DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4700

Application (Denied
(~~Withdrawn~~
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
Leases and assignments of leases
✓ Application and attachments
(3) Envelope for maps

Right Side

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
✗ On-site Exam Report(s) (Tab) of Suppl. Rep.
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order)
Interim Summary Reports by W. O. Engineers

Right Side

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

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

CABLE ADDRESS ASSAYER, NEW YORK

TELEPHONE RECTOR 2-7160

NEW YORK AND HONDURAS ROSARIO MINING COMPANY

R. M. REININGER
PRESIDENT
LEWIS L. CLARKE
CHAIRMAN OF THE BOARD OF DIRECTORS

120 BROADWAY

NEW YORK 5, N.Y.

H. I. ALTSHULER
VICE PRESIDENT
G. E. McDANIEL
SECRETARY-TREASURER

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RECEIVED MAR 26 1957

DATE	INITIALS	CODE

March 21, 1957

Mr. C. L. Mittendorf,
Administrator,
Defense Minerals Exploration Administration,
Department of Interior,
Washington 25, D. C.

Dear Mr. Mittendorf:

We respectfully submit for your consideration our attached application in quadruplicate for D.M.E.A. project on the Daisy Group Uranium Claims, in the Green River Mining District of Utah. The application is submitted in the name of Rosario Exploration Company, which is a wholly owned subsidiary of the New York and Honduras Rosario Mining Company.

Your consideration to this application will be greatly appreciated.

Sincerely yours,

RMR:MHH

R. M. Reininger, President
ROSARIO EXPLORATION COMPANY
Subsidiary of:
(NEW YORK AND HONDURAS ROSARIO MINING COMPANY)

Enclosures :
4 Copies Application.

EXHIBIT NO. 1

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

Official File Copy

RECEIVED MAR 26 1957 D.M.E.A.

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. 4700
Metal or Mineral URANIUM
Date Received 3-26-57
Estimated Cost $16,582.61
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Rosario Exploration Co.
212 Electric Bldg.
Grand Junction, Colorado

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. See Exhibit 2

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract See attached application, page 2.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee, per attached agreement dated June 25, 1956. (See Exhibit 3)

(*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. See exhibit 3.

(*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. March 13 See Exhibit 4.

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

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

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. See Exhibit 5.

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

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

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore The applicant plans to explore for all uranium and vanadium bearing minerals.

(*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 cor[illegible]ts, veins, ore-bearing beds, etc. See attached application, pages 3 and 4.

(*c*) The work will start within 60 days and be completed within 2 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper. See attached application for heading numbers 6 and 7.

CERTIFICATION

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

Dated March 15, 1957

ROSARIO EXPLORATION COMPANY
(Applicant)

By [signature]

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

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

APPLICATION FOR DMEA PROJECT
ON
DAISY GROUP

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DMEA
RECEIVED MAR 26 1957

DATE	INITIALS	CODE

March 15, 1957

ROSARIO EXPLORATION COMPANY
212 Electric Building
Grand Junction, Colorado

I N D E X

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2. Geologic Map.
3. Contour map with drill hole locations.

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APPLICATION FOR DMEA PROJECT ON THE DAISY GROUP
FOR
ROSARIO EXPLORATION COMPANY
212 Electric Building
Grand Junction, Colorado

1. NAME OF APPLICANT

(a) Rosario Exploration Company (See Form MF-103, ~~Exhibit~~ 1)

(b) The applicant was incorporated in the State of Colorado in the month of July, 1954.

(c) For names, titles and addresses of officers, see Exhibit 2.

(d) Omitted.

2. GENERAL

This report, together with Form MF-103, attached as Exhibit 1, is an application for a Defense Minerals Exploration Administration project contract of the short form or unit cost type. It is proposed that the project be divided into two phases. Phase 1 is a $16,582.61 project to determine the amount of uranium mineralization and will consist of 8,930 feet of drilling at an estimated unit cost of $1.86 per foot. Phase 2 will be dependent upon the results of Phase 1 and may be filed as an amended application on the Daisy group. Twenty-five per cent of Phase 1, or $4,145.65 of the total expenditure of Phase 1, will be paid by the Rosario Exploration Company, the applicant herein; the Defense Minerals Exploration Administration is asked to loan the balance of $12,436.96.

Locations for 36 holes are suggested for Phase 1 and are shown on Figure 3. These locations are on 125-foot centers with 75 feet between fences in a diamond pattern and were selected and limited in respect to trend and proximity of ore and mineralization, as determined by previous drilling.

If the drilling results of Phase 1 warrant approval of further work, Phase 2 will consist of a maximum of 67 additional holes.

3. PROPERTY RIGHTS

(a) Legal Description: The land on which exploration work is to be performed consists of the eight contiguous mining claims known as the Daisy group, located in the unorganized Greenriver Mining District, Sections 23 and 24, T.22S., R.14E., S.L.M., Emery County, Utah. The location, with respect to the G.L.O. grid, is shown in Figure 2.

(b) Name of Property: This property will be referred to in this report and further correspondence as the Daisy group.

(c) Interest in the Land: Rosario Exploration Company leased the Daisy group by agreement dated June 25, 1956, and recorded in Emery County, Utah, Book J116, Pages 318 to 320.

(d) Ownership: Danaher & Danaher, a partnership, of 618 Scott, Wichita Falls, Texas, are the owners of the claims. A copy of the lease agreement referred to in (c) above is attached as Exhibit 3.

(e) Omitted. The applicant is not the owner of the property.

(f) Record of Title: All transactions affecting titles to the property are recorded in the office of the County Recorder of Emery County, Utah. The location dates, recording dates, book and page numbers are tabulated in Exhibit 4.

4. PHYSICAL DESCRIPTION

(a) Mining or Exploration Operations: Sixteen exploratory holes have been drilled. Seven holes are in ore, one is mineralized and eight are barren.

Portions of A.E.C. radiometric logs are included in this report in Exhibit 6. The original logs are on file at the A.E.C. office, Grand Junction, Colorado.

(b) Production and Ore Reserves: There has been no production from the property. Ore reserves, based on the drilling program described in (a) above, are estimated to be 1,391 tons of .64 per cent uranium, based on radiometric assays.

(c) Geologic Features: A geologic report is attached as Exhibit 5.

(d) Accessibility: The Daisy group is accessible by Utah State Highway 24, which passes through the property. The property is located approximately 13 miles southwest of Greenriver, Utah. A uranium processing plant is located at Moab, Utah, 55 miles from the property.

(e) Availability of Manpower, Equipment, Supplies, etc.: Manpower skilled in the performance of drilling planned is available in the vicinity. The equipment and manpower to be employed on the project will be personnel and equipment of Rosario Exploration Company and of the drilling contractor. Rosario Exploration Company will also furnish the technical and advisory personnel to carry out the program in an efficient manner. Drilling water is available within two miles of the property.

5. THE EXPLORATION PROJECT

(a) Minerals for Which Exploration Is Planned: It is planned to explore for all uranium and vanadium bearing minerals. (See MF-103, Exhibit 1)

(b) Proposed Work: Locations for Phase 1 holes have been staked. Due to the evenness of the terrain, no road-building is necessary.

A rotary type drill will be provided by the drilling contractor. It is estimated that Phase 1 will require two months to complete.

Proposed holes for Phase 1 are shown on Figure 3, numbered D-1 through D-36. The estimated depth of each hole is tabulated on Schedule 2. Spacing of the holes was made on the basis of adequately testing the ore potential with due regard to favorable areas and the economics involved.

A Rosario Exploration Company geologist will supervise the drilling, logging, sampling and probing of each hole to be drilled.

(c) Beginning and Completion Dates: (See MF-103, Exhibit 1)

(d) Ability of Applicant: The Rosario Exploration Company is a wholly-owned subsidiary of the New York and Honduras Rosario Mining Company, 120 Broadway, New York, incorporated in 1880, operating silver, gold, lead and zinc mines in Central America continuously since that time.

The operations proposed in this application will be supervised by Warren E. Ove, whose qualifications are outlined as follows:

Bachelor of Science, Geology, University of Idaho.

2 years with the A.E.C. in uranium exploration.

2 years mine examination and evaluation, western U.S. with private industry.

6. ESTIMATE OF COSTS

Rosario Exploration Company desires that this exploration project be placed on a unit cost basis. Schedule 1 gives the exact amount bid per unit by Rosario Exploration Company for performing the exploration work.

Schedule 2 indicates the drilling depth per hole.

(a) Independent Contracts: The drilling will be performed by independent contractors. (See bids - Exhibit 7)

PHASE 1

(1) Plug drilling, 8,037 feet @ $1.30	$10,448.10	
(2) Core drilling, 893 feet @ $3.00	2,679.00	
Total Independent Contract, Phase 1		$13,127.10
(b) Labor, Supervision, Consultants:		
(1) Geological supervision and expenses		$ 1,600.00
(c) Operating Materials and Supplies:		
(1) Drill log reproduction and office supplies	$ 120.00	
(2) Auto expenses	228.00	
Total 6(c)		$ 348.00
(d) Contingencies:		
(1) 10% is added to cover contingencies of increased depth of holes, supervisory costs, operating materials and supplies		
Total 6(d)		$ 1,507.51

For Summary of Costs see Schedule 1.

7. APPLICANT'S SHARE OF COSTS

In accordance with DMEA regulations, Rosario Exploration Company is prepared to pay 25 per cent of the cost of the project in the following manner:

Rosario Exploration Company will perform all of the necessary work and pay for all independent contracts, labor, supervision and materials. Reimbursement by DMEA will be in accordance with Schedule 1, less 25 per

cent; i.e., the amount to be loaned by the Government for each unit of work performed will be 25 per cent less than the amounts shown on Schedule 1.

Respectfully submitted,

ROSARIO EXPLORATION COMPANY

By F. W. Reisinger

SCHEDULE 1

Summary of Costs
Project Cost Per Foot of Hole
Basis 8,930 Feet of Drilling

6.

			Project Cost	Unit Cost Per Foot
(a)	Independent Contract			
	(1) Plug drilling	$10,448.10		
	(2) Core drilling	2,679.00	$13,127.10	$1.47
(b)	Labor, Supervision, Consultants		1,600.00	.18
(c)	Operating Materials and Supplies		348.00	.04
(d)	Contingencies		1,507.51	.17
	Total		$16,582.61	$1.86
	DMEA, 75% Share of Costs		$12,436.96	$1.39
	Rosario Exploration Company 25% Share of Costs		$ 4,145.65	$ .47

SCHEDULE 2

Drilling Depths - Phase 1

Hole Number	Depth of Hole 70 ft. in Jms	Hole Number	Depth of Hole 70 ft. in Jms
D-1	220 ft.	D-19	250 ft.
D-2	225 ft.	D-20	250 ft.
D-3	225 ft.	D-21	250 ft.
D-4	230 ft.	D-22	255 ft.
D-5	230 ft.	D-23	255 ft.
D-6	230 ft.	D-24	255 ft.
D-7	235 ft.	D-25	255 ft.
D-8	235 ft.	D-26	255 ft.
D-9	235 ft.	D-27	260 ft.
D-10	235 ft.	D-28	260 ft.
D-11	240 ft.	D-29	260 ft.
D-12	240 ft.	D-30	260 ft.
D-13	240 ft.	D-31	265 ft.
D-14	245 ft.	D-32	265 ft.
D-15	245 ft.	D-33	265 ft.
D-16	245 ft.	D-34	270 ft.
D-17	250 ft.	D-35	270 ft.
D-18	250 ft.	D-36	275 ft.
Total Phase 1 Drilling			8,930 ft.

EXHIBIT NO. 2

OFFICERS AND DIRECTORS OF THE ROSARIO EXPLORATION COMPANY

R. M. Reininger
President and Director
120 Broadway
New York 5, New York

M. S. Anderson
Vice-President and Director
120 Broadway
New York 5, New York

G. E. Mc Daniel
Secretary-Treasurer and Director
120 Broadway
New York 5, New York

Lewis L. Clarke
Director
120 Broadway
New York 5, New York

Julian B. Beaty
Asst. Secretary and Director
165 Broadway
New York 5, New York

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A G R E E M E N T

THIS AGREEMENT, entered into in duplicate this 25th day of June, 1956, by and between DANAHER and DANAHER, a partnership, 618 Scott, Wichita Falls, Texas, hereinafter referred to as First Party, and ROSARIO EXPLORATION CO., 212 Electric Building, Grand Junction, Colorado, hereinafter referred to as Second Party, WITNESSETH:

WHEREAS, the First Party being the owner of and in possession of the following described unpatented lode mining claims in an unorganized mining district of Emery County, Utah, to-wit:

Claim Name	Recorded in Book	at Page
Daisy #1	J 60	67
Daisy #2	J 60	68
Daisy #3	J 60	69
Daisy #4	J 60	70
Daisy #5	J 60	71
Daisy #6	J 60	72
Daisy #7	J 60	73
Daisy #8	J 60	74

all recorded on November 2, 1954 for First Party by Tom H. Danaher on which claims, as of this date, the annual assessment work has not been completed and it is the desire of the parties to protect said claims under the mining laws for the joint benefit of the parties hereto. It is therefore mutually agreed as follows:

The Second Party agrees to immediately enter onto said claims and complete a minimum of Eight Hundred Dollars ($800.00) worth of assessment work on said properties prior to [illegible] June 30, 1956 or in the alternative to be in possession in actual occupation of the group as of June 30, 1956 and to continue in such

EXHIBIT NO. 3

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actual occupation until such time as said stated amount of assessment work has been completed and affidavits of labor filed therefore in accordance with the law of the State of Utah and the Federal laws.

In consideration of the said Second Party's operations, the First Party hereby grants, lets and leases unto the Second Party all of the above described claims TO HAVE AND TO HOLD unto the Second Party for a period of one year from the date of this agreement unless sooner terminated as otherwise herein provided. The term of this lease to continue for said one year and so long thereafter as the Second Party shall each year complete the assessment work on said claims as provided by law, on or before the first day of June of each calendar year and so long as the royalties hereinafter set out are not in default.

If any ore bodies are discovered, or other valuable deposits of minerals are discovered by Second Party in its exploration and assessment work program, and any ores or minerals are shipped and sold from said claims at any time; all of said operations to be at the sole discretion of the Second Party with the exception of the assessment work; then in that event, the Second Party agrees to pay to First Party a ten per cent (10%) royalty based on the gross proceeds received from any buyer of ores or minerals produced from said claims, less any development allowance, haulage allowance ~~or bonuses~~. Such royalty to be paid at the address above stated.

Though the primary term of this lease is for one year, it is mutually understood and agreed that if the Second Party shall fail to have completed the anual assessment work required by law on or before the first day of June, 1957 such failure to do such assessment work and the recording of affidavits in accordance with the law to that effect, then such failure to do the work and record the affidavit shall automatically be considered to be termination of all of the rights of the Second Party hereunder. Such agreement shall automatically terminate and relieve the Second Party of any further obligation to do the assessment work for any year other than that ending June 30,

EXHIBIT NO. 3

Official

~~EXTRA COPY~~

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1956. The doing of said work and filing of such affidavits shall automatically extend and continue this lease for an additional one year period, with the same manner of termination or extension dependent on the Second Party's doing the assessment work and filing affidavits of same on or before the first day of June of each calendar year thereafter.

Throughout the term of this lease, the Second Party may continue its operation so long as in accordance with the laws, in whatsoever manner it deems best, reserving to the First Party reasonable rights of inspection and access to any settlement sheets.

This agreement shall be binding upon the heirs, successors, legal representatives and assigns of the parties hereto.

WITNESS the names of the parties.

DANAHER and DANAHER, a partnership

By Jas. E. Danaher
a partner thereunto duly authorized.

Tom H. Danaher
Tom H. Danaher, a partner

ROSARIO EXPLORATION CO.

By [illegible]
its agent, duly authorized. PRESIDENT

Subscribed and sworn to before me this 25th day of June, 1956. My commission expires April 21, 1960.

Notary Public

Subscribed and sworn to before me this 6th day of July, 1956.

GEORGE W. WOLFE
Notary Public, State of New York
No. 41-4326500
Qualified in Queens County
Term Expires March 30, 1957

IBIT NO. 3

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DATE	INITIALS	CODE

EXHIBIT NO. 4

Title Data

Claim Name	Recording Date	Book	Page
Daisy No. 1	Nov. 2, 1954	J60	67
Daisy No. 2	Nov. 2, 1954	J60	68
Daisy No. 3	Nov. 2, 1954	J60	69
Daisy No. 4	Nov. 2, 1954	J60	70
Daisy No. 5	Nov. 2, 1954	J60	71
Daisy No. 6	Nov. 2, 1954	J60	72
Daisy No. 7	Nov. 2, 1954	J60	73
Daisy No. 8	Nov. 2, 1954	J60	74

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EXHIBIT NO. 5

A BRIEF GEOLOGIC REPORT ON THE DAISY GROUP

The Daisy Group, composed of eight unpatented mining claims, is located in Sections 23 and 24, Township 22 South, Range 14 East, Salt Lake Meridian. The property is situated six miles east of the San Rafael Reef and approximately 13 miles southwest of Greenriver, Utah. State Highway 24 cuts through the northern half of the group, making the property accessible throughout the year.

Uranium and vanadium mining has been carried on intermittently in the general area for the past 50 years. Until recently, the ore production has come from surface or near surface deposits. During 1954, A.E.C. and private drilling proved ore bodies at depth in an area a few miles northwest of the Daisy Group.

No mining has been done on the Daisy Group to date. However, preliminary drilling results indicate an exploration program is warranted. An ore body 170 feet long and 100 feet wide has been delineated. The thickness of the ore ranges from one to five feet.

STRATIGRAPHY

The Daisy Group is located in an area of little relief. Sixty per cent of the property lies on a flat of alluvium and slope wash. The remainder is covered by partially eroded Brushy Basin shale and Cedar Mountain formation showing a thickness of up to 100 feet.

The Morrison formation, composed of the Brushy Basin shale and Salt Wash sandstone members, is approximately 450 feet thick in the general area. The Salt Wash member probably does not constitute more than 220 feet of the total thickness.

The Salt Wash sandstone, ore host and drilling objective for this group, lies at a depth of from 130 feet on the west side of the property to 230 feet

on the east. The ore found by preliminary drilling is from 55 to 80 feet below the Brushy Basin-Salt Wash contact.

LITHOLOGY

The Salt Wash member of the Morrison formation is composed of an arkosic sandstone, light to dark gray and buff in color, and light to reddish brown mudstone. There are within the member minor conglomeratic lenses, variegated red and green shales and some relatively thin beds of clay.

Examination of the core from the ore horizon showed a well sorted subangular quartz cemented with calcium carbonate. The core contained carbonaceous trash in varying amounts, some sulphides, and the uranium mineral coffinite.

STRUCTURE

Although the Daisy Group lies relatively close to the east flank of the San Rafael Swell, there is little or no indication of structural influence in the vicinity. There is some faulting north of the property and there appear to be minor flexures on the northern edge of the Daisy Group. Figure 2 shows the location of the property and the areal distribution of the formations as well as minor faulting mentioned above.

MINERALIZATION

The uranium mineralization of commercial value in the Greenriver Desert area is confined to the top one-third or one-half of the Salt Wash member. Ore occurs in paleo-stream channels which are or have been porous and permeable. Abundant carbonaceous trash and some sulphides are usually present in these channels. Mineralized portions of trees and dinosaur bones are found in many of the ore bodies. The ore contained in the core from the Daisy Group has been identified as coffinite which is commonly associated

with carbonaceous material. The mineralization occurs in fractures and small blebs and as interstitial filling.

SUMMARY AND CONCLUSIONS

Although there has been no uranium ore production on the Daisy Group, drilling indicates the ore potential of the property is very good.

The core examined from each of the holes cored shows a porous and permeable sandstone horizon at least 30 feet thick. The presence of carbonaceous trash and sulphides within a well sorted permeable sand provides ideal loci for the precipitation of uranium salts carried by aqueous solutions. The light to dark gray color of the Salt Wash sandstone is a very favorable indication that the strata have been permeated by mineralized solutions.

EXPLORATION

A drilling program should be initiated to first explore an area on the east side of Highway 24. Tentative locations have been plotted on Figure 3. The 36 holes are in rows or fences 75 feet apart and 125 feet between holes. Holes will vary from 220 feet to 275 feet in depth. All holes, according to calculations, will penetrate the top 70 feet of the Salt Wash sandstone member of the Morrison formation.

In the event that the first phase of this program is successful, an amended application for 67 additional holes totaling 16,570 feet will be requested. The second phase of the program will be drilled in a diamond pattern with holes spaced 250 feet apart, with 150 feet between fences.

