

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.

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.

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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.

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Date visited 12/7/79

Mine name(s) Blackjack #1 County McKinley

Section 12 Twnsh. 15 N R. 13 W

Quadrangle sheet Hosta Butte 7½'

Mining district Smith Lake

Elevation 7,450'

Nearest city and/or dwellings Smith Lake Trading Post, 2 air miles southeast;
numerous single family dwellings within 1 mi.
radius of mine site.

The Blackjack #1 is located near the center of sec. 12 approximately 0.8 mi. north of the Mariano Lake road. The turn off to the mine is a dirt road leading northward 2 mi. west of the intersection of State Highway No. 56 and the Mariano Lake road.

The mine is collared in Mancos Shale, and the vertical shaft extends down 825' into the Westwater Canyon member of the Morrison fm. The shaft was sunk early in 1959 and the mine was operated by United Nuclear-Homestake Partners until it closed down in 1964. Total production is unknown.

The shaft has since been sealed, the headframe removed, and most buildings razed. All that remains is the headframe foundation and concrete slabs, a few small buildings, the mine tailings, and a considerable amount of general debris-cans, tires, scrap metal, sheet metal, lumber, and cable. Photo (a) is a view of the mine site as it is approached from the west; the most prominent features are the buildings and the mine tailings. Photo (b) is a close-up of the shaft site and the headframe foundation. No evidence of subsidence has appeared around the shaft thus far. Photo (c) is a view eastward of the largest remaining concrete slab, 190' long, on the site. Photo (d) is a view of the tailings dump which measures 260' long (E-W), by 180' wide, and generally 5' to 6' high. A sketch of the area is shown in Fig. 1.

Scintillometer readings on the tailings dump were in the 900-1000 range in a "waist high traverse," or about 12x background. The only other area that produced readings of 1,000 cps or more was the small waste dump immediately south of the shaft site (see photo e).

Approximately 500' west of the mine site are 3 additional house sized concrete slabs and a considerable amount of domestic type debris.

- References: (1) Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S. Prof. Paper 603.
(2) MacRae, M. E., 1963, Geology of the Blackjack #1 Mine, in Geology and Technology of the Grants Uranium Region: New Mex. Bur. of Mines and Mineral Resources, Mem. 15, Vincent C. Kelley, editor.

(3) Field notes, 12/7/79.



Photo (a) Looking eastward toward the Blackjack #1 site; headframe foundation at left indicated by arrow.

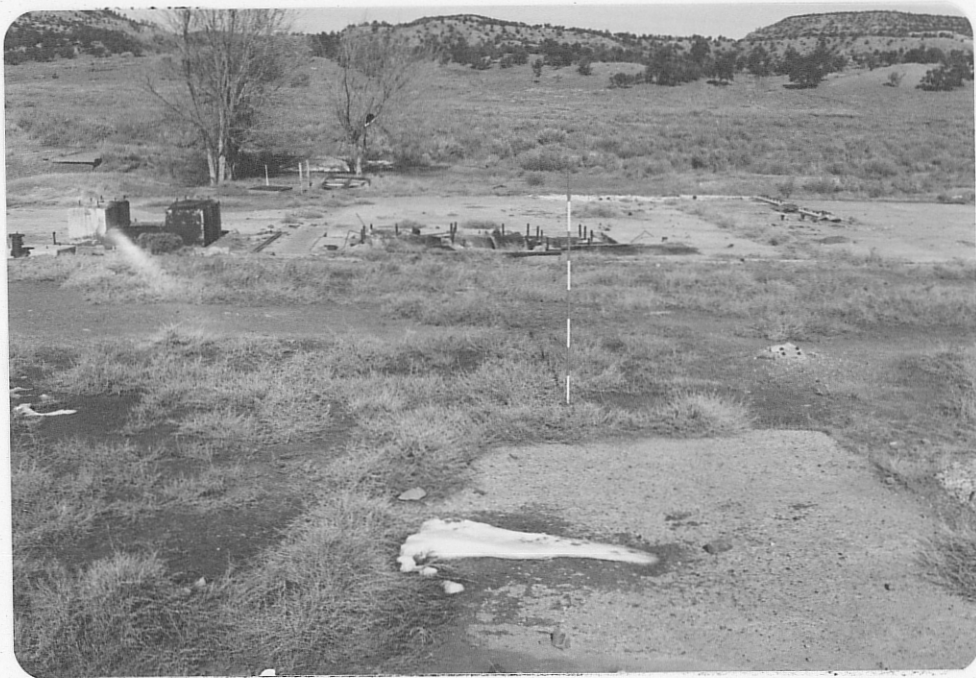


Photo (b) Looking north at shaft site immediately in front of range pole, and one corner of headframe foundation (arrow). Hoist foundation lies behind range pole.



Photo (c) Looking east at 190' long concrete slab; hoist and drum foundation at right.



Photo (d) Looking northwestward at tailings dump; note range pole (circled) for scale.

