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PRINTED: 05/30/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: PARASHANT PIPE

ALTERNATE NAMES:
CHAPEL PIPE PROSPECT

MOHAVE COUNTY MILS NUMBER: 742

LOCATION: TOWNSHIP 33 N RANGE 10 W SECTION 25 QUARTER SW
LATITUDE: N 36DEG 13MIN 39SEC LONGITUDE: W 113DEG 19MIN 07SEC
TOPO MAP NAME: WHITMORE POINT - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:
URANIUM

BIBLIOGRAPHY:
ADMMR PARASHANT PIPE FILE
AGS VOL 16 P.179
CHENOWETH,W.L.1988,PRODUCTION HISTORY & GEOL
OF HACKS, RIDENOUR, RIVERVIEW AND CHAPEL
BRECCIA PIPES, USGS OPEN FILE RPT 88-0648

03/13/89

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: PARASHANT PIPE

ALTERNATE NAMES:
CHAPEL HOUSE

MOHAVE COUNTY MILS NUMBER: 742

LOCATION: TOWNSHIP 33 N RANGE 10 W SECTION 25 QUARTER SW
LATITUDE: N 36DEG 13MIN 39SEC LONGITUDE: W 113DEG 19MIN 07SEC
TOPO MAP NAME: WHITMORE POINT - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

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OF HACKS, RIDENOUR, RIVERVIEW AND CHAPEL
BRECCIA PIPES, USGS OPEN FILE RPT 88-0648

MOUNT TRUMBULL 15 MI.
292
R.10 W.
R. 9 W.
293
17'30"
295
PARASHANT
LAKE MEAD
CANYON
24
19
20
25
30
29
36
31
32
1
6
5

PARASHANT PIPE MOHAVE COUNTY

NJN WR 3/21/86: Pathfinder Mines Corp announced discovery of a uranium mineralized breccia pipe called EZ 2 at the A.G.S. symposium. Other breccias were identified although not necessarily economic discoveries.

Form 1274-2
(March 1965)
(formerly 4-954)

SERIAL REGISTER PAGE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Legal Reference	File Code	Serial Number
Acts of 8/4/1939 - Lake Mead Mineral Lease - Amd. 8/18/1950	3560 ~~15.1~~	035576

Name and Mailing Address

~~Audrine C. Knight~~
~~350 Desert Inn Road -- 4308 Nolan Lane~~
~~Las Vegas, Nevada~~

Exxon Corporation
Box 120
Denver, CO 80201

Description of Land

T. 33 N., R. 10 W.,
Sec. 25, All — 640.00 Acres

Section containing the Chapel breccia pipe
Also known as the Chapel House breccia pipe

DATE OF ACTION	ACTION TAKEN
Dec. 7, 1965	Application filed.
DEC 8 1965	G. S. REPORT REQUESTED Lake Mead.
DEC 20 1965	REPORTS RECEIVED Lake Mead.
JAN 3 1966	REPORTS RECEIVED G.S.
Jan. 10, 1966	Additional information requested of GS.
Jan. 14, 1966	Additional information from GS received.
Jan. 25, 1966	Lease offered. Bond, rental and stipulations required.
Feb. 28, 1966	Bond, rental and stipulations filed.
Mar. 9, 1966	Lake Mead Mineral Lease approved effective 4/1/1966. Bond filed.
Apr. 26, 1967	Assignment to Coconino Mining Co., filed, incomplete.
March 26, 1971	Application for 5-year extension filed.
June 25, 1971	5-year extension granted.
Aug. 9 1974	Application for assignment filed by Exxon Corp.
Oct. 7, 1974	Assignment to Exxon Corporation approved effective 11/1/74;

(cont. on page 2)

from: W.H. Crutchfield Jr. Mohave County Prospect Assessment Compilation (post 1982)

Name of Mine or Prospect:	Towns	Range	Section	Priori
Parashant Pipe (Breccia Pipe - 214)	33N	10W	25 cdb	B

Principal Minerals:	1:250,000 Quad	7.5' - 15' Quad
	Grand Canyon	Whitmore Point
Associated Minerals:	District	Principal Produc
	Colorado Plateau	
Type of Operation:	County / State	Type of Deposit
	Mohave / Ar.	Breccia Pipe

Ownership or Controlling Interest:

U.S. Park Service, Lake Mead National Recreation Area, Boulder City, Nevada

Access:

From Mt. Trumbull, proceed south into Trail Canyon, then proceed south int Parashant Canyon for 4.5 miles. Pipe is situated 3/4 mile west of trail.

Structural Control or Geological Association:

"Breccia pipe exposed in the east facing wall of Parashant Canyon. The units exposed include the Permian Kaibab Limestone, the Toroweap Formation, and the upper units of the Hermit Shale." [1]

Age of Mineralization: Unknown

Production History	Geochemical Analyses
SEA Photography, Inc. Peach Springs Survey - 225 PS Photos 02-03, 02-04 Known as Chapel Claim (1953)[4]	Geochemical Assay[4] "Selected sample" U_3O_8 0.113% Cu 1.95%

References

1) Exploration Research Associates, Inc. (1980) Airphoto interpretation.
2) Huntoon and Billingsley (1978) Map 15.
3) Exploration Research Associates, Inc. (1980) August, field reconnaissance.
4) AEC (1970) p. 148-151.

Form 1274-3
(March 1965)
(formerly 4-954a)

SERIAL REG. F NTINUATION SHEET

UNITED STATES
DEPA ENT OF THE INTERIOR
BUREA OF ND MANAGEMENT

Lake Mead Mineral Lease	Page 2	Serial Number AR 035576

DATE OF ACTION	ACTION TAKEN
Oct. 7, 1974	Bond executed 8-6-74, by Exxon Corporation as principal, and The American Insurance Co., as surety. Period of liability of bond executed by Audrine G. Knight and Highlands Insurance Co.is terminated effective 11/1/74.
Dec. 29, 1975	Application for renewal filed.
MAR 1 1 1976	CASE FILE TRANSMITTED TO DIRECTOR
August 12, 1977	Application for assignment filed by Audrine C. Knight.
OCT 2 6 1977	Case file rec'd
Dec. 9, 1977	Decision Issued: Renewal of Lease Denied, Approval of Assignment Denied.
Jan. 9, 1978	Appeal Filed.
JAN 1 1 1978	Case file to Board of Land Appeals
JAN 3 1 1978	Statement of Reasons filed.
Feb. 23, 1978	Opposition to Motion for Summary Dismissal filed.
June 30, 1978	IBLA affirms decision.
July 21, 1978	Case file received from IBLA.
Oct. 26, 1978	Case closed.

(over)

OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

Memorandum

TO: Arthur E. Granger, Chief
Salt Lake Branch, PED

DATE: March 29, 1961

FROM: Byron J. Sharp
Geological Engineer, Salt Lake District

SUBJECT: ORE RESERVE STUDY FOR REQUIREMENTS OF AEC ANNOUNCEMENT PRESS RELEASE NO. 220 OF NOVEMBER 24, 1958 ON THE CHAPEL CLAIM, MOHAVE COUNTY, ARIZONA. (SALT LAKE DISTRICT)

PSL:BJS:vhj

Summary

On July 29, 1959, Mrs. Audrine K. Fawcett submitted an ore reserve estimate of 2,000 to 3,000 T. @ 0.20% U_3O_8 on B.L.M. leases of sec. 25, 29, 30, T. 33 N., R. 9 W., Mohave County, Arizona. She accompanied AEC examiners to the area on November 8, 1959. During the examination, it was determined that the prospect on which she had submitted reserves was actually on the adjoining sec. 25, T. 33 N., R. 10 W. The old prospect was worked by C. M. Bundy as the Chapel claim. Mr. Bundy has sent a letter of protest to the B.L.M. regarding the Chapel claim but the protest has not been cleared as of the date of this report.

Location: The Chapel claim is in sec. 25, T. 33 N., R. 10 W., Mohave County, Arizona. The property is approximately 80 miles south of St. George, Utah, and due to the remoteness of the area and poor road conditions local inquiry should be made regarding the best route to be taken (see fig. 1).

Byron J. Sharp and Richard D. Miller of the AEC visited the property on November 8, 1959, accompanied by Mrs. Audrine Fawcett who had mistakenly assumed that the Bundy prospect was included in a lease from the Bureau of Land Management (Lake Mead Recreation area), which she had obtained in 1956. A geologist was also present who represented persons interested in purchasing the lease from Mrs. Fawcett.

History: The Chapel claim recorded in Book 4-c, page 250, Mohave County, court house, was first examined by AEC personnel

July 10, 1952. Mr. C. M. Bundy shipped 1.08 T. of ore @ 0.23% U_3O_8 to Marysvale, Utah, on February 24, 1954. The shipment also contained 4.02% copper and 1.1% $CaCO_3$. Mr. Bundy subsequently learned of a recreational area withdrawal and sent a letter of protest to the B.L.M. regarding his claims in the area. The protest has still not been cleared. Four lease applications were received by the B.L.M. on sec. 25 T. 33 N., R. 10 W., in August of 1955, but none were granted due to Mr. Bundy's protest. Mrs. Audrine Fawcett leased secs. 25, 29, 30, in T. 33 N., R. 9 W. The corners were located in the field and the prospect was found to lie in sec. 25, T. 33 N., R. 10 W.

Mrs. Fawcett submitted reserves of 2,000 to 3,000 T. @ 0.20%, July 29, 1959, for the Bundy prospect which was not on her leased land.

Geology and Ore Reserves: Parashant Wash is a canyon of nearly 2,000 feet relief, cut in flat-lying sediments of late Paleozoic age. The sediments, from the top of the canyon to the bottom, consist of Kaibab limestone, Hermit shale, Coconino sandstone, and the Supai sandstone. The only apparent structures in the area are a few pipes which are probably slump pipes inasmuch as the beds dip toward the center, where a more chaotic arrangement exists. The structure at the Bundy prospect is roughly circular in plan and about 250 feet in diameter. The southern portion of the pipe is covered by slope wash from above. A shear zone which strikes about N. 25° W. and dips from 80° NE to vertical, has been superimposed upon the pipe structure. The ore is present along a small tabular zone in the southern portion of the pipe. The zone varies from 6 inches to 3 feet thick and radioactivity is from 2 to 5 MR/hr (see fig. 2). Malachite stains are distinctive along the strike of the ore and copper assays of up to 4%. Autunite has been identified as the principal uranium mineral and a chip sample of the better material assayed as follows:

NO.	Width	eU_3O_8	cU_3O_8
88,634	$2\frac{1}{2}$' chip	0.239	0.383

The ore blocks were determined to have an average width of about 2 feet, and an average grade of about 0.25% U_3O_8.

Indicated and inferred ore reserves are as follows (see fig. 2):

Indicated:

$$\frac{80 \times 20 \times 2}{13} = 246 \text{ T. @ } 0.25\% \ U_3O_8$$

Inferred:

$$\frac{80 \times 20 \times 2}{13} = 246 \text{ T. @ } 0.25\% \ U_3O_8$$

Costs: The following costs are estimated, as a result of the AEC examination, to have been expended by Mr. Bundy:

50 foot drift @ $25/ft.	$1,250.00
Surface work (scaling and cleaning side hill)	200.00
Total	$1,450.00

Mr. Bundy has not submitted any cost data or ore reserve estimate.

Haulage distance to the Tuba City mill is about 208 miles, about 100 miles is paved and the rest is graded to unimproved dirt road. It is estimated that the cost is 6¢/ton mile on paved and 8¢/ton mile on the graded and unimproved roads. Total haulage cost is therefore estimated to be approximately $14.64 per ton.

