

ABANDONED OR INACTIVE URANIUM

MINES IN NEW MEXICO

A report of investigation carried out between August 1979 and May 1980 under contract with the New Mexico Energy and Minerals Department.

by

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Open-File Report 148

INTRODUCTION

During the course of this investigation approximately 200 uranium mine sites were visited. Although these sites are distributed throughout 20 counties the majority are in McKinley, San Juan, and Valencia Counties, along the western and southern margin of the San Juan Basin. Other counties with an appreciable number of sites are Grant, Rio Arriba, Sandoval, Sierra, and Socorro.

Field work commenced in August, 1979 and extended although not continuously, into May, 1980. Information obtained during the on-site visits included location, type and size of mine, condition of mine, host formation, dimensions of remaining structures, proximity to residences or villages, water quality data, and radiation levels, although a gamma ray scintillometer was not obtained for the project until October 20, 1979. An effort was made to contact landowners whenever and wherever possible, however, no systematic attempt was made to determine land and mineral ownership during this phase of the investigation.

Mine operation data has been included where available. This consists of information on ore grades, production history mineralogy, and mine operator. Old publications of the U.S. AEC and the State Mine Inspectors office were helpful in this area.

The mine reports are arranged alphabetically by county with each county having its own index. A NM- or AZ-mine identification number is given with each mine name in the index. It is an AML numbering system devised by Don Baker, Jr. The first part of this

identification number is based on a U.S. Soil Conservation Service numbering system of 15' quadrangles beginning with 1 in the northwest corner of the state to 24 in the northeast corner, then returning to the western border to start a new tier. The second part refers to a 7½' quad within the 15' quad; these are numbered counterclockwise from 1 in the NE quadrant to 4 in the SE. The last part of the number refers to a particular mine within the 7½' quad. An AZ- prefix indicates the 15' quadrangle is an Arizona quad that overlaps the New Mexico state boundary.

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A special thanks is extended to Mr. William Chenoweth of the U.S. Department of Energy, both for his time in the field as well as the claim maps and A.E.C. mine production records he provided. Mr. John Blagbrough provided helpful information about the Chuska district. The editorial assistance of Wyatt Brewster and Lars (Skip) Skotte is gratefully acknowledged.

The help and cooperation of the Navajo Tribe Office in Window Rock, Arizona permitted a statewide investigation to be completed; a note of thanks goes to Mr. R. Zaman and Mr. William Armstrong of that office.

VALENCIA COUNTY

Quad: Dos Lomas 7½'

- | | | |
|-----|---|---------|
| 26. | NM-149-4-26 | Page 1 |
| | Double Jerry (Vallejo) | |
| 27. | NM-149-4-27 | Page 4 |
| | Christmas Day | |
| 28. | NM-149-4-28 | Page 8 |
| | Red Bluff Claims 1,2,3,4,5,9 | |
| 29. | NM-149-4-29 | Page 15 |
| | Black Hawk, Bunney, Gay Eagle, Red Bluff, and UDC | |
| 30. | NM-149-4-30 | Page 28 |
| | Last Chance | |
| 31. | NM-149-4-31 | Page 31 |
| | Section Nine | |
| 32. | NM-149-4-32 | Page 39 |
| | Taffy (Bonanza) | |
| 33. | NM-149-4-33 | Page 41 |
| | La Jara | |
| 34. | NM-149-4-34 | Page 45 |
| | Zia | |
| 35. | NM-149-4-35 | Page 52 |
| | Linear Prospecting Trenches | |

Quad: Dough Mountain 7½'

- | | | |
|----|----------------------------|---------|
| 1. | NM-199-1-1 | Page 54 |
| | Sandy (South Laguna Mines) | |

Date visited 2/1/80Mine name(s) Red Bluff Claims 1, 2, 3, 4, 5, 9 County ValenciaSection N $\frac{1}{2}$ Sec. 4 Twnsh. 12 N R. 9 WQuadrangle sheet Dos Lomas 7 $\frac{1}{2}$ 'Mining district Mt. TaylorElevation 6,975'Nearest city and/or dwellings Milan, about 9 miles south. Roundy Ranch is 1 $\frac{1}{2}$ miles southwest, but is not inhabited continuously

The Red Bluff Claims #1-5, and #9 are located in the N $\frac{1}{2}$ of sec. 4 (claim #2 extends into the south $\frac{1}{2}$) as shown in Fig. 1. The claims may be reached by traveling north on highway no. 53 for 7.3 miles from the intersection no. 53 and U.S. no. 66. Then take the Roundy Ranch road northeastward for approximately 3 miles to the top of the mesa in sec. 4.