Warren E. Ove

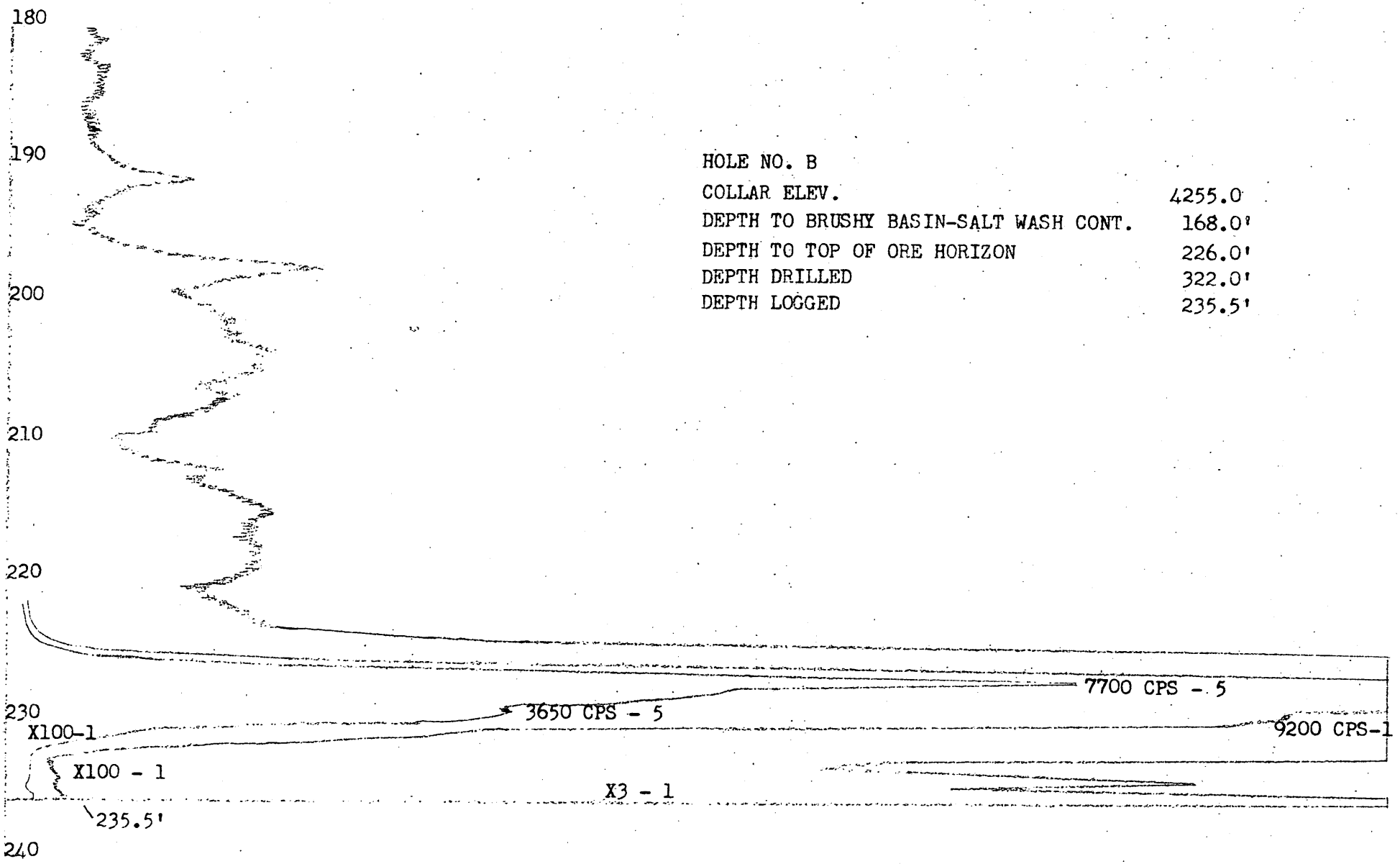
Warren E. Ove
Geologist

EXHIBIT NO. 6

SUMMARY OF DRILL LOGS

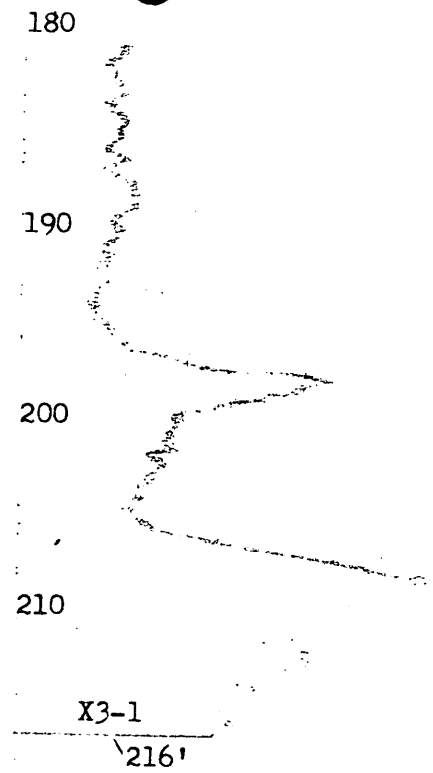
Hole No.	Depth Drilled	Depth Probed	Collar Elev.	Depth to Jmbb-Jms Cont.	Depth to Top of Ore	Ore Thickness	Radiometric Assay	Chemical Assay
B	322.0'	235.5'	4255.0	168.0'	226.0'	4'	+ 1%	1.79%
B1	240.0'	216.0'	4255.0	171.0'	?	-	-	-
B2	247.0'	245.0'	4255.0	165.0'	231.0'	2'	.18%	-
B3	239.0'	233.0'	4255.5	166.0'	?	-	-	-
B4	241.0'		4255.5	? no log	?	-	-	-
B5	251.5'	240.0'	4255.0	170.0'	232.5'	1'	.17%	.17%
B6	241.5'	239.0'	4255.0	165.0'	230.5'	2'	.37%	.19%
B7	241.5'	241.0'	4254.0	167.0'	233.0'	5'	.49-1.00%	.35% -- 3' .38% -- 2'
B8	242.0'	242.0'	4254.5	172.0'	232.0'	2'	.10%	.01%
B9	234.5'	222.0'	4254.5	162.5'	219.5'	1'	-	-
B10	239.0'	227.0'	4253.5	160.0'	?	-	-	-
B11	241.5'	241.0'	4253.5	165.0'	?	-	-	-
B12	251.5'	251.0'	4253.5	165.0'	241.0'	Min.	.03%	-
B13	239.5'	237.0'	4255.0	170.0'	?	-	-	-
B14	204.0'	200.0'	4255.0	172.5'	?	-	-	-

EXHIBIT NO. 6



HOLE NO. B

COLLAR ELEV.	4255.0
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	168.0'
DEPTH TO TOP OF ORE HORIZON	226.0'
DEPTH DRILLED	322.0'
DEPTH LOGGED	235.5'



HOLE NO. B1

COLLAR ELEV.	4255.0
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	171.0'
DEPTH TO TOP OF ORE HORIZON	--
DEPTH DRILLED	240.0'
DEPTH LOGGED	216.0'

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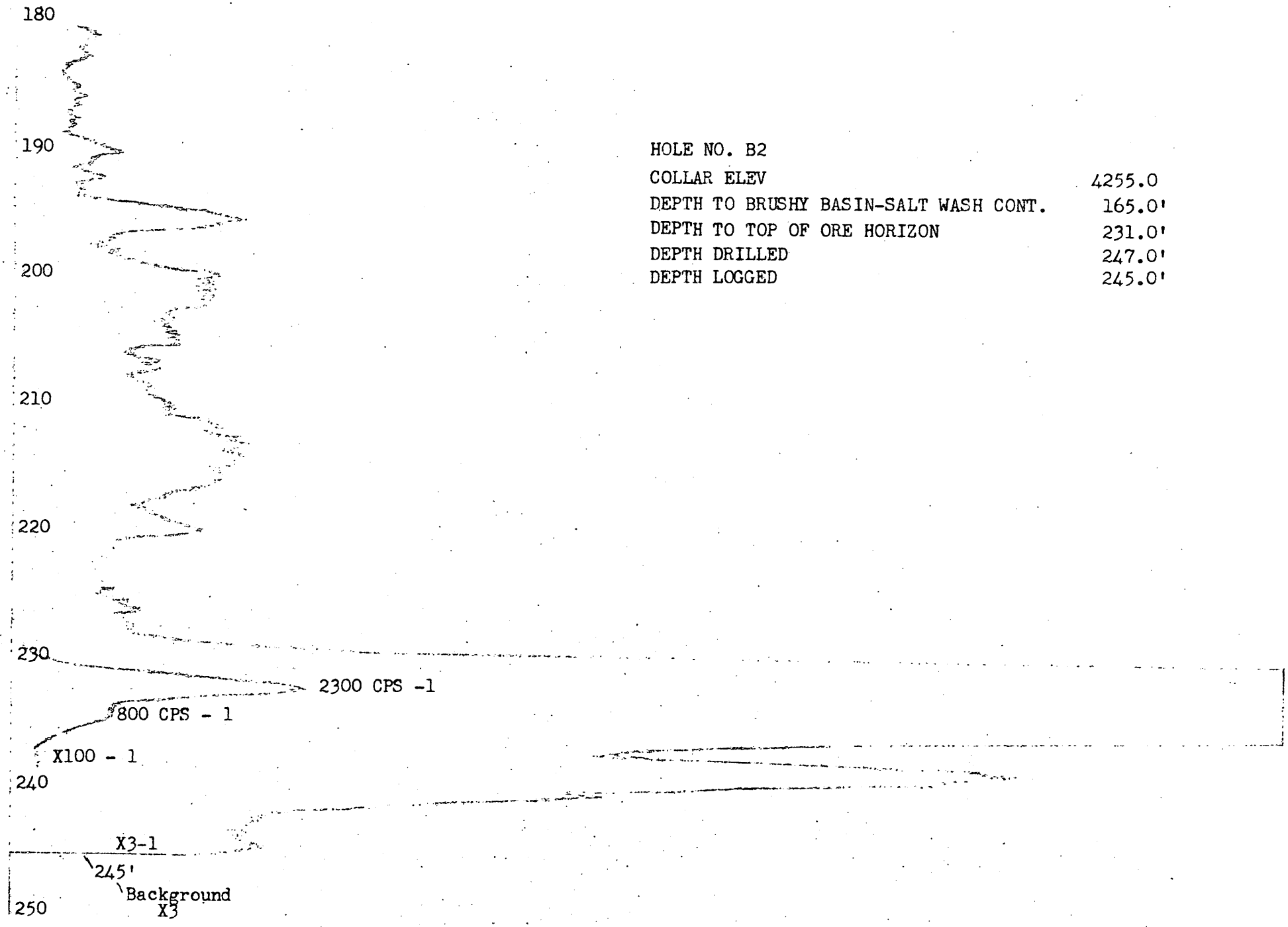
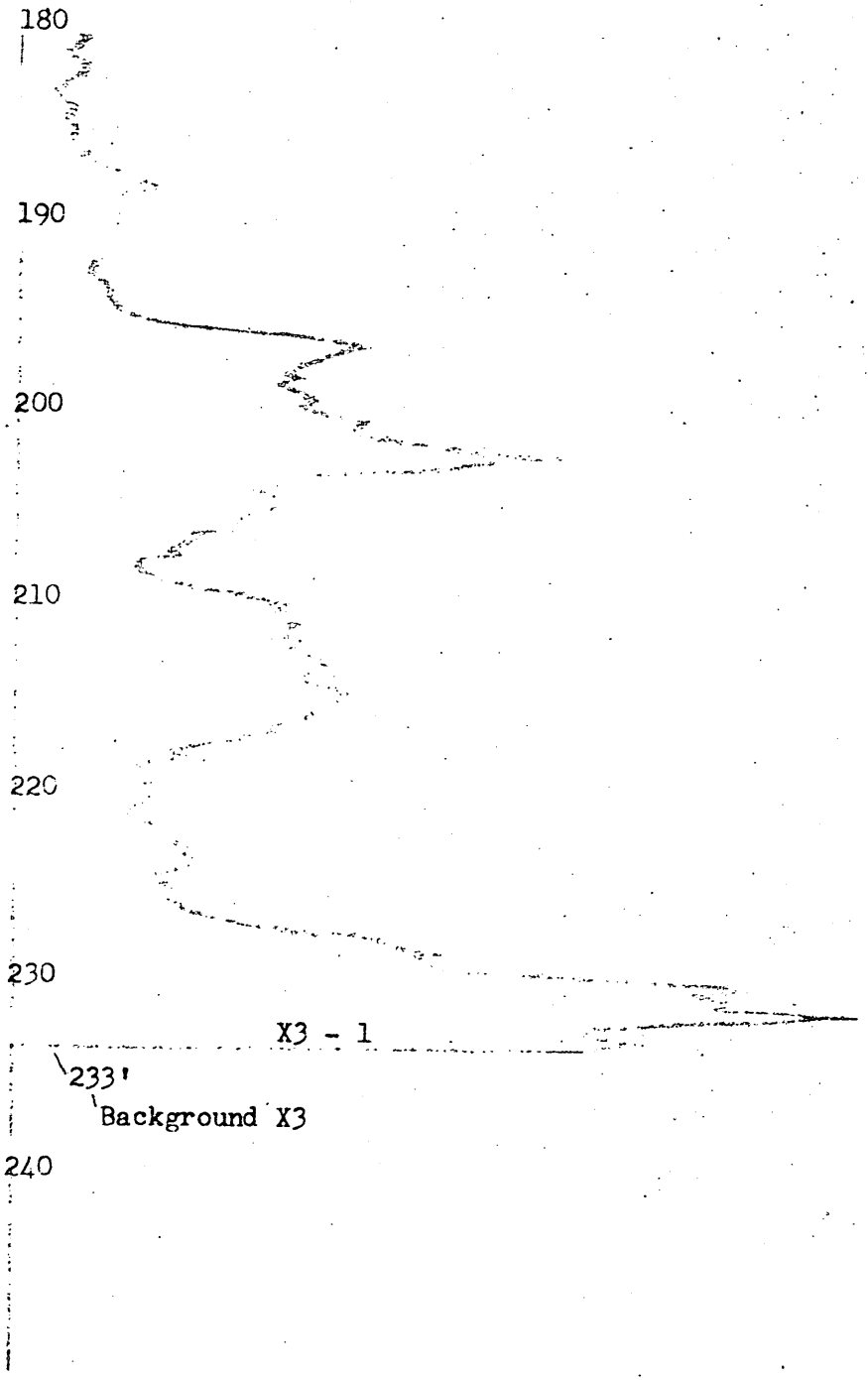
EXHIBIT NO. 6



HOLE NO. B2

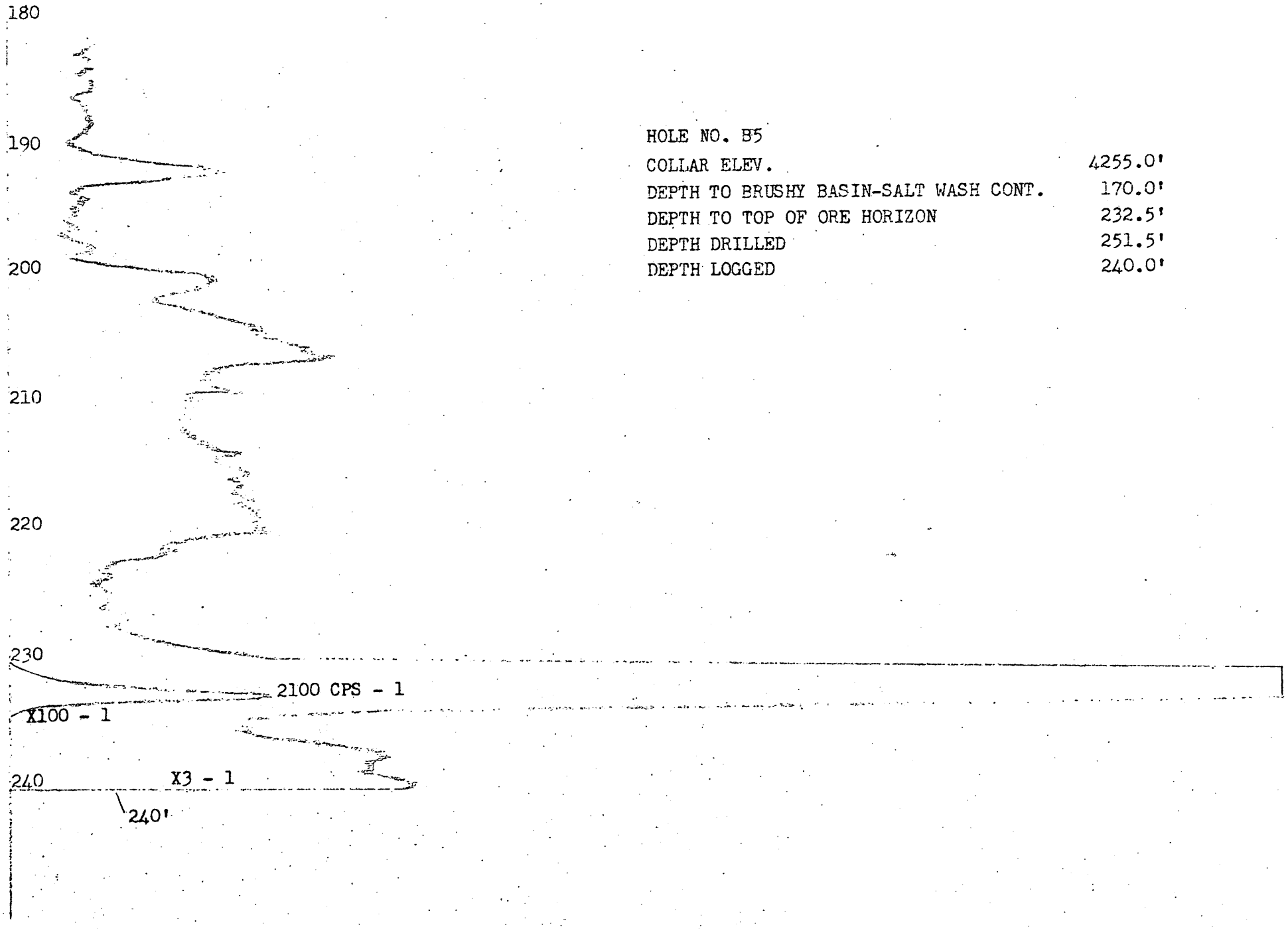
COLLAR ELEV	4255.0
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	165.0'
DEPTH TO TOP OF ORE HORIZON	231.0'
DEPTH DRILLED	247.0'
DEPTH LOGGED	245.0'

EXHIBIT NO. 6



HOLE NO. B3	
COLLAR ELEV.	4255.5
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	166.0'
DEPTH TO TOP OF ORE HORIZON	--
DEPTH DRILLED	239.0'
DEPTH LOGGED	233.0'

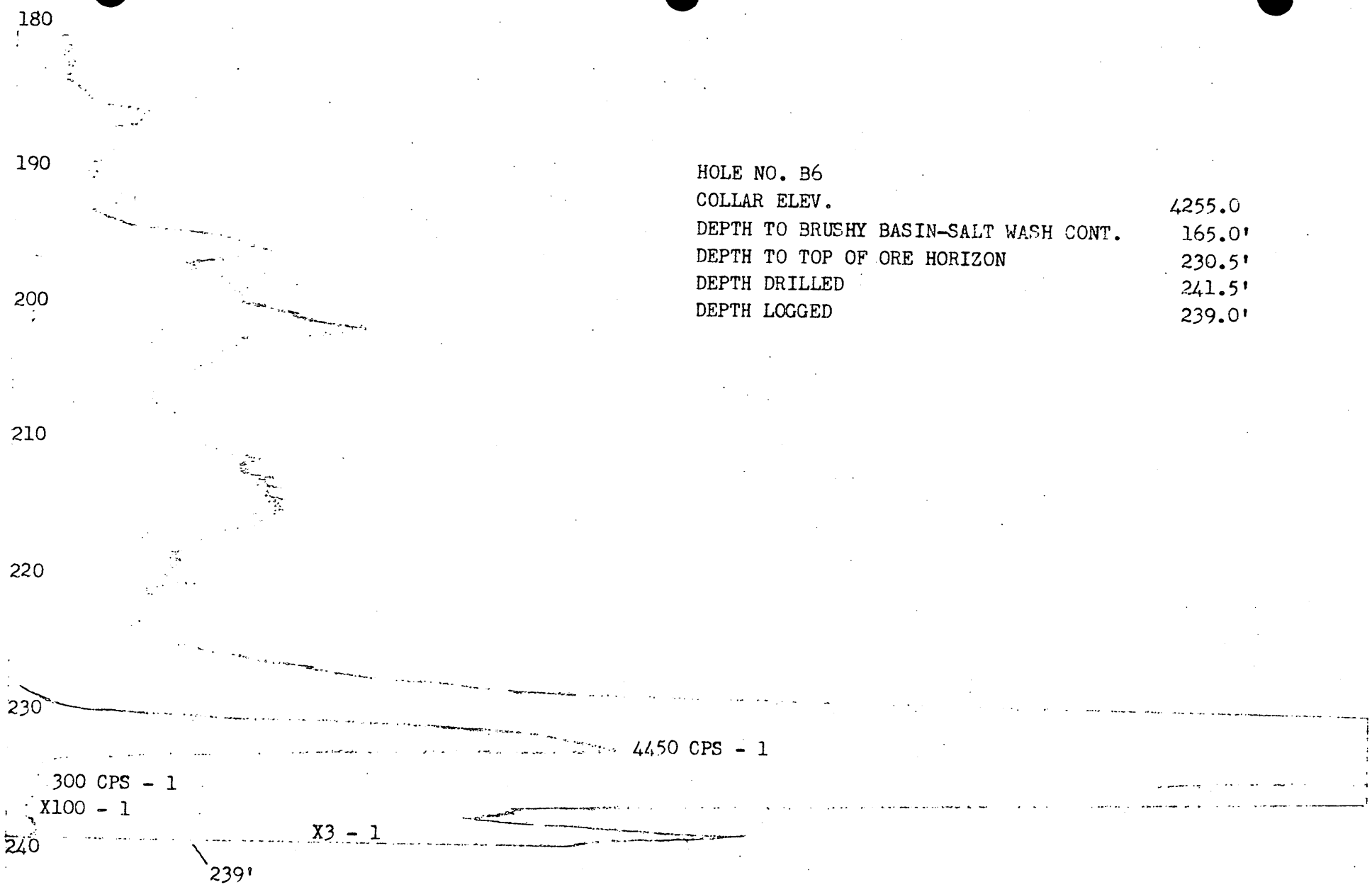
EXHIBIT NO. 6



HOLE NO. B5

COLLAR ELEV.	4255.0'
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	170.0'
DEPTH TO TOP OF ORE HORIZON	232.5'
DEPTH DRILLED	251.5'
DEPTH LOGGED	240.0'

