

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.

Quad: Bread Springs 7½'

1. NM-146-2-1 Page 33
Diamond 2 (Largo)

Quad: Church Rock 7½'

1. NM-122-4-1 Page 39
CD & S (Sec. 35)
2. NM-122-4-2 Page 41
Foutz #3 (Yellow Jacket)
3. NM-122-4-3 Page 45.
Foutz 1 and 2
4. NM-122-4-4 Page 48
William and Reynolds
5. NM-122-4-5 Page 50
Christenson (Rimrock #2)
6. NM-122-4-6 Page 58
Santa Fe Christensen (Rimrock #1)

Quad: Dos Lomas 7½'

1. NM-149-4-1 Page 62
Isabella
2. NM-149-4-2 Page 67
Spencer Shaft (Centennial)
3. NM-149-4-3 Page 69
Hogan
4. NM-149-4-4 Page 74
Gossett Incline (Beacon Hill #23)

Date visited 12/5/79

Mine name(s) Christenson. (Rimrock #2) County McKinley

Section SW $\frac{1}{4}$ 4 Twنش. 15 N R. 16 W

Quadrangle sheet Church Rock 7 $\frac{1}{2}$ '

Mining district Gallup. (Church Rock)

Elevation 7,600'

Nearest city and/or dwellings Church Rock, 4 $\frac{1}{2}$ mi. southwest

The workings are located in the SE $\frac{1}{4}$ of sec. 4, about 3 air miles north of U.S. I-40 at Wingate Siding. To reach the site proceed north from Church Rock at U.S. I-40 for 4 $\frac{1}{2}$ miles to the south $\frac{1}{2}$ of sec. 29; turn right at this point and travel eastward on dirt road for one mile just past several dwellings where the road will fork. Take the right fork southward for about 1 $\frac{3}{4}$ miles to the Williams and Reynolds Mine. Proceed eastward on foot from the mine for approximately $\frac{1}{4}$ mile and look for workings just below the Dakota ss. rim of the south facing mesa escarpment.

The workings consist of 7 adits which had significant production and several stub adits strung out along a distance of 1600'-1800' just below the mesa top. The easternmost adit is very near the sec. 4-sec. 3 line and may be in sec. 3, but is discussed here as a sec. 4 working. All are driven northward into one of the several carbonaceous shale zones near the base of the Dakota Sandstone. In order from west to east they are:

- (1) A 6' high, 7' wide, untimbered adit (photo a) that is at least 40' deep; scintillometer readings 20' inside are up to 4200 cps. Some minor roof falls have occurred. Immediately to right of portal is a stub adit, 3'-4' deep (see again photo a). The mine-level road to these workings is shown in photo (b). The small dump extends downslope from this road at the angle of repose; scintillometer readings along the road are frequently 500 cps, on dump, 500 to 800 cps.
- (2) 70' east of above is a 6' high, 5' wide, untimbered adit (photo c) at least 80' deep; roof collapse is occurring along a carbonaceous shale parting (see photo d). Scintillometer counts along the first 20' range between 2000 and 4000 cps.
- (3) About 170' east of the above is the main adit of these workings. A 6' wide notch cut in the sandstone just above and to the left of the portal has a 45° incline and was used to trolley ore to the top of the mesa 30' above (see photo e). A view of the well timbered adit is shown in photo (f). The first 90' were explored, but Hilpert, 1969 stated that this adit is 500' long and was mined from 1953-55. The width varies considerably from the 6' entrance to areas where face cuts resulted in 20' wide open stopes that were later timbered. Scintillometer readings up to 6100 cps were recorded, but generally in 2500-5000 range. Dump is relatively small for a 500' adit.