The workings consist of small open cuts and trenches in Todilto limestone. There is an overlying blanket of aeolian sand that generally varies from less than 1' to 10' thick. The deposits are associated with fractures and intraformational folds, however, the folding is more apparent in the workings in the southern half of the section. Claims #1, 2, and 4 have the largest workings and the only ones with trenches longer than 100'; in addition claim #2 has perhaps the only underground workings of the group in the form of a 20' long adit. Photographs (a) through (f) illustrate the more significant disturbed areas on these claims.

Primary unoxidized minerals that have been identified are uraninite, coffinite, paramontrosite, haggite, and fluorite (Hilpert, 1969). Most of the uraniferous deposits in the Todilto fm. are at or near the surface and so have been oxidized. This oxidation produces the common, conspicuous, yellow to yellow green encrustation of the secondary minerals tyuyamunite, metatyuyamunite, uranophane, and less commonly carnotite. If the secondary minerals are present scintillometer readings will generally be 1,000 cps or more. Claims #1 and #4 both had areas that gave scintillometer responses of 1,000 cps.

A sample of water taken from the pond shown on photo (c), (Red Bluff #4) was analyzed and the results are shown in Table 1.

Table 1

Sample	Conductivity mmho/cm ³	pH	Total dissolved, in ppm			
			Fe	U ₃ O ₈	Se	SO ₄
Red Bluff #4 Pond Water	250	8.	>.1	.012	>.005	27

The claims were filed in 1950 and 1951 and were worked between 1952 and 1956, however, some were registered with the State Mine Inspector's Office as late as 1964 and 1965. In September, 1976 one James Achen staked the ACRI claims no. 6 thru 8 in the NE $\frac{1}{4}$ of sec. 4. The claims were the standard 600' x 1,500' dimension, and extended from the east section line 1,500' westward. As such they would overlap the Red Bluff group, which were never patented.

- References:
- (1) Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S., Prof. paper 603.
 - (2) Lovering, T. G., 1956, Radioactive Deposits in New Mexico; U.S.G.S., Bull. 1009-L, p. 376.
 - (3) Mining Claim Records, Valencia County Courthouse.
 - (4) Field notes, 2/1/80.

