc: Sec. Op. Comm. (2)
Shaw (2)
Hasler
Docket 3962
Chron.

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

RECEIVED
OCT 17 1955

224 New Customhouse
Denver 2, Colorado

October 14, 1955

Memorandum

To: John F. Shaw, w/2 copies data
J. W. Hasler, w/1 copy data

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3962 (Uranium) Norbute Corporation
W 1/2 Sec. 16, T. 22 S., R. 21 E. Grand County, Utah

Enclosed are copies of the following data which arrived after the subject brochure was sent to the field.

(a) Letter dated October 10, 1955 from Chairman of the Operating Committee to the Executive Officer, DMEA Field Team, Region III

(b) Memorandum dated October 5, 1955, from W. P. Williams to E. W. Ellis, Review of subject application

(c) Memorandum dated September 29, 1955, from John E. Crawford to Earnest William Ellis, Review of subject application

W. M. Traver

By J W Townsend
J. W. Townsend

Enclosures
JDC:jy
cc: Sec. Op. Comm. (2)
Harshman
Docket
Connors
Chron.

Surname copy

700

Ching
Ellis
Kilgaard
Selfridge

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

OCT 10 1955

Norbute Corporation
P. O. Box 1700
Grand Junction, Colorado

Re: Docket No. DMEA-3962 (Uranium)
W½ Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Gentlemen:

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

The DMEA Field Team, Region III, Mr. W. M. Traver, Executive Officer, 224 New Customhouse Building, Denver 2, Colorado, will schedule a field examination of your property in the near future if it has not already done so.

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

Sincerely yours,

Frank E. Johnson

Acting Administrator

FMMurphy/gla
10-7-55
cc to: Admr.'s Reading File
Docket
Code 700
Mr. Murphy
DMEA Field Team, Region III (2)

R.C.S.

Surname copy

700

Ching
Ellis
Selfridge
Fleming

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

OCT 10 1955

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

Re: Docket No. DMEA-3962 (Uranium)
Norbute Corporation
W½ Sec. 36, T. 22 S., R. 21 E.
Grand County, Utah

Dear Mr. Traver:

This is to acknowledge your memorandum dated September 22, and attached joint memorandum from M. H. Salsbury and J. W. Hasler, all recommending a field examination of the captioned property.

Enclosed are copies of memoranda dated September 29 and October 5, 1955, by J. E. Crawford, USBM, and W. P. Williams, USGS, respectively, relating to the above-docketed application.

Shaft sinking at the Ringtail Mine (E½ of Section 36) was completed in August, 1954, by the Great Western Uranium Corporation and the Strategic Mineral Exploration Company. The latter company held the State Lease on all of Section 36.

In February, 1955, Norbute Corporation purchased Strategic Mineral Exploration Company's interest in the Ringtail operation and the lease on Section 36 was then assigned to Norbute Corporation. The Ringtail mining operation was then carried on under a joint venture between Norbute Corporation and Great Western Uranium Corporation. The captioned application appears to be for the sole account of Norbute Corporation, but, by inference, the proposed exploration may also be included under the present joint venture. This point should be clarified.

In the event the Field Team recommends a project on the subject property, it should advise the Applicant that we usually require a performance bond, or an agreement from a financially

RCB.

responsible third party, to protect the Government's interest in exploration contracts on State-leased lands.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (NB)

Enclosures

APPROVED:

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

Thor H. Kiilsgaard (NB)
Member, Geological Survey

FMMurphy/gla
10-7-55
cc-to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Murphy

10/6/55 gla

IN REPLY REFER TO:

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

October 5, 1955

Memorandum

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

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

Subject: Review of application, DMEA 3962, Norbute Corporation, W½ School Section 36, Thompson District, Grand County, Utah.

The applicant proposes an extensive exploration project on a property that is well located with regard to producing mines and to a favorable ore trend established by Government drilling.

The property lies adjacent to the Ringtail mine which is on the E½ of section 36. The applicant states that the Ringtail mine has produced a little over 3,000 tons of ore and that the indicated reserves on the property are about 17,000 tons.

Drilling by the U.S.G.S. has defined a favorable belt in the fourth sandstone bed of the Salt Wash member. The favorable belt is about 1,000 feet wide and contains the Ringtail and Blackstone mines east of section 36. The belt lies across the middle of section 36 from east to west, becomes narrow to the west, and finally pinches out completely on adjoining section 35. The favorable belt is about 2 miles long, and the greatest concentration of mines and drill holes penetrating ore is at the eastern and central parts of the belt. For these reasons I expect any given number of drill holes to have fewer ore holes as the western limit of the favorable belt is approached. A decrease in size of the ore bodies to the westward can probably also be expected.

I believe, however, an exploration project on the property would have a fair chance of finding a small or medium-sized ore body -- 10,000 tons or less. The applicant's proposal for drill hole locations is reasonable. However, a staged program with the initial stage located near existing mineralized holes might be advisable.

Actual field examination would be to no avail as the ore zone is at least 500 feet deep. The Field Team, however, should be asked for their recommendations concerning DMEA participation on the property and detailed hole locations.

A substitute instrument would be required in lieu of an Owner's Consent to Lien as School Section property is leased from the State of Utah.

W. P. Williams

W. P. Williams

9/30/55 - gla

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

September 29, 1955

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 3962, Norbute Corporation, W. 1/2 Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

I have reviewed the application of Norbute Corporation, DMEA Docket 3962; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The Norbute Corporation has applied for DMEA aid to explore for uranium on W. 1/2 Sec. 36, T. 22 S., R. 21 E., Grand County, Utah. This property is part of an area which was withdrawn by the Atomic Energy Commission and drilled by the Geological Survey. The location is also known as the Yellow Cat area, Thompson Mining district.

