

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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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.

Quad: Chimney Rock 15'

1. NM-2-0-1

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Hogback Claim

Quad: Waterflow 7½'

1. NM-3-3-1

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Boyd Claims (Boyd deposit)

Date visited March 17, 1980

NM-2-0-1

Mine name(s) Hogback Claim

County San Juan

Section 15

Twنش. 30N.

R. 16W

Quadrangle sheet Chimney Rock 15'

Mining district (sole occurrence) numerous abandoned Menefee Coal mines in area

Elevation 5,350'

Nearest city and/or dwellings Waterflow, 4 air miles south; numerous other single family dwellings in the area

The Hogback claim is located in the SW-1/4, Sec 15, 30N, 16W. It may be reached by turning north onto the dirt road 8 mi. east of Shiprock at the Hogback. At about 5 mi. the remains of the Davidson coal mine may be seen near the high voltage power transmission line. Claims are .2 mi north of power line on west side of road.

Workings on the claim consist of 3 very small bulldozer cuts. The main one, shown in photo (2), is closest to the road and measures about 20' x 25', up to 2½' deep, with a 4' high waste pile at the east end (photo b). Scintillometer readings here ranged up to 2,000 cps with the highest counts being recorded at the northeast corner of the pit on a bedrock face.

The other two pits lie about 100' to the west of the main one, are much smaller, and have much lower radioactivity values--about 300 cps maximum. They are shown in photos (c) and (d).

Host rock is a yellowish brown to dark grayish brown fine-grained sandstone of the Point Lookout fm. It is actually a tongue of the Point Lookout up in the Menefee fm. (Chenoweth & Carithers, 1955). Mineralization is about 5' below the lowest Menefee Coal bed. The deposit is located on the Hogback monocline which here dips about 10°E.

Several samples collected and assayed by the U.S. AEC showed U₃O₈ grades in the .01 to .003% range (chemically) with radiometric grades up to an order of magnitude higher (Chenoweth & Carithers, 1955). One load of ore was taken out, but was refused at the Shiprock mill.

References

1. Chenoweth, W. L. and Carithers, W., 1955; Preliminary Reconnaissance Report-Hogback claims, U.S. AEC Prr ED:R - 456.
2. Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S. Prof. Paper 603.
3. Field notes, 3/17/80.



Photo (a) Hogback claim, main pit, looking east



Photo (b) Hogback claim, east end of main pit and waste pile; looking northeast.



Photo (c) Looking west at one of smaller dozer cuts about 10' wide.



Photo (d) Looking north at small dozer cut with dump from cut in photo (c) visible in background.