R. 9 W.

33 34

T. 13 N.

T. 12 N.

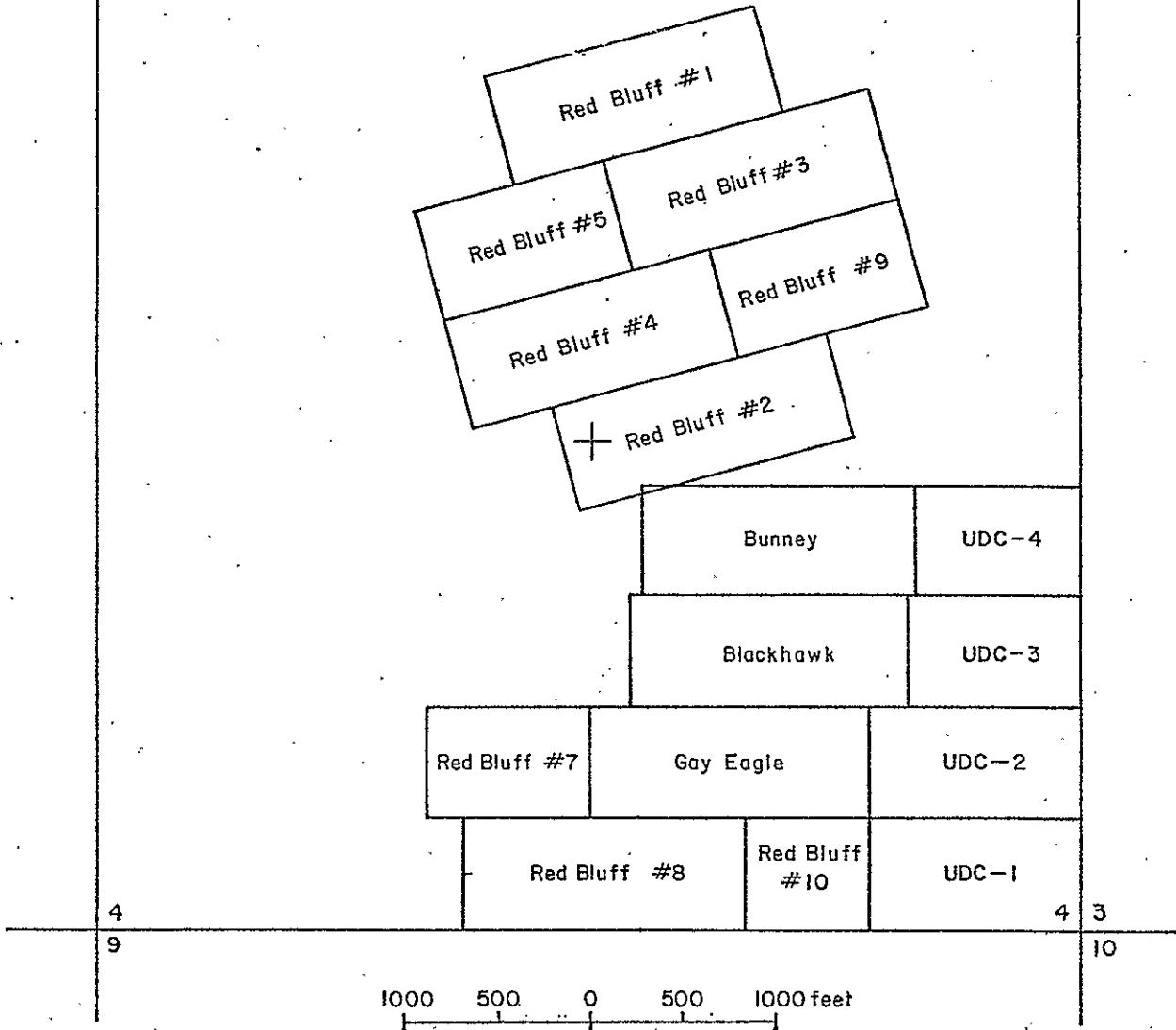


Fig. 1 Sec. 4 mining claims filed in late 1950 and early 1951 (source: mining claim records, Valencia Co., Courthouse).



Photo (a) View northwestward on Red Bluff #1 Claim; Haystack Mtn., at left in background. A close-up of one of the main cuts is shown in next photo.

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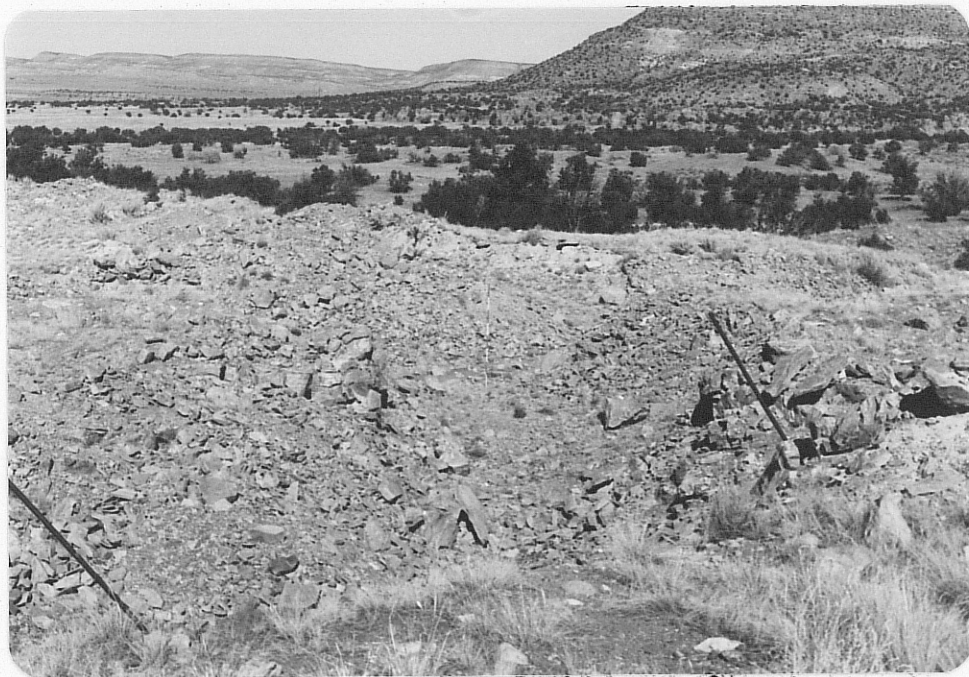


Photo (b) Looking northward into a 140' long open cut on Red Bluff #1; note range pole at center photo for scale.



