

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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New Mexico Bureau of Mines and
Mineral Resources
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.

Acknowledgments - The writer wishes to thank the following people for their valuable assistance in the field: Lars (Skip) Skotte, Richard Chamberlin, JoAnne Osburn, Mary Ann Anderson, and Cheryl Kyllonen.

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.

SOCORRO COUNTY

Quad: Bustos Well 7½'

1. NM-274-3-1 Page 1.

Lucky Don. (Bonanza)

2. NM-274-3-2 Page 6

Little Davie

Quad: Indian Spring Canyon 7½'

1. NM-247-3-1 Page 8

Hook Ranch Prospect (Jaralosa)

Quad: Lemitar 7½'

1. NM-273-2-1 Page 11

Jackpot No. 1 (Carter, Tolliver, Cook)

Quad: Riley 15'

1. NM-248-0-1 Page 13

Jeter (or Charley #2)

Quad: Sierra de la Cruz 7½'

1. NM-274-2-1 Page 17

Union #1

Quad: South Baldy 7½'

1. NM-296-2-1 Page 19

Big Chief #4

NM-247-3-1

Date visited 5/14/80

Mine name(s) Hook Ranch Prospect (Jaralosa) County Socorro

Section SE $\frac{1}{4}$ SW $\frac{1}{4}$ 13 Twنش. 1 N R. 6 W

Quadrangle sheet Indian Spring Canyon 7 $\frac{1}{2}$ '

Mining district -

Elevation 6,700'

Nearest city and/or dwellings Henderson (Hook) Ranch, 1 $\frac{1}{4}$ miles southwest

The Prospect is located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13 on the west bank of Jaralosa Creek. It may be reached by traveling northwestward out of Magdalena on the Alamo Reservation road for about 18 miles to Jaralosa Creek; then turn northward along creek bed for about 2 miles to prospect.

Prospect consists of a 200' x 500' area of bulldozed ground, elongate north-south with, the main prospect at the southern edge. The main prospect is a somewhat circular cut, 40' to 50' across, with a 15'-20' highwall on the south (see photos a & b). The deposit is in a yellowish brown (oxidized) conglomeratic sandstone in the upper 2/3 of the Baca formation. Uranium minerals appear to be associated with carbonized wood fragments up to 1' long. Scintillometer readings in the deposit range up to 6,000 cps. (background about 40 cps). The waste pile immediately to the east produced readings of 500-700 cps.

About 150' north of the main prospect is an 80' long north-south trending dozer cut in red sandstone; maximum depth of cut is 5'-10' (see photo c). Scintillometer response was in the 300-700 cps range. Immediately to the northwest of this cut is a small east-west trending cut in oxidized conglomeratic sandstone (photo d).

Hilpert (1969) listed a Hook Ranch airborne anomaly in section 13 with a sample that assayed 3.27% U₃O₈. He also mentioned a Hook Ranch prospect in sec. 24 that produced some ore in 1959-61. The sec. 24 prospect was not identified during the present investigation.

The State Mine Inspector's Office received a registration on this property under the name Jaralosa in June, 1961. The operator was listed as Big Tex Mining Company. The registration indicated a uranium-vanadium deposit.

The writer wishes to acknowledge the field assistance of Dr. Richard Chamberlain during this investigation.

- References:
- (1) Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S., Prof. Paper 603; p. 54.
 - (2) State Mine Inspector's Office, inactive uranium mine file.
 - (3) Field notes, 5/14/80.