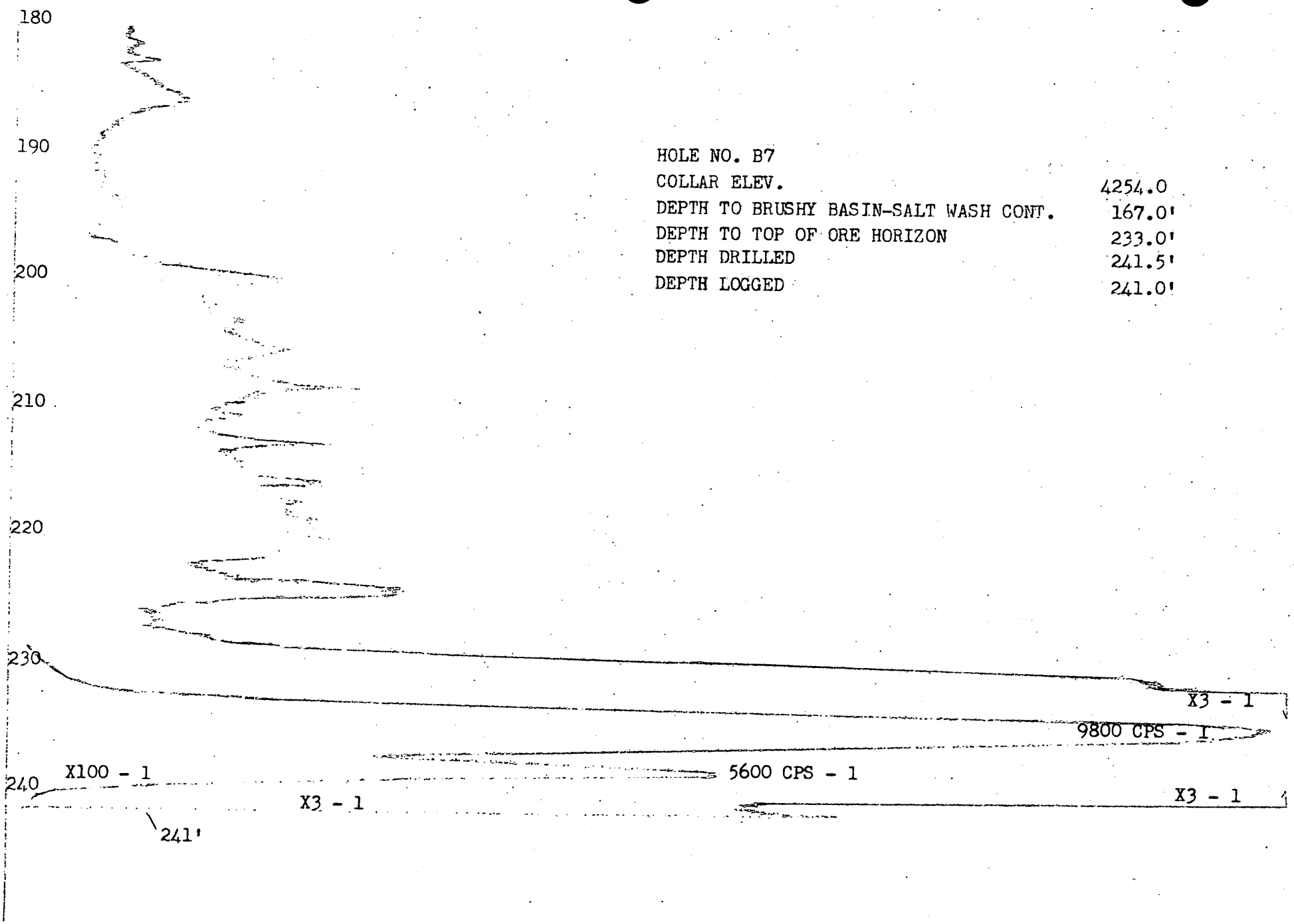
EXHIBIT NO. 6



HOLE NO. B6

COLLAR ELEV.	4255.0
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	165.0'
DEPTH TO TOP OF ORE HORIZON	230.5'
DEPTH DRILLED	241.5'
DEPTH LOGGED	239.0'

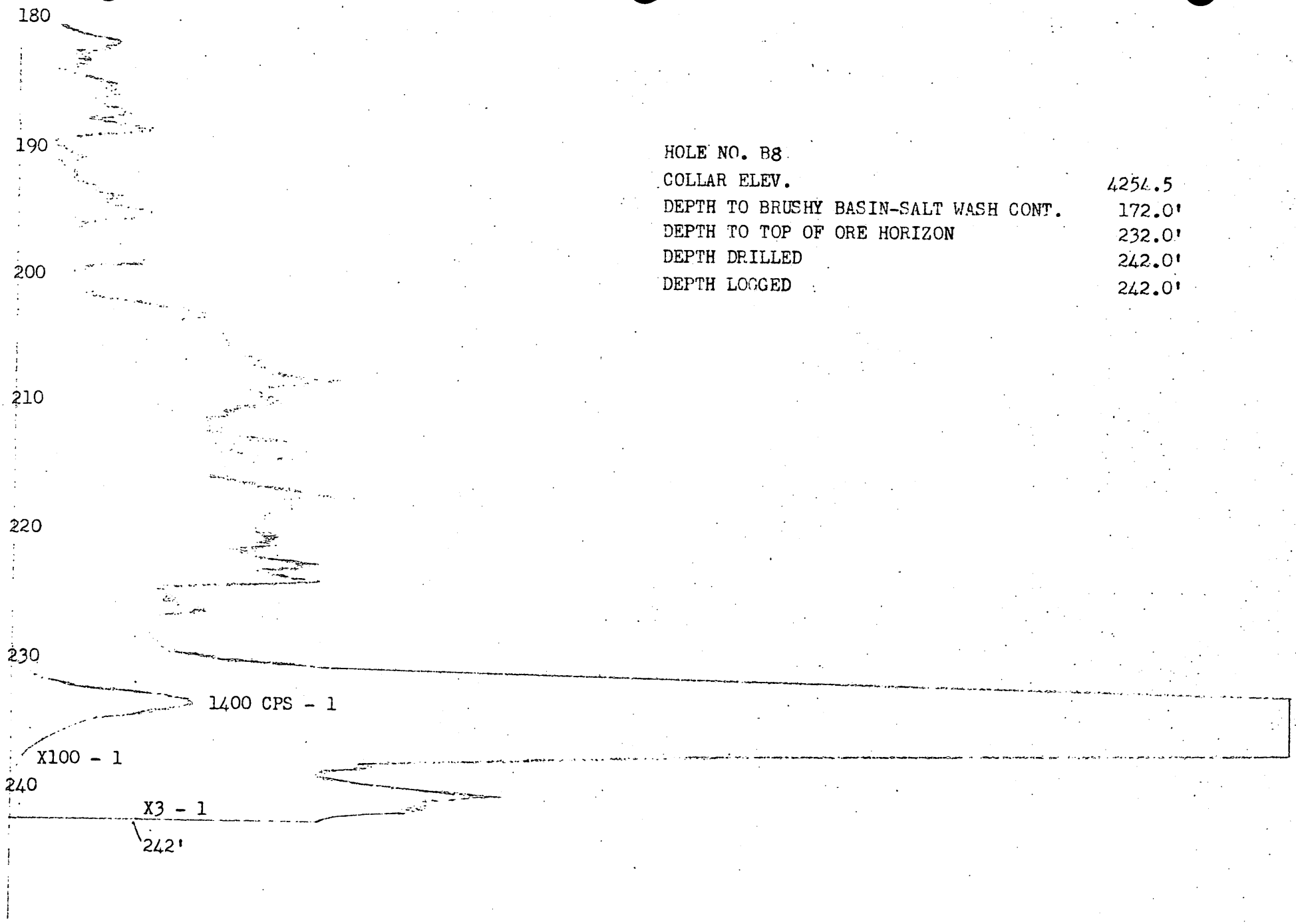
EXHIBIT NO. 6



HOLE NO. B7

COLLAR ELEV.	4254.0
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	167.0'
DEPTH TO TOP OF ORE HORIZON	233.0'
DEPTH DRILLED	241.5'
DEPTH LOGGED	241.0'

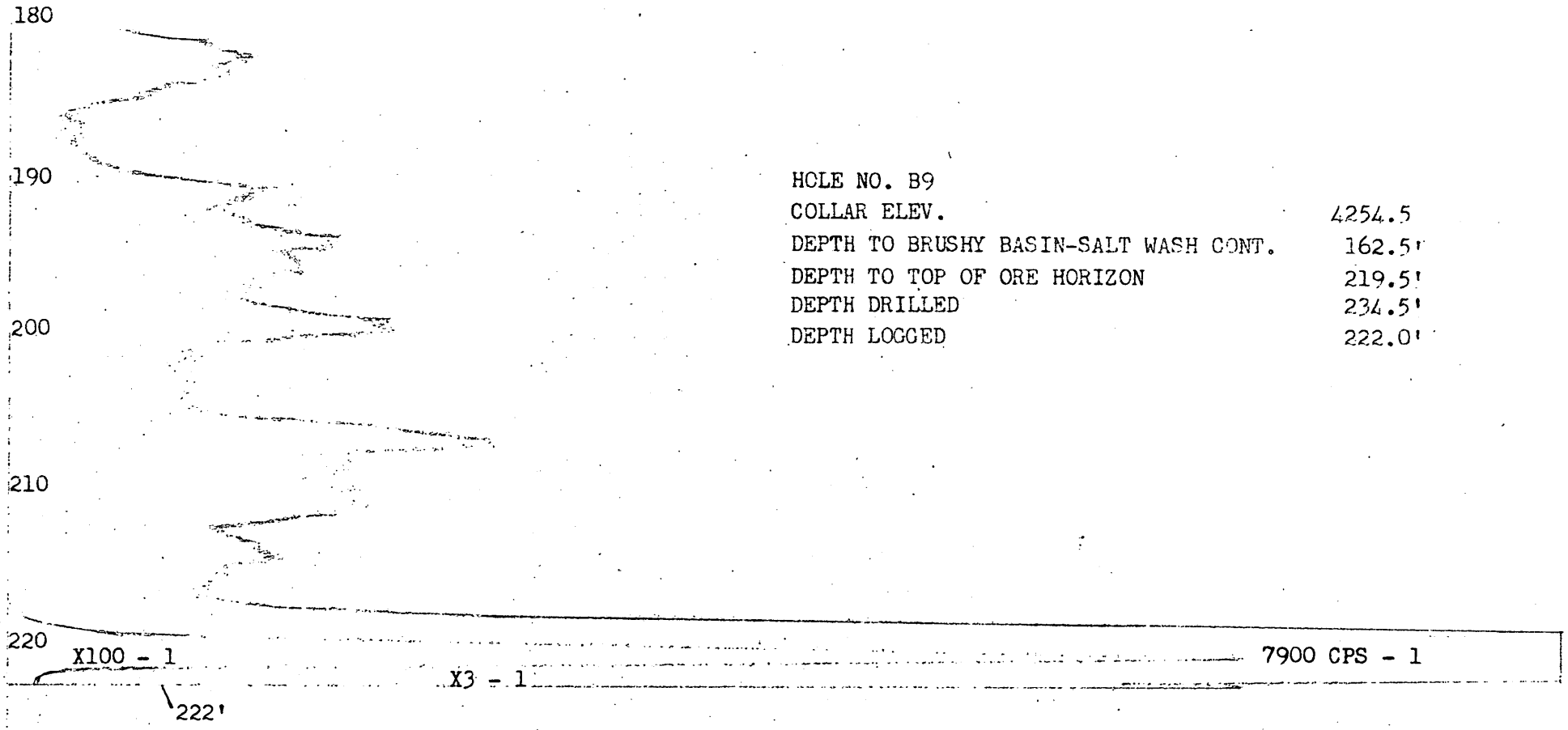
EXHIBIT NO. 6



HOLE NO. B8

COLLAR ELEV.	4254.5
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	172.0'
DEPTH TO TOP OF ORE HORIZON	232.0'
DEPTH DRILLED	242.0'
DEPTH LOGGED	242.0'

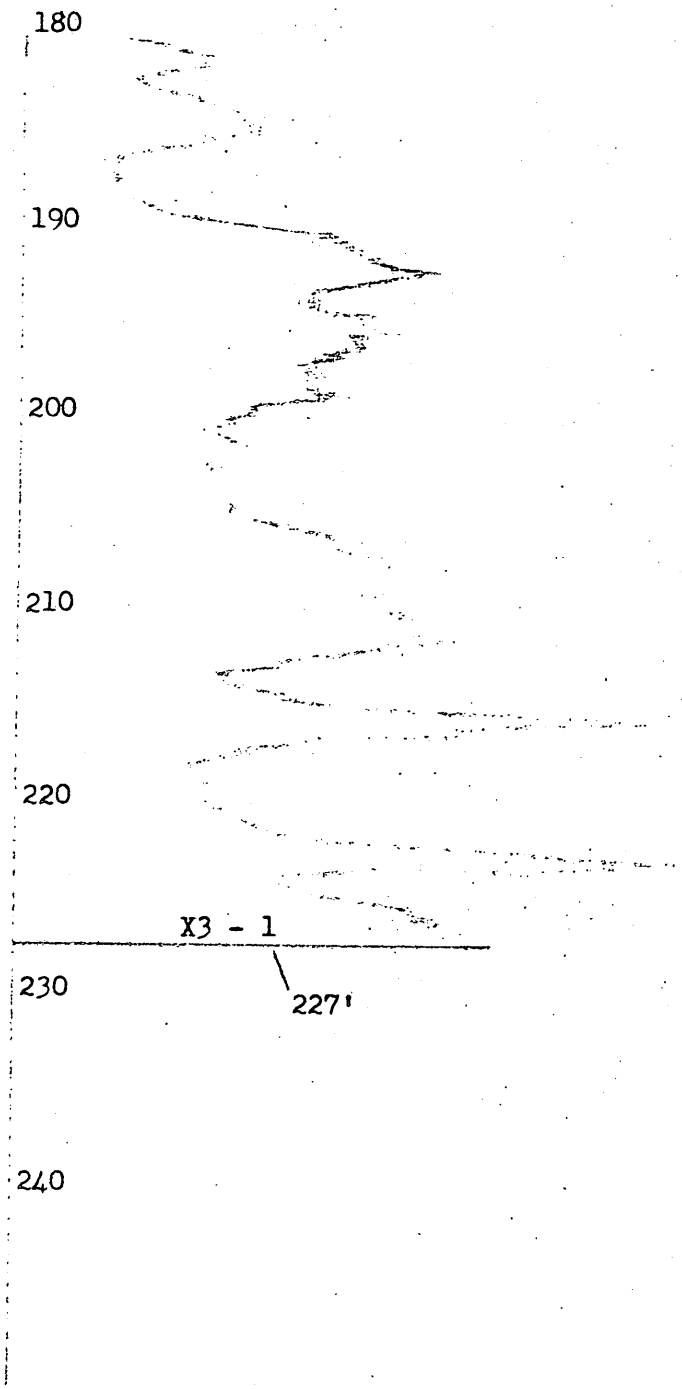
EXHIBIT NO. 6



HOLE NO. B9

COLLAR ELEV.	4254.5
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	162.5'
DEPTH TO TOP OF ORE HORIZON	219.5'
DEPTH DRILLED	234.5'
DEPTH LOGGED	222.0'

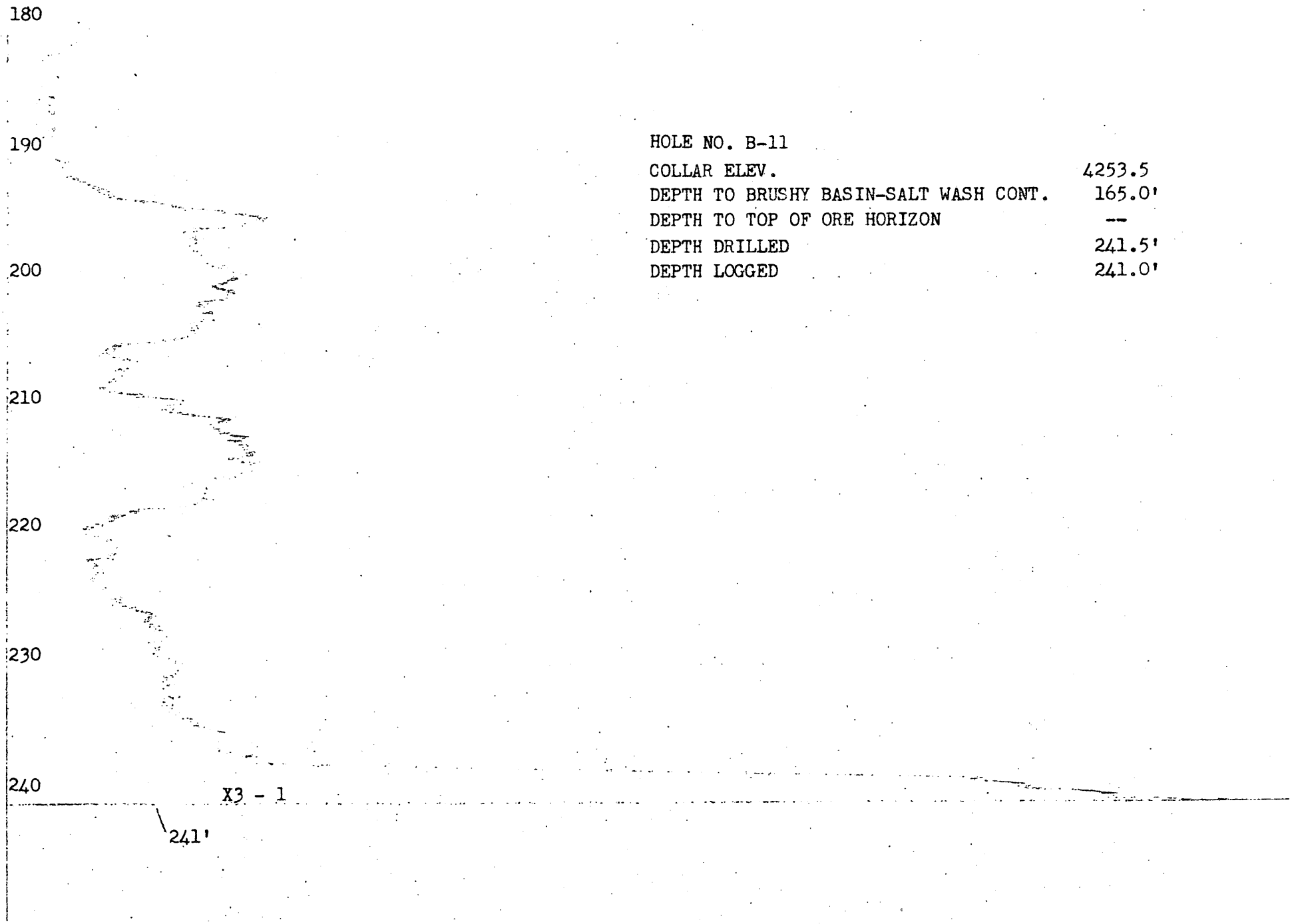
EXHIBIT NO. 6



HOLE NO. B10

COLLAR ELEV.	4253.5
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	160.0'
DEPTH TOP OF ORE HORIZON	--
DEPTH DRILLED	239.0'
DEPTH LOGGED	227.0'

