

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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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: Mariano Lake 7½'

1. NM-123-4-1 Page 214
Mac #1
2. NM-123-4-2 Page 217
Black Jack #2

Quad: Pinedale 7½'

1. NM-123-3-1 Page 222
Westwater

Quad: San Mateo 7½'

1. NM-150-3-1 Page 224
Rialto (Chill Wills)

*San Mateo Quad report #2 found under Valencia County

Quad: Thoreau NE 7½'

1. NM -148-1-1 Page 230
Alta
2. NM-148-1-2 Page 234
Silver Bit 15 and 18 (Pentada Prospect)
3. NM-148-1-3 Page 237
Francis
4. NM-148-1-4 Page 241
Evelyn
5. NM-148-1-5 Page 247
Billy The Kid and Greer Warren and McCormack

Date visited 12/6/79

Mine name(s) Black Jack #2 County McKinley

Section N $\frac{1}{2}$ 18 Twنش. 15 N R. 13 W

Quadrangle sheet Mariano Lake 7 $\frac{1}{2}$ '

Mining district Smith Lake

Elevation 7,420'

Nearest city and/or dwellings Smith Lake Mercantile, 6 air miles east; numerous single family dwellings on indian allotments within a 3 mile radius of the mine.

The Black Jack #2 is located in the N $\frac{1}{2}$ of sec. 18 about $\frac{1}{4}$ miles southeast of Gulf Minerals Mariano Lake Mine. The mine is accessible via the Mariano Lake road leading westward from Smith Lake. Five miles west of Smith Lake turn south onto the Ruby Mine road and continue southwestward past the Ruby Mine turn-off for another 2 miles into sec. 18. The first abandoned mine on the right will be the Mac #2, the second $\frac{1}{2}$ mi. further on will be the Black Jack #2, identifiable by the large metal shed shown in photo (a).

The deposit occurs in the Poison Canyon sandstone tongue of the Brushy Basin member at the 7,100' level; surface elevation is 7,420'. It was mined through a 325' deep vertical shaft by United Nuclear-Homestake Partners during the 1959-1964 period. The shaft has since been backfilled with no evidence of subsidence at the shaft site. Several prominent tailings dumps remain, one in photo (b) that is several hundred feet long, up to 10' high, with scintillometer readings up to 1,200 cps (background = 200 cps); and another immediately northwest that is 35' wide, 300' long, and up to 12' high with a maximum scintillometer response of 900 cps.

Some caving has occurred at one of the ventilation shafts just west of the metal shed. A 2' diameter metal lined vent shaft stands in the middle of a 20' diameter caved hole (see photo d). The caved shaft is protected by a 4 $\frac{1}{2}$ ' high wire mesh fence in good condition. Scintillometer response was not significantly above background. Another ventilation shaft was found $\frac{1}{4}$ mi. to the north of the mine site. It is covered and represents no hazard, see photo (e).

Future plans for re-entry of this mine are presently unclear, however, a 1978 announcement by Cobb Nuclear Corporation (see attached sheet) indicated a strong interest in the property.

- References:
- (1) Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S., Prof. Paper 603.
 - (2) Hoskins, W. G., 1963, Geology of the Black Jack No. 2 Mine, Smith Lake Area, in Geology and Technology of the Grants Uranium Region: New Mex. Bur. of Mines & Mineral Resources, Memoir 15, p. 49.
 - (3) State Mine Inspector's Office, 52nd annual report, p. 51.
 - (4) Field notes, 12/6/79.

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Photo (a) Looking southeastward at 24' x 80' metal shed at Black Jack #2 Mine site.



Photo (b) Looking east toward Black Jack #2 tailings dump; dump is more than 300' long, up to 10' high; note person with range pole for scale.



Photo (c) Looking northeast at another tailings dump, 35' wide, 300' long, and up to 12' high.



Photo (d) Caved ventilation shaft just west of metal shed shown in photo (a).



Photo (e) Black Jack #2 ventillation shaft $\frac{1}{4}$ mile north of mine site. This shaft along with the mine site are indicated on the Mariano Lake $7\frac{1}{2}'$ Quadrangle.

"George O. Lotspeich, President of Cobb Nuclear Corporation, Albuquerque, New Mexico, announced today that the company had closed a transaction with Anschutz-United Mining Venture, a joint venture consisting of Anschutz Uranium Corporation, Denver, Colorado and United Mining Corporation, New York City, for the joint venture exploration and development of the Black Jack No. 2 mine and adjacent lands, McKinley County, New Mexico.

The agreement covering 480 acres in the Smith Lake area is held by Cobb Nuclear under mining leases on allotted Indian lands.

The Black Jack No. 2 mine in Section 18 was mined in the early 1960's by United Nuclear-Homestake Mining Company, operated by Sabre-Pinon Mining Division of United Nuclear. The southwest one-fourth of Section 7 has not been mined, however, ore grade intercepts have been encountered which indicate a trend between the old Black Jack workings to the south and the Mac No.1 mine, which is adjacent to Section 7 to the northwest."

Quote from Cobb Nuclear Corp., 1978 News Release.

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