- (4) 1500' east of the above is another group of closely spaced adits that extend for several hundred feet along the carbonaceous zone outcrop and approach the east sec. line or perhaps cross it. The first is shown in photo (g). It is driven in the thickest and lowest carb. shale zone, here about 4' thick; it is reached by the road descending to the east from the mesa top as shown in photo (g). The adit is 7' high, 4' wide, is timbered the first 20', and goes back a total of 60' or more; scintillometer readings up to 1700 cps. were noted. Immediately east of this adit is another small adit, partially caved at entrance, that has a 5' x 6' opening and goes back nearly 100' feet (see photo h); scintillometer readings ranged from 1000 to a high of 2600 cps.
- (5) At about 100' east of the two adits just described is a 5' high 5' wide, timbered adit, partially caved at entrance (see photo i); timbering goes back for the first 10', total length of adit about 50', with scintillometer readings averaging 500 cps. Just above the adit another small adit was started in a thinner overlying carb. shale zone (see again photo i). To the east another 55' is the last in this group of adits. It has a partially caved entrance that measures about 6' high, 6' wide, and goes in 15' (see photo j); scintillometer readings were in the 1500-2500 cps range with a high of 3200 cps. This eastern group of workings were active until 1958 after which ownership transferred to M. P. Grace. Workings were last registered with the State Mine Inspector's Office in 1975.

- References: (1) Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S., Prof. Paper 603.
(2) New Mexico State Mine Inspector's Office, inactive uranium mine file.
(3) U.S. AEC, uranium mine records.
(4) Field notes, 12/5/79.



Photo (a) Looking northward into westernmost workings of Rimrock #2 group; entrance to main adit is 6' high; stub adit on right is only 3' deep.

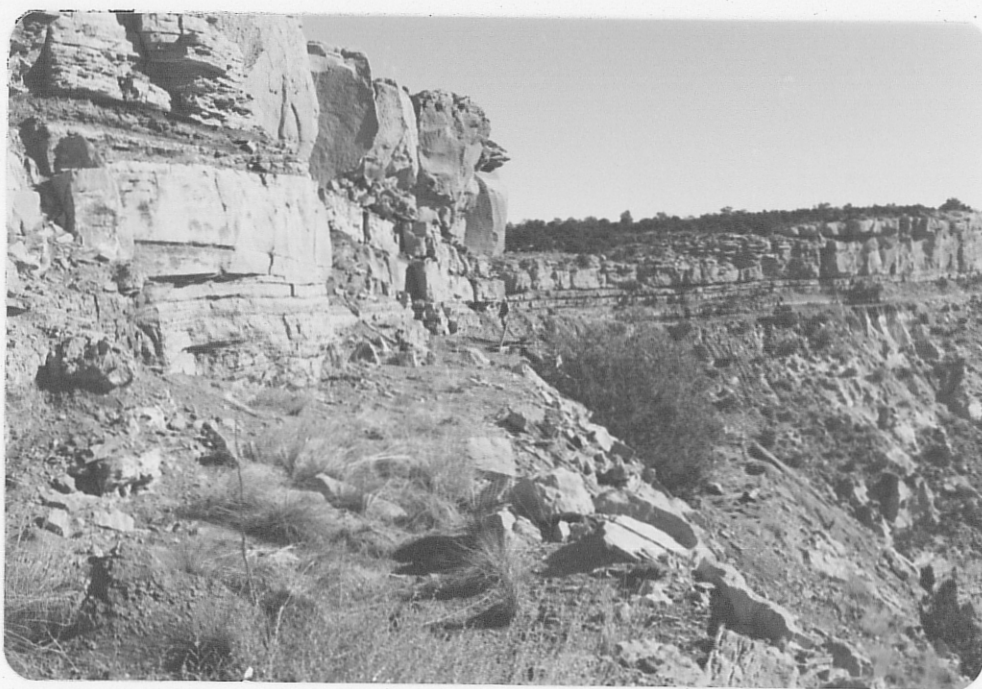


Photo (b) Looking eastward from the westernmost workings showing mine level road; note person on road for scale.