The proposed exploration program is divided into three phases. The first phase will consist of utilizing the holes previously drilled by the Geological Survey. Drilling within the most favorable trend encountered from phase one is the object of the second phase and will consist of 28 holes totaling 15,345 feet. It is estimated by the applicant that 9 of the 28 holes will penetrate ore or mineralization. Therefore, 4 offsetting holes are proposed around each of the 9 holes. This would require 36 holes of an average depth of 548 feet, or a total of 19,728 feet of drilling in the third phase. The total estimated cost of the entire program is $111,292.54.

We recommend that the application be sent to the Field Team and that they be requested to consult with E. R. Gordon, Atomic Energy Commission, Grand Junction, Colorado. Mr. Hosted believes that enough information may be available on this area in the Grand Junction office to make a field examination unnecessary.

In accordance with instruction given this office by the DMEA, the application, together with a copy of this memorandum is being forwarded to Thor Kiilsgaard, Geological Survey.

John E Crawford

John E. Crawford

RECEIVED
OCT 4 1955

September 28, 1955

Memorandum

To: John F. Shaw

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 3962 (Uranium), Norbute Corporation, Section 36, T. 22 S., R. 21 E., Grand County, Utah

The subject application in the amount of $111,298.54 is enclosed. The brochure consists of the following:

1. Form NF-103 and accompanying information sheets
2. Photostat copy of Utah State Uranium and Vanadium Mineral Lease No. 3971
3. Professional record of Vernon T. Dow
4. Report on Utah State School Section 36, T. 22 S., R. 21 E., S.L.M., Yellow Cat area, Thompson Mining District, Grand County, Utah by John I. Schumacher and I. R. Taylor
5. 6 maps enclosed with the report
6. Copy of Executive Officer's memo of transmittal to this office

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

W. H. KING

W. H. King

Enclosures

Copy to: E. H. Harshman
J. W. Kesler
W. M. Traver (3)
Sec. Op. Comm. (2)

9/26/55 - Ga

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

RECEIVED
SEP 26 1955

September 22, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Chairman of the Operating Committee, DMEA

From: Field Team, Region III

Subject: Docket DMEA 3962 (Uranium), Norbute Corporation, W. $\frac{1}{2}$ Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

Enclosed are four copies of a review of the subject application.

We concur in the recommendation that a field examination be made and have forwarded the Bureau of Mines copy of the application to the field.

W. M. Traver

E. N. Harshman

Enclosures

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

RECEIVED
SEP 26 1955

224 New Customhouse
Denver 2, Colorado

September 22, 1955

Memorandum

To: W. H. King

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-3962 (Uranium), Norbute Corporation, Section 36, T 22 S, R 21 E, Grand County, Utah

Enclosed is the subject application in the amount of $111,292.54.

The application consists of:

1. Form MF-103 and accompanying answer sheets.
2. One photostat copy of Utah State Uranium and Vanadium Mineral Lease No. 3971.
3. The professional record of Vernon T. Dow.
4. The report of State School Section 36, T 22 S, Range 21 East, by John Schumacher and I.R. Taylor.
5. Six maps.

A field examination and suitable report are required.

W. M. Traver

Enclosures
HMC:pw

cc: Sec.Op.Comm. (2)
Harshman
DMEA-3962
Chron

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
SEP 26 1955

September 21, 1955

Memorandum

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

From: J. W. Hasler, USGS
M. H. Salsbury, USBM

Subject: DMEA 3962, (Uranium) Norbute Corporation, W. 1/2 Sec 36, T. 22 S., R. 21 E., Grand County, Utah

The above referenced property lies in an area which has produced a considerable tonnage of uranium ore. A favorable sandstone channel extends through the W. 1/2 of Sec. 36 which contains several ore and mineralized holes drilled by the U. S. Geological Survey.

We therefore recommend a field examination be made as soon as possible.

M. H. Salsbury
Mining Engineer

J. William Hasler
Geologist

JWH/vll

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O
P
Y

DN 235 BUR MINES 9-22-55 -0-12 AM

CHAIRMAN, OPERATING COMMITTEE, IMES

WE CONTACTED GRAND JUNCTION FIELD OFFICE RGXX REGARDING QUICKER ACTION ON PRELIMINARY JOINT MEMORANDA REPORTS PRIOR TO RECEIPT OF YOUR TELETYPE. THEY PROMISED IMMEDIATE ACTION ON FUTURE APPLICATIONS. THE THREE DOCKETS 3961, 3962, 3966 YOU INQUIRED ABOUT WILL REQUIRE FIELD EXAMINATIONS.

W M TRAVER

Surname copy

Ellis

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

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

SEP 21 1955

TELETYPE

W. W. TRAVER, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
RM. NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

RE MINERVA CORPORATION, DOCKET DMEA-3960; UNITED WESTERN MINERALS CO., DOCKET DMEA-3961; PARADOX MINING CO. INC., DOCKET DMEA-3966, PLEASE ADVISE STATUS OF GRAND JUNCTION JOINT MEMORANDA.

George C. Selfridge

GEORGE C. SELFRIDGE,
CHAIRMAN, OPERATING COMMITTEE

EWEllis/gla
9-21-55
cc to: Admr.'s Reading File
Operating Committee
Docket DMEA-3961
" DMEA-3962
" DMEA-3966
Code 700
Confirmation to Region III DMEA FieldTeam

R.C.G.

Subject: Exploration
Re: Ringtail Mine

Norbute Corporation
P.O. Box 1700
Grand Junction, Colorado

September 6, 1955

Gentlemen:

The receipt of your application dated August 19, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3962 and referred to the Rare & Miscellaneous 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

September 6, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

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

DMEA-3962 Norbuto Corporation

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

copy to Mr. Roesler

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

RECEIVED
SEP - 2 1955

August 30, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. W. Hasler

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA aid, (Uranium), Norbute Corporation, W. ½ Sec. 36, T. 22 S., R. 21 E., Grand County, Utah

Enclosed is one copy of the subject application in the amount of $111,292.54.