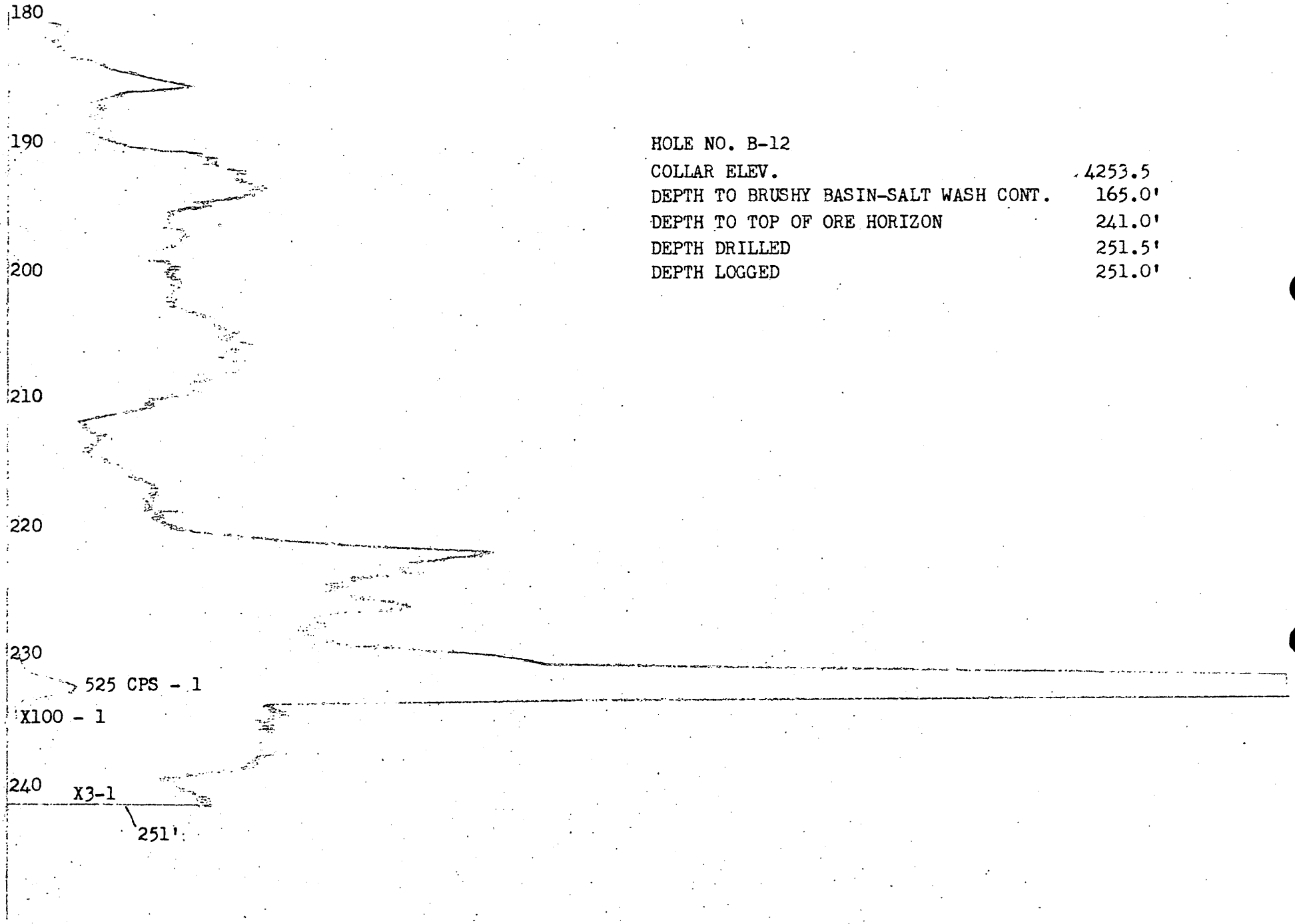
EXHIBIT NO. 6



HOLE NO. B-11

COLLAR ELEV.	4253.5
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	165.0'
DEPTH TO TOP OF ORE HORIZON	--
DEPTH DRILLED	241.5'
DEPTH LOGGED	241.0'

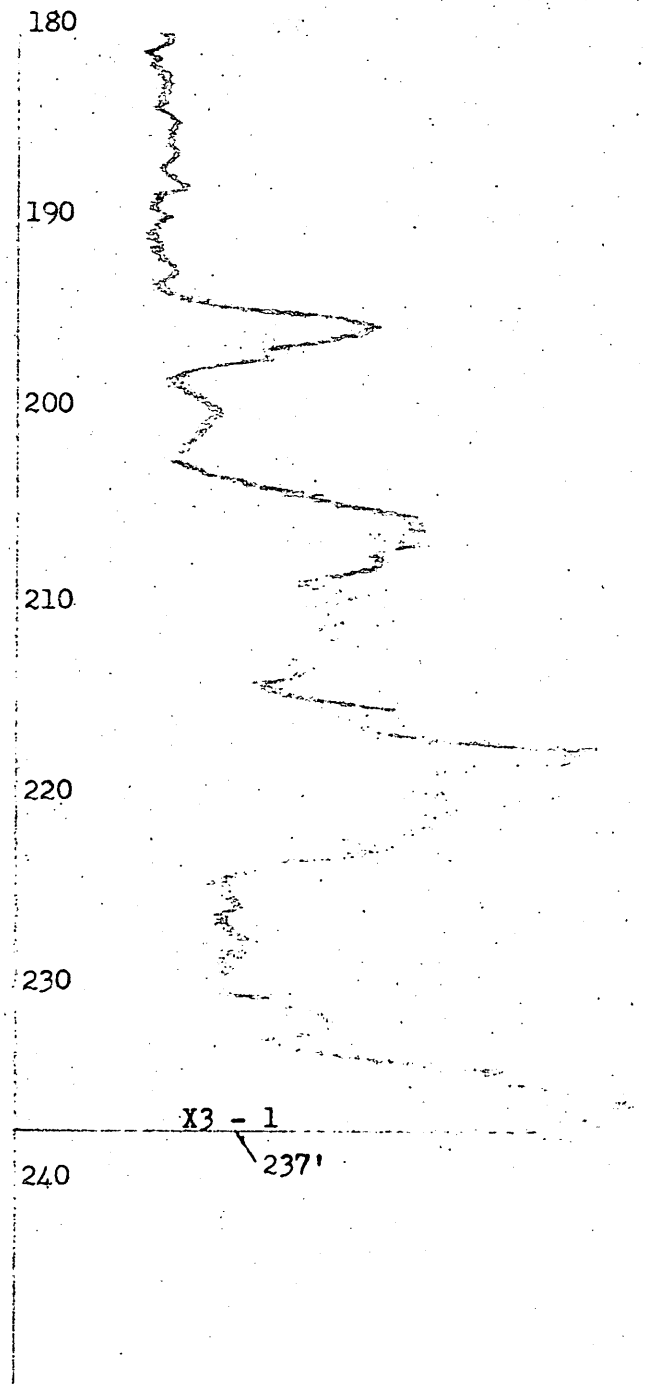
EXHIBIT NO. 6



HOLE NO. B-12

COLLAR ELEV.	4253.5
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	165.0'
DEPTH TO TOP OF ORE HORIZON	241.0'
DEPTH DRILLED	251.5'
DEPTH LOGGED	251.0'

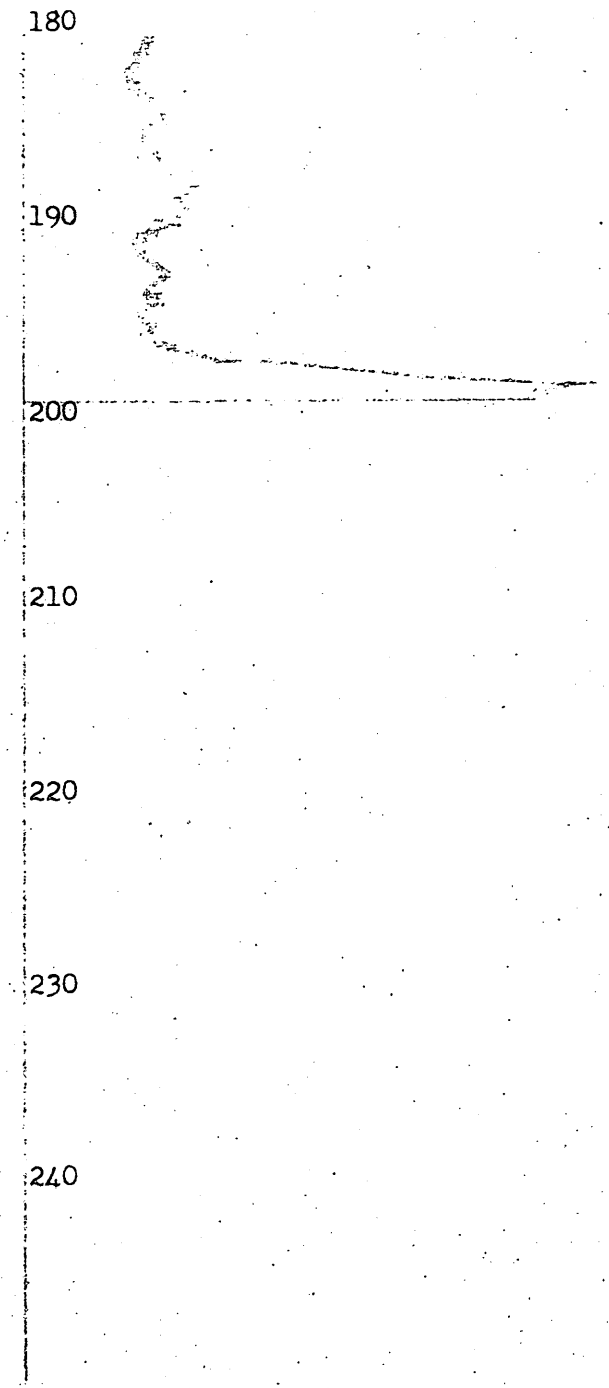
EXHIBIT NO. 6



HOLE NO. B-13

COLLAR ELEV.	4255.0
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	170.0'
DEPTH TO TOP OF ORE HORIZON	--
DEPTH DRILLED	239.5'
DEPTH LOGGED	237.0'

EXHIBIT NO. 6



HOLE NO. B14	
COLLAR ELEV.	4255.0
DEPTH TO BRUSHY BASIN-SALT WASH CONT.	172.5'
DEPTH TO TOP OF ORE HORIZON	--
DEPTH DRILLED	204.0'
DEPTH LOGGED	200.0'

EXHIBIT NO. 6

EXHIBIT NO. 7

AMERICAN DRILLING COMPANY
"ADCO"
615 North First Street • Phone 1434
GRAND JUNCTION, COLORADO

February 20, 1957

Mr. Warren Ove
Rosario Exploration Co.
Electric Bldg.
Grand Junction, Colorado

Dear Warren:

Thank you for giving "ADCO" the opportunity to bid on your expected drilling on the Daisy Group Claims located in the Green River, Utah area.

Our prices are as follows:

Drilling ----------$1.30 per foot
Coring ----------$3.00 per foot
The coring price given above is for sand and shale coring.
Coring in conglomerates will be done for bit cost plus $10./hour.

Sincerely,

AMERICAN DRILLING COMPANY

Dick

Richard Travis, president

EXHIBIT NO. 7

SCOTT BROS.
drilling company
"Exploration Drilling Services"

BRANCH:
641 GLENWOOD AVE. - PHONE CH 2-7847
GRAND JUNCTION, COLO.

BRANCH:
YUCCA HOTEL — PHONE AT 7-4741
GRANTS, NEW MEXICO

220 WHITESIDE BLDG. • PHONE POrter 3-5131
LUBBOCK, TEXAS

February 18, 1957

Mr. Warren Ove
Rosario Exploration
211 Electric Building
Grand Junction, Colorado

Mr. Ove:

We would like to quote the following prices for drilling near Green River, Utah:

Plug-Bit Drilling.....$ 1.50 per ft.

Core Drilling.....$ 3.50 per ft.

Stand-by Time.....$12.50 per hr.

Thank you.

Sincerely,

L.W. Scott Partner

L.W. Scott

SCOTT BROS. DRILLING CO.

LWS:lab

EXHIBIT NO. 7

MANUFACTURERS OF
DIAMOND DRILLS
DRILLING EQUIPMENT
DIAMOND BITS

BRANCH OFFICES
NEW YORK PITTSBURGH
PHILADELPHIA
GRAND JUNCTION, COLO

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

SPRAGUE & HENWOOD, INC.

SINCE 1883

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

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

February 18, 1957

Rosario Exploration Company
212 Electric Building
Grand Junction, Colorado

Attn: Mr. Warren E. Ove

Gentlemen:

In accordance with our recent telephone conversations, we are pleased to quote as follows for drilling in the Greenriver, Utah area.

Non-Core Drilling

Item 1. From surface to 300 ft. depth. . . . $ 1.75 per ft.

Core Drilling

Item 2. From surface to 300 ft. depth . . . $ 4.00 per ft.

Delays

Item 3. For all delays such as radiometric logging, or any other delays requested by the customer. . . . . $15.00 per hr.

It is our understanding your company contemplates a DMEA loan for this drilling, and it is with this understanding that the above prices are quoted. At such time as your company would require a formal proposal, we will be glad to submit our quotation in detail, listing the normal provisions and agreements under which our company operates.

We thank you for your inquiry.

Very truly yours,

SPRAGUE & HENWOOD, INC.

Vincent D. Nourse

Vincent D. Nourse

VDN:jmt

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
8/20	Ching	700
8/20	Ellis	700
8/21	Williams	130
8/26	Simon	110
"	Mittendorf	100
8/21	Selfridge	130
8/27	[illegible]	220

AUG 26 1957

Mr. R. M. Reininger, President
Rosario Exploration Company
212 Electric Building
Grand Junction, Colorado

Re: Docket No. DMEA-4700 (Uranium) Yogo 130
Daisy Group 8/21
Emery County, Utah 225

Dear Mr. Reininger:

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

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

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

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

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

MChing/izm 8-20-57
cc to: Mr. Ching
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
R. M. Reininger, New York
DMEA FT Reg. 3 (2)

8623

4700

Excerpt from Mr. Mittendorf's diary, 8/20/57:

Mr. Reininger, of the New York and Honduras Mining Co., phoned from New York to discuss DMFA-4700, Rosario Exploration Co. Before taking the call I learned that Ching is preparing a letter of denial which will go before the Committee tomorrow.

George is familiar with the area, and he fully supports the denial. He said Survey does likewise, but that Miner is willing to go along with a revised program.

Since a denial appears inevitable, I passed the information to Reininger.

He was greatly disappointed. He felt that DMFA has in the past approved projects less attractive than this one. I told him that perhaps we had, but since then we have learned more about the criteria of favorability for uranium deposits.

He wanted to know the reasons why we would not approve, and I told him it was principally because we didn't feel that there was a chance of making a significant discovery.

He then wanted to know what I term a "significant discovery." I said the size of the target must be commensurate with the cost of the project and that many things are to be considered, such as the tonnage, grade, depth, cost of mining, etc.

He thanked me for my personal part in getting the application re-examined.

Docket

Ching
Ellis

August 20, 1957

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-4700

Commodity: Uranium

Applicant: Rosario Exploration Company
212 Electric Building
Grand Junction, Colorado

Property: Eight unpatented mining claims, Daisy Nos. 1-8, situated in secs. 23 and 24, T. 22 S., R. 14 E., S.L.M.&B., Emery County, Utah. Applicant is the Lessee through an Agreement, dated June 25, 1956 with Danaher and Danaher.

Date of Application: March 15, 1957

Amount of Application: $16,582.61

Referred to Region III: April 12, 1957

Field Examination made: May 16, 1957

Field Team Report received: Original - June 20, 1957
Supplemental - August 7, 1957

Work Proposed: Test the Salt Wash member of the Morrison formation by drilling 36 holes aggregating 8,930 feet in a diamond pattern, with holes approximately 100 feet apart.

Estimated Cost:

8,037 ft. plug drilling @ $1.30/ft.	$10,448.10	
893 ft. core drilling @ $3/ft.	2,679.00	
Supervision	1,600.00	
Operating materials & supplies	348.00	
Contingencies	1,507.51	
Total		$16,582.61
Government participation @ 75%		$12,436.96

Field Team Report: Original, dated June 1957
Supplemental, dated August 1, 1957
By - J. W. Hasler, USGS & M. H. Salsbury, USBM

Ore deposits in the area occur in the upper two sandstone lenses of the Salt Wash member of the Morrison formation. Production in the area 5 miles northwest of the subject property has been substantial, three properties having produced a combined tonnage approaching 60,000, averaging from 0.27% to 0.36% U_3O_8. Reserves total hundreds of thousands of tons.

A number of small ore bodies have been found and mined about 2 miles south of the subject property. These are all less than 1,000 tons in size and there are no known reserves among them.

A belt of thickened sandstone marking a channel connecting the two above described producing areas has been postulated. If it does exist the subject property is probably east of the channel trend.

Three properties, one to three miles north of the subject property, have been examined in connection with DMEA applications. Docket Nos. 3871 and 3984 were denied and a contract under Docket No. 3730 was completed with essentially negative results. All three properties are considered to be in semi-favorable ground.

The Applicant has drilled 16 holes on 40 to 50-foot centers in a small area of the subject property; 5 holes contained ore, 3 were mineralized and 8 were barren. Applicant estimated reserves in the deposit as 1,391 tons averaging 0.64% U_3O_8. The examiners estimate 679 tons averaging 0.74% U_3O_8, which, with lack of continuity and dilution in mining taken into account, would represent about 679 tons of 0.37% U_3O_8 material. The ore body appears to be the same type as those found 2 to 3 miles to the south, which can be mined economically only when easily accessible from the rim. Scattered deposits of this type on the subject property could not be mined profitably at the existing depth of 225-250 feet. A 10,000 ton ore body assaying 0.25% U_3O_8 would be required.

On the basis of available data, the ore potential of the subject property is poor. Work to the north shows clearly that substantial mineralization found 5 miles away is not persistent in a southeasterly direction towards these claims. The discovery already made on the property was not based on any specific information but was made virtually by chance because of the easy accessibility of that particular area. Denial of the application is recommended.

The proposed project is a borderline case. While the examining team recommends denial, it is recognized that a favorable decision might be in order if only a slightly more optimistic view is taken of the project. A two stage drilling program, larger in scope than that requested by the Applicant, is offered for consideration.

Commodity Group Comments:

USGS, N. E. Nelson, June 24, 1957:

In the area around the subject property no large ore body has been disclosed by considerable drilling. In several projects DMEA participated and in others DMEA refused to participate in

the general area. In view of the unfavorable history of the projects in the immediate vicinity of the Daisy Group, concurs in the Field Team's recommendation for denial.

USGS, N. E. Nelson, August 13, 1957:

The finding of the ore body by the Applicant appears to have been a fortuitous occurrence as much drilling in the general area, in some of which DMEA participated, was uniformly disappointing. It is generally accepted that small ore bodies characterize the area around the Daisy Group. As now calculated nothing smaller than a 10,000-ton ore body can be considered economic and it would require 24,000 tons of reserves to care for the contingent royalty should all holes recommended be drilled. Recommends that the original recommendation of denial be allowed to stand.

USBM, James Paone, June 28, 1957:

Agrees with Field Team and advises denial.

USBM, James Paone, August 13, 1957:

On basis of the supplemental Field Team report favors the modified program.