Enclosure:
GJ-PD-34
GJ-PD-19
PRR-RA-11
Fig. 1-2

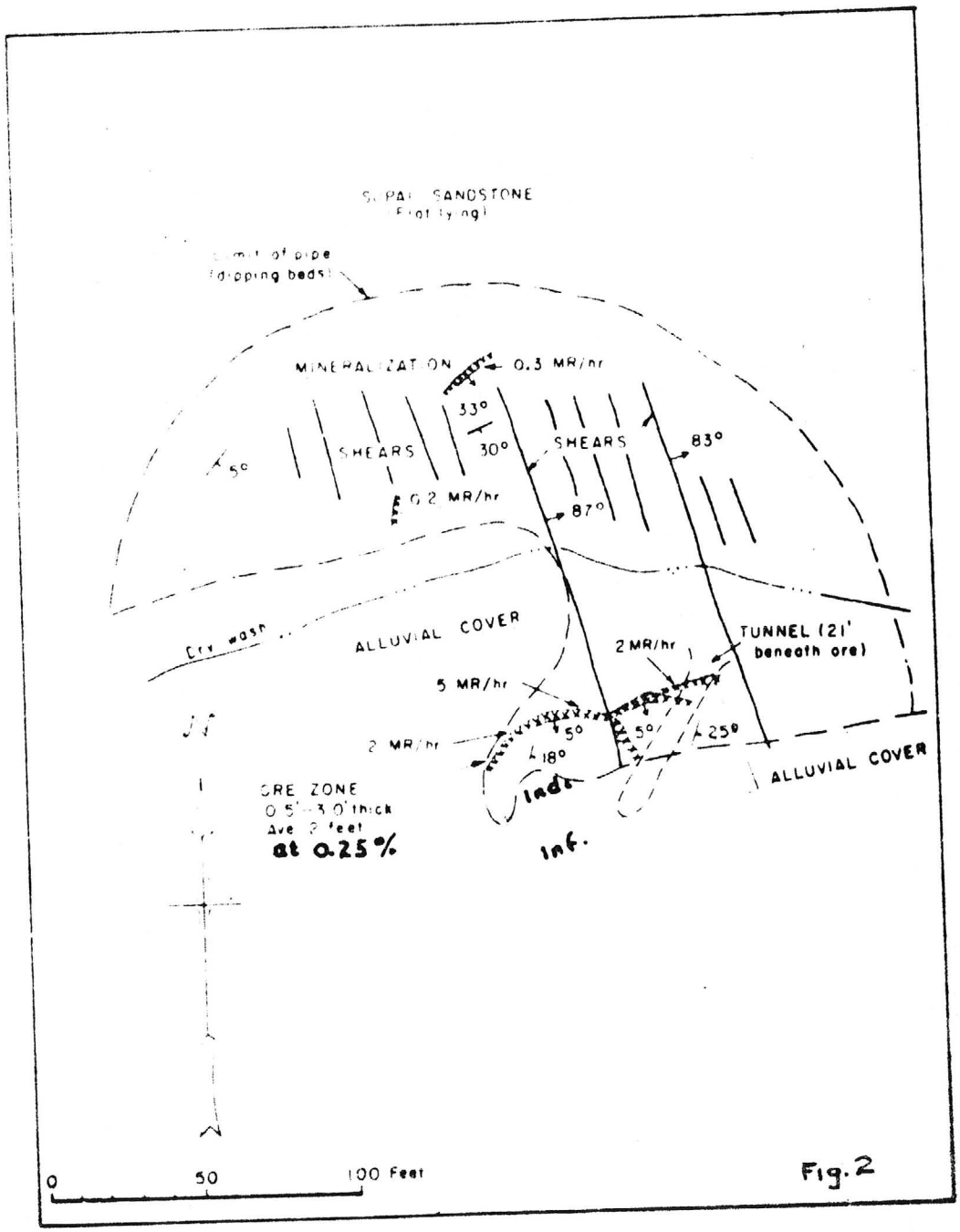


Fig. 2

BUNDY PROSPECT, MOHAVE COUNTY, ARIZONA

/.PD. 34
(Rev. 7/60)

OFFICIAL USE ONLY

DIGEST OF NOVEMBER 24, 1958 ORE RESERVE SURVEY

DISTRIBUTION
POR---(2)
DRM---(2)
MA ---(1)
FIELD OFF.---(1)

1/ INITIAL SUBMISSION DATE: None

CONTROLLER: C. M. Bundy — ADDRESS: Mt. Trumbull, Arizona

REPRESENTATIVE: C. M. Bundy — ADDRESS: Mt. Trumbull, Arizona

PROPERTY: Chapel — CLAIMS: Chapel

DISTRICT: Salt Lake — LOCALITY: Parashant Wash — STATE: Arizona
COUNTY: Mohave — S/T/R: 25/33N/10W - G & SR — CERT. NO.: None
NEAREST MILL: Tuba City — MILES: 208 - Road — HAULAGE COST: $14.64 - 6.00 = $ 8.64 net

AEC EXAMINERS & DATE: B. J. Sharp, R. D. Miller 11/8/59
AEC EVALUATORS & DATE: B. J. Sharp 2/10/61

CO. REP. PRESENT: None

ORE RESERVE	TONS	%U3O8	%V2O5
AEC 11/1/57:	[illegible]	0.25	-
AEC 11/24/58:	[illegible]	0.25	-
AEC CURRENT 1/1/61	[illegible]500	0.25	-
COMPANY 11/24/58:	2,000 to 3,000 T. @ 0.20 (by Mrs. A.K. Fawcett)		

AEC CUTOFF (THICK.): 2 feet
(GRADE): 0.10%
MINING COST - DIRECT: $15.00

AVG. DEPTH: 20 feet
AVG. THICKNESS: 2 feet
TOTAL: -

AVAILABILITY (MINING): A
(MILLING): A
TOTAL INVESTMENT: $1,450.00 (AEC. Est.)

ESTIMATED EXPENDITURES IN RELIANCE ON MAY 1956 ANNOUNCEMENT: None

PRODUCTION RECORD

	TONS	%U3O8	%V2O5		TONS	%U3O8	%V2O5		TONS	%U3O8	%V2O5
1952	None			1955	None			1958	None		
1953	None			1956				1959			
1954	1.08	0.23		1957				1960			
				TOTAL PRODUCTION TO: 1/1/61					1.08	0.23	-

DATA SUBMITTED, RELIABILITY, AND COMPLETENESS:	Ore reserves submitted by letter by Mrs. A. K. Fawcett who didn't control ground.
GEOLOGIC SETTING, ORE OCCURRENCE, AND METAL. TYPE:	Autunite occurs in a tabular ore zone in a slump pipe in the Supai sandstone.
ACTIVITY AT PROPERTY DURING VISIT:	No activity.
PREVIOUS EXAM. OR REPORTS OF RECORD:	PRR-RA-11 by H. E. Nelson and A. J. Rambosek, 7/10/52.
HISTORY OF EXPLORATION AND OPERATION:	One 50' tunnel driven to explore for copper in the early days. Surface work done for shipment of uranium ore in 1954. No work done since as Mr. Bundy learned of a recreational area withdrawal which included this claim. He sent a letter of protest to B.L.M.
EXTENT AND NATURE OF MINE DEVELOPMENT:	No development.
DIFFERENCES BETWEEN COMPANY AND AEC RESERVES:	Mrs. Fawcett's submission is invalid inasmuch as she does not control the ground.
FORECAST OF PRODUCTION AND ORE POTENTIAL:	No future production is expected due to the large expenditure involved to produce small amount of eligible reserves. Prospect has very good potential.

1424

1424

(NOTE: FOR MORE SPACE, FOOTNOTE AND USE REVERSE SIDE.)

OFFICIAL USE ONLY

Supplementary Sheet on Chapel Claim

1/ Initial Submission Date: Mrs. A. K. Fawcett submitted an estimate of 2,000 to 3,000 T. @ 0.20% U_3O_8, dated July 29, 1959 for the Chapel property that she mistakenly thought she had under lease from the Bureau of Land Management.

Chapel Claim

Aug. 1952 - The Chapel claim, Parishont Wash (Mule Canyon) Mining District, Mohave County, Arizona, shows a potential reserve of 150 tons @ 0.20%. The ore zone should be further explored for possible mineralized structure.

David D. Baker, Director
Production Evaluation Division, GJ

April 8, 1960

Arthur E. Granger, Chief
Salt Lake Branch, PED

LETTER FOR TRANSMITTAL - INSUFFICIENT DATA FROM PROPERTY OWNERS, (MRS. AUDRINE FAWCETT)

Symbol: PSL:AEG:af

Since this letter covers a rather unusual situation, I have decided it might be best to submit it to Grand Junction for concurrence before it is sent out. It is not exactly a "no reserve" letter since it covers an estimate of ore not actually on the property claimed by Mrs. Fawcett. Mrs. Fawcett does have a lease on which there is apparently no ore, but which unfortunately was not examined. The ore she refers to in her estimate as submitted to us is definitely not on ground covered by her lease; therefore we are not in a position to say that she has no ore on her property but only that the reserves she submitted are not on property covered by her lease.

We feel, however, that we should write a letter covering this situation to Mrs. Fawcett because she has represented to various companies that the Commission engineers have examined her property and allotted her 4,000 tons, and we feel that we must be on record as refuting this statement.

Enclosure:
Ltr. dtd 4/7/60, Fawcett/Granger w/envelope

[illegible]:BJ:af

April 7, 1960

Mrs. Audrine Fawcett
304 North Sun Drive
Casper, Wyoming

Dear Mrs. Fawcett:

The Commission's announcement of November 24, 1958 (23 F.R. 9112) stated that the Commission would purchase in the 1962-66 period appropriate quantities of uranium concentrates derived during this period from ore reserves developed prior to November 24, 1958, in reliance on the May 24, 1956, announcement.

In December of 1958 mine operators were advised that the Commission was starting a survey of ore reserves developed prior to November 24, 1958. Operators were asked at that time to submit ore reserve data to the Atomic Energy Commission in order that the properties containing such reserves would be considered in negotiations for uranium concentrate procurement during the 1962-66 period. The Commission's announcements of May 18, 1959 (24 F.R. 4040) and August 14, 1959, fixed the deadline for the submission of such data.

On July 29, 1959, you submitted an estimate of 2,000 to 3,000 tons of uranium ore containing an estimated 0.20% of U_3O_8 for properties leased by you from the U. S. Bureau of Land Management and covering the following lands: Sections 25, 29, and 30, T. 33 N., R. 9 W., Mohave County, Arizona (Lease Nos. AR-09909 and AR-09911).

We have studied your estimate and two of our engineers visited and examined the property with you and your geologist on November 8, 1959. During the course of the examination it was determined that the reserves to which you referred actually are on Section 25, R. 10 W., and not on the above-described land, and therefore your estimate of developed ore reserves cannot be accepted.

Should you wish to submit an estimate on the ground covered by your leases, we would be glad to consider it.

Very truly yours,

Arthur E. Granger Chief
Salt Lake Branch
Production Evaluation Division

PSL:BJS:af

January 13, 1960

Mrs. Audrine Fawcett
304 North Sun Drive
Casper, Wyoming

Dear Mrs. Fawcett:

Reference is made to your recent telephone call.

Attached is a sample report of the 2½-foot chip sample taken by Mr. Miller. We haven't had the photographs developed yet.

Sincerely yours,

Byron J. Sharp, Acting Chief
Salt Lake Branch
Production Evaluation Division

Enclosure:
BOM Assay Report No. 24 (copy)

8-303 (arch 1947)

AEC-1646
November 18, 1959

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Salt Lake City, Utah

No. 24

Report to Mr. Arthur E. Granger (RDMiller)

Chemical Laboratory Report

Date received NOV

Date reported 12/3/59

Serial No.	DESCRIPTION	Lot No.	eU_3O_8	cU_3O_8
88634	2½' Chip Sample	A-5403	0.239	0.383

NOTE: If over 0.10% eU_3O_8 please give chemical.

SOURCE: Mohave County, Arizona

RECEIVED
AEC
SALT LAKE CITY
UTAH
DEC 22 1203

U. S. GOVERNMENT PRINTING OFFICE 16—83552-5

Signed H. L. Petersen

6-308
March 1947

AEC-1646
November 18, 1959

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Salt Lake City, Utah

No. 24

Report to Mr. Arthur E. Granger (RDMiller)

Chemical Laboratory Report

Date received NOV 1 1959

Date reported 12/3/59

Serial No.	DESCRIPTION	Lot No.	eU_3O_8			eU_3O_8
88634	2½' Chip Sample	A-5403	0.239			0.383

NOTE: If over 0.10% eU_3O_8 please give chemical.