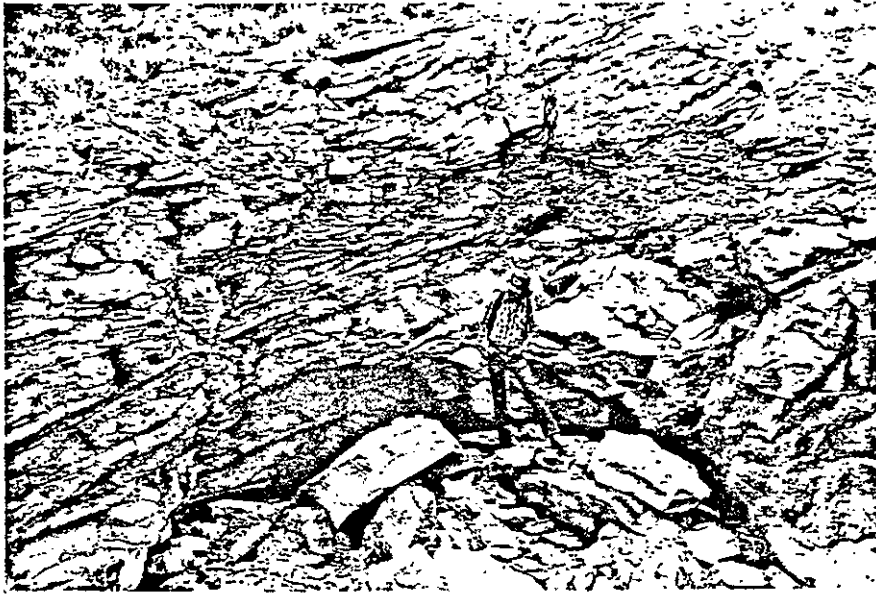


Photo (a) Looking southward into main prospect on Hook Ranch deposit.

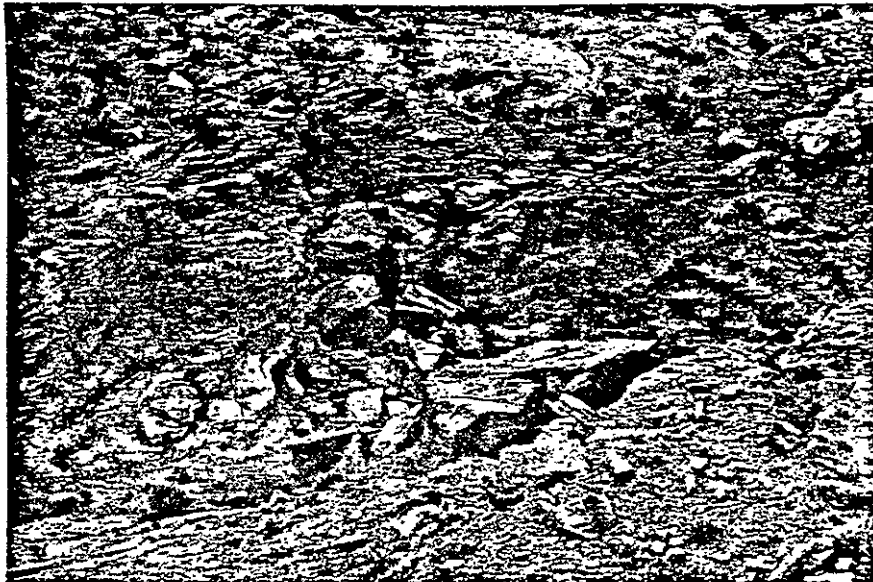


photo (b) Looking southwestward at main prospect of same.



Photo (c) Looking northward into an 80' long dozer cut in red sandstone; 150' north of main prospect.

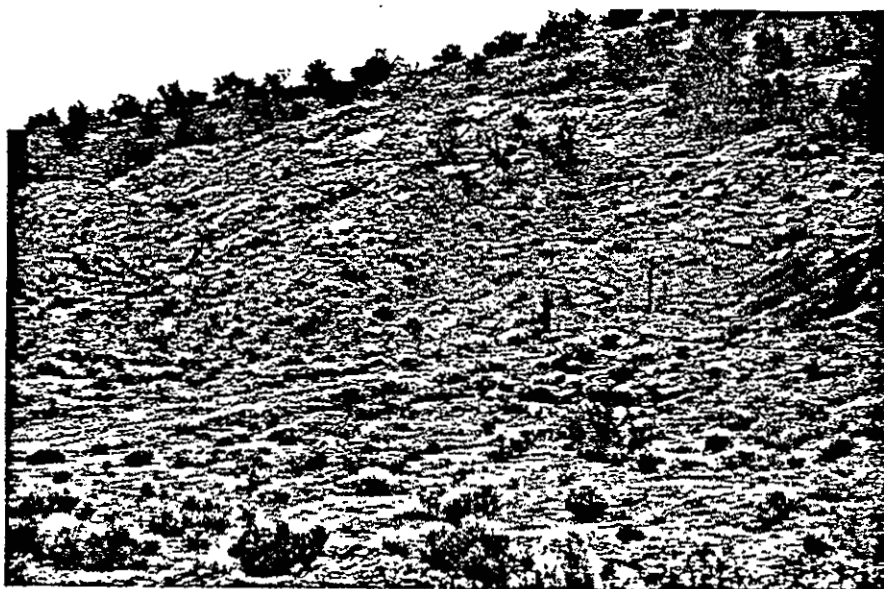


Photo (d) Looking southwestward small prospected area in conglomeratic sandstone, just northwest cut shown in photo (c).