Div. of Rare & Miscl. Metals, Michael Ching, August 20, 1957:

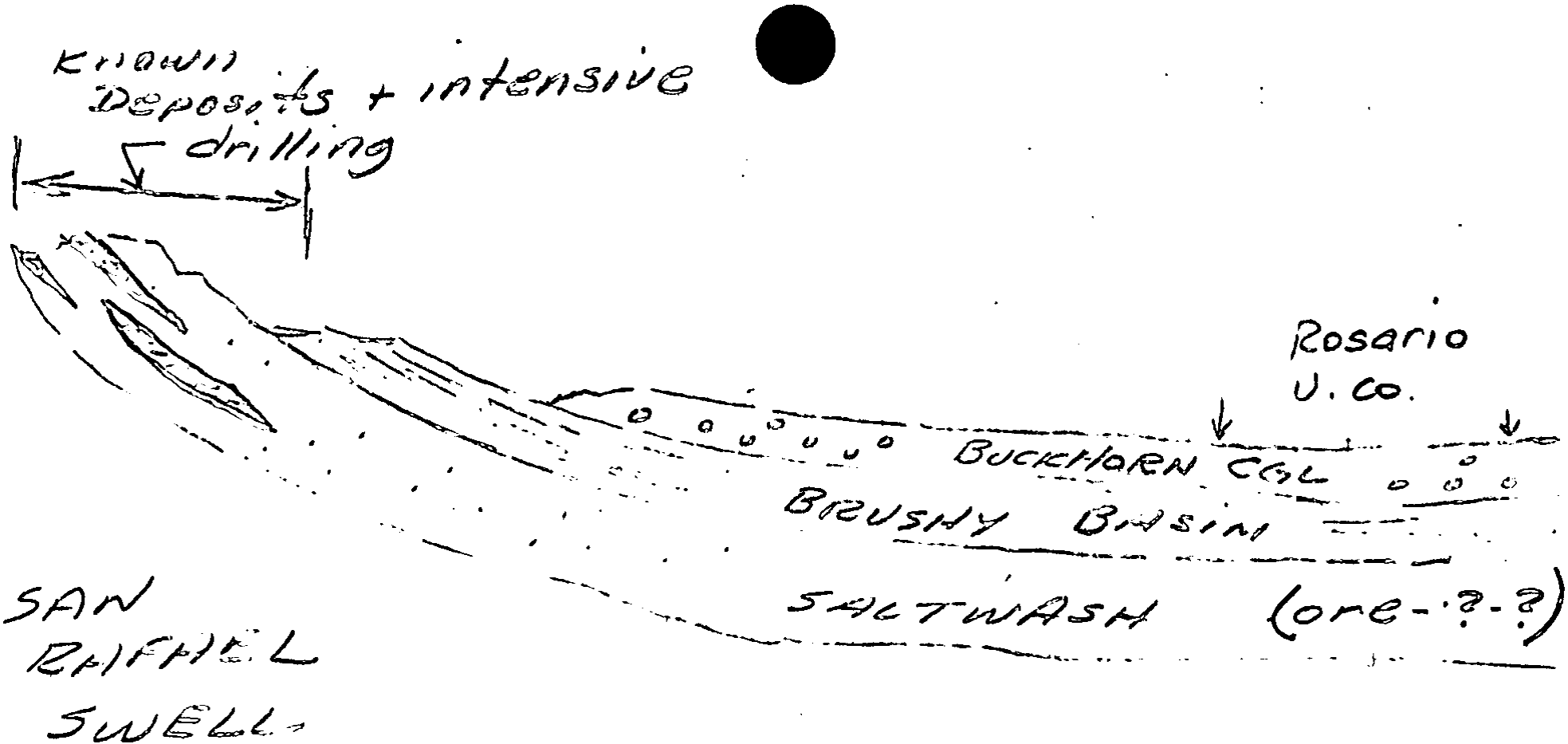
It is recognized that this is a borderline case. The area immediately surrounding the subject property has been subject to very little drilling and the examiners have stated that a favorable Salt Wash channel connecting the two producing areas to the north and south, and traversing relatively unexplored ground, has been postulated. The existing ore body has not been definitely delimited in two directions and the grade of 0.37% U_3O_8 estimated by the Field Team, as opposed to 0.74% estimated by the Applicant, is considerably higher than the average assumed for any deposits likely to be found. The probabilities are, however, that potential ore bodies would be in the 1,000-ton, or less, category. The existence of an exceptionally large body or a cluster of smaller bodies, containing high-grade material, remains a possibility. With this in view, it is only natural that the Applicant would want to follow through after finding a comparatively high-grade deposit with the drilling of only 16 holes.

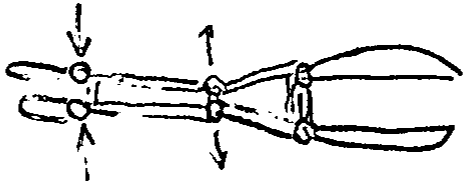
Conclusions and Recommendations:

Based upon the information available concerning this area, the probability of making a worthwhile discovery on the subject property is rather doubtful. It is recommended that the application be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis, Director
Div. of Rare & Misc. Metals


Known Deposits + intensive drilling
Rosario U. Co.
BUCKHORN COL
BRUSHY BASIN
SALTWASH (ore-?-?)
SAN RAFAEL SWELL



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

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IN REPLY REFER TO:
DMEA
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DATE	INITIALS	CODE
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August 13, 1957
Re: DMEA 4700
Rosario Exploration Co.
Daisy Group
Emery County, Utah
Appl. Est. $16,582.61
Rec/d Est. $38,635.00 - Uranium

Memorandum

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

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

Subject: Review of Supplementary Report of Field Team

The applicant requested assistance in 'drilling out' a relatively small area more or less centered by an orebody, estimated by the applicant to contain 1,391 tons of 0.64% U_3O_8. The examiners in their first report estimated it to contain 679 tons of 0.37% U_3O_8.

The orebody is about 230 feet below the surface (Brushy Basin) and is not practically accessible to the nearest Salt Wash rim. Drilling has not delimited the orebody as there is one 60-foot gate. The finding of the orebody appears to have been a fortuitious occurrence as much drilling in the general area, in some of which DMEA participated, was uniformly disappointing. In some cases, applications were filed and denied because of the generally unfavorable results of drilling and mining. However, similar size rim orebodies have been found to the south and west and five miles to the north are the large Four Corners and other orebodies. That small orebodies characterize the area around the Daisy Group is, I take it, generally accepted. -No, that is Hasker's observation and conjecture - WPW

In the original report of examination, the examiners and the Field Team recommended denial of the Rosario application because the "Daisy" claim group does not lie in an area that is favorable for large orebodies and the cost of exploring the group would be in excess of the value of ore that might be discovered or mined." As now calculated, nothing smaller than a 10,000-ton orebody can be considered economic and it would require 2.4 orebodies of that size to care for the contingent royalty, should all holes recommended be drilled or 24 closely grouped orebodies like that already known would suffice.

In my opinion, the conclusions of the examiners and Field Team in the first instance were correct.

I recommend that their original recommendation of denial be allowed to stand.

N. E. Nelson

N. E. Nelson

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Date August 13, 1957

Project No. 4700

Commodity Uranium

Name of applicant Rosario Exploration Co.

Name of property Daisy Group of Claims

Location of property Emery County, Utah

Estimated cost of project $38,632.00

To: ~~Ernest William Ellis~~, DMEA Member
Uranium Commodity Committee

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

Subject: Review of Supplementary Field Team Report

1. Date of original document: 8/1/57 2. Date received by reviewer: 8/13/57

3. Prior reports on this project have been reviewed: Yes [ ] No [ ]

4. Prior reports on nearby projects have been reviewed: Yes [ ] No [ ]

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

6. Other pertinent factors have been reviewed: Yes [ ] No [ ]

7. Explain items marked yes above:

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

9. Action advised:
   a. Obtain information from applicant [ ]
   b. Refer to Field Team [ ]
   c. Denial [ ]
   d. Agree with Field Team [x]
      1. Consult with Mr. _____ at _____ AEC office
   e. Disagree with Field Team [ ]
   f. Suggest alternate plan [ ]
   g. Request another examination [ ]
   h. Approval [x] modified program

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

August 5, 1957

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Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA 4700 (Uranium) Rosario Exploration Company (Daisy Group of Claims) Emery County, Utah - Joint Supplementary Report of Examination

Enclosed are the original and two copies of the Joint Supplementary Report of Examination on the subject property by M. H. Salsbury, USBM, and J. William Hasler, USGS.

The field examiners conclude that this is a borderline case, but have laid out a modified program which is acceptable to the Applicant and satisfactory to the Field Team.

The estimated cost of Item (7) Page 7 Miscellaneous - Compensation ins., etc. should be $118.50, which will increase total Stage I estimates by $3.00.

Also enclosed are eight extra copies of Figure 1 for use in the preparation of the contract.

E. N. Harshman

E. N. Harshman
Acting Executive Officer

ON FILE
EXAM.
SUPPL.

Mr. Selfridge - 8/16/57

Evidence of widespread mineralization is lacking. In fact area is considered as unfavorable for large size orebodies or groups of small size orebodies. Probability of making a significant discovery seems remote.

FEJohnson

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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AUG 5 -
REGION III
DENVER, COLORADO

P.O. Box 360
Grand Junction, Colorado

MINERAL DEPOSITS
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AUG 5 1957
U.S. GEOLOGICAL SURVEY
DENVER, COLORADO

August 2, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman

TRANSMITTED
AUG 5 1957

From: J. William Hasler

Subject: Transmittal of supplementary report of examination, DMEA docket 4700 (Uranium), Rosario Exploration Company, (Daisy group of claims), Emery County, Utah.

Enclosed are 10 copies of a joint supplementary report of examination on the above-mentioned docket, by M. H. Salsbury and J. William Hasler. The supplementary report includes an alternate program of exploration on the Daisy group of claims that is recommended for consideration by the Operating Committee.

Enclosed with the supplementary report is table I, "Summary of proposed stage I drill holes" and 23 copies of figure 1, "Map showing proposed location of stage I drilling" for inclusion in a contract.

J. William Hasler
J. William Hasler,
Geologist

JWH/mlr

Enclosures
Report (10)

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8-9-57

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DENVER, COLORADO

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UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey
P. O. Box 360
Grand Junction, Colorado

August 1, 1957

TRANSMITTED
AUG 5 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman EMH

From: ~~M. H. Salsbury~~
J. William Hasler

Subject: Docket No. DMEA 4700 (Uranium), Rosario Exploration Company, (Daisy group of claims), Emery County, Utah. Supplementary report of examination.

In accordance with a request from the Chairman, Operating Committee, DMEA, to the Executive Officer, Field Team, Region III, dated July 1, 1957, requesting review and reconsideration of the proposed project under the subject application, the following report is made.

The conclusions and recommendations in the report of examination on the subject docket were arrived at after consideration of data available from a completed DMEA project located north of the Daisy claims, as well as examinations made on two other proposed DMEA projects which were denied (see report of examination page 5, fig. 2). These data all pointed to a conculsion that the belt of mineralization which extends southward in the general direction of the Daisy claims from the area of very substantial mineralization about 5 miles to the north (fig. 2, report of examination) is increasingly unfavorable in a southerly direction. Ore bodies present on the subject property (see fig. 1, attached) are likely

Reviewed by
DMEA OPERATING COMMITTEE
8-9-57
(date)

to be in the 500 to 1,000 ton class and infrequent in occurrence. Small ore occurrences close to a rim exposure of the potential ore-bearing formation can often be mined profitably if they have a content of 0.25 percent U_3O_8 or more.

At a depth of 250 feet below surface and inaccessible from adit workings near a rim outcrop, as on the Daisy claims, the minimum size for an economic orebody, or closely grouped orebodies, which could be worked from one shaft, is about 10,000 tons containing an average content of 0.25 percent U_3O_8. This is the grade which can be expected, judging from shipments from the nearest properties. The vanadium content has been negligible. The gross return from 10,000 tons of ore of this grade, including initial production bonus on the first 10,000 pounds of uranium and the development allowance, would be $242,500. Cost of equipment, shaft sinking and actual mining is estimated at about $200,000.00. This leaves about $40,000 to cover exploration costs, overhead, and profit. A deposit of 10,000 tons then is the minimum target. The existence of such a target in an area equivalent to about one-half of a full claim which the applicant proposed to explore appears to be remote, and the proposal therefore was not considered to be worthwhile by the examining team. The cost of exploration would be disproportionate to the area explored and the probable size of ore deposit.

The selection of the area where previous operators have done their exploration on the Daisy claims (fig. 1) was not dictated by any specific information but rather because the area was centrally located on the claim group and convenient to the highway, and the discovery of ore

was virtually by chance. Drilling to date is not widespread enough to be used as the basis for evaluation of the whole claim area, or to indicate any particular area as more favorable, so the evaluation by the DMEA examiners was based on general information concerning the area as well as data on the known ore deposit. There is a possibility that some part of the claims will be more favorable for the occurrence of uranium mineralization than the evaluation used by the examiners indicates. The postulated north- and south-trending mineralized belt is presumed to pass somewhere west of the Daisy claims but there is a possibility that it may cross them.

A program of wide-spaced drilling covering the portion of the Daisy claims where drilling depths do not exceed 300 feet would explore the major portion of the claim area. This could be supplemented by a second stage of closer spaced drilling if justified. The examining team did not propose such a program because of the probable unfavorability of the area. However, if further exploration should be undertaken the examining team prefers an exploration program to explore a larger area rather than one confined to the immediate vicinity of the known ore body. While the larger program will be more costly, it is justified by the larger scope of the program.

On this basis an alternate drilling program in two stages is offered for consideration. The program has been discussed with Warren E. Ove, geologist for the applicant, and is acceptable to them.

Proposed stage I would require 46 holes on a staggered 200-by 300-foot grid pattern (fig. 1) to explore for possible deposits elliptic in plan having dimensions of 150 feet by 250 feet with the long axes oriented northwesterly and southeasterly. The hole spacing proposed is believed to be close enough to test for ore bodies in the 5,000 to 10,000 ton class, or closely grouped smaller bodies equal to them. Minable thickness of such ore bodies would range from 2.5 to 5 feet. It is assumed that there would be a mineralization halo beyond the ore limits of such a deposit, if present, which would make the target size large enough to be found by a 200- by 300-foot drilling pattern. All of the stage I holes would be drilled non-core to the Brushy Basin-Salt Wash contact as normally defined by Geological Survey criteria. Ten of the holes as designated in figure 1, as phase "a" would be core drilled from a point not more than 5 feet above the Brushy Basin-Salt Wash contact through the two upper Salt Wash sandstone units and bottomed in not more than 10 feet of mudstone underlying the lower of the two units, an estimated average depth of 75 feet. These holes should be drilled first in order to establish control and determine whether the balance of 36 stage I holes (phase "b") should be cored the full thickness of the two upper Salt Wash sandstone units, or confined to the lower of the two, which is probably more favorable for ore. Whether cored or not, cutting samples should be taken from the entire interval below the Brushy Basin-Salt Wash contact. Samples should represent 2-foot intervals. Stage II would consist of a maximum of 30 holes to offset ore holes or mineralized holes

found in stage I, not less than 75 feet from any hole previously drilled through the potential ore-bearing horizon. No more than four offsets would be permitted around each stage I hole which justified offsetting.

Proposed stage I hole locations as shown in figure 1 are planned so as to be a minimum of 200 feet from all previously drilled holes except the group of holes west of the known ore body drilled prior to the applicant's acquisition of the claims, which Mr. Ove states did not penetrate the lower of the two potential ore-bearing horizons. Stage I drilling depths, based on the applicant's previous drilling, are shown in table 1. The footage requirements are as follows:

Stage I:

46 holes averaging 243 feet deep requiring an estimated 168 feet of non-core drilling and an average of 75 feet of core drilling per hole, or 7,715 feet of non-core drilling and 3,450 feet of core drilling.

Stage II:

30 holes maximum requiring an estimated 5,040 feet of non-core drilling and 2,250 feet of core drilling.

A figure of 75 feet of coring per hole is used, but, after the first 10 holes, coring may be considerably less.

No access roads or drill sites need be prepared.

The applicant submitted three bids, the lowest of which, by the American Drilling Company, with very favorable unit prices, has been used in the cost estimate. This bid was qualified by a provision affecting the cost of drilling through silicified zones of the Brushy Basin conglomerate, if encountered. However, this contractor did the previous drilling

on the claims for the applicant with satisfactory performance and did not make any extra charges.

Following is the cost estimate based on a two drill operation, one shift per day, 25 days per month, at the rate of 6,000 feet of drilling per month. The estimated time for completion of stage I, including evaluation of results, is 2 months. For the maximum amount of work in stage II, including a final report, completion time is estimated at 1.25 months.

Stage I

(1) Independent Contracts

Bulldozing for roads and drill sites	none	
Drilling, non-core		
0-300 - 7,715 ft at $1.30/ft.	$10,029.50	
Drilling, core		
0-300 - 3,450 ft at $3.00/ft.	10,350.00	
Total Independent Contracts		$20,379.50

(2) Labor, Supervision, and Technical Services

Supervision, 1 supervisor-geologist 3/4 time for 2 months at $750/mo.	$ 1,125.00	
Labor	none	
Technical Services-1 sampler, full time, 2 months at $400/mo.	800.00	
Total Labor, Supervision, etc.		1,925.00

(3) Operating Materials and Supplies

345 core boxes for 3,450 ft of core at $1.10 each	$ 379.50	
Gas, oil, and repairs for 1 vehicle 2 months at $50/mo.	100.00	
Surveying, drafting, and office supplies, 2 months at $20/mo.	40.00	
Total Operating Materials and Supplies		519.50

(4) Operating Equipment

Purchased		none	
Rental		none	
Depreciation items			
1 jeep or pickup	$1,800.00		
1 Babbel counter & probe	800.00		
1 Transit	500.00		
	$3,100.00		
Depreciated on 60 mo. basis			
$\frac{\$3100}{60}$ = $51.67 - for 2 months		$ 103.34	
Total Operating Equipment			$ 103.34

(7) Miscellaneous

Accounting, 2 mo. at $25/mo.	$ 50.00	
Sampling and analyses, 130 samples for U_3O_8 and V_2O_5 at $4.00/each	520.00	
Compensation ins. payroll taxes,etc. 6% of $1,975.00	115.50	
Total Miscellaneous		$ 685.50
Total Stage I estimated costs		$23,612.84

Estimated time for completion	2 months
Estimated number of holes	46 holes
Estimated non-core footage	7,715 feet
Estimated core footage	3,450 feet

Stage II

(1) Independent Contracts

Bulldozing for roads and drill sites	none	
Drilling, non-core		
0-300 - 5,040 ft at $1.30/ft	$6,552.00	
Drilling, core		
0-300 - 2,250 ft at $.300/ft	6,750.00	
Total Independent Contracts		$13,302.00

(2) Labor, Supervision, and Technical Services

Labor	none	
Supervision, 1 supervisor-geologist, 3/4 time for 1.25 months at $750/mo	$ 703.13	
Technical Services, 1 sampler, full-time, 1 mo. at $400/mo.	400.00	
Total Labor, Supervision, and Technical Services		1,103.13

(3) Operating Materials and Supplies

Gas, oil, and repairs for 1 vehicle, 1.25 months at $50/mo.	$ 62.50	
Surveying, drafting, and office supplies, 1.25 months at $20/mo.	25.00	
Total Operating Materials and Supplies		87.50

(4) Operating Equipment

Purchased	none	
Rental	none	
Depreciation items (same as Stage I) depreciated on 60 month basis or $51.67 for 1.25 mo.	$ 64.59	
Total Operating Equipment		64.59

(7) Miscellaneous

Accounting, 1.25 months at $25/mo	$ 31.25	
Sampling and analyses, 90 samples for U_3O_8 and V_2O_5, at $4.00 each	360.00	
Compensation ins. payroll taxes, etc. at 6% of $1,103.13	66.19	
Total Miscellaneous		457.44
Total Stage II		$15,014.66
Total for project		$38,627.50

Estimated time for completion, Stage II	1.25 months
Estimated number of holes	30 holes
Estimated non-core footage	5,040 feet
Estimated core footage	2,250 feet

BREAKDOWN OF COSTS

Distributed as to type of drilling

Item	Units	Sub-Total	Total	Drilling Non-core	Drilling Core
(1) Independent Contracts					
Non-core drilling					
0-300 feet	12,755		$16581.50	$16581.50	
Core drilling					
0-300 feet	5,700		17100.00		$17100.00
(2) Labor, Supervision and Tech. Serv.	3.25	$3028.13	3028.13	1514.06	1514.07
(3) Materials and Sup.					
core boxes for 3,450 feet	345 ea.		379.50		379.50
Other	3.25 mo.	227.50	227.50	113.75	113.75
(4) Operating equip.	3.25 mo	167.93	167.93	83.96	83.97
(7) Miscellaneous					
Chem. analyses	220		880.00		880.00
Other	3.25 mo	262.94	262.94	131.47	131.47
Totals			$38,627.50	$18,424.74	$20,202.76

Sub-total, less independent contracts, core boxes and chem. analy. $3,686.50

Calculated overall cost of non-core drilling $\frac{\$18,424.74}{12,755 \text{ ft.}}$ = $1.44 per foot

Calculated overall cost of core drilling $\frac{\$20,202.76}{5,700 \text{ ft.}}$ = $3.54 per foot

Calculated overall cost all drilling $\frac{\$38,627.50}{18,455}$ = $2.09 per foot

Calculated cost of items (2), (3), (4), and (7) less chem. analyses and core boxes $\frac{\$3,686.50}{18,455 \text{ ft}}$ = $0.20 per foot (suggested incidental allowance)

SUMMARY OF COSTS

(suggested for contract use)

Contract item	Unit	Unit Cost	Stage I Units	Stage I Cost	Stage II Units	Stage II Cost	Total Units	Total Cost
Actual Costs								
Non-core drilling 0-300 foot range	foot	$1.30	7715	$10,029.50	5040	$6,552.00	12755	$16,581.50
Core drilling 0-300 foot range	foot	3.00	3450	10,350.00	2250	6,750.00	5700	17,100.00
Fixed Costs								
Core boxes 1/	each	1.10	345	379.50	--	---	345	379.50
Chemical analyses for U_3O_8 and V_2O_5 2/	each	4.00	130	520.00	90	360.00	220	880.00
Incidental allow.	foot	0.20	11165	2,233.00	7290	1,458.00	18455	3,691.00
Total Stage I				$23,512.00				
Total Stage II						$15,120.00		
Total Project								$38,632.00
Government participation at 75 percent								$28,974.00

1/ Core boxes from Stage I to be reused in Stage II if necessary

2/ Schedule of prices for chemical analyses at Smith Laboratory, Moab, Utah

The estimated maximum cost of the foregoing exploration proposal is $38,632.00 in which Government participation, at 75 percent, would be $28,974.00.