SOURCE: Mohave County, Arizona

Sample No. A- 5403 Date

State:

County:

Location

Description:

Remarks:

Sampler:

Signed Heber R. [illegible]

DEC 1959
RECEIVED
AEC
SALT LAKE CITY
UTAH

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
P. O. Box 659
Salt Lake City 10, Utah

November 24, 1959

Mr. Byron J. Sharp
U. S. Atomic Energy Commission
222 S. W. Temple Street
Salt Lake City 10, Utah

Dear Byron:

Enclosed is the list of Uranium leases issued by the Phoenix Land Office which you requested some time ago. Leases run for five years subject to yearly rental fees.

Section 25, T. 33 N., R. 10 W. has four applications on file. This is the section Mrs. Fawcett now wishes to obtain a lease on. The applications are as follows:

AR 09622 - All of sec. 25. Arnold W. Hubka
Application filed 8/23/55

AR 09631 - All of sec. 25. Charles Word
Application filed 8/24/55

AR 09659 - Emess Development & Exploration Co. Inc., NE 1/4, Sec. 25
Application filed 8/25/55

AR 09668 - Emess Development & Exploration Co., Inc., E 1/2 W 1/2 SW1/4, E 1/2 SW 1/4, SW 1/4 SE 1/4
Application filed 8/25/55

RECEIVED
AEC
SALT LAKE CITY
UTAH

Protests against issuance of any lease for section 25 was received by Mr. Bundy, because of certain mining claims which he claims to own. Accordingly, no lease can be issued for this section until the protest has been cleared.

Prior to the lag in interest in these lands, these mining claims were scheduled to be examined for validity. If the locations were found to be valid, the land in the valid locations would

be excluded from the leaseable area. But if found invalid, contest action would be initiated to declare the claims null and void. This latter action could take two or more years. Also, if enough interest were shown, the lands may be leased by competitive bidding.

W. J. Egan
Assistant Minerals Officer

Attachment

PSL:BJS:af

November 19, 1959

Mrs. Audrine Fawcett
304 North Sun Drive
Casper, Wyoming

Dear Mrs. Fawcett:

We are enclosing herewith copies of pertinent data regarding your Mohave County, Arizona, holdings, together with a statement regarding the true location as determined by our recent examination of the area.

Very truly yours,

Byron J. Sharp, Acting Chief
Salt Lake Branch
Production Evaluation Division

Enclosures:
Cy ltr 7/29/59, AEC/Fawcett
Sketch map
Ltr. 9/28/59, Granger/Coupey
Cert. of Assay, Henry E. Wood Co.
Statement inre location

November 19, 1959

TO WHOM IT MAY CONCERN:

On November 5, 1959, Mr. Byron J. Sharp and Mr. Richard D. Miller accompanied Mrs. Audrine Fawcett and geologist to Sec. 30, T. 13 N., R. 9 W., Mohave County, Arizona, in order to examine an occurrence of uranium. She had leased Sec. 30, 29, and 25 in R. 9 W. in 1956 from the Bureau of Land Management.

Upon examination of the area, it was found that the mineralized zone actually occurred in Sec. 25 of R. 10 W., adjoining Sec. 30 of R 9 W. All were agreed that the true location was in Sec. 25, R. 10 W., and that the ground was withdrawn by the BLM for the Lake Mead Recreation Area.

Respectfully submitted,

Byron J. Sharp

IN REPLY REFER TO:

LO:GN

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

State Office
P.O. Box 148
Phoenix, Arizona

November 16, 1959

Memorandum

To: William J. Egan, Assistant Area Minerals Officer

From: State Supervisor, Arizona

Subject: Lake Mead Uranium Leases in Arizona

AR 09569 - All sec. 9, T. 32 N., R. 10 W. - 640 A.
A. L. Ard - Issued 9-1-56.

AR 09909 - All sec. 25, T. 33 N., R. 9 W. - 640 A.
Audrine Knight Fawcett - Issued 8-1-56.

AR 09910 - All sec. 29, T. 33 N., R. 9 W. - 640 A.
Audrine Knight Fawcett - Issued 8-1-56.

AR 09911 - All sec. 30, T. 33 N., R. 9 W. - 639.56 A.
Audrine Knight Fawcett - Issued 8-1-56.

AR 09578 - SE¼NW¼NE¼, E½SW¼NE¼, W½SE¼NE¼ sec. 23, T. 33 N., R. 10 W. - 50 A. Chester M. Bundy - Issued 9-1-56.

AR 010021 - S½ sec. 9, N½ sec. 16, T. 30 N., R. 18 W. 640 A. - Edwin P. Barricklow - Issued 9-1-56.

AR 013960 - E½, SE¼NW¼, NE¼SW¼, S½SW¼ sec. 14, N½N½ sec. 23, T. 30 N., R. 19 W. - 640 A. Eugene Smith - Issued 4-1-57. Relinquished, but not closed. On appeal.

AR 014290 - NE¼ sec. 19, T. 30 N., R. 19 W. - 320 A. E. P. Campbell - Issued 7-1-57. Relinquished, but not closed. [redacted].

PSL:BJS:af

November 2, 1959

Mrs. Audrine Fawcett
304 North Sun Drive
Casper, Wyoming

Dear Mrs. Fawcett:

Mr. Byron Sharp will be in the field much of the first week in November and will not be available to contact by phone. He informs me that you were to phone him and make arrangements for a trip to Arizona the following week. You may phone me collect at EMpire 4-2552, Ext. 245 (office) or DAvis 2-2353 (home) and make the arrangements.

He will be able to go any time during the week of the 7th.

Very truly yours,

Arthur E. Granger, Chief
Salt Lake Branch
Production Evaluation Division

Gal V

SHIRLEY BASIN DEVELOPMENT CORPORATION

MINERAL EXPLORATION

P. O. BOX 882 CASPER, WYOMING

28 Sept 59

re: USBLM-LMA 09011
Audrine (Knight) Fawcett

Mr. Arthur L. Brown,
Chief, Salt Lake Branch,
Production Evaluation Division,
U.S. A.E.C., Room [illegible],
[illegible] South West Temple, Salt Lake City.

Dear Mr. Brown:

We are enclosing a plat of the USBLM-Lake Mead Recreational Area Lease Parcel. The vertical section at the bottom is a schematic sketch prepared by our engineer to show a picture of the distribution of the uranium and copper minerals within the formation.

The enclosed copy of the Wood assay report pertains to an assay from "Occurrence #1". We believe this property has considerable potential as a major uranium producer, but in view of current marketing regulations, a sizeable allocation will be necessary before exploitation can proceed.

This mine has been known since 1913, and is listed with the Department of Mineral Resources in Phoenix, Arizona. Remoteness of the area has hampered development, but new roads across the Navajo Reservation will soon make shipments economically feasible.

Very respectfully,

Paul J. Coupey

Paul J. Coupey,
Secretary.

Encls.

RECEIVED SEP 29 1959 AEC SALT LAKE CITY, UTAH

July 29, 1959

RECEIVED
JUL 31 1959

A.E.C.
Casper, Wyoming

Gentlemen:

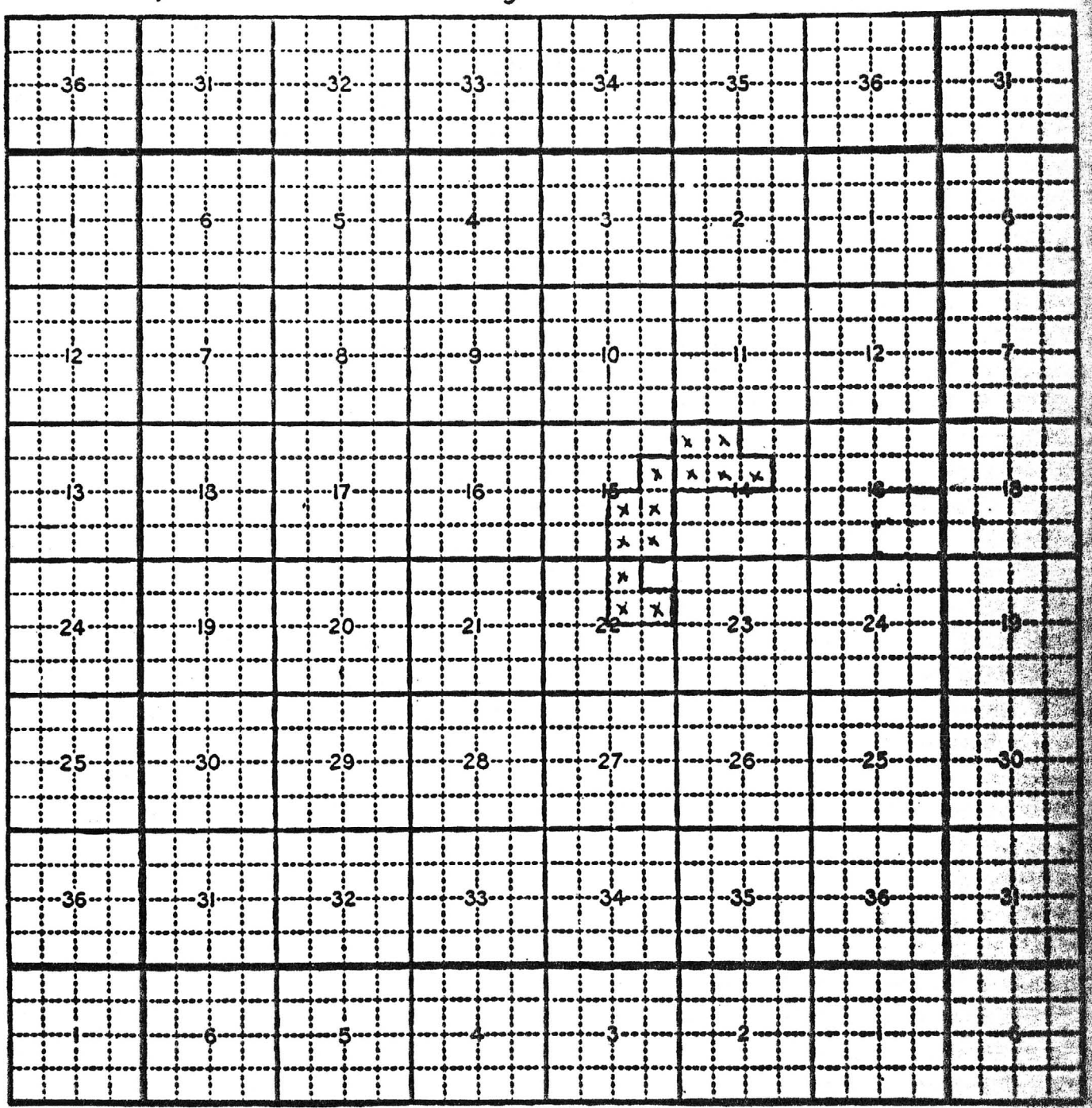
I am enclosing a sketch showing the location by sections, township & range of the three leases No. 09909, 10, & 11 held by me with the U.S. Dept. of Interior. These leases (3 sections) are located in N.W. Arizona in the Lake Meade Recreation area. A cut and excavation was made & samples assaying .20% U3O8. Ore reserves as estimated on the face is approx 2,000 to 3,000 tons. No core drilling has been done as yet, as roads ~~been~~ had not been constructed until recently. The information is being submitted in connection with and as required by your dept. for allocations of uranium ore. Since all papers & maps etc were in the hands of our prospector mining I am the enclosed info. is submitted in order to meet the deadline of July 31, 1959. I'll supplement (over)

information is required I will drop in at your office Monday Aug 3, 1959. This is as discussed by phone with your Mr. Howard Gisland on July 27, 1959

Very truly yours,
Pudrine Hawkett

D1-10
(Approved December 1941)

Township No. 32 N Range No. 10 W, _____ Mer.



Showing adjoining sections

Serial # Arizona 015479 Subject To Circular 1917

May 10 1957

Glen Haren, Benjamin R. Thornton, and Norman G. Shoreen

P.O. Box 512

Saint George, Utah

Mahlon Cook

Acting

C
O
P
Y

Certificate of Assay

THE HENRY A. WOOD ASSAYING COMPANY

Telephone Keystone 4-4816 Denver 4, Colorado 755 W. Colfax Ave.

April 2, 1958

We hereby certify that the samples assayed for Lorna Uranium Concentrates gave the following results per ton of 2000 lbs.

