

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.

18.	NM-149-4-18	Page 141
	Sec. 25 Shaft	
19.	NM-149-4-19	Page 144
	NW $\frac{1}{4}$ 25, Decline and Open Pits	
20.	NM-149-4-20	Page 149
	Hanosh	
21.	NM-149-4-21	Page 152
	Sec. 23 and 26 Open Pit	
22.	NM-149-4-22	Page 156
	NE $\frac{1}{4}$ Sec. 36 (Rimrock) Homer Scriven)	
23.	NM-149-4-23	Page 160
	Sec. 31 Open Pit	
24.	NM-149-4-24	Page 163
	Moe No. 4 (Sec. 32)	
25.	NM-149-4-25	Page 165
	Charlotte	

\*Dos Lomas Quad reports #26 - #35 found under Valencia County

Quad: Gallup East 7 $\frac{1}{2}$ '

1.	NM-122-3-1	Page 167
	Hogback (Hogback 3-5)	
2.	NM-122-3-2	Page 171
	Becenti	

Quad: Goat Mountain 7 $\frac{1}{2}$ '

1.	NM-149-2-1	Page 174
	Kermac Sec. 10 (Kermac No. 10)	

2.	NM-149-2-2	Page 178
	Sec. 34	
3.	NM-149-2-3	Page 180
	Sec. 35 Strip (Lost Mine)	
4.	NM-149-2-4	Page 183
	Febco (Small Stake)	
5.	NM-149-2-5	Page 188
	Silver Spur 1 (Silver Spur 5)	
6.	NM-149-2-6	Page 194
	Pat Mine	
7.	NM-149-2-7	Page 197
	Dakota	
8.	NM-149-2-8	Page 199
	Junior	
9.	NM-149-2-9	Page 201
	Sec. 5 (Westvaco) (No. 2)	
10.	NM-149-2-10	Page 202
	Sec. 1 Strip	
11.	NM-149-2-11	Page 204
	Sec. 2 Strip	
	<u>Quad: Hosta Butte 7½'</u>	
1.	NM-124-3-1	Page 206
	Blackjack #1	
2.	NM-124-3-2	Page 212
	Mac #2	

Date visited 12/14/79

Mine name(s) Pat Mine County McKinley

Section SE $\frac{1}{4}$ , NE $\frac{1}{4}$ , 4 Twنش. 13 N R. 10 W

Quadrangle sheet Goat Mountain 7 $\frac{1}{2}$ '

Mining district Grants

Elevation 7,220'

Nearest city and/or dwellings Numerous scattered dwellings along the Two Fault.  
Butte-Haystack Mountain road 2 miles west of mine.

The Pat Mine is shown by two closely spaced adit symbols on the Goat Mountain 7 $\frac{1}{2}$ ' quadrangle. The mine may be reached via dirt road leading northward from Haystack Mountain. Two miles north of Haystack Mountain (on Bluewater quadrangle) take dirt road leading northeastward for 1.2 miles; then take side road to right (east) for .75 miles to mine site.

The mine consists of 3 northward driven adits, 2 of which are stubs and interconnect, with drifts off of these (see photos a thru c). One drift, parallel to the face cut has collapsed resulting in a hole exposed just west of the two interconnecting adits (see photo a). About 25' west of the hole is the longest of the three adits, more than 65' long, with a drift off to the left at about 30'. This adit is shown in photo (c). It produced a scintillometer response of 3,900 cps. A small stope between the two interconnecting adits produced readings up to 3,500 cps; (background between 90-130 cps).

Host rock is a 60'-80' thick sandstone in the upper Westwater Canyon member or the lower Brushy Basin member of the Morrison fm. A zone about 15' thick near the top of this sandstone contains several lenses of dark gray radioactive material (Hilpert, 1969).

The mine was active between 1952-1963, but most ore was mined after 1958 (Hilpert, 1969).

- References: (1) Hilpert, 1969, Uranium Resources of NW New Mexico, U.S.G.S., Prof. Paper 603.  
(2) Field notes, 12/14/79.

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Photo (a) Looking northwestward at two interconnecting adits center and right, and collapse hole, directly in front of person. Hole formed when a drift parallel to the face collapsed. Adits are 5' high x 5' wide; note range pole.



Photo (b) Looking northeastward at the two adits shown in photo (a); note range pole at adit on right for scale.



Photo (c) Looking northward into adit, about 5' high, 6' wide, and more than 65' long, located about 25' to the west (beyond) the collapse hole shown in photo (a).