The proposed project is a border line case. While the examining team has recommended denial, they recognize that a favorable decision might be in order if only a slightly more optimistic view is taken of the project.

If a contract should be approved, the usual requirements for hole spacing, taking and storing of core, and cuttings and minimum BX size core should be incorporated.

Each of the first 10 holes in stage I (phase a) should be drilled non-core to a point near the top of the Salt Wash formation and then core drilled until the two topmost sandstone units of the Salt Wash member of the Morrison formation have been penetrated. Holes should be bottomed not more than 10 feet below the lower of the two units. Non-core drilling depths are expected to average 168 feet per hole and core drilling approximately 75 feet per hole. However, the amount of non-core or core drilling in each hole shall be based upon observation of the material penetrated, and information available from previous drilling. Phase "a" should be completed before proceeding to phase "b". The amount of coring in 36 holes in phase "b" should be determined in accordance with evaluation of information available from phase "a" results, but in no case more than through the two topmost sandstone units of the Salt Wash member.

The project should be supervised at all times by a competent geologist. He should be physically present on the job at least half of the time, and have an assistant and sampler present on the job at all times during drilling operations.

In the event that cuttings from non-core sections of drill holes contain significant mineralization, they should be split, one-half analyzed chemically for uranium and vanadium and the other half should be properly labeled and stored for the use of the Government, in the same manner as mineralized core is handled. Interchanges of core and non-core footages within stages should be permitted without prior authorization of the Government. If Stage I allowances are not sufficient to complete Stage I drilling even with interchange of core and non-core footage within the stage, sufficient footages should be transferred and deducted from Stage II, with prior Government approval.

M. H. Salsbury
M. H. Salsbury,
Mining Engineer

J. William Hasler
J. William Hasler,
Geologist

Enclosures

Table 1. - Summary of Proposed Stage I Drill Holes

Hole No. "A" prefix omitted	Estimated Depth in feet	Hole No.	Estimated Depth in feet
1*	200	34*	250
2	210	35	260
3	220	36	270
4	230	37*	280
5*	240	38	220
6	200	39	230
7	210	40*	240
8	220	41	250
9	230	42	260
10	240	43	270
11	250	44*	280
12*	200	45	290
13	210	46	300
14	220		
15	230		
16*	240		
17	250		
18	260		
19	270		
20*	280		
21	205		
22	215		
23	225		
24	235		
25	255		
26	265		
27	275		
28	285		
29	295		
30*	210		
31	220		
32	230		
33	240		

Total-46 holes	11,165 feet
Coring at 75 ft per hole	3,450 feet
Non-core	7,715 feet
Average non-coring depth per hole	168 feet
Coring depth per hole	75 feet
Average total depth per hole	243 feet

* Phase "a" holes (to be drilled first)

Stage II - maximum of 30 holes-non-core

30x168	= 5,040 ft.
30x75	= 2,250 ft.
Total depth	7,290 ft.

Mr. C. O. Mittendorf, DMEA

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C O MITTENDORF, DMEA

RE DMEA DOCKET 4700, ROSARIO EXPLORATION COMPANY, DAISY GROUP, EMERY COUNTY, UTAH. HASLER CONFERRED WITH APPLICANT JULY 26, 1957 AND HASLER WILL RECOMMEEND PROGRAM OF DRILLING SATISFACTORY TO APPLICANT. REPORT WILL BE SENT TO DENVER NXXXX NEXT WEEK AND FORWARDED TO WASHINGTON AT ONCE.

E N HARSHMAN ACTING EXECUTIVE OFFICER

No action [illegible]

[illegible]

Denver, Colorado

AUG 1 3 48 PM '57
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

DMEA Form 7
(12-56)

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Date	Surname	Code
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"	Ellis	700
6/28	GCS	130
6/28	Yopes	130
6/28	Nelson	110
"	Stetkevich	100
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JUL - 1 1957

Mr. William H. King
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4700 (Uranium)
Rosario Exploration Company
Daisy Group
Emery County, Utah

Dear Mr. King:

Some question has been raised as to the justification for denial of the subject application. These doubts are due to the following factors:

1. In an area comprised of eight claims the Applicant, by drilling only 16 preliminary holes in a small area, succeeded in discovering an ore body which the field examiners conservatively estimate as containing 679 to 1,000 tons of good grade ore.

2. The presence of a favorable channel is postulated under the Deep Group of claims (Docket No. DMEA-3984) and a modest program of drilling to depths of 550 feet did not appear to be out of order at that time despite the fact that the application was eventually denied. The present property lies near and directly south of the Deep Group and requires drilling depths of only 250 feet.

3. The examiners have not clearly eliminated the possibility that a modest program such as that requested by the Applicant might result in the discovery of other ore bodies close enough to the existing ore body to be worked from a common shaft.

It would be appreciated if the Field Team would review all the available facts concerning this area and give us some further comments on the proposed project.

MChing/gla
6-27-57
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
Mr. Ching

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

APPROVED:

P. F. Yopes
Member, Bureau of Mines

N. E. Nelson
Member, Geological Survey

8623

DATE		CODE
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"	~~Chang~~	700

Comments Complete

June 28, 1957

4700

Uranium

Rosario Exploration Co.

Daisy Group of Claims

Emery County, Utah

$16,582.61

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
James Paone, Bureau of Mines Member
Uranium Commodity Committee

JP

Field Team Report

6/57

6/24/57

Yes [ ] No [ ]

Yes [ ] No [ ]

Yes [ ] No [ ]

Yes [ ] No [ ]

Yes [ ] No [ ]

8. Factors meeting special consideration:

a. Location [ ]
b. Commodity [ ]
c. Balance of diversification [ ]
d. Geology [ ]
e. Proposed exploration method [ ]
f. Alternate exploration method [ ]
g. Costs [ ]
h. _____ [ ]

9. Action advised:

a. Obtain information from applicant [ ]
b. Refer to Field Team [ ]
c. Denial [x]
d. Agree with Field Team [x]
e. Concur with Mr. _____
f. Disagree with Field Team [ ]
g. Support alternate plan [ ]
h. Request another examination [ ]
i. Approval [ ]
at _____ ARC office.

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

DMEA Form 7
(12-56)

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Date	Surname	Code
6/26	Ching	700
6/27	Ellis	700
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		110
		100
		220

June 26, 1957

Memorandum

To: The File

From: Michael Ching, Mining Engineer
Division of Rare and Miscellaneous Metals

Subject: Docket No. DMEA-4700 (Uranium)
Rosario Exploration Company
Daisy Group
Emery County, Utah

The Applicant proposes to drill 36 holes aggregating 8,930 feet to further explore the area surrounding a known ore body discovered by preliminary drilling. Total cost of the project was estimated as $16,582.61.

In a Report of Examination, dated June, 1957, J. W. Hasler, USGS, and M.H. Salsbury, USBM, recommend that the application be denied and such recommendation is concurred in by the Field Team.

The principal reasons given for the recommended denial are:

1. The property lies in an area south of the main group of producing mines in the Green River district and is in an area that may be considered generally unfavorable for the occurrence of significant deposits of uranium ore (5,000 tons or larger). Four mines south of the property have produced over 500 tons of ore, the largest having produced 841 tons, but these mines are now, for the most part, mined out. The existence of a belt of thickened sandstone marking a Salt Wash channel connecting the two producing areas and traversing relatively unexplored ground has been postulated. If it does exist, the subject claims are probably east of the channel trend.

2. Because the area is unfavorable for large ore bodies, the cost of adequately exploring the property would be in excess of the value of ore that might be discovered or mined.

3. Three properties one to three miles north of the subject property have made DMEA applications. Two, under Docket Nos. 3871 and 3984, were denied, and the third,

under Docket No. 3730, was explored with negative results. All of them are considered to be in semi-favorable ground, and no significant discoveries have been made on any of them to date.

Some factors which are in favor of an exploration project and raises some doubt as to the justification for denial are as follows:

1. In an area comprised of 8 claims, the Applicant, by drilling only 16 preliminary holes in a small area, succeeded in discovering an ore body which it estimates measures 100 by 170 feet, with a thickness ranging from 1 to 5 feet, and contains 1,391 tons of 0.64% U_3O_8 ore. Using a more conservative approach, the examiners have come up with two figures: 679 tons of 0.37% U_3O_8 ore and 1,000 tons of 0.34% U_3O_8 ore. The latter estimate would be worth about $53,000.00, including initial production bonus. The ore lies at a depth of 230 feet.

2. Ore reserves in the producing area 5 miles to the north are large, totaling hundreds of thousands of tons. While the known ore bodies to the south have been under 1,000 tons, the existence of a north-trending channel under the subject claims remains a possibility. (See Page 13 of the Field Team report on Docket 3984.) The examiners' belief that the subject property probably lies east of the channel trend is not supported by reasons for this belief.

3. The application of Vitro Minerals Corporation under Docket 3984 was denied, but the Deep Group of claims, directly north and almost adjoining the subject Daisy claims, was considered as having some possibilities because of the possible existence of the favorable channel mentioned above, and because two holes drilled by the applicant encountered ore-grade material. A Supplemental Report to the Report of Examination, dated March 9, 1956, outlined a modest program of drilling around these holes and suggested that such a program may be justified. Drilling depth required would be 550 feet, approximately 300 feet more than the depth required on the Daisy claims. It would appear that if a small project were justified under such circumstances, a program on the Daisy group would be much more justified.

4. There is no denying the possibility that a modest program such as that requested by the Applicant might result in the discovery of other ore bodies close enough to the first ore body to be worked from a common shaft. The suggestion that an ore body of the order of 5,000 tons or larger is necessary to attain significance hardly appears justified.

Michael Ching

Michael Ching

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

June 24, 1957
Re: DMEA 4700
Rosario Exploration Company
Daisy Group
Emery County, Utah
$16,582.61 - Uranium

Memorandum

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

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

Subject: Review of Field Team Report

The applicant requested assistance in continuing the exploration of a group of claims, drilling of which by the applicant had disclosed an orebody estimated, by the applicant, to contain 1,391 tons of 0.64% U_3O_8 material. As estimated by the examiners, the orebody contains 679 tons of 0.37% U_3O_8, mining grade.

The property is in an area containing some good orebodies, as those of Four Corners Uranium; but in the area around the property, no large orebody has been disclosed by considerable drilling. In several projects DMEA participated and in others DMEA refused to participate.

In view of the unfavorable history of the projects in the immediate vicinity of the Daisy Group, the examiners and the Field Team recommend that the application be denied.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

June 17, 1957

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Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA 4700 (Uranium) Rosario Exploration Company (Daisy Group of Claims) Emery County, Utah

Enclosed are the original and three copies of the Joint Report of Examination on the subject property by M. H. Salsbury, USBM, and J. W. Hasler, USGS.

The field examiners conclude that the probability for making a significant discovery is not sufficiently promising to justify Government participation. Accordingly they recommend that the Applicant's work proposal be denied to which the Field Team concurs.

W H King
W. H. King
Executive Officer

Reviewed by
DMEA OPERATING COMMITTEE
6-24-57
(date)

ON-SITE EXAM. REPORT

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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DEPARTMENT OF THE INTERIOR
JUN 14 1957
REGION III
DENVER, COLORADO

TRANSMITTED
JUN 17 1957

[illegible] Junction, Colorado

June [illegible] 1957

[illegible] Executive Officer, [illegible] Field Team, Region III

[illegible]

[illegible] J. Fitter Geiler

Subject: Preliminary [illegible] report of examination on [illegible] Uranium Exploration Company, Uranium, Alay group of claims, Emery County, Utah.

The Uranium Exploration Company, 210 Denver Club Bldg., Grand Junction, Colorado, applied to the Atomic Minerals Exploration Administration for Government assistance to explore for uranium on the Alay group of claims, Emery County, Utah. The application was referred to the field and an examination was made by [illegible] J. [illegible] Geiler, U. S. Geological Survey, and [illegible] Elsbury, U. S. Bureau of Mines.

The Alay claim group lies on the eastern flank of the San Rafael Swell about fifteen miles southwest of Green River, Utah. Sedimentary rocks of Cretaceous and Jurassic age underlie the claims and the ore-bearing salt and sandstone member is at a depth of about [illegible] feet. Prior drilling has disclosed an ore body of about 1,[illegible] tons in size and averaging about 0.[illegible] percent [illegible]. However, complete data was lacking, and drilling was insufficient to adequately explore the property. The Alay claim group lies in an area south of the main group of producing mines in the Green River district and is in an area that may be considered generally unfavorable for the occurrence of significant deposits of uranium ore [illegible] tons or larger. Several mines south of the Alay claims have produced as much as [illegible] tons and are now, for the most part, mined out.

It is the opinion of the examining team that the Alay claim group does not lie in an area that is favorable for large ore bodies and that the chance of adequately exploring the group would be in excess of the value of ore that might be discovered or mined. The examining team therefore recommends that the application should be denied.

Reviewed by
DMEA OPERATING COMMITTEE
6-24-57
(date)

Enclosed are 12 copies of a joint report of examination with the same number of figures 1 and 2 included as well as the applicant's application.

The Atomic Energy Commission was consulted relative to the appraisal of the Daisy group of claims.

I concur with the conclusions and recommendations of the examining team.

J. William Hasler

J. William Hasler,
Geologist

Jwh/bh

Enclosures

FOR UNITED STATES GOVERNMENT USE ONLY

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

TRANSMITTED

JUN 17 1957

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY EXAMINING TEAM
REGION III

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DMEA 4700

Rosario Exploration Company

Daisy Group of claims

Emery County, Utah

Uranium

Joint Engineering and Geologic Report

by

J. W. Hasler
U. S. Geological Survey

M. H. Salsbury
Bureau of Mines

June 1957

Reviewed by
DMEA OPERATING COMMITTEE
6-24-57
(date)

DMEA 4700
ROSARIO EXPLORATION COMPANY
DAISY GROUP OF CLAIMS
EMERY COUNTY, UTAH

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2. Geologic map showing Daisy group, Rosario Exploration Co., as related to neighboring properties, applying to DMEA, Emery Co., Utah	14

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DMEA 4700
ROSARIO EXPLORATION COMPANY
DAISY GROUP OF CLAIMS
EMERY COUNTY, UTAH

INTRODUCTION AND SUMMARY

Rosario Exploration Company, 212 Electric Building, Grand Junction, Colorado, applied on March 26, 1957 for Defense Minerals Exploration Administration assistance to explore for uranium on the Daisy group of 8 claims in Emery County, Utah, about 15 miles by road southwest of Green River, Utah.

A surface exploration project at an estimated cost of $16,582.61 is proposed, requiring 8,027 feet of non-core drilling and 893 feet of core drilling in 36 holes on 100-foot centers in a grid pattern surrounding an area in which a small ore body has been partially delineated by drilling. Government participation at 75 percent would be $12,436.96, covering the applicant's first phase. A second phase was tentatively suggested as the subject of another DMEA application, but no program or cost estimate has been presented.

A field examination was made on May 16, 1957 by a DMEA examining team accompanied by Warren E. Ove, geologist for the applicant.

The Daisy claim group is located about 5 miles southeast of an area in which significant production has been made, and two miles northeast of another small producing area in the vicinity of the Big Bend mine. The existence of a belt of thickened sandstone marking a Salt Wash channel connecting the two producing areas and traversing relatively

unexplored ground has been postulated. If it does exist, the Daisy claims are probably east of the channel trend. Three properties one to three miles north of the Daisy group have been examined in connection with DMEA applications. Two of them, Docket Nos. 3871 and 3984, were denied, and the third, Docket No. DMEA 3730, was completed with essentially negative results. All of them are considered to be in semi-favorable ground, and no significant discoveries have been made on any of them to date.

One of the Daisy group of claims has been partially explored by drilling. Out of 16 holes, 15 of them on 40- to 50-foot centers concentrated in a small area, 7 are reported to have penetrated ore, 1 was mineralized, and 8 barren. However, using Geological Survey standards, the chemical analyses shown in the drilling summary indicates 5 ore holes, 3 mineralized, and 7 barren. The applicant has estimated an ore deposit 100 by 170 feet with a thickness of from 1 to 5 feet. Tonnage is calculated by the applicant as 1,391 tons of ore with an average content of 0.64 percent U_3O_8, which is believed to be higher in tonnage and grade than available data would justify. The ore body has not been definitely delimited in two directions. Material of ore grade but not ore thickness was penetrated in one hole northeast and one hole northwest of the ore holes. Seven other holes were drilled by a previous lessee at known locations but drilling data are not available. The applicant's geologist has stated that he has reason to believe that none of the holes penetrated the potential ore-bearing horizon.

While the Daisy group of claims may lie in a tributary to a projected main north-south trend of mineralization, it is believed that any ore bodies present are likely to be small and consequently expensive to mine. There is little likelihood of finding a significant ore body at the depth of the ore horizon.

Denial of the request for Government assistance under Docket No. DMSA 4700 is recommended.

ACKNOWLEDGMENTS

The applicant submitted a geological report with lithologic logs, radiometric logs made by the Atomic Energy Commission, and a cost estimate supported by bids from three drilling contractors.

Data available from extensive investigations made in the area by Government agencies, and the results of DMSA examinations and projects were utilized. Comments by Washington DMSA personnel were noted and considered. Data on production were obtained from Atomic Energy Commission records.

LOCATION, TOPOGRAPHY, AND CLIMATE

The 6 Daisy claims are in sec. 23 and 24, T. 22 S., R. 14 E., Salt Lake Meridian, Emery County, Utah. They can be reached by traveling 5 miles west from Green River, Utah on U. S. Highway 6-50 to the junction with Utah Highway 24 and thence 5 miles south to the property. Utah Highway 24, a surfaced road, traverses the property (figs. 1 and 2). A large part of the claim area is a gently dipping alluvial plain at an

altitude of about 4,300 feet overlying a Brushy Basin bed rock surface. The area along the north, east, and south boundaries of the property is on a mesa capped by the Cedar Mountain formation some 90 feet higher. All previous and proposed drilling is confined to the easily accessible alluvial surface where no drill site preparation is necessary.

The climate of the area is arid with occasional violent storms at any season. Year around surface operations are feasible. There are no unusual problems of supply, power, ore marketing, water, or labor. Water for mining purposes can be trucked from the San Rafael River, four miles to the west. Limited living accomodations, repair services, and supplies are obtainable in Green River on the main line of the Denver and Rio Grande Western Railroad. Green River is 105 miles west of Grand Junction, Colorado, the nearest major supply center. Ore from the area can be shipped to Salt Lake City, Moab, or Monticello, Utah, or Grand Junction, Colorado. Currently, most of the production in the area is controlled by Vitro Uranium Company and is being shipped to the Vitro plant in Salt Lake City.

HISTORY AND PRODUCTION

Prospecting in the area for uranium dates from 1948 and perhaps earlier. Significant discoveries were made 5 to 10 miles northwest of the applicant's property in 1953 and 1954 and exploration was gradually extended southward. Three applications for Government assisted exploration have been made in the area north of the Daisy claims. Dockets Nos. 3871 and 3984 were denied. Docket No. DMEA 3730 was completed with essentially negative results. No discoveries were made near the Daisy claims but about 2 miles to the south there have been several small ore bodies found and mined in and near rim outcrops. The tenor of ore found to the south has not encouraged exploration at any distance from outcrops.

Production in the area 5 miles northwest of the Daisy group has been substantial. The operation of Four Corners Uranium Corporation has produced through March 1957 from 9 shafts and inclines in excess of 50,000 tons of ore with an average content of 0.27 percent U_3O_8 and 0.40 percent V_2O_5. Over 4,000 tons has been mined in an adjoining operation by Vitro Minerals Corporation. The Yellow Queen property, the southernmost of the properties in the northern group, has produced 1,656 tons with an average content of 0.36 percent U_3O_8 and 0.67 percent V_2O_5 from three ore bodies.