Marked	Gold ozs.	Silver ozs.	Wet Lead per cent	Copper per cent	Uranium Oxide
~~XXXX~~ #4				4.12	0.297
Lehmanite Property		0.10			
#5	0.05				

THE HENRY A. WOOD ASSAYING CO.

By G.F.L.

SEP 1958
RECEIVED
AEC
SALT LAKE CITY
UTAH

RSO:SRS:gs

August 20, 1954

Mr. Ward Yeager
Acting Superintendent
Lake Mead Nat'l Recreation Area
Boulder City, Nevada

Dear Mr. Yeager:

Enclosed are two copies of maps of the Chapel Claims in Parrashont Wash, Mohave County, Arizona. These are being sent you as requested by Mr. Michael Beck.

Sincerely yours,

Stephen R. Steinhauser, Chief
Richfield Sub-office
Salt Lake Exploration Branch

Encls.
1. as above (2)

CC: SLEB

AUDITORA
RECEIVED
AEC
SALT LAKE CITY, UTAH

Copied: HW Tharpe 9/22/54

U.S.A.E.C. - Washington, D. C.

August 16, 1954

Dear Mr. Lewis:

Thank you for your letter of July 16, 1954 in which you refer to a conference attended by representatives of National Park Service, Bureau of Reclamation and this Commission to discuss ways and means of expediting the removal of uranium bearing material from the Lake Mead National Recreation Area, Arizona-Nevada.

We are pleased to learn that you propose to issue instructions to National Park Service to establish, in consultation with the Bureau of Reclamation, a system for leasing of minerals in the withdrawn lands with such restrictions as may be required to protect the nationally significant recreation values of the area.

Your cooperation in taking this action in order to aid our domestic ore procurement program is appreciated.

Sincerely yours,

/s/ LEWIS STRAUSS

Chairman

Honorable Orme Lewis
Assistant Secretary of the Interior

cc: Dr. P. L. Merritt - New York
S. P. Wimpfen - Grand Junction
C. C. Towle, Denver
E. E. Thurlow - Salt Lake City

SEP 1954
RECEIVED
AEC
SALT LAKE CITY
UTAH

HW:Tallyring
7/30/54

RSO:SMS:LMK:mcg

August 5, 1954

Mr. Michael Beck
5810 2nd Street
Long Beach, California

Dear Mr. Beck:

Per telephone conversation with Mr. Earl King yesterday, we are forwarding you two copies of Index Map of Arizona Showing Location of Bundy Prospect, Chapel Claim, Mule Canyon, Parrishnot Wash, Mohave County, Arizona.

Sincerely yours,

Stephen R. Steinhauser, Chief
Richfield Sub-office
Salt Lake Exploration Branch

Enclosures:
1. as above

cc: E. E. Thurlow, SLEB

RECEIVED
SALT LAKE CITY, UTAH

RSC:ENK:mcg

June 11, 1954

Mr. Michael Beck
5810 2nd Street
Long Beach, California

Dear Mr. Beck:

The results of sample, Lot No. F-1140, from the Chapel Claims, Arizona, follows:

eU_3O_8 - 0.8650%

Very truly yours,

Stephen R. Steinhauser, Chief
Richfield Sub-office
Salt Lake Exploration Branch

cc: E. E. Thurlow, SLEB

Date Rept'd Attn: Meal Drill Hole	Owner-location	Description	e U_3O_8
	Chapel Claim, Arizona Michael Beck	Alt. shaly sandstone (Hermit)	0.8650

RS:SWS:mcr

May 10, 1954

Mr. Michael Beck
5810 2nd Street
Long Beach, California

Dear Mr. Beck:

Enclosed is a copy of the assay returns on sample, Lot No. F-1127, from the Copper House Claims, in Arizona.

Very truly yours,

Stephen A. Steinhauser, Chief
Richfield Sub-office
Salt Lake Exploration Branch

Enclosure:
as above

cc: E. E. Thurlow, SLEB

Report to SRS (Meehan and King)

Date Received - 4-26-54

		Lot No.	eU_3O_8	cU_3O_8	V_2O_5	Cu
27026	Sandstone	F-1127	0.01	0.008	0.01	5.65

Sample (taxpayer's) from claim, Arizona. Michael Long Beach, Calif.

C
O
P
Y

In reply refer to:
L3023-L

UNITED STATES
DEPARTMENT OF THE INTERIOR
National Park Service
Washington 25, D. C.

February 12, 1954

Mr. Robert D. Nininger
Acting Assistant Director
U. S. Atomic Energy Commission
Division of Raw Materials
P. O. Box 30, Ansonia Station
New York 23, New York

Dear Mr. Nininger:

This refers to that portion of your letter to this Service of January 29, requesting information with regard to securing permission to make reconnaissance surveys for uranium in recreation areas around Lake Mead and the Colorado River. We assume you have reference to Lake Mead National Recreation Area, which is administered by the National Park Service under a cooperative agreement with the Bureau of Reclamation.

The Bureau of Reclamation has advised us informally that it has no objection to the proposed surveys.

By this letter, permission is granted to the Atomic Energy Commission to conduct reconnaissance surveys for uranium in Lake Mead National Recreation Area in accordance with the procedure and subject to the conditions set out in our letter of August 26, 1953, to Chairman Lewis L. Strauss.

Upon arrival, your representatives should get in touch with Superintendent George F. Baggley, Boulder City, Nevada, who will be glad to furnish maps of the areas administered by this Service and to cooperate with your representatives in every other way.

Sincerely yours,

/s/ Conrad L. Wirth

Conrad L. Wirth
Director

Cy: E. E. Thurlow, Salt Lake
S. R. Steinhauser, Richfield
T. W. Cater, Phoenix
H. E. Nelson, Las Vegas
J. C. Johnson, Washington

Office Memorandum • UNITED STATES GOVERNMENT

TO : E. E. Thurlow, Chief, Salt Lake Exploration Branch

DATE: April 15, 1955

FROM : J. O. Hested, DRM - Washington JOH

SUBJECT: LAKE MEAD NATIONAL RECREATION AREA

SYMBOL: RM:JOH

Information received from the National Park Service:

A bill to open up the Lake Mead Recreation Area under the General Mining Laws of the United States has been approved by the National Park Service and the Bureau of Land Management.

The regional office of the Bureau of Reclamation made a few recommendations calling for minor changes.

The bill is now in the Office of the Solicitor, Department of the Interior.

Since this is information concerning internal plans of the Executive Branch of the Government and, furthermore, not directly concerning the AEC, it is provided for your information only. Inquirers should be referred to the National Park Service or the Bureau of Land Management.

RECEIVED
Salt Lake City

March 30, 1955

Those Listed Below

Robert D. Nininger, Acting Assistant Director
for Exploration, DRM - Washington

NATIONAL PARKS AND MONUMENTS

SYMBOL: RM:HEB

Inspection of Technical Memorandum #69: "Reconnaissance for Uranium in the Chinle formation in and adjacent to Dinosaur National Monument ....." prompts me to recommend that the Commission forego work in National Parks and Monuments, save for the purpose of procuring information requisite to solution of particular geological problems.

To search now for uranium on land under the jurisdiction of the Park Service is to look for ore unattainable without the aid of an Executive Order or perhaps some equally tedious process. Effort of field men could, I believe, be more profitably spent in areas of greater accessibility.

Addressees:
E. R. Gordon, GJOO
E. E. Thurlow, SLEB
C. C. Towle, DEB

APR 1955 RECEIVED

February 11, 1954

Ernest E. Thurlow, Chief, Salt Lake Exploration
Branch, DMM, Salt Lake City, Utah

Stephen T. Steinhauser, Chief, Richfield Sub-office,
SLEB, DMM, Richfield, Utah

SUMMARY OF ACTIVITIES IN SILVER REEF AND ARIZONA STRIP AREAS BY
[illegible] M. KING

SYNOPSIS: STEINHAUSER

Mr. Michael Beck, operator of the Copper House and Copper House Coalition Claims, Mohave County, Arizona, has recently initiated a core drilling program on these claims. Commission personnel have plane-tabled part of these claims, and have suggested drill hole locations.

The copper-uranium mineralization occurs along a bleached, fractured zone in the Hermit shale. Samples from a small prospect pit on the Copper House No. 1 Claim range from 0.01 to 0.165 percent cU_3O_8, and up to 3.99 percent Cu.

Mr. Beck plans considerable drilling on these claims and will attempt to block out commercial ore bodies. Commission personnel will probe the drill holes as the drilling progresses.

Mr. Beck stated that he also has an option on the Chapel Claims, Mohave County, Arizona. These claims are located within the Hoover Dam Recreation Area. As soon as permission to mine has been granted, Mr. Beck plans to build a road to these claims and begin a development drilling program. RSC personnel will assist in the drilling program.

Approval of the D. M. E. A. contract for exploration of the Copper Mountain Mine is anticipated. Within the next month, detailed surface mapping with plane table will be done by RSC personnel on the Copper Mountain Claims. This detailed surface geology is needed for intelligent direction of the D. M. E. A. contract.

Detailed surface and underground geologic mapping in the Silver Reef Area is in progress. Final proposals for drilling are being formulated and will be submitted as early as possible.

Other properties requiring attention are: the Steve Wesley property and the Frank Egar property, Washington County, Utah; the Salina Mining and Smelting Company property and the L. A. Wilson property, Kane County, Utah; the LaSalle Mining Company property, Coconino County, Arizona; and the Evans and Peterson property and the Glen Haren property, Mohave County, Arizona. However, since our available manpower is limited, work on these properties will have to await the more urgent programs now in progress.

Form No. Met. IV-1
(June 1953)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

1600 East 1st South
Salt Lake City, 1, Utah

December 30, 1953

C. W. Bundy

Kingman, Arizona

RADIOACTIVE SAMPLE REPORT

Sample Reference No.: UP-075-4

Name and Location of Property:

Sec. 25, T. 33 N., R. 10 W., Mohave County, Arizona

Nature and Analysis of Sample:

The four samples submitted are sandstones with some copper oxide minerals found in samples 1 and 2.

Radiometric analysis:

Sample 1	0.04 percent U_3O_8 equivalent
Sample 2	.05 " " "
Sample 3	.01
Sample 4	None

Remarks:

Examined by R. G. Irwin, Petrographer

Manager (2)
Tucson
Kingman
Alamo
AL
S

Signed: Heber E. Peterson

Heber E. Peterson, Chief
Chemical and Physical Analysis Branch
Metallurgical Division
Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Southwest Experiment Station
P. O. Box 4097, Univ. Station
Tucson, Arizona

RADIOACTIVE SAMPLE REPORT

Sample Reference No. UP-1243 Date: August 14, 1953

Sample Submitted by: Omer Sundy
101 Joshua Street
Henderson, Nevada

Name and Location of Property: Chapel Claim
Arizona Strip

Nature of Sample: Microscopic examination shows that your samples are sandstone and calcareous shales which contain small amounts of malachite, limonite, azurite, covellite and metatorbernite.

Analysis of Sample: Results of radiometric tests on your five samples follows:

	Sample No.	Percent equivalent U_3O_8
	1	0.12
Remarks:	2	nil
	3	nil
	4	0.13
	5	0.21

cc: AEC, Phoenix
" Salt Lake City
RSWininger (2)
JKClemmer
PGimmer

Signed _____
Carl Kempson, Chief
Process Development & Research Branch
Metallurgical Division, Region IV

Pishfield - Sundy file

Office Memorandum • UNITED STATES GOVERNMENT

TO : H. E. Nelson, Chief, Richfield Sub-Office DATE: July 23, 1952

FROM : Ernest E. Thurston, Chief, Salt Lake Exploration Branch

SUBJECT: OMER BUNDY, ST. GEORGE, UTAH

Symbol: SLEB:LJC:ff

The scanning equipment recently installed at the Union Assay office in Salt Lake City found the pulps from Mr. Bundy's shipment of ore that was made to the A.S.& R to be radioactive and over 0.10%eU_3O_3.

It is suggested that you contact Mr. Omer Bundy, 531 South Fifth East, St. George, Utah and ascertain where the ore came from, if he sees fit to tell you. The two samples are undoubtedly from the same source.