#124 Mc 52

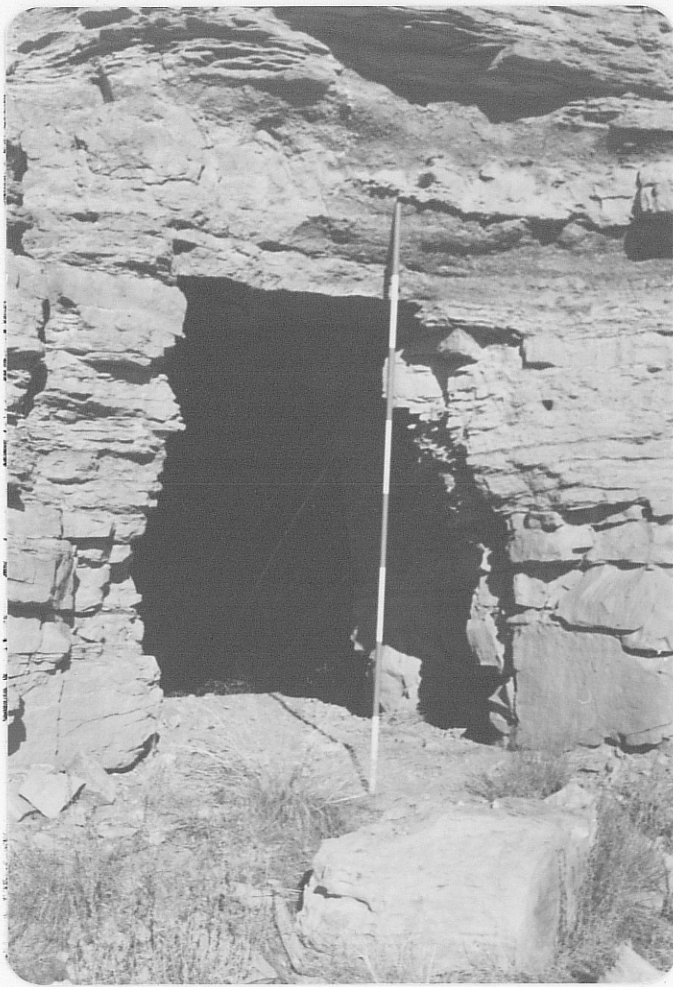


Photo (c) Next adit to east of workings shown in (a).

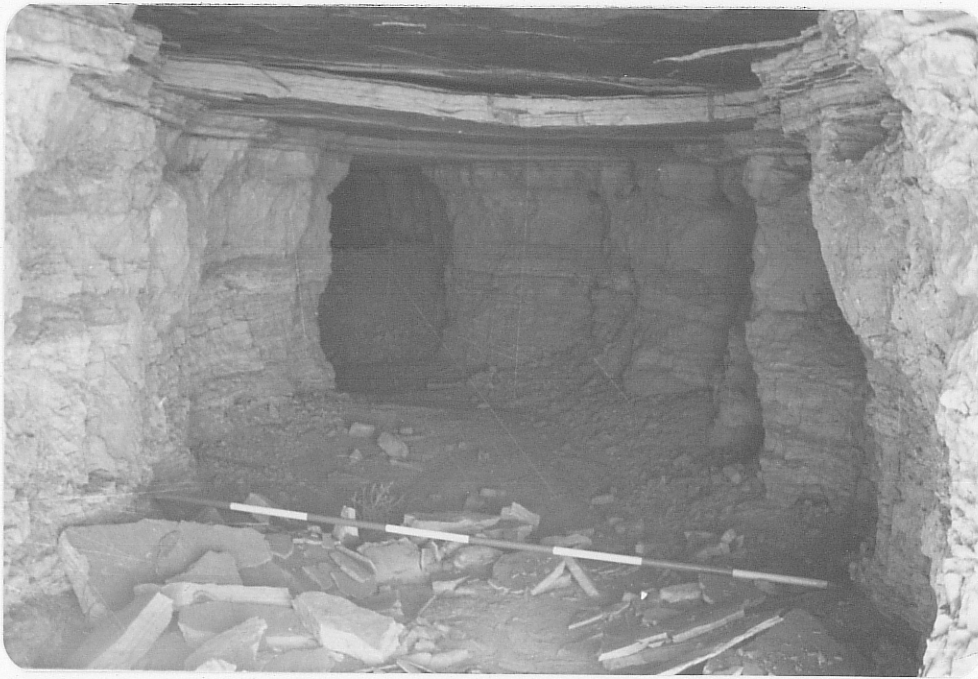


Photo (d) Interior view of adit shown in (c) above.