By contrast, the ore bodies mined south of the Daisy claims have been insignificant. Following is a summary of production through December 31, 1956 as obtained from Atomic Energy Commission records:

Claim	Dry Tons	U_3O_8 percent	V_2O_5 percent
Utah School sec. 2, T. 23 S., R. 14 E.,	821	0.19	0.22
Utah School sec. 36, T. 22 S., R. 14 E.	104	0.21	--
Nona B (Big Bend) mine, sec. 35, T. 22 S., R. 14 E.	841	0.19	--
Aceite mine (same section)	57	0.26	--
Totem Nos. 1 & 2 mines (same sec)	705	0.18	0.38
Rainy Day mine (sec. 21, T. 22 S., R. 14 W.)	19	0.12	--
Union Gulf No. 3 mine (sec. 20-21, T. 22 S., R. 14 W.)	561	0.23	0.30

The larger tonnages in the foregoing table have been mined over a period of years and represent the efforts of several lessees at each mine.

OWNERSHIP AND EXTENT

The Daisy claims Nos. 1 through 8 (fig. 2) were located in October 1954 by James E. Danaher and Tom H. Danaher, 618 Scott, Wichita Falls, Texas, and recorded on November 2, 1954 on pages 67-74, Book J-60, Emery County, Utah records. Danaher and Danaher granted a lease to Rosario Exploration Company on June 25, 1956. The lease has no expiration date but remains in effect so long as lease terms are met. Lease terms include provisions that the lessee perform annual assessment work and pay a royalty of 10 percent on the gross proceeds of ore sales,

not including development and haulage allowances.

No evidence of conflicting locations was found in the field. The applicant's representative reported that there was a conflict of minor extent along the western property boundary with claims which had been allowed to lapse. However, there is no evidence of conflicts in the proposed drilling area. The applicant has filed on 2 other claims (not shown) south of the Daisy group to take up some open ground but no work on them is proposed. The applicant's property rights appear to be satisfactory. However, the Emery County records were not checked. The relation of adjoining claims on the north owned by Lorenzo F. Foote, and claims on the south and east owned by Alfrad C. Acerson is not shown on the applicant's map. Presumably there are no overlaps. In view of the probable recommendations, no further check of ownership was made.

PRESENT STATUS

Exploration and Development

Exploration of the Daisy claims has been limited to the applicant's drilling in a small area in the southeast corner of the Daisy No. 3 claim, and another project by an earlier lessee further west on the same claim. The results of the earlier project, in which at least 7 holes were drilled is unknown as drilling data has been lost. The applicant's representative, Mr. Ove, stated that he has reason to believe that the potential ore horizon was not reached in any of the holes. Of the 16 holes drilled by the applicant, 15 are on centers of

40 to 50 feet clustered in one group. The application describes 7 holes as penetrating ore, 1 mineralized, and 8 barren. However, a tabulation also in the application, shows, by Geological Survey standards, 5 ore holes, 3 mineralized, and 8 barren. In 2 of the mineralized holes, ore grade material 1 foot in thickness is listed. One hole, No. A, 400 feet west of the other holes is not tabulated, but was barren according to Mr. Ove.

Mining and Milling Equipment and Other Facilities

The applicant does not have equipment or other facilities at the property and proposes to employ a drilling contractor who would furnish all equipment.

GEOLOGY

The Daisy group of claims owned by the Rosario Exploration Company in Emery County, Utah, are located on the east flank of the San Rafael Swell, the major physiographic and structural feature in the area (fig. 2). The claims lie in a re-entrant that trends eastward across sections 23 and 24, T. 22 S., R. 14 E., and is about six miles east of the main escarpment. The beds in the immediate area strike about N. 10° W., and dip from 1 to 3 degrees in an easterly direction. There are no major faults that cross the area, but there are a few northwest trending faults having little displacement that transverse the area to the north of the Daisy claim group.

Jurassic and Cretaceous rocks that crop out in the area consist of the Buckhorn conglomerate, which is probably equivalent to the Burro Canyon formation; the Cedar Mountain shale, and the Brushy Basin and Salt Wash members of the Morrison formation of Jurassic age. Approximately sixty percent of the Daisy group is covered by alluvium and slope wash of Quaternary age, and the remainder is covered partially by eroded Brushy Basin shale and Cedar (?) Mountain formation having a thickness of as much as 100 feet; however, the following stratigraphic column shows the average thickness of the formations in the vicinity of the Daisy group of claims.

Table 1. Geolgic column of rocks exposed in the vicinity of the Daisy group of claims, Emery County, Utah.

	Thickness (feet)
Cretaceous system	
Mancos shale--steel gray; regularly bedded, marine shale. Forms slopes	400 +
Buckhorn conglomerate--Conglomeratic sandstone and variegated shale, probably equivalent to the Burro Canyon formation in western Colorado and eastern Utah, resistant sandstones form benches	50 to 150
Jurassic system	
Morrison formation	
Brushy Basin member--Variegated bentonitic shale with a few thin lenses of coarse-grained sandstone characterized by bad land slopes	350
Salt Wash Member--Lenticular sandstone and fine conglomerate lenses interbedded with red and green mudstones and siltstones makes prominent bench, ore-bearing	250
Summerville formation-regularly bedded brown siltstones with much gypsum. (Base not exposed) Slope forming	150 +

ORE DEPOSITS

Ore deposits in the area are confined to the Salt Wash member of the Morrison formation. The Salt Wash commonly consists of two or three thick sandstone lenses interbedded with red mudstone and siltstone. The ore occurs in the upper two sandstone lenses of the Salt Wash. Ore occurs as impregnation of uranium and vanadium minerals in the sandstone and the ore bodies tend to be tabular in shape and roughly parallel to the bedding. Where the ore thickens abruptly, the ore boundary cuts smoothly across the back, forming a "roll". Ore deposits tend to be rudely oval in plan and elongated parallel to the sedimentary structure. The mineralogy of the ore is complex and the fine grain size of the ore minerals preclude positive identification except by X-ray or microscopic methods. The important recent ore discoveries have been in "black ores" which probably consist of uraninite, coffinite, and montroseite. Where the ore is exposed to weathering it is oxidized to the familiar "carnotite type" ore.

Ore deposits range in size from mineralized trees containing a few sacks of ore to complex closely spaced groups of small ore bodies with intervening mineralized and barren rock. The large ore bodies in the district may contain 5,000 to 10,000 tons of ore. Smaller ore bodies are more common, however, and the bodies usually contain from 50 to as much as 1,500 tons of ore that will range from 0.15 percent U_3O_8 to 0.34 percent U_3O_8. Mines in the immediate vicinity of the Daisy claims have

produced as much as 841 tons, assaying 0.19 percent U_3O_8, but they will average about 445 tons that will assay 0.20 percent U_3O_8.

ORE RESERVES

There is a small indicated reserve on the basis of drilling results on the Daisy No. 3 claim. The applicant has computed a reserve of 1,391 tons of ore with an average grade of 0.64 percent U_3O_8 in an ore body with lateral dimensions of 170 feet by 100 feet. The thickness of the ore is estimated at one to five feet. Radiometric values were used. A computation of the reserve in accordance with Geological Survey standards using chemical analyses on 4 holes and a radiometric analyses for one hole in which no chemical analyses was obtained, results in 679 tons of indicated ore with an average content of 0.74 percent U_3O_8, and an average thickness of 3.25 feet. In the type of ore deposit likely to be present on the Daisy claims, the ore probably is not continuous and there would be dilution in mining. A conservative figure for the reserve is therefore believed to be a maximum of 679 tons with an average grade, as mined, of 0.37 percent U_3O_8.

The ore reserves in the producing area 5 miles north of the Daisy claims are large, totaling hundreds of thousands of tons, but there are no known reserves in the small mines south of the property.

PROPOSED EXPLORATION

The applicant has proposed drilling 36 holes in 8 northeast-southwest fences to test ground in the area where previous drilling resulted in a discovery. A probable northwest-southeast elongation of individual ore bodies in a northwest-southeast trend has been assumed. Spacing between fences and holes is about 100 feet and fences are staggered. The estimated drilling depth averages about 250 feet which would test the upper 80 feet of the Salt Wash member of the Morrison formation which is the potential ore-bearing interval.

The estimated cost for 8,037 feet of non-core drilling and 893 feet of core drilling is $16,582.61. Government participation at 75 percent would be $12,436.96. The cost estimate submitted is supported by 3 bids from drilling contractors.

No alternate program is proposed by the examining team.

CONCLUSIONS AND RECOMMENDATIONS

On the basis of available data, the ore potential of the Daisy claims is poor. Appraisal of results in exploration of properties north and northwest, including a completed DMEA project Docket No. DMEA 3730, show clearly that substantial mineralization found 5 miles north is not persistent in a southeasterly direction towards the Daisy claims. The mineralization found by drilling on the claims indicates an ore body of the type found along the rim outcrops 2 to 3 miles south of the property and also to the west. Individual ore

bodies found to date are small and the frequency of occurrence is low. They can be mined economically only when easily accessible and then only when the operation is efficient. Deposits of this type at the depth at which they are likely to be present on the Daisy claims, 225 to 250 feet, cannot be mined profitably, and are not significant at this time or in the foreseeable future.

Denial of the application under Docket No. DMEA 4700 is recommended.

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
JUNE 1957
DOCKET #700

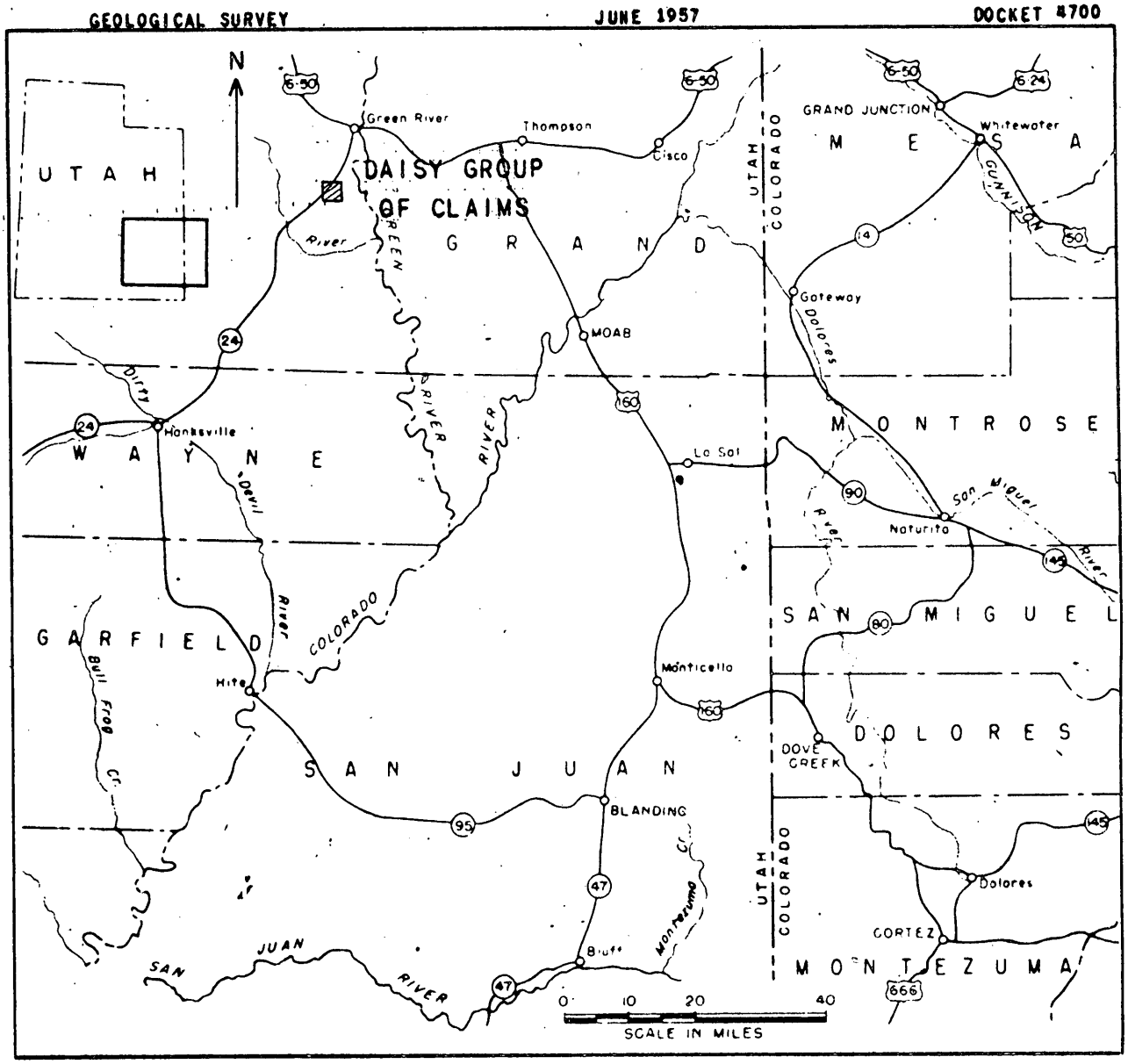

FIGURE 1.--LOCATION MAP, DAISY GROUP OF CLAIMS, ROSARIO EXPLORATION COMPANY, EMERY COUNTY, UTAH.

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227 New Customhouse
Denver 2, Colorado

April 16, 1957

Memorandum

To: N. E. King) W/enclosures, Items 1 - 5
J. L. Hasler) W/enclosures, Items 1 - 5

From: DMEA Field Team, Region III

Subject: Docket MEA-4700 (Uranium) Rosario Exploration Company (Daisy group) Emery County, Utah

Enclosed is the following material relating to the subject docket.

1. Copy of application for Government assistance in exploration work under the AEC program.
2. Memorandum of Review by James Racone, USGS.
3. Memorandum of Review by N. E. Nelson, USGS.
4. Letter of transmittal of the foregoing to this office, dated April 12, 1957, from the Chairman, Operating Committee, DMEA.
5. Routing control sheet.

A joint report of recommendations based on available information or a joint report of findings and recommendations based on a field examination is requested.

Should the Field Examiners view the proposed project favorably the applicant should be informed that we will require a Consent to Lien and Subordination Agreement from Danaher and Danaher, a partnership. At that time advise this office of this action so that we may have the necessary forms prepared for future execution.

Twelve extra copies of each map used in the joint report which show the land to be subordinated and the location and extent

of recommended work, relative to property boundaries, should be submitted if Government participation is recommended.

The Bureau of Mines' copy of the application should be returned to this office with the joint report of examination. The Survey's copy of the application is to be returned to Mr. Harshman's office.

Original signed by
By E. N. HARSHMAN
Acting Executive Officer

Enclosures
MHM:bh
cc: Sec. Op. Comm. (2)
Harshman W/enclosures, Items 2 - 4
King
Docket
Chron

DMEA Form 7
(12-56)

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4-1	Ching	700
4/12	Selfridge	130
"	Johnson	110
"	Mathews	100
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APR 12 1957

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

Re: Docket No. DMEA-4700 (Uranium)
Rosario Exploration Company
Daisy Group
Emery County, Utah

Dear Mr. Harshman:

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

Enclosed for your information are memoranda, dated March 28 and April 9, 1957, by James Paone, USBM, and N. E. Nelson, USGS, respectively, relating to the application. Also enclosed are two copies of the application for the use of the Field Team.

If a contract appears likely, a Consent to Lien and Subordination Agreement should be secured from Danaher and Danaher, a partnership.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (24B)

Enclosures

APPROVED:

Frank D. Lamb (24B)
Member, Bureau of Mines

Thor H. Kiilsgaard (24B)
Member, Geological Survey

MChing/dlm
4-11-57
cc to: Mr. Ching
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

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(12-56)

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"	[illegible]	110
"	Mittendorf	100
		220

APR 12 1957

Rosario Exploration Company
212 Electric Building
Grand Junction, Colorado

Re: Docket No. DMEA-4700 (Uranium)
Daisy Group
Emery County, Utah

Lamb
Nielsgaard

Gentlemen:

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

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

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

Sincerely yours,

E. O. Mittendorf
(by es)

Administrator

MChing/dlm
4-11-57
cc to: Mr. Ching
Admr.'s Reading File
DMEA Field Team, Region III (2)

Copy to: Mr. M. M. Reininger, President
Rosario Exploration Company
Subsidiary of:
New York and Honduras Rosario Mining Company
120 Broadway
New York 5, New York

8623

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED APR 11 1957

DATE	INITIALS	CODE
4/12	C	220
4/12	Ching	700
Memorandum		

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

April 11, 1957

Re: DMEA 4700
Rosario Exploration Co.
Daisy Group
Emery County, Utah
$16,582.61 - uranium

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

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

Subject: Correction on referenced review of application, dated April 9, 1957

The second sentence in the second paragraph of the subject memorandum should be changed to read as follows:

"The orebody has a thickness, as indicated by 4 holes of 3 feet, an uncut grade of 0.8% U_3O_8 and a cut grade of 0.45% U_3O_8."

N. E. Nelson

N. E. Nelson

Correction made in original memo and copies.

W. Ching

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

OFFICIAL FILE COPY
IN REPLY REFER TO:
DMEA
RECEIVED APR 10 1957

DATE	INITIALS	CODE
4/10	JWD	220
"	~~EEE~~	700
	Chrony	
		Complete

April 9, 1957
Re: DMEA 4700
Rosario Exploration Co.
Daisy Group
Emery County, Utah
$16,582.61 - Uranium

Memorandum

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

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

Subject: Review of application

The applicant requests assistance in exploring a group of 8 claims by plug and core drilling.

Drilling by the applicant has located a small orebody, 2,000 - 2,500 tons, at a depth of about 230 feet and about 70 feet below the Brushy Basin - Salt Wash contact. The orebody has a thickness, as indicated by 4 holes, of 3 feet, an uncut grade of 0.80% ~~0.45%~~ U_3O_8 and a cut grade of 0.45% U_3O_8. The orebody is rather well drilled out, but one 60 foot 'gate' remains open. If the indicated orebody is an example of what is to be expected, it means the orebodies should be reasonably close, one to another, in order to be very worthwhile. Comparison with results at not too distant operations, mining and exploratory, will be useful.

Referral of the application to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 29 1957

DATE	INITIALS	CODE
4/1	C	220
4/1	Ellis	700

March 28, 1957

4700

Uranium

Rosario Exploration Co.
Daisy group
Emery Co., Utah
$12,436.96

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
James Paone, Bureau of Mines Alternate Member
Uranium Commodity Committee

Application

3/15/57 3/27/57

[illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
Washington 25, D. C.

March 26, 1957

Mr. R. M. Roininger, President
Rosario Exploration Company
212 Electric Building
Grand Junction, Colorado

Subject: DMEA-4700
Re: Exploration Assistance

Dear Mr. Roininger:

Your application for exploration assistance, dated March 25, 1957 submitted to our office at Washington, D. C. has been assigned Docket Number DMEA-4700 and referred to the Rare & Miscellaneous Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Chief
Operations Control and
Statistics Division

Copy to: Region III

3571

NAME OR

Maps (3) submitted w/ application

RUN
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Use other side first

nment Messenger Envelope

1/46)

1. Use blocks consecutively, one at a time.
2. Void previous block.
3. Write clearly.

ERSON, DEPARTMENT, ADDRESS, AND ROOM		NAME OR TITLE OF PERSON, DEPARTMENT, ADDRESS, AND ROOM	
Chamberlain	RUN		RUN
	STOP		STOP
	RUN		RUN
	STOP		STOP
	RUN		RUN
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Use other side

and STOP only when messenger service between Government buildings in Washington is required.
Your mail room has RUN and STOP information.