Have check claims, Origin Ship

Form No. Met. IV-1
(June 1953)

cc Richfield

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

1600 East 1st South
Salt Lake City, 1, Utah

July 21, 1953

C. M. Bundy

Mt. Trumbull, Arizona

RADIOACTIVE SAMPLE REPORT

Sample Reference No.: UP-595-2

Name and Location of Property:

Chapel Claim, Sec. 25, T. 33 N, R 10 W, Mohave County, Arizona

Nature and Analysis of Sample:

Radiometric analysis of sample 1 is 0.19 percent U_3O_8 equivalent.
Radiometric analysis of sample 2 is 0.16 percent U_3O_8 equivalent.

Remarks: Both samples are similar and are sandstones containing quartz, feldspar, and calcite. The dark green streaks in the rocks contain the copper arsenate mineral, tentatively identified as conichalcite. The uranium does not follow the copper mineralization, but is scattered throughout the yellow-brown parts of the rock. The uranium mineral was not positively identified, but because of the arsenic present it is suspected of being zeunerite. The pink incrustation contains a small amount of cobalt. There is no vanadium present.

Examined by Harold L. Gibbs, Petrographer

Hininger (2)
Thurlow
Zimmer
Miere
SL
D

Signed: H. E. Peterson

Esker E. Peterson, Chief
Chemical and Physical Analysis Branch
Metallurgical Division
Region IV

STANDARD FORM NO. 64

Office Memorandum · UNITED STATES GOVERNMENT

TO : Harry E. Nelson, Chief, Richfield Sub-office, Richfield, Utah

DATE: OCTOBER 3 1952

FROM : Hans H. Wadler, Chief, Mineralogical Laboratory, Division of Raw Materials, New York

SUBJECT: SAMPLE FOR ANALYSIS FROM ARIZONA - OUR REFERENCE NUMBER 4594

SYMBOL: RMT:RGC:rk

This is in reference to your sample number F-11932 from Bundy-Mt. Trumbull, "Chapel" Claims, W. Side of Parrishont Canyon, Mohave County, Arizona, which is assigned our reference number 4594 A. The requested mineralogical determination follows.

Radiometric analysis, obtained on a split portion of the sample ground to pass through a 100 mesh sieve, shows about 0.07% U_3O_8 equivalent. The rock is a fine-grained quartz sandstone showing a secondary iron-stained band parallel to the bedding. Malachite produces a secondary banding which is discordant with the bedding. An irregular patch of isometric chalcocite, digenite, identified by X-ray diffraction pattern, is also present in the sample. It could not be readily determined whether the chalcocite is of primary or secondary origin. The radioactivity of this sample is due largely to autunite, which occurs as small botyroidal surface incrustations associated with secondary calcite, quartz and malachite. Some radioactivity is also noted associated with malachite rimming the digenite, although the malachite in other parts of the rock shows no radioactivity.

CC: E.E. Thurlow, Salt Lake Expl. Br.

RSO:AJR:scb

September 16, 1952

Mr. C. F. Bundy
Mt. Trumbull
Arizona

Dear Mr. Bundy:

Enclosed please find a copy of the analysis returns on a sample taken from the Chapel Claims, Mohave County, by Mr. Harry E. Nelson, and Mr. Albert J. Rambosek.

Also enclosed are copies of maps showing the location of Bundy Prospect, Chapel Claim, Mule Canyon, Parrishont Wash, Mohave County, Arizona.

I hope these will be of assistance to you.

Yours truly,

Harry E. Nelson, Chief
Richfield Sub-Office
Salt Lake Exploration Branch

Enclosures:
1. Sample return (1)
2. Index maps (2)

cc: E. E. Thurlow, SLEB

REQUEST FOR ANALYSIS
(Fill in reverse side also)

...ested by ____________ (Signature)
HARRY E. NELSON
No. 1646 Date July 18, 1952

No. 7 Priority ____

Date Results Required July 31, 1952

No.	Field No.	Type*	Geographic Location and Description of Material	e-U_3O_8	cU_3O_8	Cu	
	F-11931	C	Chapel claims, Mohave County, Arizona (Mt. Trumbull) Mineralized hermit sandstone and shale	0.104	0.143	1.95	
	XXXXXXXX	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				

For cU_3O_8 & Cu see Recall's filed with Detroit returns. AZK.

Types: A—Channel. B—Chip. C—Grab. D—Placer. E—Mill conct. F—Mill Tail. G—Liquid. H—Refinery prod. I—Drill Core. J—Drill Sludge.

Storage Information ____________ Analyzed by: ____________ Approved by: Heber E. [illegible]

Heber E. Peterson
Bureau of Mines

Report in
AEC files

PRELIMINARY AND SUMMARY REPORT

CHAPEL HOUSE PROSPECT

(KNIGHT LEASE)

SHIVWITS PLATEAU

MOHAVE COUNTY, ARIZONA

September 27, 1972

Denys K. Poyner

CHAPEL HOUSE PROSPECT

INDEX

	Page
Conclusions	1
Introduction	2
Summary	3 & 4
Recomendations	4 & 5
General Geology	6 to 10
Considerations of Geophysical Survey	10 & 11
In Conclusion	11

Inclosures . . . . . Exhibits marked A, B, C, D, E, F, G & H.

The Significance of Mineralized Breccia Pipes, ... by Vincent D. Perry

Reference, (1) William de Carbonel, Copper Mountain Mine. . . . . May 1956, unpublished.

None of the above items were attached to the copy I found.

CHAPEL HOUSE PROSPECT

CONCLUSIONS:

1. The Chapel House Prospect offers an unusual most favorable locus for exploration and possable development of an economic ore deposit.

2. High grade mineralization in copper and uranium are exposed in surface outcrops on the property.

3. Radiometric survey indicates mineralization in a eliptical shaped area and geology indicates that this is the apice of a breccia pipe structure.

4. Aerial geology indicates the area is a favorable area for a possable deap seated mineral deposit.

5. A three phased exploration and possable development program is recommended.

   (1) A geophysical survey useing the Self Potential method.

   (2) A drilling program guided by the survey.

   (3) Subsequent development by an adit incline, useing LHD trackless equipment guided by the geophysical survey and drilling results.

CHAPEL HOUSE PROSPECT

INTRODUCTION

The Chapel House Prospect is located in Section 25, T 33 N, R 10 W, Gila and Salt River Meridiam, Mohave County, Arizona on the Shivwits Plateau. The property is reached by approximately seventy (70) miles of dirt and gravel road southerly from St. George, Utah, the principal supply point and is about six (6) miles northeasterly from a small maintained air strip at the Copper Mountain Mine and connected by road.

This preliminary report was prepared for Mrs. Audrine G. Knight, Lessee of the property, and is intended to indicate the steps recommended for exploration and possable development of the subject property.

The property was examined by this writer on two seperate occasions in the spring of 1970, during which time all of the known occurances of copper and associated minerals in that portion of Mohave County, Arizona laying north of the Colorado River was examined. In addition to the subject property these included the Copper Mountain Mine, the Island Prospect and Copper House Prospect all in the immediate area as well as the Grand Gulch Mine, the Savonic Mine and the Hidden Canyon Mine, situated along the Grand Wash fault and all of similiar geology and mineralization.

CHAPEL HOUSE PROSPECT

SUMMARY

The Chapel House Prospect consists of the all of Section 25, T 33 N, R 10 W, Gila and Salt River Meridian, situated near the northern limit of the Lake Mead Recreation Area. This area is withdrawn from public mineral entry, but is held by Mrs. Audrine G. Knight, Lessee, under a bonded lease, the BLM and Park Service Lessor's, a favorable lease with a sliding scale royalty for uranium production and a five percentum of gross value royalty for all other mineral production (see attached copy of lease and bond, marked "Exhibit A").

Development work consists of egress road and surface cuts made with a bulldozer exposing high grade mineralization (see attached assay and spectrographic reports, marked "Exhibit B"). A short adit is driven twenty one feet beneath the ore zone. Drill sites (3) are prepared, tho thier location may not be satisfactory.

Radiometric traverse lines indicate an eliptical zone of radioactivity, the boundaries of which correspond with the exposed zone of alteration and the exposed geology indicates the area to be one of collapse and brecciation (see attached map, marked "Exhibit C" and map, marked "Exhibit D").

In preliminary examination of the subject property and

SUMMARY CONTINUED

and others of the area, it was noted that ore minerals occur in permiable beds associated with breccia structures, as cementing material, void fills and along fractures and shearing zones. The proximinity of major faults and particular notice to fault intersections in the area of mineralization was noted.

The Chapel House Prospect is an excellent prospect for exploration and possable development of an economic ore deposit.

RECOMMENDATIONS

A phased project to be undertaken in three stages is recommended as follows:

1. A geophysical survey utilizing the Self Potential method.

Estimated cost

3 days @ $300.00 per day	
+ 2 days travel and expenses	$1,500.00
Total phase 1	$1,500.00

2. Test drilling. This phase should include at least four holes of minimum 500' depth to test the near surface zone. One geology hole of a minimum depth of 1500' should test the underlaying Redwall Martin limestone and basement PreCambrian

RECOMMENDATIONS CONTINUED

rocks.

Estimated cost

3500' @ $15.00 per foot	$42,500.00
Sampling and assaying	$ 1,500.00
Total phase 2	$44,000.00

3. Phase 3 is dependent upon the results of phase 1 and 2: Subsequent development by an adit incline utilizing LHD trackless equipment guided by results of the drilling program. To open and prepare for mining the area covered by the breccia pipe as now known will require an estimated 900 feet.

Estimated cost

900' @ $70.00 per foot	$63,000.00
Contingencies for 1, 2 & 3	
20% of $108,000.00	$21,700.00
Total estimated cost	$129,700.00

CHAPEL HOUSE PROSPECT

GENERAL GEOLOGY

Topography: The entire Colorado Plateau of which the Shivwits Plateau is a local feature in one of plateaus, mesas and cliffs cut by steep walled canyons with contrasting color as the many strata of sediment rock are exposed. Relief in the area of the Chapel House Prospect varies from a low of 3200' at the canyon floor to 4000' in the area of the mineral out crops to a high of 5480' at the southwest corner of section 25. The steep changes in elevations offers some difficulties in the building of roads. This difficulty is more than offset in that it will allow for the use of inclined adit mining useing LHD (load, haul & dump) trackless equipment, a very decided cost advantage. USGS Topographic Map, the Whitmore Point Quadrangle, is inclosed (see map marked "Exhibit E") showing the location of the Chapel House Prospect, the mineral outcrops and steep elevation changes.

Stratigraphy: A summary of the rock units, idealized, of the Colorado Plateau in inclosed (see summary of rock units, marked "Exhibit F"). Thickness of these units may vary from locale to locale or may in some instances be missing due to erosion occuring between periods of sedimentation. The rock units of interest in the Chapel House Prospect area are those of the

GENERAL GEOLOGY CONTINUED

Pennsylvanian and Permian age, collectively termed the Supai formation. The Supai is light grey to dull red massive and thin bedded cross-stratified fine to medium grained sandstone with thin mud stone partings interspaced with thin bedded sandy-limestone. The covering strata is the Coconino sandstone which is well silicified and impermiable. In the area of the mineral outcrops the Supai is bleached and shows wellbedded mineralization of copper carbonates and secondary uranium. Mr. de Carbonel (1) measured the Supai at the Copper Mountain mine at 400 feet. This measurement is compatable with the exposure at the Chapel House Prospect tho talus and a slide from the cliffs above cover the area to a great extent to the south. Minerals of economic consideration are the carbonates of copper Azurite and Malachite, Chalcocite, a copper sulphide of secondary origin. The uranium and silver bearing minerals have not been identified. Limonite and Pyrolusite are of secondary origin, the result of the leaching of the oxides of iron and manganese from the host rock by the hydrothermal solutions, which accounts for the bleach yellow-brown color of the host rock in contrast to its normal dull red.