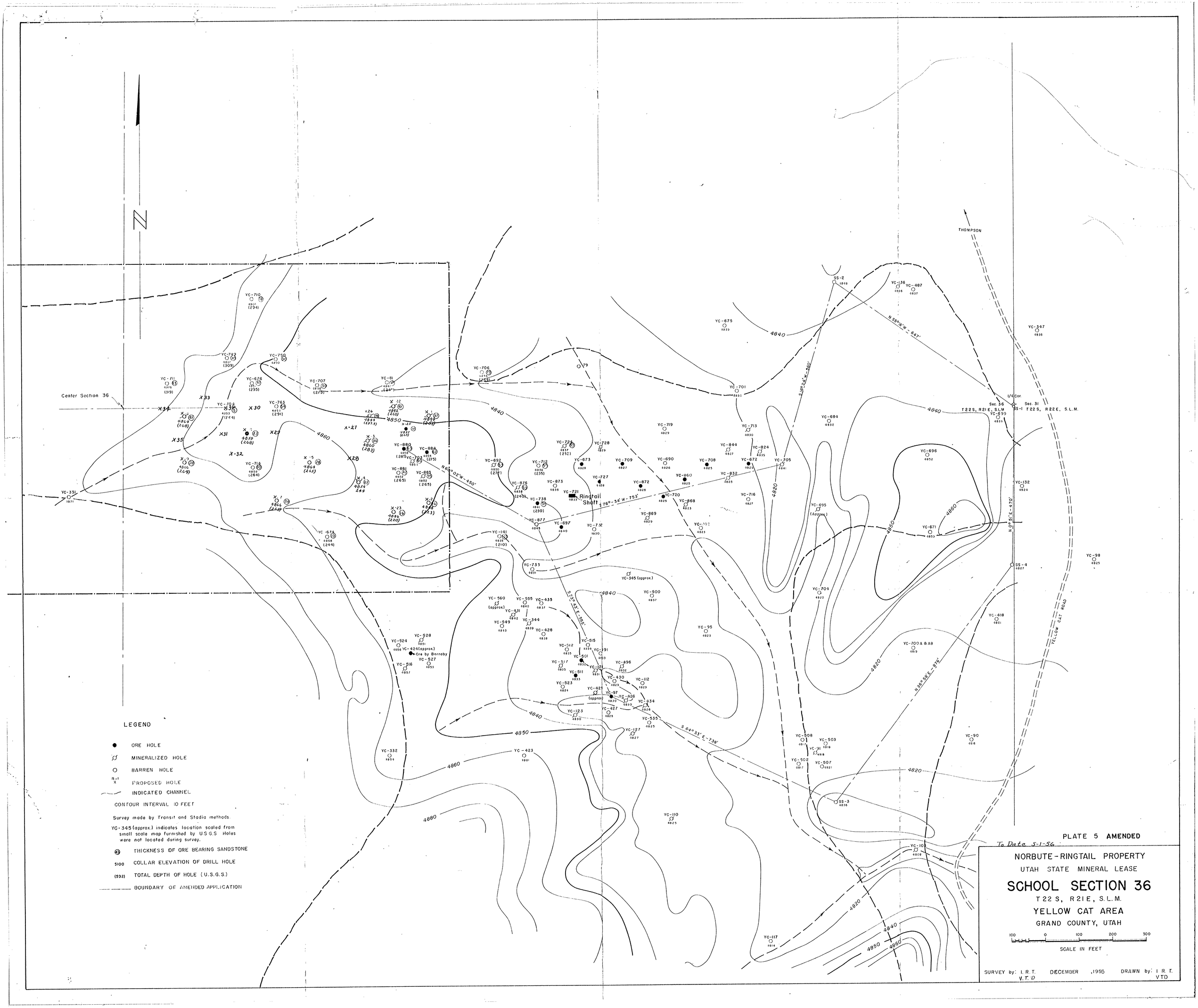
Will you and the Bureau of Mines representative in the Grand Junction office review the application and send this office a joint memorandum of your recommendation as to the advisability of a field examination.