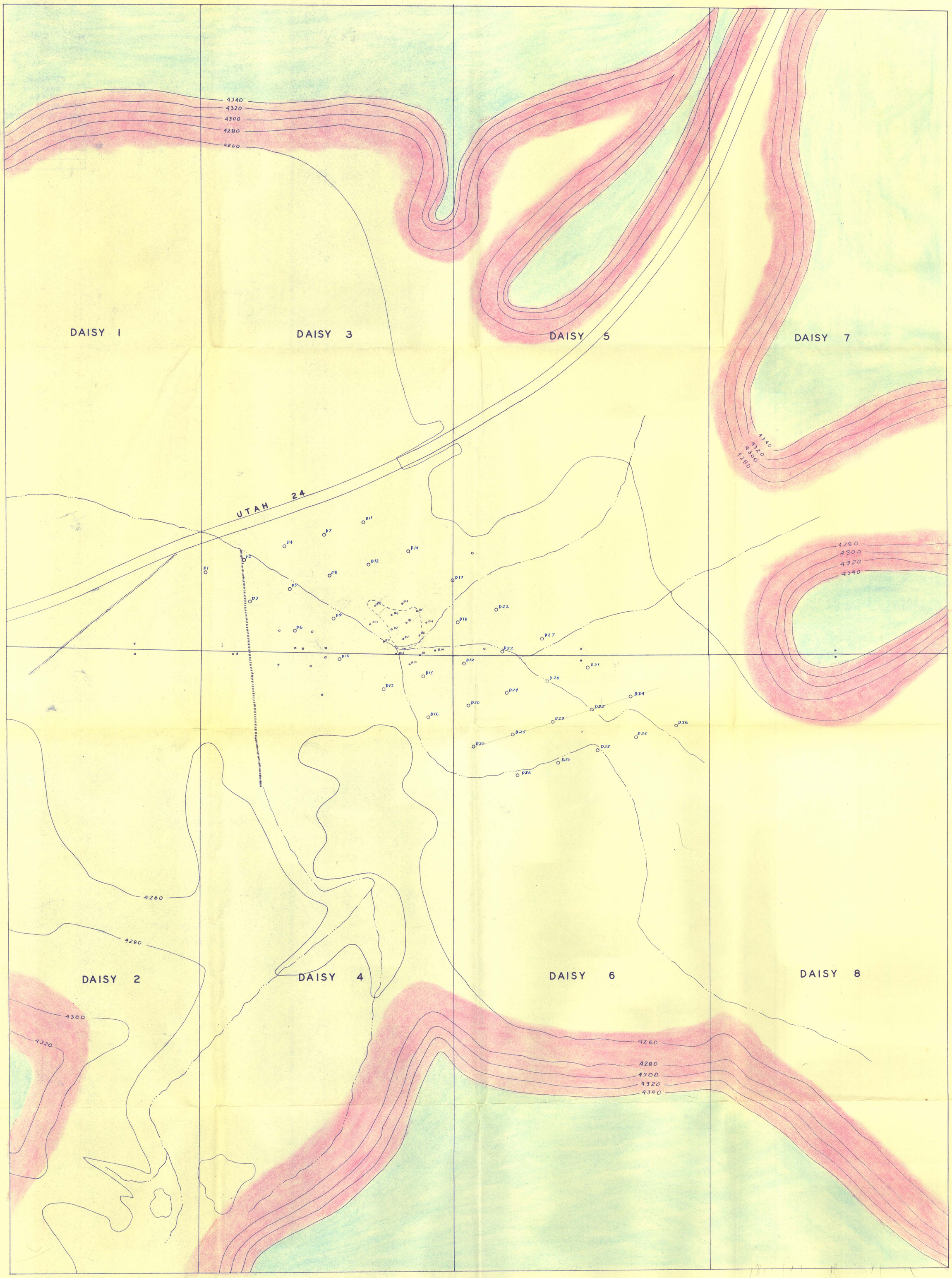


FIGURE 3

ROSARIO EXPLORATION CO.
DAISY GROUP

SECS. 23 & 24, T. 22 S., R. 14 E.
EMERY COUNTY, UTAH

SCALE 1" : 100'
CONTOUR INTERVAL 20'

N

EXPLANATION

- Alluvium
- Cedar Mountain formation
- Brushy Basin formation
- Small earth dam
- A, B, B1 Drilled by Rosario Expl. Co.
- Old drill hole, no record
- Outline of ore body
- Discovery monument
- Proposed drill holes

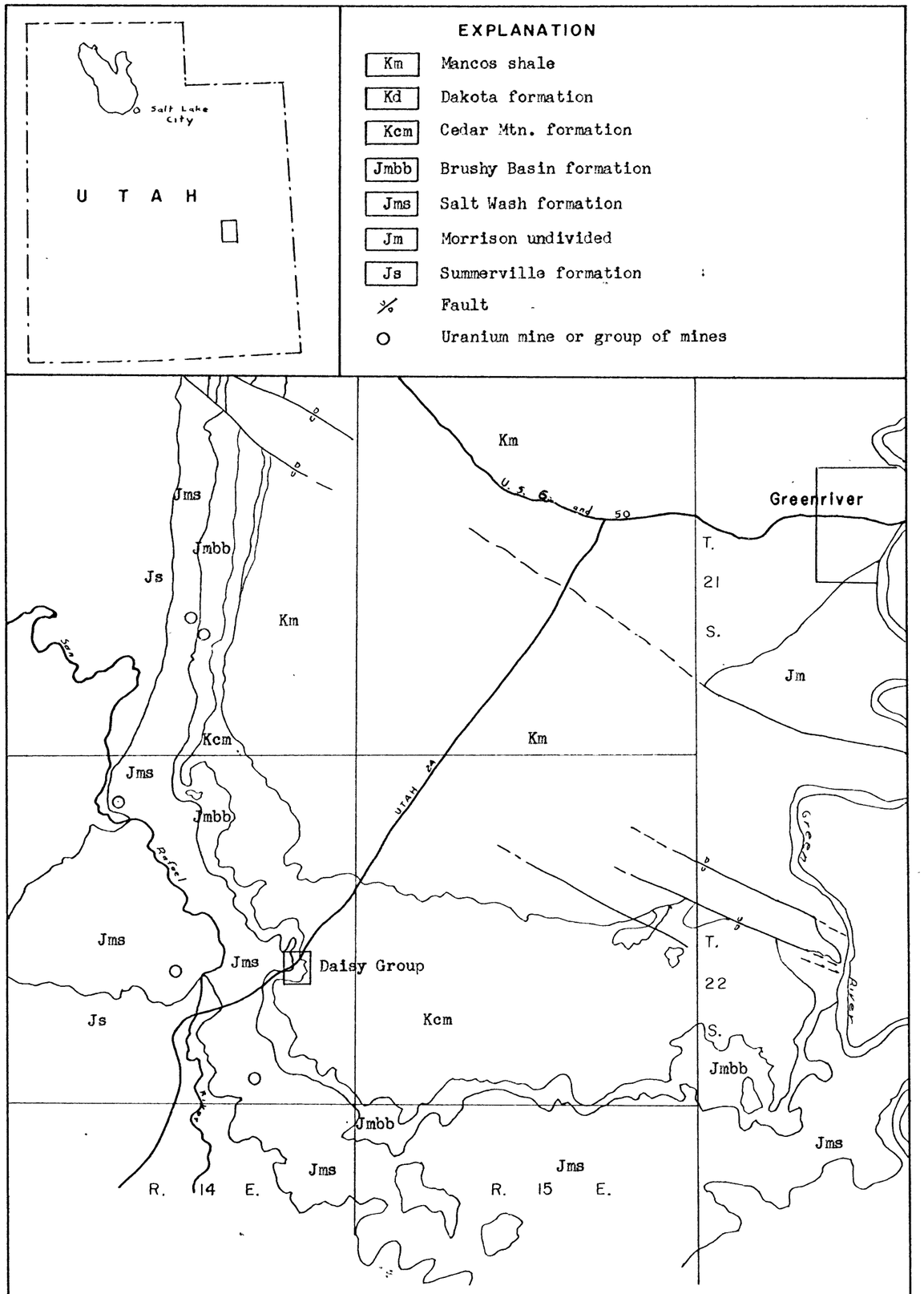


FIGURE 1
GEOLOGIC INDEX MAP
DAISY GROUP
EMERY COUNTY, UTAH

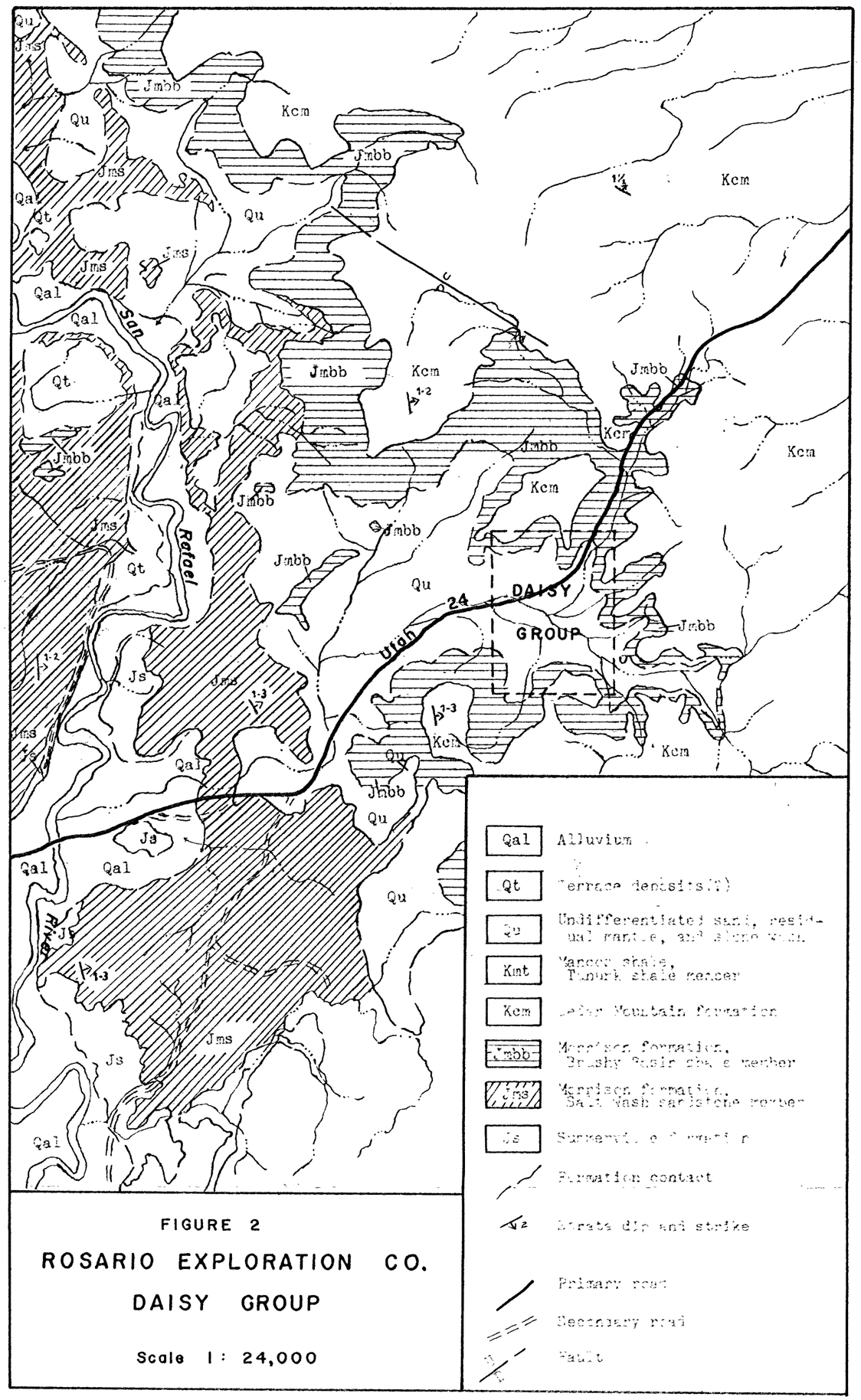
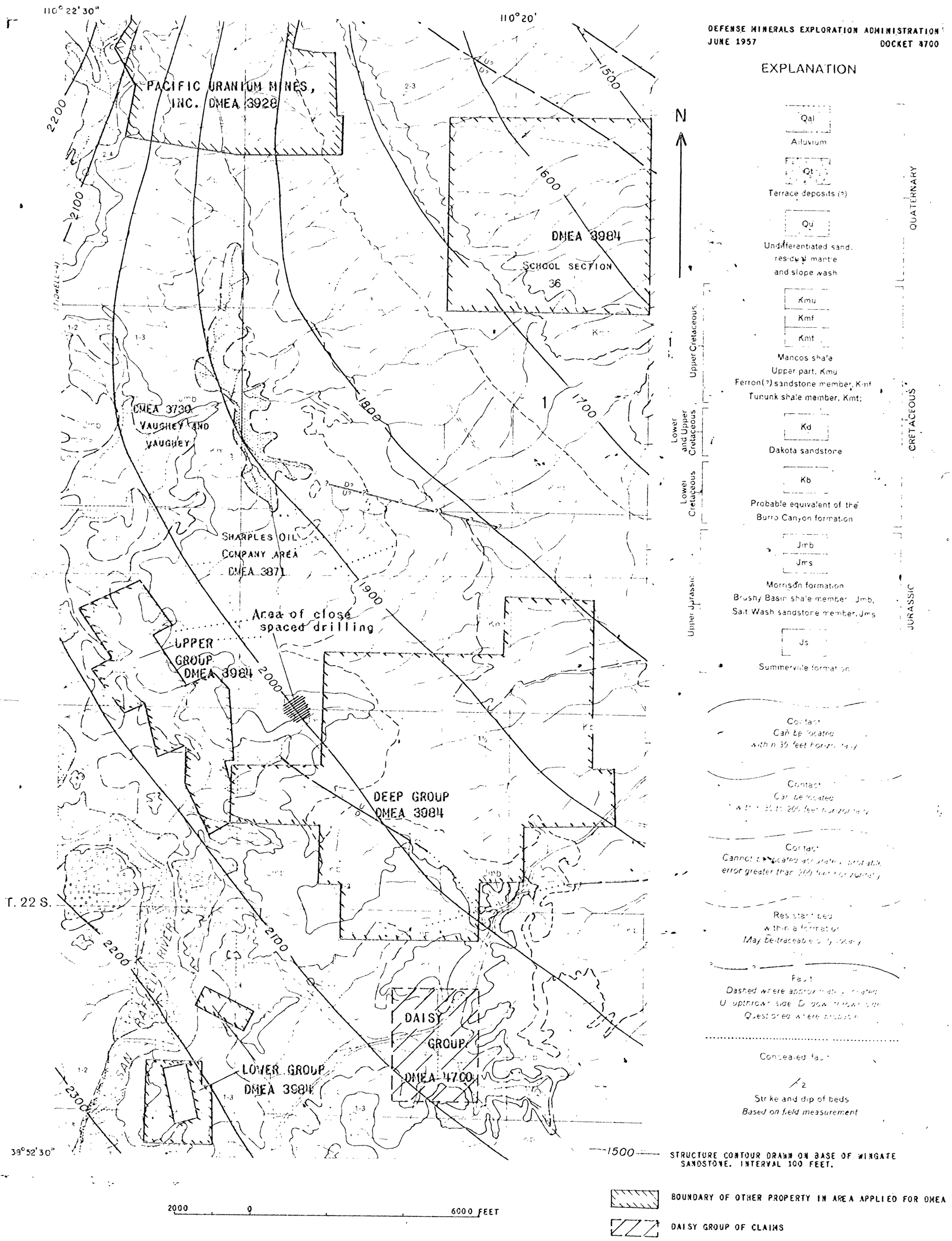


FIGURE 2
ROSARIO EXPLORATION CO.
DAISY GROUP
Scale 1: 24,000

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
JUNE 1957
DOCKET 4700



1500 STRUCTURE CONTOUR DRAWN ON BASE OF WINGATE SANDSTONE. INTERVAL 100 FEET.

BOUNDARY OF OTHER PROPERTY IN AREA APPLIED FOR DMEA

DAISY GROUP OF CLAIMS

Note: AREAL GEOLOGY FROM U.S. GEOLOGICAL SURVEY PHOTOGEOLOGIC QUADRANGLE MAP, TIDWELL 3, STRUCTURE CONTOURS FROM BAKER, A.A., 1946 (1947), U.S. GEOLOGICAL SURVEY BULLETIN 951 GEOLOGY OF THE GREEN RIVER DESERT-CATARACT CANYON REGION, EMERY, WAYNE AND GARFIELD COUNTIES, UTAH. PLATE 2. CLAIM BOUNDARIES, EXISTING DRILL HOLES AND PROPOSED DRILL HOLES FROM APPLICANTS MAP.

FIGURE 2.--GEOLOGIC MAP SHOWING DAISY GROUP, ROSARIO EXPLORATION COMPANY AS RELATED TO NEIGHBORING PROPERTIES APPLYING TO DMEA, EMERY COUNTY, UTAH.

April 17, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA-4700 (Uranium) Rosario Exploration Company (Daisy group) Emery County, Utah

The application for Rosario Exploration Company, Docket DMEA 4700, in the amount of $16,382.00 was received in this office on April 17, 1957.

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

W. H. KING

W. H. King

OFFICIAL FILE COPY
D M E A
RECEIVED APR 22 1957

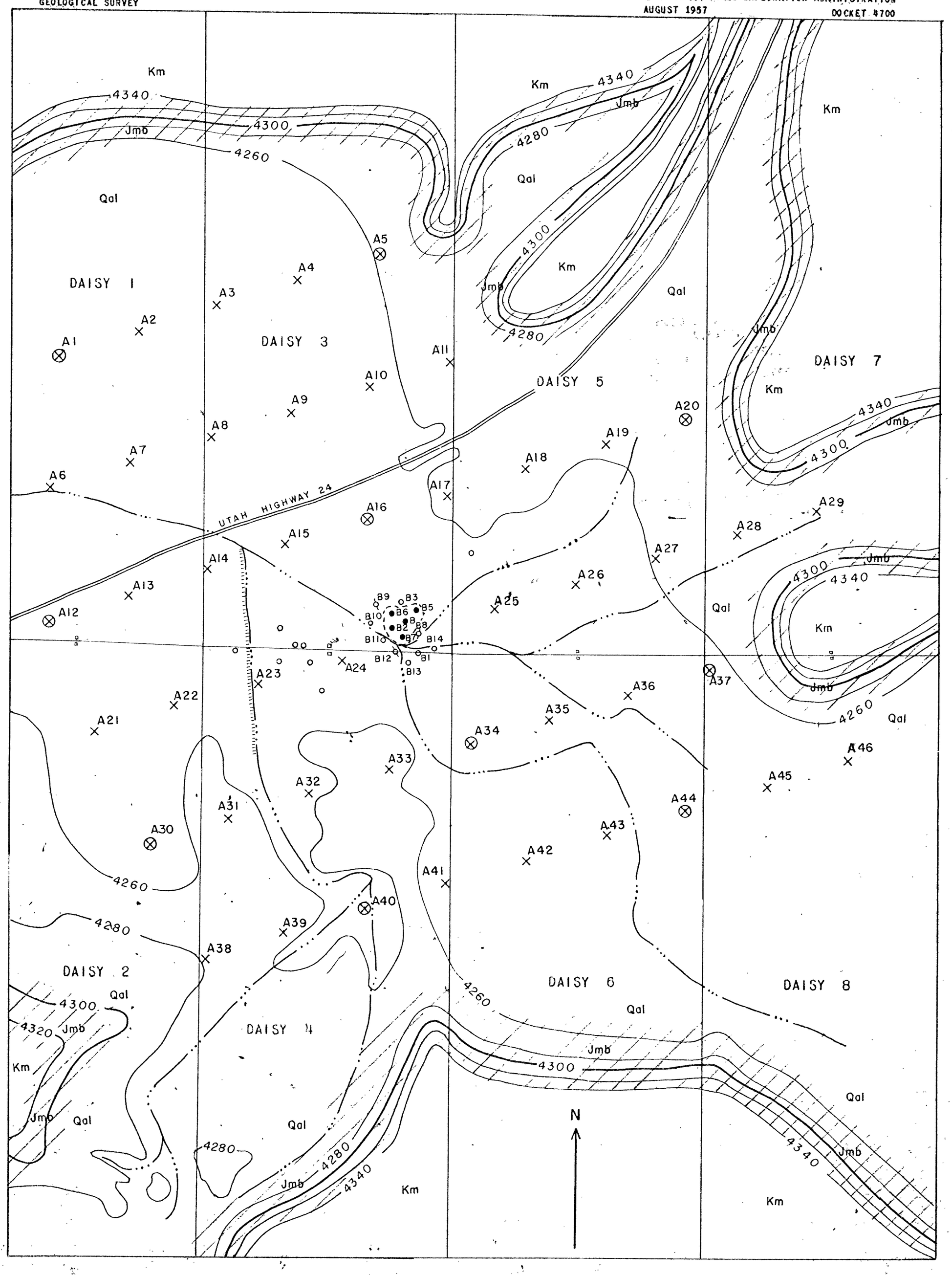
DATE	INITIALS	CODE
4/22	C	220
"	King	700

cc: Executive Officer (2)
S. H. Harshman
J. J. Hasler
M. H. Salsbury
J. P. Shaw

DMEA
DEPARTMENT OF THE INTERIOR
APR 17 1957
REGION III
DENVER, COLORADO

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
AUGUST 1957
DOCKET #700



EXPLANATION

Qal — ALLUVIUM

Km — CEDAR MOUNTAIN FORMATION

Jmb — BRUSHY BASIN MEMBER OF JURASSIC MORRISON FORMATION

OUTLINE OF ORE BODY

DISCOVERY MONUMENT

SMALL EARTH DAM

DRILL HOLES
(LETTERED HOLES DRILLED BY ROSARIO, UNLETTERED HOLES, NO RECORD, PRESUMABLY BARREN AND SHALLOW)

B6 ● ORE-BEARING

B12 MINERALIZED

B10 ○ BARREN

PROPOSED STAGE I DRILL HOLES

A1 ⊗ STAGE I, PHASE a

A2 × STAGE I, PHASE b

200 0 400 FEET

Contour interval 20 feet

FIGURE 1.--MAP OF PARTS OF SECS. 23 AND 24, T.22 S., R.14 E., S.L.M. SHOWING TENTATIVE EXPLORATION PROGRAM, DAISY GROUP, ROSARIO EXPLORATION CO., EMERY COUNTY, UTAH.