H. 125 Mc 53

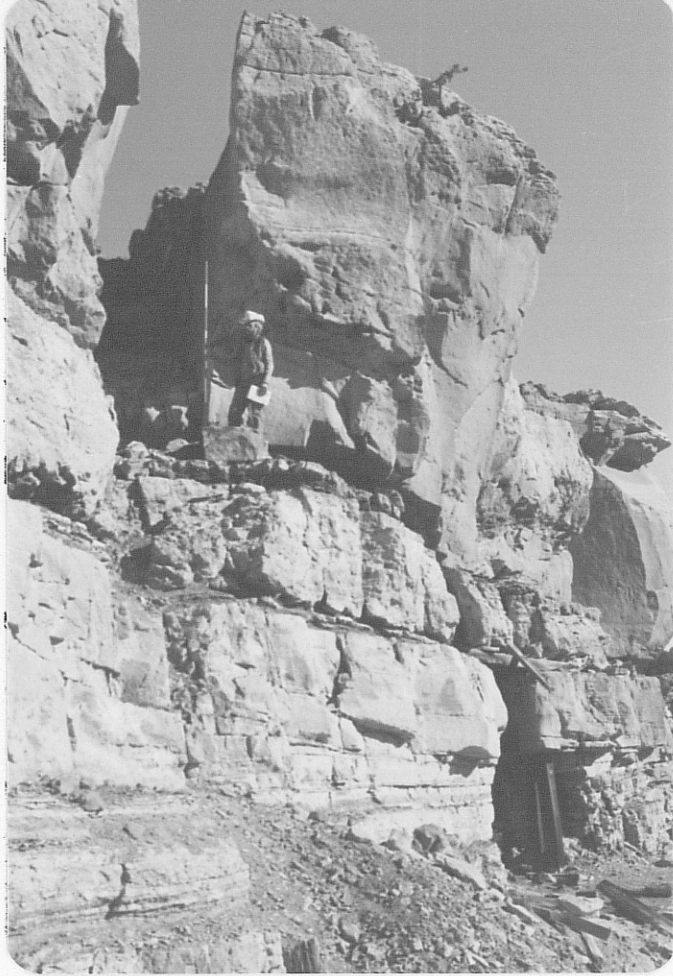


Photo (e) View northeastward at main adit showing portal at lower right and notched cliff for ore hoisting at upper left.

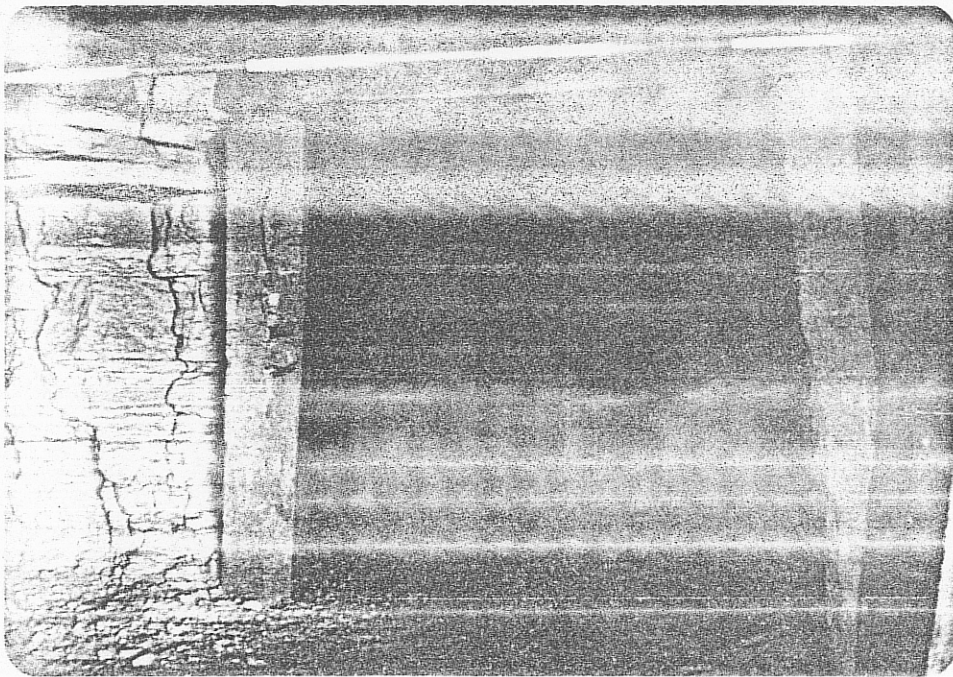


Photo (f) Interior view of main adit shown in (e) above; note range pole overhead for scale.



Photo (g) Looking westward at adit with timbered portal (left of center) and dump of another adit at far right.



Photo (h) Looking northeastward at the adit just off the right edge of photo (g).



Photo (i) Looking northward into timbered adit in group of eastern sec. 4 workings; note small adit begun above timbered portal.

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