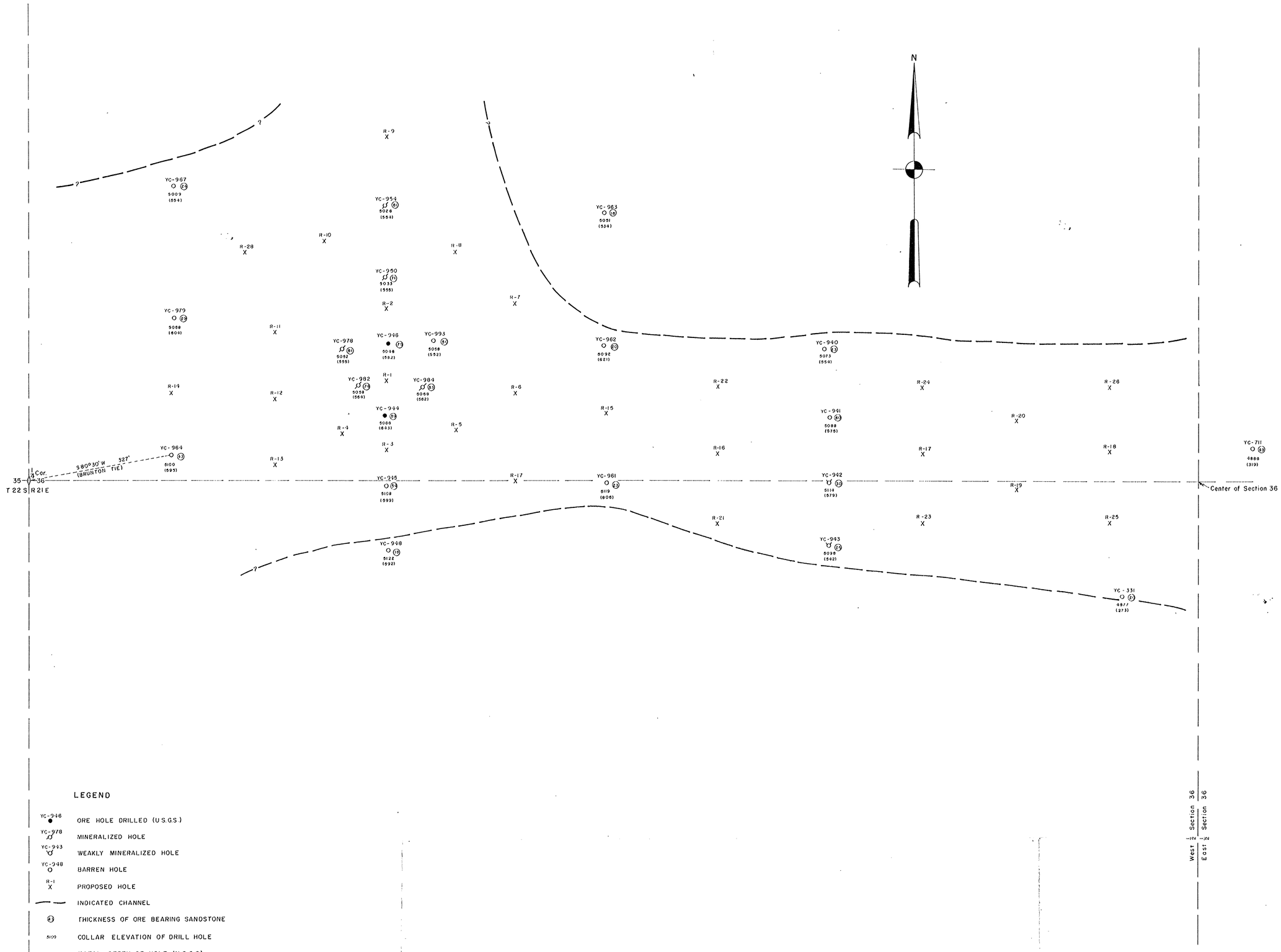
W. M. Traver

W. M. Traver

Enclosure

HMC:ab
cc: Sec. Op. Comm. (2)
King (2)
Docket
Harshman
Chron.


N
Center Section 36
THOMPSON
Ringtail Shaft
1/4 Cor.
Sec. 36
Sec. 31
T22S, R21E, SLM
T22S, R22E, S.L.M.
YELLOW CAT ROAD
N 55°16' W - 647'
S 82°24' W - 560'
N 61°02' W - 450'
S 76° 34' W - 753'
N 0° 51' E - 470'
N 36° 58' E - 878'
S 64° 33' E - 738'
S 39° 43' E - 255'
Ore by Barnaby
LEGEND
ORE HOLE
MINERALIZED HOLE
BARREN HOLE
PROPOSED HOLE
INDICATED CHANNEL
CONTOUR INTERVAL 10 FEET
Survey made by Transit and Stadia methods.
YC-345 (approx.) indicates location scaled from small scale map furnished by U.S.G.S. Holes were not located during survey.
THICKNESS OF ORE BEARING SANDSTONE
5100 COLLAR ELEVATION OF DRILL HOLE
(592) TOTAL DEPTH OF HOLE (U.S.G.S.)
BOUNDARY OF AMENDED APPLICATION
PLATE 5 AMENDED
To Date 5-1-56
NORBUTE-RINGTAIL PROPERTY
UTAH STATE MINERAL LEASE
SCHOOL SECTION 36
T22S, R21E, S.L.M.
YELLOW CAT AREA
GRAND COUNTY, UTAH
100 0 100 200 300
SCALE IN FEET
SURVEY by: I.R.T. V.T.D
DECEMBER, 1955
DRAWN by: I.R.T. VTD



LEGEND

YC-946 ●	ORE HOLE DRILLED (U.S.G.S.)
YC-978 ⌀	MINERALIZED HOLE
YC-993 ⌀	WEAKLY MINERALIZED HOLE
YC-948 ○	BARREN HOLE
R-1 X	PROPOSED HOLE
— —	INDICATED CHANNEL
(3)	THICKNESS OF ORE BEARING SANDSTONE
5100	COLLAR ELEVATION OF DRILL HOLE
(592)	TOTAL DEPTH OF HOLE (U.S.G.S.)

YC-898
○ (2)
4867
(384)

Application

PLATE 4

NORBUTE CORPORATION

UTAH STATE MINERAL LEASE

PROPOSED HOLE LOCATIONS

Sec. 36, T 22 S, R 21 E, S.L.M.