Photo (c) Looking west into workings near Red Bluff #4 and #5 boundary; this pit is probably on the Red Bluff #4 side. Pond is 10' wide, 25' long, and $2\frac{1}{2}$ ' deep at maximum.

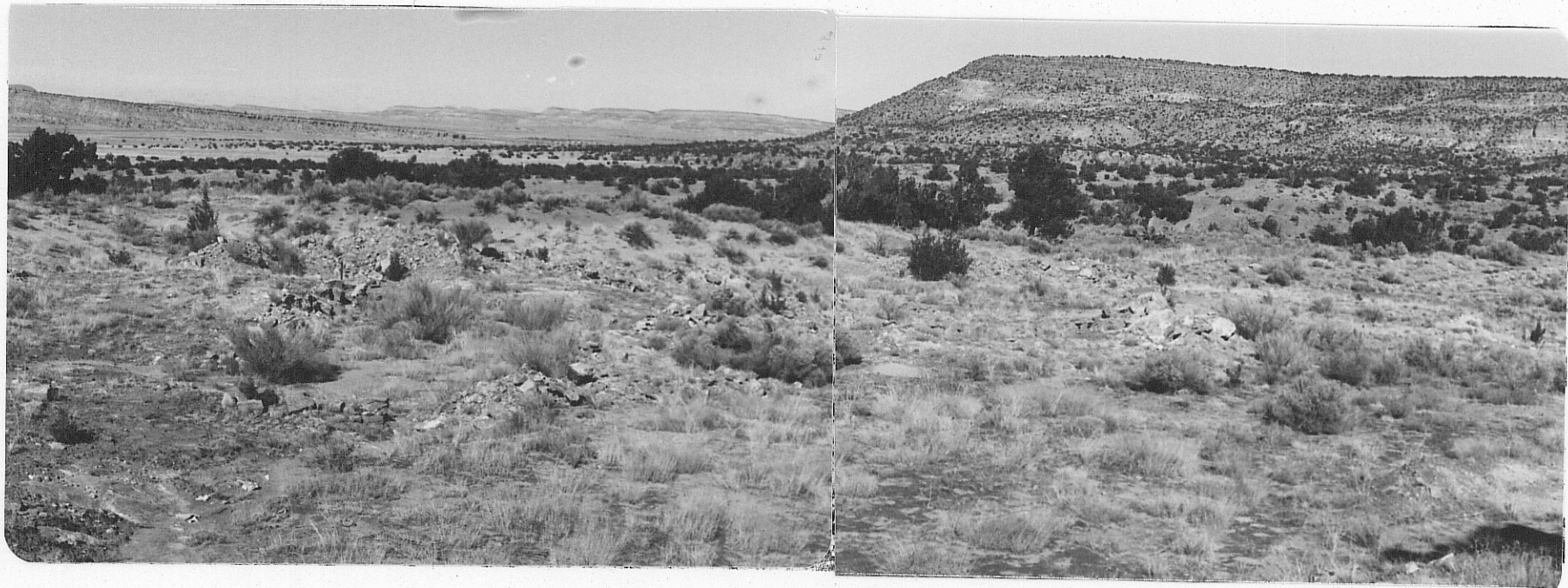


Photo (d) Looking north-northeast near the Red Bluff #3 and #9 boundary, at a series of very small open pits and trenches in Todilto limestone.

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Photo (e) Looking westward into small trench near the southwest end of Red Bluff #2 Claim; small adit at other end of trench behind viewer is shown in photo (f). Note range pole left of center for scale.



Photo (f) Looking southeastward into small adit 4' high, 6' wide, 20' long near the southwest end of the Red Bluff #2 Claim.

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