

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

Orin J. Anderson

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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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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.

SIERRA COUNTY

Quad: Caballo 7½'

1. NM-391-1-1

Page 1

Red Rock (Red Rock Claim 1)

Quad: Chise 7½'

1. NM-342-4-1

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Trujillo Lease (Chise)

Quad: Cuchillo 7½'

1. NM-367-1-1

Page 4

Mitchell Price Prospect

Quad: Garfield 7½'

1. NM-391-4-1

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Sierra (Sierra Mining)

Quad: Jaralosa Mountain 7½'

1. NM-342-1-1

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Glory and Empire Claims

Quad: Monticello 7½'

1. NM-343-2-1

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Pitchblende Strike (Terry Prospect)

Date visited 5/21/80

Mine name(s) Pitchblende Strike (Terry prospect) County Sierra

Section 26 Twنش. 10 S R. 6 W

Quadrangle sheet Monticello 7½'

Mining district -

Elevation 5,710'

Nearest city and/or dwellings Monticello (1 3/4 mi. SW)

The Pitchblende strike is located in the NE¼ of sec. 26 about 1 3/4 miles northeast of the town of Monticello. To reach the site take the dirt road leading northeastward at the west edge of town and travel northeastward for about 1 3/4 miles then take side road to right. Proceed about another 3/4 miles to the mine site.

The workings consist of a 12' wide, 175' long trench cut in coarse Quaternary alluvium (photo a), and a regraded area several hundred feet long (photo b), that was either the site of 2 prospect pits (Lovering, 1956), or the site of a small shaft and adit as indicated by the symbols on the Monticello 7½' quadrangle. The regrading or backfilling has made it impossible to determine the type of workings. A timber partially exposed in the rubble at this site could be a shaft collar; an adit here seems a little unlikely. The State Mine Inspector's Office records do not indicate the type of mine.

In addition to the above there is a bench cut several hundred feet long just up slope to the east (see photo c) from the site; and a 6' x 8' circular pit in between (photo d). Workings shown in photos (b) through (d) are 600' northwest of trench cut in the Quaternary alluvium.

Uranophane is associated with fluorite in a jasperoid breccia that has been identified as the Kelly limestone (Lovering, 1956). The deposit is in a fault breccia that strikes N 68° E across the jasperoid. The breccia is composed of jasperoid fragments, igneous rock fragments, and limestone. The matrix consists of silica and fluorite. Vugs in the fluorite are filled with clay, and fractures in the fluorite and jasperoid contain uranophane and iron oxide (Lovering, 1956). Scintillometer readings at the deposit were in the 1000-1400 cps range except for the upper bench cut (photo c) which registered only 300 cps. Purpose of the cut in the coarse alluvium is not clear; scintillometer response was up to 140 cps (or 2½ x background).

A total of 4 claims were located at this locality (Pitchblende nos. 1-4). No production is indicated in any of the references cited. The State Mine Inspector's Office does not give a final registration date in the inactive uranium mine file, however, the mine is listed under "metal mines" in the 43rd and 44th annual reports of that office; the operator was McDaniel Investment Company.

- References: (1) Lovering, T. G., 1956, Radioactive Deposits in New Mexico; U.S.G.S., Bull. 1009-L; p. 368.
(2) Hilpert, L., 1965, Uranium, in Mineral and Water Resources of New Mexico: New Mexico Bur. of Mines and Mineral Resources, Bull. 87; p. 223.

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- (3) New Mexico State Mines Inspector's Office, inactive uranium mine file.
- (4) New Mexico State Mines Inspector's Office, 1955, 43rd annual report; p. 49.
- (5) New Mexico State Mines Inspector's Office, 1956, 44th annual report; p. 55.
- (6) Field notes, 5/21/80.



Photo (a) Looking southwest at 12' wide, 175' long trench in alluvium at Pitchblende strike; pit attains maximum depth of nearly 18' at middle.



Photo (b) Looking northward at backfilled and regraded shaft or adit site. Uranophane is associated with fluorite in a fault breccia in the Kelly limestone.



Photo (c) Looking eastward at upper bench cut, several hundred feet upslope (eastward) from site of photo (b).



Photo (d) Small pit at intermediate level between shaft or adit level shown in photo (b) and the upper bench shown in photo (c).

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