YELLOW CAT AREA

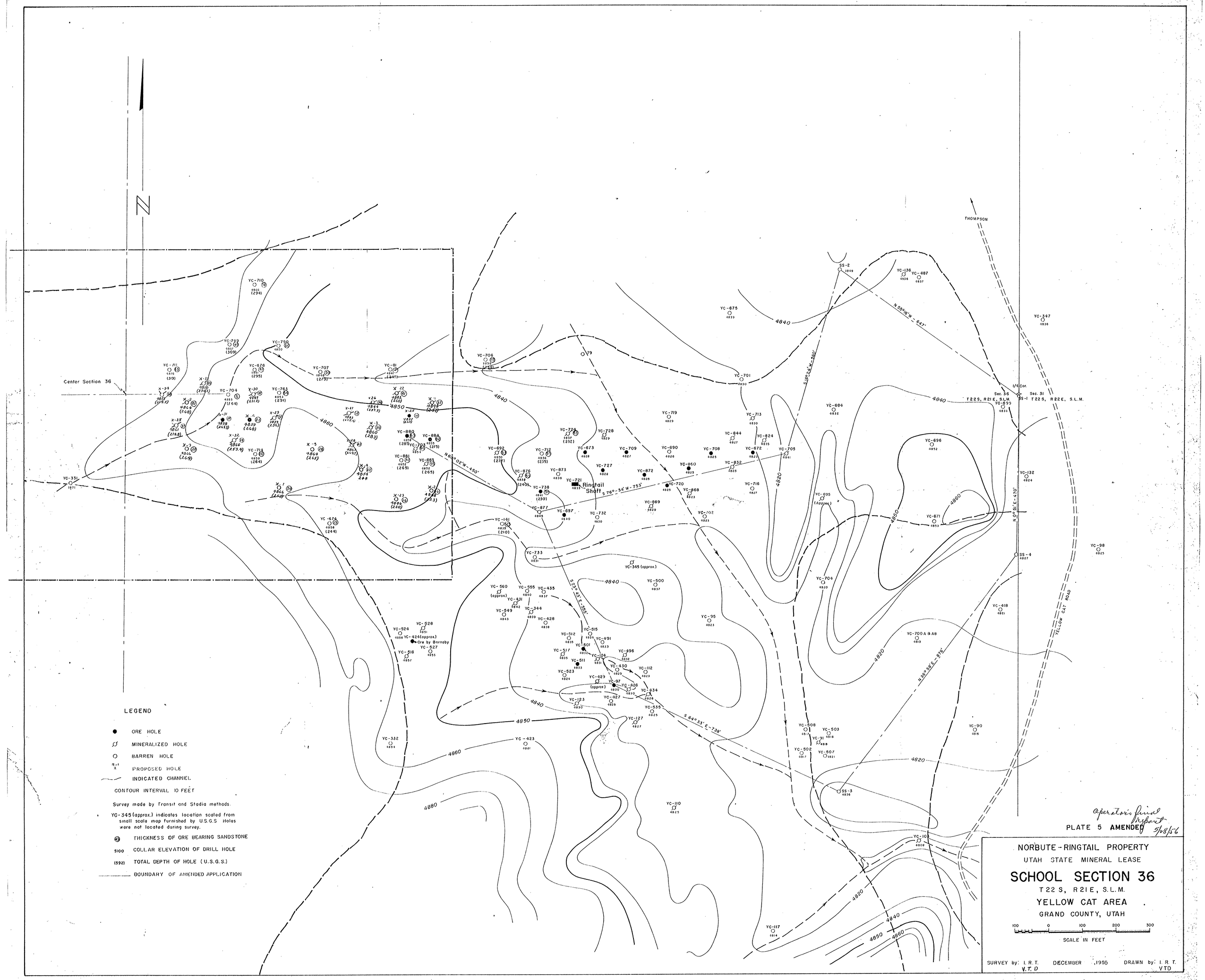
GRAND COUNTY, UTAH

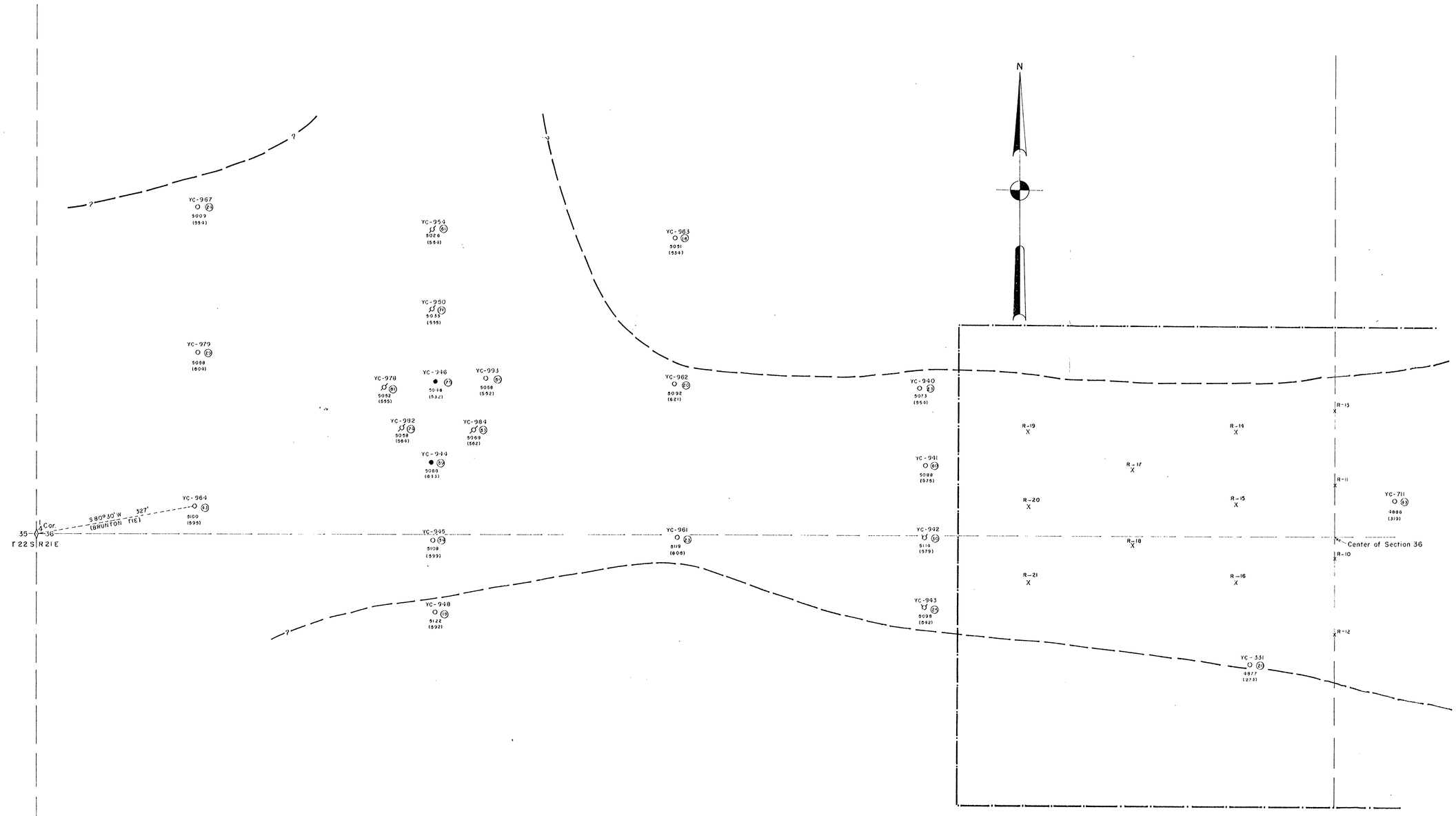
SCALE: 1" = 100'