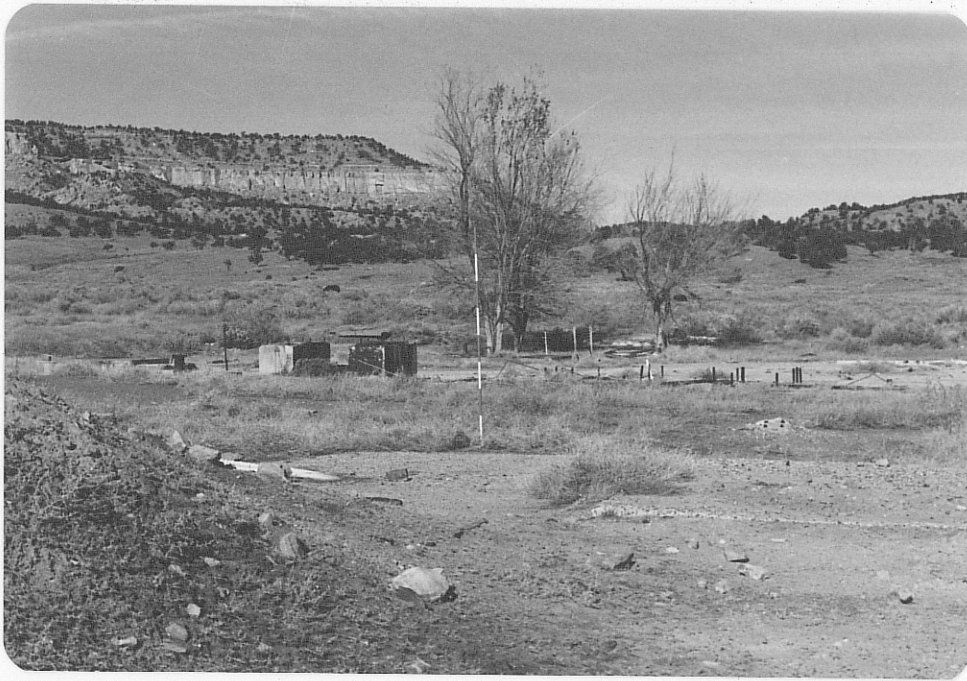


Photo (e) Looking northwestward at shaft site with 5' high tailings dump showing at lower left; dump produced scintillometer readings up to 1,200 cps.

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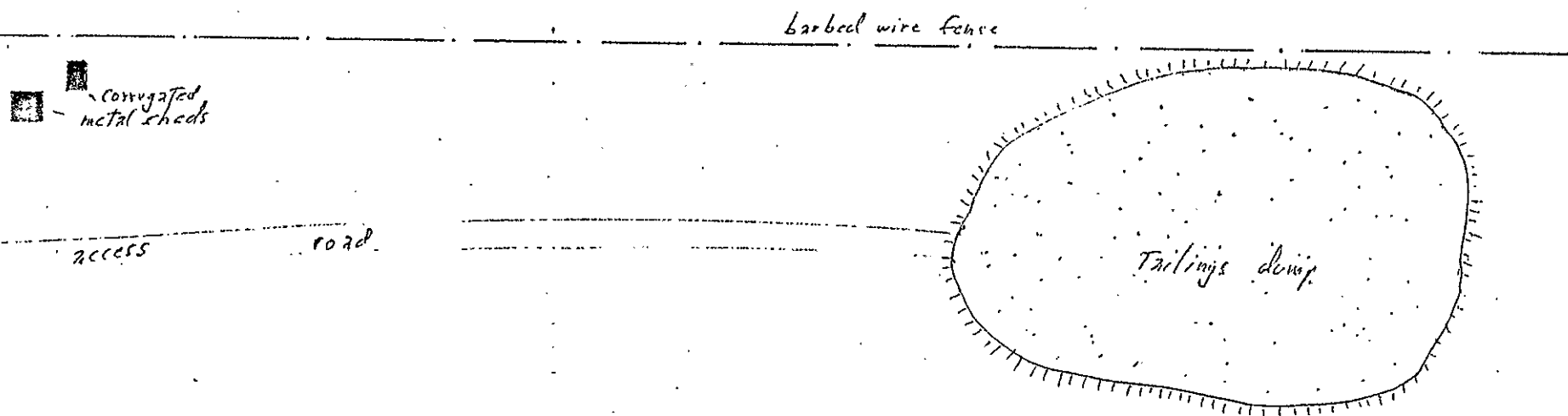
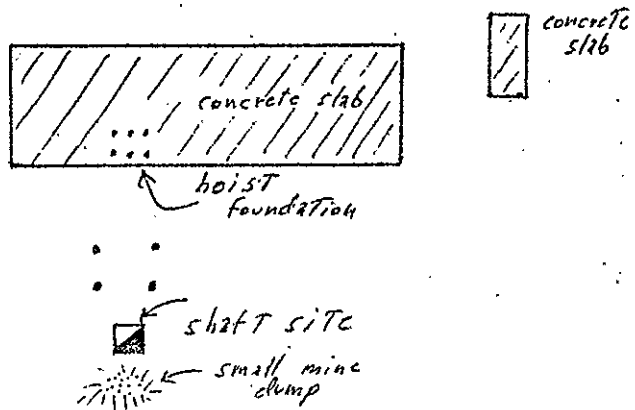


Fig. 1 Sketch map of Blackjack #1 Mine site.

scale: 1" = 100'

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