Theory of Origin: A mineral deposit has to have had two things, structural preparation and a source. I will first cons-

GENERAL GEOLOGY CONTINUED

ider a possable source. The Chapel House Prospect is a hydrothermal deposit. Most hydrothermal deposits are believed almost universally to be genetically related to plutons. Plutonism that is productive is the result of tangenital tensionsal stress caused by regional uplift. Response to the stress resulted in zones of crustal rupture that allowed the parental basaltic magma at depth to become mobile and ascend and during the ascent fractional crystalization and differentiation ultimately resulted in major mineralization in area where the ascent to the surface was blocked. In areas where the ascent is not blocked the magma surfaced as volcanic flow. The ultimate product of fractional crystallization of parential basaltic magma is a granitic magma and in it are concentrated the ore metals contained in the basalt. Thus a source reservoir is formed. The roof of the reservoir is generally uneven, cupolas extending upward into the invaded country rock. Thus a productive center of intrusion is formed. Alternating positive and negative pressures caused by tectonic adjustments brought on by cooling and shrinkage of the magma cause a hydraulic raming action on these fluids, injecting them ever upward and outward into the country rock. Negative pressures cause a spalling off

GENERAL GEOLOGY CONTINUED

of country rock back into the magma chamber. Thus the typical breccia pipe is formed. Generally these are along fault structures and particulary intersecting faults, or may be along rock type contacts, but may be neither. The size of a breccia pipe is determined by the size of the weakness along which it is implaced. Where these fluids are dammed by a impermiable rock type digestion of the rock will occur, thus are formed replacement deposits.

I will now consider structural preparation. The Hurricane fault is a major fault and collectively with other more or less parallel faults are the west southwest boundary of the Colorado Plateau uplift block, thus a favorable structure exist for plutonism. Evidence that plutonism does exist is the known breccia pipe mineralization at Copper Mountain, Chapel House, Copper House and Island Prospect as well as the Ridenour Mine located on the south side of the Grand Canyon near the Hurricane fault zone. The Island, Copper Mountain, Chapel House and Copper House are all near by to an intersecting fault, unnamed, but here called the Andrus fault as the Andrus canyon traverses it. No igneous rocks were observed by the writer other than the dikes and sills of basalt noted outting the cliffs and benches

GENERAL GEOLOGY CONTINUED

in the area north of Copper Mountain parellel to the Hurricane fault. Basalt effusive rocks are known in the down dropped portion of the Grand Wash fault, the Mt. Trumball and Mt. Logan areas and further north near the Utah-Arizona border. As the underlaying strata of Redwall Martin limestone could have represented a dam to advance of the suspected magma, it represents a favorable target for exploration as replacement could have occured. The Arizona Bureau of Mines Geology map of Mohave County, Arizona, showing the fault lineaments is inclosed (see map marked "Exhibit G" and map showing major tectonic lineaments and orogeny of the four states of Utah-Colorado-Arizona and New Mexico, marked "Exhibit H").

Theory of Deposition: Hydrothermal solutions entered the Supai formation through favorable structurally prepared channels in a vapor-fluidization process and involved largely heated connate fluids which mixed with the meteoric fluids contained in the poreous host, resulting in a decrease in temperature and pressure with resulting deposition.

CONSIDERATIONS OF GEOPHYSICAL SURVEY

The Self Potential Method: The writer has had success with this method of geophysics on a breccia pipe which he owns that is currently under development. It is particulary adapt- to mineral occurances containing principally the oxides and

CONSIDERATION OF GEOPHYSICAL SURVEY CONTINUED

carbonates. Mineralization at the Chapel House Prospect is largely intimately associated with the oxides of iron and manganese which would be readily detected and used as a guide to location of drill holes.

IN CONCLUSION

The literature is filled with papers on "Breccia Pipes" around the world. One of the considered foremost papers "The Significance Of Mineralized Breccia Pipes", by Vincent D. Perry, is included with this report and is suggested reading.

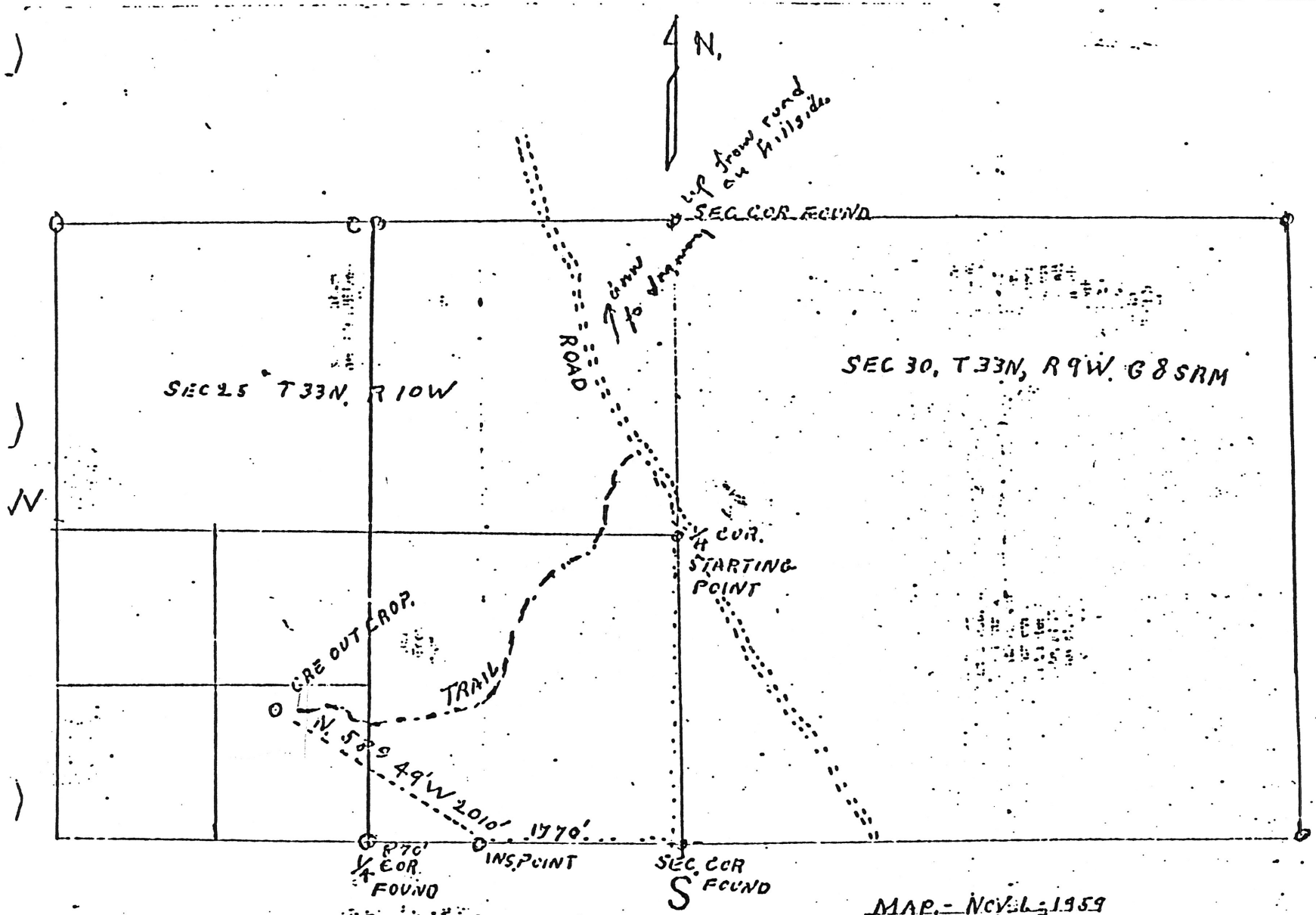
The writer affirms that he has no present or intended future interest in the subject property. While warranty of success can not be made, the scope of this report is to evaluate the potential as a justification for the reccomended exploration.

Assays included with this report are not those taken by the writer. Those taken by the writer at the time of the examination are the property of the sponsor of the examination. Those included were kindly provided by Mrs. Audrine G. Knight and are comparable with those taken by the writer. Errata that may be found in the report are the fault of the typewriter and not the user.

Respectfully Submitted,

Denys K. Foyner

Denys K. Foyner



MAP. - NOV. 6. 1959
SHOWING LOCATION OF ORE OUTCROP
IN SEC. 25 TP. 33N. R 10W G & SRM
SURVEYED BY W. W. CANNON ENGINEER
C. H. George.

SCALE 1 IN. = 1200'

AR-035576

COPYED BY GEORGE, F WELLMAN for Knight
Geol. MacKay.

UNITED STATES ATOMIC ENERGY COMMISSION
AFFIDAVIT AND REQUEST FOR FACTUAL DATA

State of Arizona

County of Mohave

C.M. Bundy being first on oath duly sworn deposes and says:

1. That he is the Owner (owner - lessee) in the lands or mining claims described as follows: County of Mohave, State of Arizona and recorded in the public record as follows or described in the attached sheet.

Claim name Chapel Recorded in Book 4-C, Page 250
Claim name _____ Recorded in Book _____, Page _____
Claim name _____ Recorded in Book _____, Page _____
Claim name _____ Recorded in Book _____, Page _____

2. That he believes and affirms that all other persons having any outstanding title or interest in said properties or any of them, together with the nature thereof, whether arising out of record, arising out of instruments not of record, actual possession or otherwise are as follows:

3. If the above described properties are unpatented mining claims, that he has identified and numbered the corners of the above described claims in the field.

4. That he affirms that he will, within a period of six months from the date hereof, accompany a representative of the U. S. Atomic Energy Commission in the field to identify positively the discovery cuts, corners and boundaries of the above-described properties, in case the corners or boundaries cannot be satisfactorily identified in the field by the Commission or cannot be plotted on the Survey map according to the land or mining claim description.

5. That he requests that the United States Atomic Energy Commission furnish him or _____ with the available factual information in its possession developed from exploratory work on the above described property and that he, if other than the owner, represents that between himself and the owner, he is entitled to receive such information or to authorize _____ _____ to receive such information.

C. M. Bundy
(Signed)

Subscribed and sworn to before me this 11 day of August 1952

My commission expires June 1st

Geraniene Bundy
Notary Public

Residing at Mt. Trumbull Ariz.

UNITED STATES ATOMIC ENERGY COMMISSION
PERMISSION TO PUBLISH

In an effort to promote the development of additional resources of uranium and thorium in the United States, the Atomic Energy Commission selects, for public information, certain reports from among those submitted by this and other agencies after their examination of an area or an individual property.

If the Commission should wish to describe the property named below in one of its published reports, may we have your permission to do so? Will you please indicate your permission by signing this paper and returning it to this office.

Name of Property: Chapel

Location of Property: Sec. 25 T 33 N. R. 10 W.

Name(s) and P. O. address(es) of owner(s): C. M. Bundy Mt Trumbull Ariz
Owner Bundy St George Utah

Name and P. O. address of Lessee (if any):

I certify that I am the owner(X), lessee( ), agent of the owner( ) of this property and, having the authority to do so, hereby grant the above requested permission.

Signed: C. M. Bundy

Date: 8/10/52

File copy

SAMPLES SUBMITTED TO MINERALOGICAL LABORATORY FOR STUDY

Collected by (name and address) Albert J. Rambosek

c/o U. S. A. E. C., P. O. Box 58, Richfield, Utah

Transmitted through Harry E. Nelson, Chief, Richfield Sub-Office,

SLFB, DEM, Box 58, Richfield, Utah Date August 5, 1952

Where sample originated Dandy - Mt. Trumbull, "Chapel" Claims, W. Side

of Parrishont Canyon, Mohave County, Arizona

Type of sample: Channel _____ Picked Hand Specimen

Grab _____ Other _____

Study requested:

Radiometric assay _____

Chemical assay _____

Identification of uranium mineral Mineralogy determination

Other _____

Previous correspondence on sample None

Deadline date for sample report and reason why As soon as possible

Any additional information: Description: Mineralized Hermit?
Lot No. F-11932

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Southwest Experiment Station
P. O. Box 4097, Univ. Station
Tucson, Arizona

RADIOACTIVE SAMPLE REPORT

Sample Reference No. [illegible]-10[illegible] Date: July 3, 1952

Sample Submitted by: Omer [illegible]
531 South [illegible] East
St. George, Utah

Name and Location of Property: Unknown

Nature of Sample: Sandstone cemented with calcite, malachite, limonite and a small amount of meta-torbernite. The meta-torbernite is a hydrous copper uranium phosphate.