SURVEY: FROM U.S.G.S. COORDINATES

JULY, 1955

DRAWN BY: I. R. T.


N
Center Section 36
THOMPSON
YELLOW CAT ROAD
Ringtail Shaft
1/4 Cor.
Sec. 36
Sec. 31
T 22 S, R 21 E, S.L.M.
T 22 S, R 22 E, S.L.M.
N 55°18' W - 847'
S 76° - 34' W - 753'
N 86°02' W - 430'
S 29°24' W - 565'
S 29°43' E - 565'
S 64°33' E - 738'
N 36°58' E - 976'
N 0°51' E - 470'
4840
4850
4860
4880
4820
LEGEND
ORE HOLE
MINERALIZED HOLE
BARREN HOLE
R-1 X PROPOSED HOLE
INDICATED CHANNEL
CONTOUR INTERVAL 10 FEET
Survey made by Transit and Stadia methods.
YC-345 (approx.) indicates location scaled from small scale map furnished by U.S.G.S. Holes were not located during survey.
THICKNESS OF ORE BEARING SANDSTONE
5100 COLLAR ELEVATION OF DRILL HOLE
(592) TOTAL DEPTH OF HOLE (U.S.G.S.)
BOUNDARY OF AMENDED APPLICATION
Operator's final report 5/28/56
PLATE 5 AMENDED
NORBUTE - RINGTAIL PROPERTY
UTAH STATE MINERAL LEASE
SCHOOL SECTION 36
T 22 S, R 21 E, S.L.M.
YELLOW CAT AREA
GRAND COUNTY, UTAH
100 0 100 200 300
SCALE IN FEET
SURVEY by: I. R. T. V. T. D
DECEMBER 1955
DRAWN by: I. R. T. VTD



LEGEND

YC-946 ●	ORE HOLE DRILLED (U.S.G.S.)
YC-978 ⌀	MINERALIZED HOLE
YC-943 ⌀	WEAKLY MINERALIZED HOLE
YC-948 ○	BARREN HOLE
R-1 X	PROPOSED HOLE
— —	INDICATED CHANNEL
(4)	THICKNESS OF ORE BEARING SANDSTONE
5100	COLLAR ELEVATION OF DRILL HOLE
(592)	TOTAL DEPTH OF HOLE (U.S.G.S.)
—·—·	BOUNDARY OF AMENDED APPLICATION

YC-898
○ (4)
4987
(384)

Check Approval 1956
Red May 10 Trower

PLATE 4 AMENDED

NORBUTE CORPORATION

UTAH STATE MINERAL LEASE

PROPOSED HOLE LOCATIONS

Sec. 36, T 22 S, R 21 E, S.L.M.

YELLOW CAT AREA

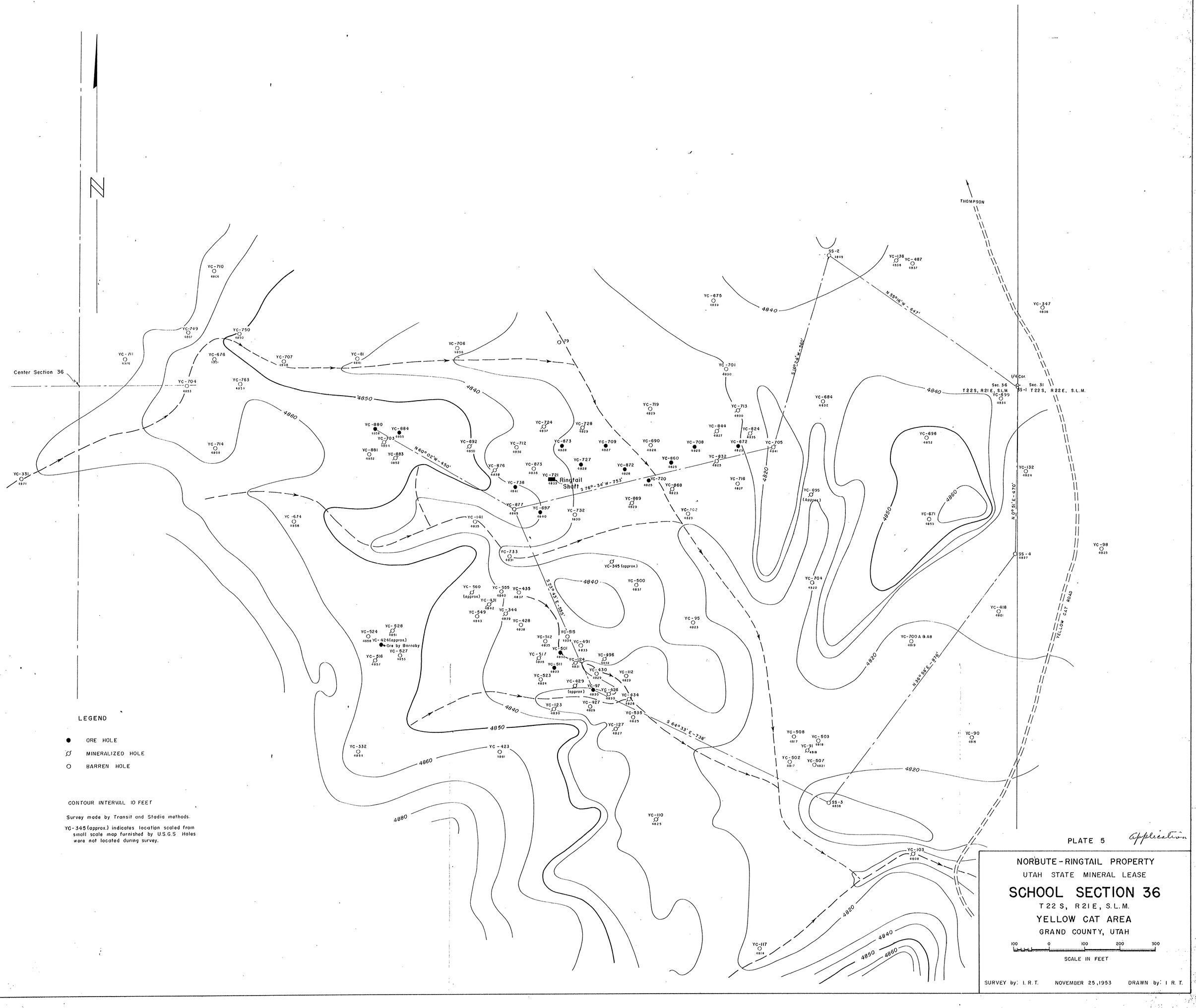
GRAND COUNTY, UTAH

SCALE: 1" = 100'

SURVEY: FROM U.S.G.S. COORDINATES

DECEMBER, 1955

DRAWN BY: I.R.T. & V.T.D.


N
Center Section 36
THOMPSON
YELLOW CAT ROAD
1/4 Cor.
Sec. 36
Sec. 31
T 22 S, R 21 E, S.L.M.
SS-1 T 22 S, R 22 E, S.L.M.
Ringtail Shaft
Ore by Barnaby
N 80° 02' W - 450'
S 76° - 34' W - 753'
S 25° 43' E - 355'
S 64° 33' E - 738'
N 38° 38' E - 878'
N 0° 51' E - 470'
N 55° 18' W - 647'
S 16° 24' W - 560'
4840
4850
4860
4820
4880
LEGEND
ORE HOLE
MINERALIZED HOLE
BARREN HOLE
CONTOUR INTERVAL 10 FEET
Survey made by Transit and Stadia methods.
YC-345 (approx.) indicates location scaled from small scale map furnished by U.S.G.S Holes were not located during survey.
PLATE 5
Application
NORBUTE - RINGTAIL PROPERTY
UTAH STATE MINERAL LEASE
SCHOOL SECTION 36
T 22 S, R 21 E, S.L.M.
YELLOW CAT AREA
GRAND COUNTY, UTAH
100 0 100 200 300
SCALE IN FEET
SURVEY by: I. R. T. NOVEMBER 25, 1953 DRAWN by: I. R. T.