Analysis of Sample: Radiometric analysis for uranium shows your sample contains equivalent to 0.13 percent U_3O_8.

Remarks: This sample referred to this station by the Arizona Bureau of Mines, for radiometric assay.

cc: RWHeininger (2)
EEThurlow, AEC
JBClemmer
Paul Zinner

Signed _____
Carl Rampacek
Acting Chief
Southwest Experiment Station

cc: Sent to Nelson at Richfield - 7/8/52

FILE RA-U-a-R-11

PRELIMINARY RECONNAISSANCE REPORT

EXAMINED BY H. E. Nelson & A. J. Rambosek

DATE(S) EXAMINED July 10, 1952

2. STATE Arizona COUNTY Mohave

DISTRICT Parrishont Wash (Mule Canyon)

NEAREST TOWN Mt. Trumbull

PROPERTY Chapel Claim

1. SAMPLES

NUMBER	TYPE AND WIDTH	RADIOACTIVITY
1 - Grab		
1 - Petrograph		
F-11931 - Grab - (U_3O_8 - e and U_3O_8·C)		
F-11932 - Grab - Petrographic		

LOCATION SEC. 25 T. 33N R. 10W

3. TYPE OF EXAMINATION:

Scintillometer - Surface

4. DIRECTIONS TO DEPOSIT: Guided to within three miles of deposit by Mr. C. M. Bundy over very rough roads.

5. OWNER OR OPERATOR: C. M. Bundy, Omer Bundy
ADDRESS: Mt. Trumbull, Arizona; St. George, Utah

6. MINE OR PROPERTY HISTORY, PRODUCTION AND WORKINGS:

No history available on old tunnel.

7. RADIOACTIVITY:

Anomalous radioactivity was found.

8. DESCRIPTION OF DEPOSIT *(Discuss under A. Topography, B. Geology, C. Mineralogy)*

A - Inaccessible by road in Mule Canyon 2,500 feet deep

B - Leached zone in hermit shale at 600 feet, plus or minus, below Coconino sandstone.

C - Fe Ox, CuOx

9. POTENTIAL FOR FUTURE PRODUCTION: Potential ore zone dimensions:
35 feet long)
20 feet wide) --@ 14 cu.ft./ton = 150 tons
3 feet wide)

10. CONCLUSIONS AND RECOMMENDATIONS:

Open horizon to see if any structure is near leached zone and mineralization.

11. PROOF OF OWNERSHIP RECEIVED? No
PERMISSION TO PUBLISH RECEIVED? No

12. MAP:

Map attached.

13. OTHER INVESTIGATIONS:

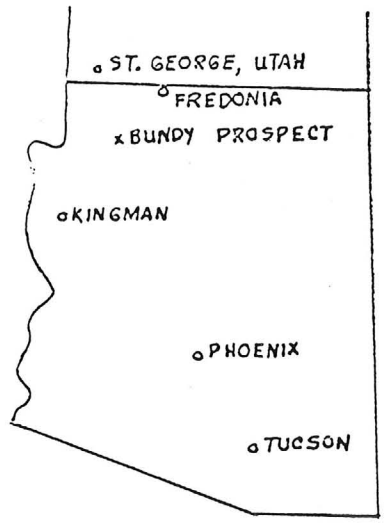
None

14. ADDITIONAL INFORMATION:

None

15. SUPPLEMENTARY RECONNAISSANCE REPORT TO FOLLOW? Yes

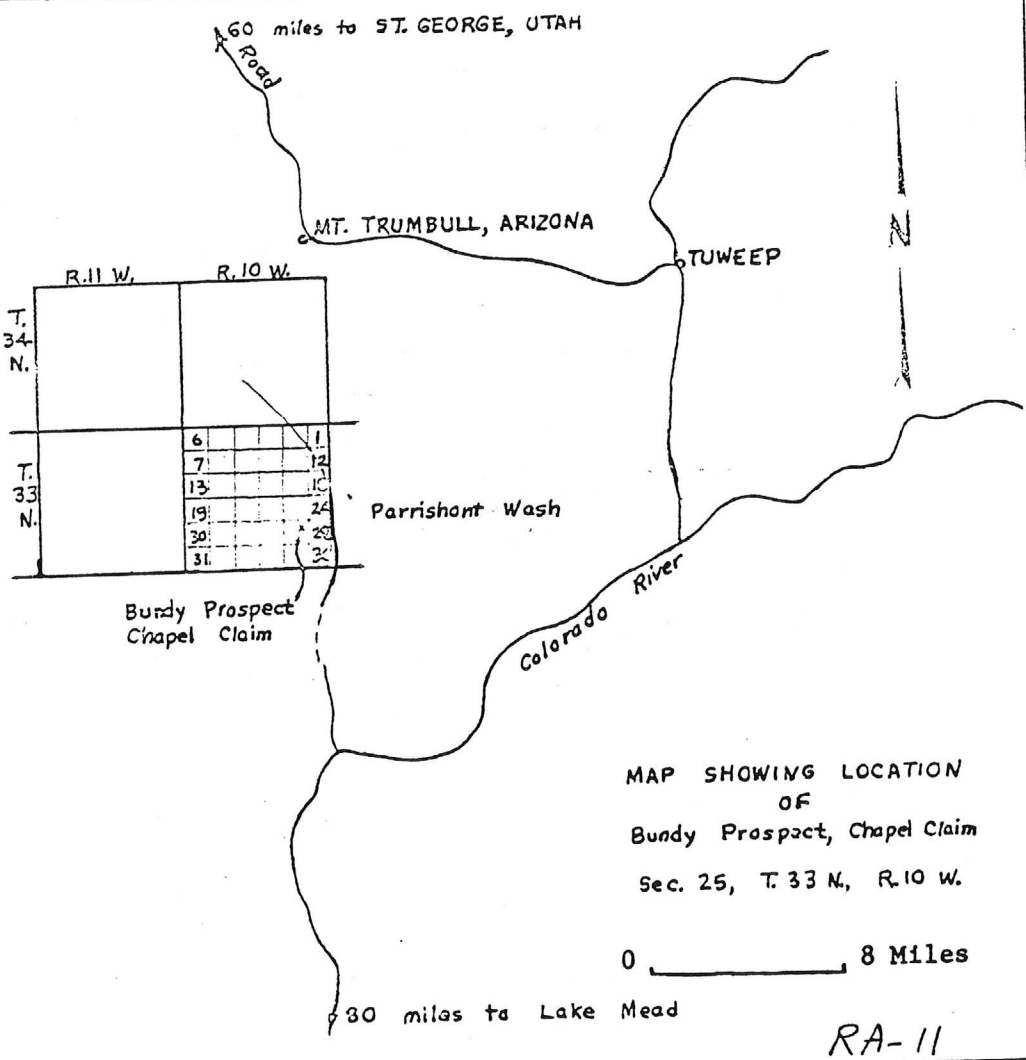
16. WARRANTS FURTHER ATTENTION? Yes



INDEX MAP OF ARIZONA
SHOWING LOCATION OF

BUNDY PROSPECT, CHAPEL CLAIM, MULE CANYON, PARRISHONT WASH, MOHAVE COUNTY

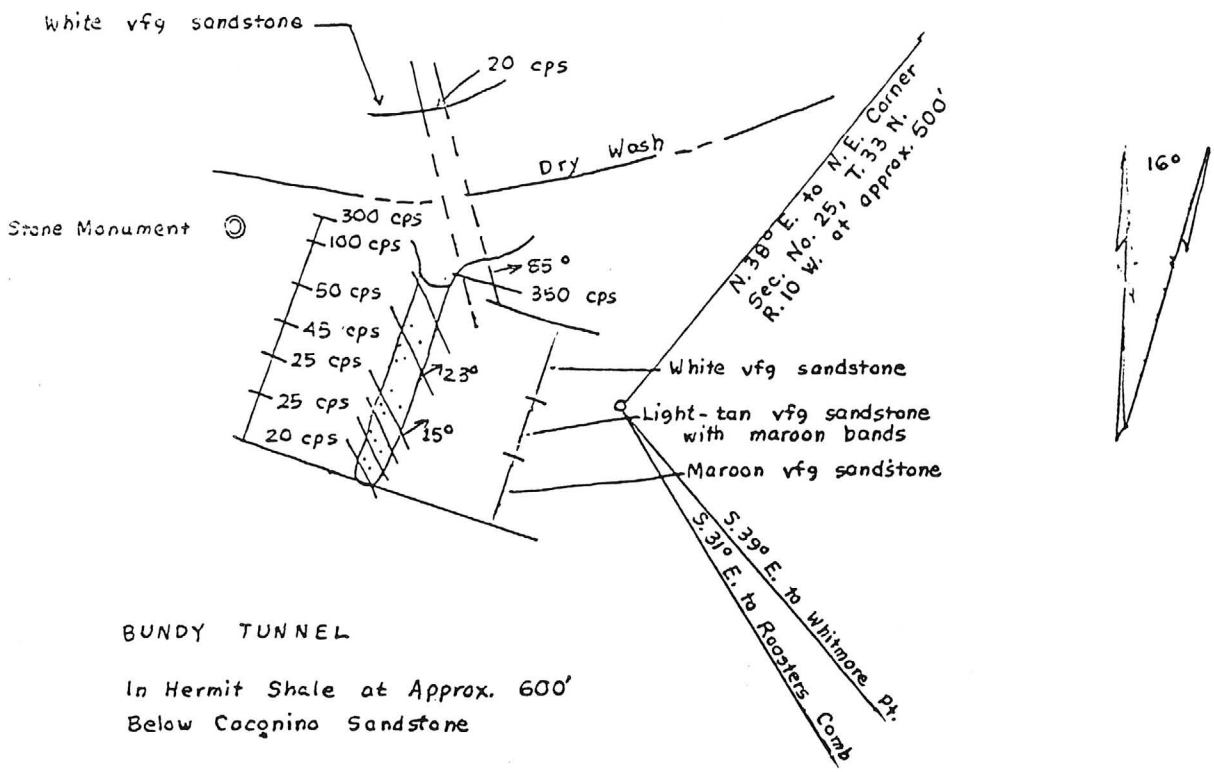
0 _____ 175 Miles



MAP SHOWING LOCATION
OF
Bundy Prospect, Chapel Claim
Sec. 25, T. 33 N., R. 10 W.