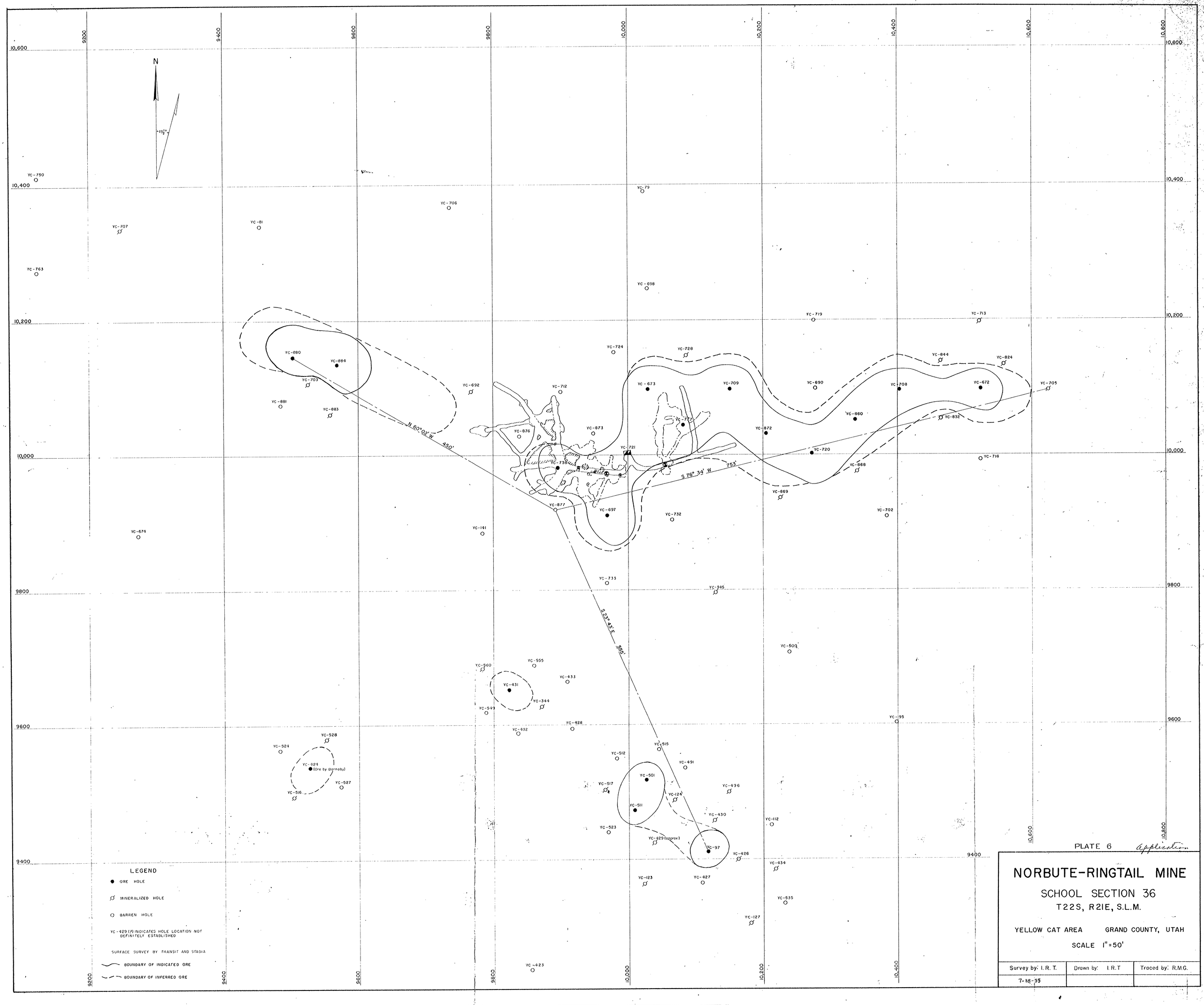


PLATE 6 Application

NORBUTE-RINGTAIL MINE

SCHOOL SECTION 36

T22S, R21E, S.L.M.

YELLOW CAT AREA GRAND COUNTY, UTAH

SCALE 1" = 50'

Survey by: I. R. T.	Drawn by: I. R. T	Traced by: R.M.G.
7-18-55		

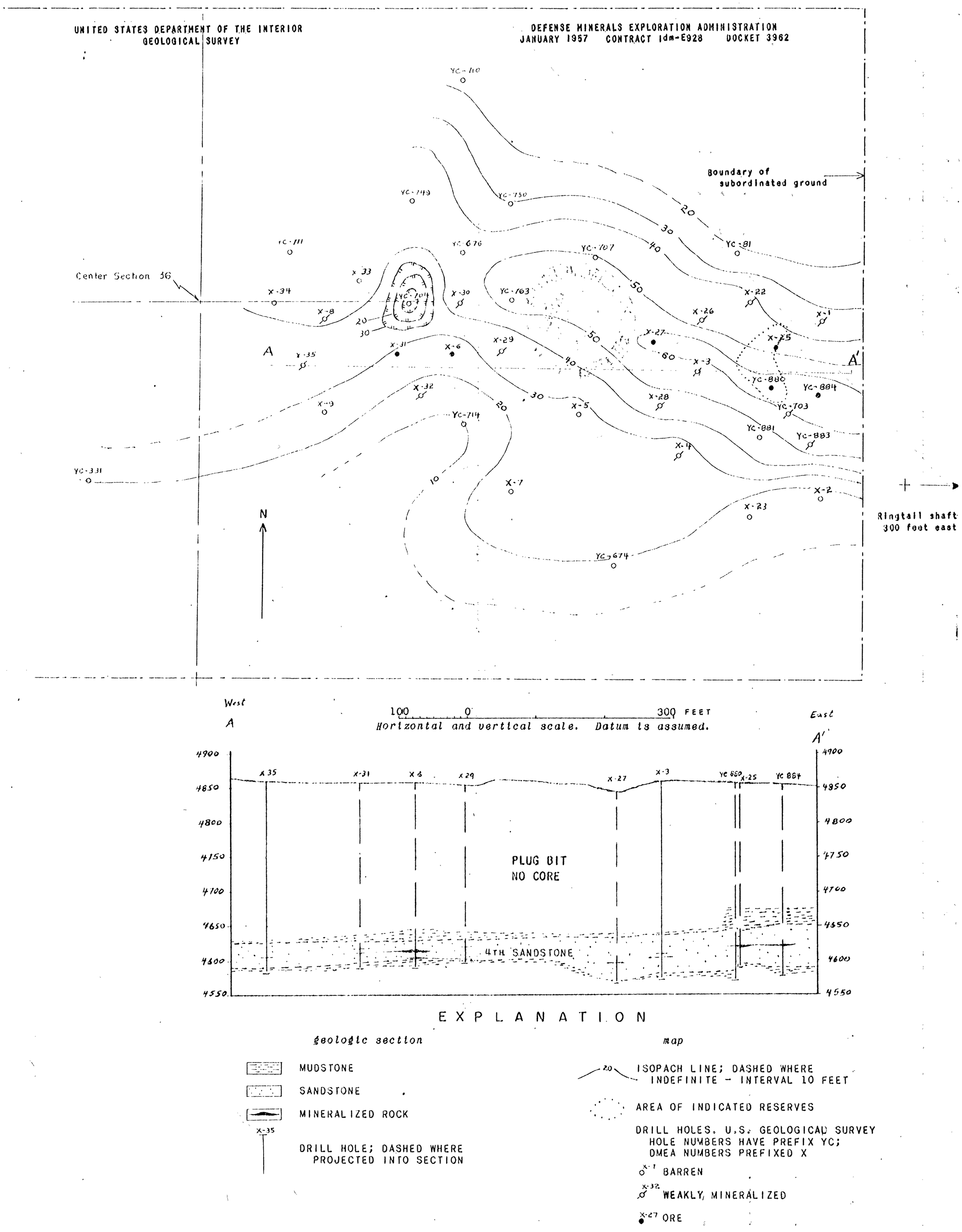


Figure 3.--ISOPACH MAP AND GEOLOGIC SECTION OF "4th SANDSTONE" IN PART OF SECTION 36, T.22S., R.21E., S.L.M., SHOWING LOCATION OF U.S. GEOLOGICAL SURVEY AND DMEA DRILL HOLES, NORBUTE CORP., YELLOW CAT AREA, THOMPSON DISTRICT, GRAND COUNTY, UTAH.