0 _____ 8 Miles

RA-11



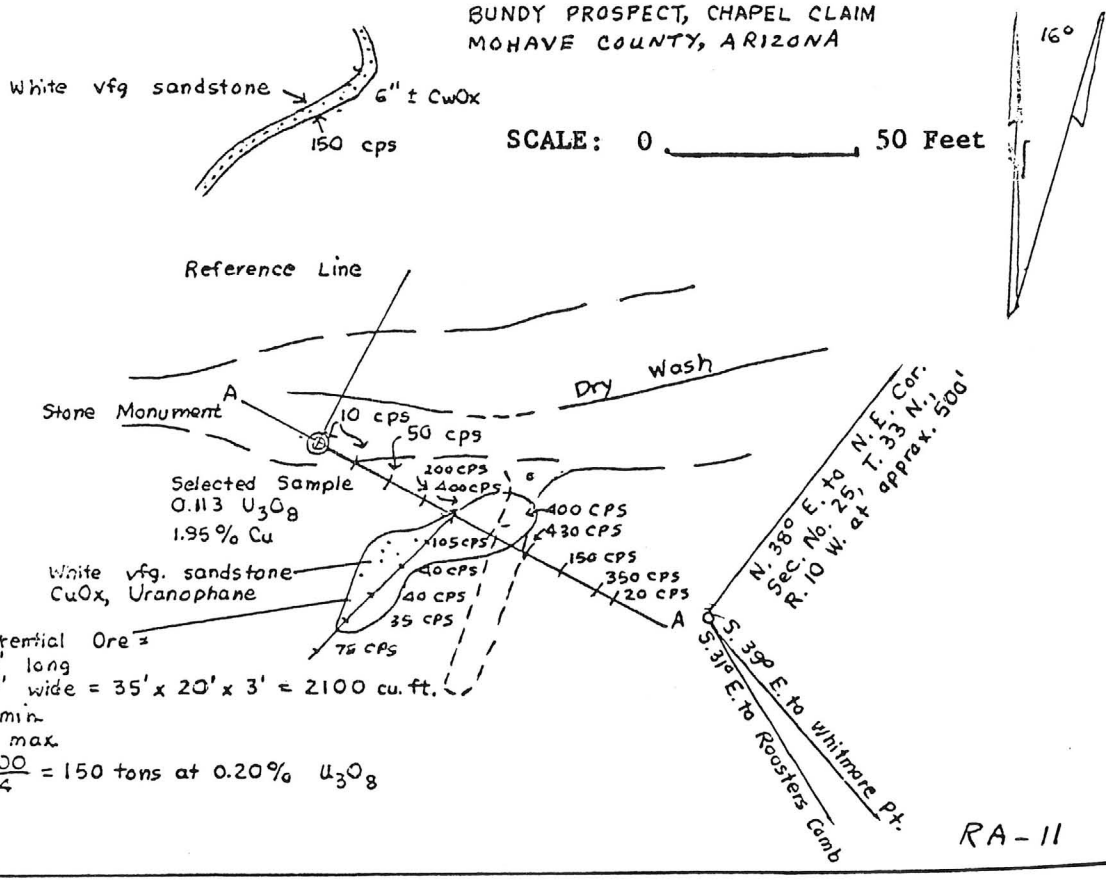
BUNDY TUNNEL

In Hermit Shale at Approx. 600'
Below Coconino Sandstone

SCALE: 0 _____ 50 Feet

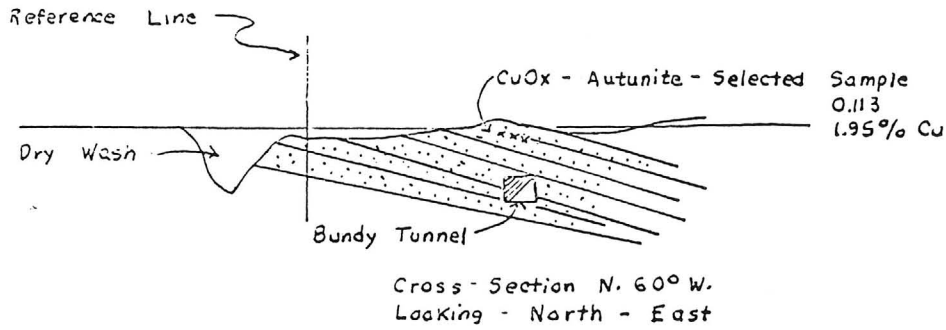
Vfg - Very fine grained

SURFACE MAP
BUNDY PROSPECT, CHAPEL CLAIM
MOHAVE COUNTY, ARIZONA

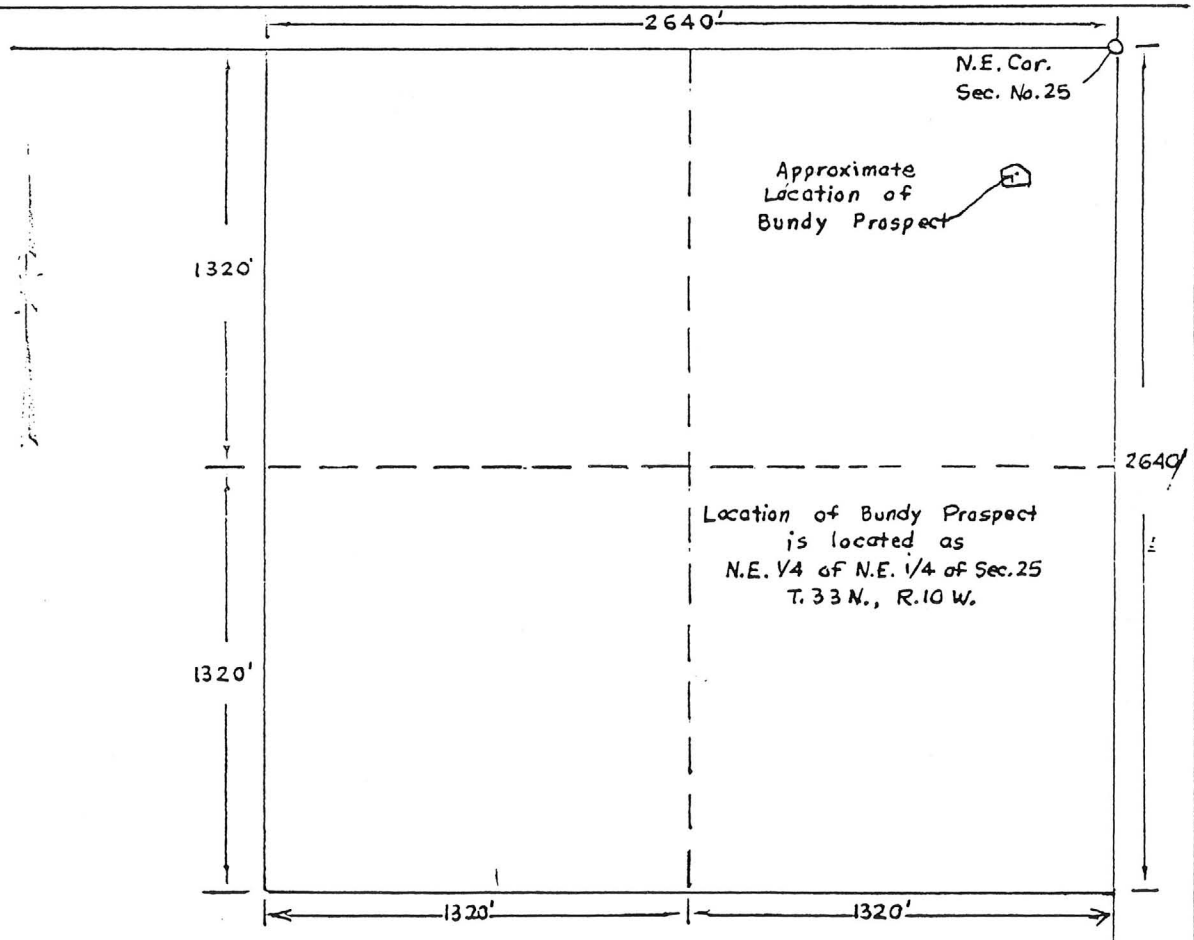


SCALE: 0 _____ 50 Feet

RA-11



SCALE: 0 _____ 50 Feet



SCALE: 0 _____ 600 feet

BUNDY PROSPECT, MOHAVE COUNTY, ARIZONA

Correct location is NW SE SW Sec 25 R 11

RLC 1987

C.W. Bundy
Mt. Trumbull, Ariz.
June 29, 1952

U. S. Atomic Energy Commission
Division of Raw Materials
Salt Lake City, Utah

Dear Sir,

In receipt of your letter June 24, in regards to the field examination I find that July 10, will be convenient for me. If this is not satisfactory with you, please let me know.

We only have mail coming in twice a week, on Tue. and Fri. You will have 62 miles of dirt road south of St. George, Utah to come over. It will be nessary for you to get here early in the morning, as we will have approximately 15 miles to travel in order to get to the claim. It will be nessary to ride horse back the 15 miles unless you would rather walk about 5 miles, that would be 2½ down and 2½ back out.

Mt Trumbull is only a wide place in the road, we run the postoffice, so any one will be able to tell you how to find me.

Thank you

C. W. Bundy

lmb

Copy of this ltr
sent to Richfield
7/5/52

June 24, 1952

[illegible]B:[illegible]:[illegible]rw

Mr. C. M. Bundy
Mt. Trumbull, Arizona

Dear Mr. Bundy:

The Division of Raw Materials has been recently reorganized and Arizona is included in our region. We note that you have had correspondence with various of our offices as well as the Bureau of Mines during the past year. We would like to arrange for a field examination of your property at your convenience, perhaps in about two weeks.

We have a sub-office at Richfield, Utah that has the responsibility for examinations in your area. Mr. H. E. Nelson, in charge of that office, will have a field team make the examination in conjunction with other investigations in the same general area.

Please let us know when it would be convenient for you and how we can find you at Mt. Trumbull.

Sincerely yours,

Ernest E. Thurlow, Chief
Salt Lake Exploration Branch
Division of Raw Materials

cc: H. E. Nelson, Richfield

Mt. Trumbull Arizona
June 1, 1952

United States
Atomic Energy Commission,
Box 270
Grand Junction Colorado

Dear Sir:

Acting on advice from R.R. Loyd, Chief Electro-metallurgical Branch Metallurgical Division Bureau of Mines Boulder City Nevada. I am sending you two samples of ore to assay

This ore and claim is located in Township 33, Sec.24 N Range 10 west. and lies with in the Lake Mead Recreational Area.
S.R.B.M.
As to the extent of the ore I am not much of a judge. The ore lies somewhat in a blanket form of about five or six feet in thickness. Covering an area of about 25 square Ft. That is showing above the surface of the ground. Their is a yellow sandstone surface covering an Area of App. fifty square yards which contains some ore but not as good as the smaller area. Cutting through the lower part of the ore vain is a large fisher vain of about six feet wide. The surounding formation is of red sandstone.

I should like to know wheather uranium ore decomposes where it is exposed to the weather?

The ore that I am sending you all came from the most top surface.

Hoping to hear From you soon

Cincearly Yours

/s/ C. M. Bundy
C. M. Bundy

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
P. O. DRAWER "B"
BOULDER CITY, NEVADA

DRM
INITIAL

May 15, 1952

Mr. C. M. Bundy

Mt. Trumbull, Arizona

My dear Mr. Bundy:

Reference is made to our letter of May 1 and the sample which you submitted for examination.

This sample has been identified as a sandstone containing radioactivity equivalent to 0.59 percent uranium. The minerals containing the radioactivity were not identified; however, it was established that both the green copper-bearing and the yellowish constituents were radioactive. Neither carnotite or autunite, which are widely distributed in the Plateau Region, were definitely identified in this sample.

As stated in our letter of May 1 we are reporting this occurrence to our Washington, D.C., office and the U. S. Atomic Energy Commission for their consideration. In the meantime, I suggest that you submit a representative sample of about 2 pounds to the U. S. Atomic Energy Commission, Post Office Box 270, Grand Junction, Colorado, along with information regarding the location of the deposit and its probable extent.

With respect to the location of the deposit, it is possible that it may be situated within the Lake Mead Recreational Area which adjoins the western boundary of Grand Canyon National Monument. Should this be the case I suggest that you contact the National Park Service, Boulder City, Nevada, for information regarding mining on withdrawn lands.

Sincerely yours,

C. T. Baroch, Acting for
R. R. Lloyd, Chief
Electrometallurgical Branch
Metallurgical Division
Region III

cc: R. Nininger, N.Y. (2)
Paul Zinner, W.O. (2)
J. N. Bact, Denver

June 5, 1952

Mr. [illegible]
[illegible], Arizona
Arizona

Dear Mr. Sundvi

This will acknowledge receipt of your letter of information and your package of two samples.

We have checked your samples with our radiation detection instruments and, as both samples were found to be radioactive, they have been sent for chemical analysis. We shall notify you when we receive the laboratory report which should be within two weeks.

In reply to your question, uranium does tend to leach to some extent when exposed to ground water.

Very truly yours,

J. N. Watts
For: Charles A. Rasor, Geologist

cc: Geo. G. Gallagher
Thomas A. Oster

COPY/ejs
6/12/52

UNITED STATES

DEPARTMENT OF THE INTERIOR

Bureau of Mines

Boulder City, Nevada

DRM INITIAL

RADIOACTIVE SAMPLE REPORT

Sample submitted by: C. M. Bundy

Address: Mt. Trumbull, Arizona

Date: May 14, 1952

Name of property: Chapel

Location: Approximately 13 miles south of Mt. Trumbull, Ariz. Mohave

Owner: Chester and Omer Bundy

Character of sample: See attached letter

Estimated tonnage: "Have no idea. There is an area of about a rod or two square showing to the surface with a vein dipping into the mountain side, with a yellow sandstone croppings which cover an area of about ten square rods over the red sandstone."

Remarks: Deposit might be located on lands within the Lake Mead Recreational Area under the jurisdiction of the National Park Service.

cc: R. Mininger, N.Y. (2)
Paul Zinner, W.O. (2)
J. H. East, Jr., Denver