

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.

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MINES IN NEW MEXICO

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Bernalillo County	6 pages	\$1.20
Catron County	9 pages	\$1.80
Dona Ana County	6 pages	\$1.20
Eddy County	5 pages	\$1.00
Grant County	22 pages	\$4.40
Harding County	3 pages	\$.60
Hidalgo County	10 pages	\$2.00
McKinley County	275 pages	\$55.00
Mora County	6 pages	\$1.20
Quay County	7 pages	\$1.40
Rio Arriba County	30 pages	\$6.00
Sandoval County	24 pages	\$4.80
San Juan County	192 pages	\$38.40
San Miguel County	15 pages	\$3.00
Santa Fe County	11 pages	\$2.20
Sierra County	19 pages	\$3.80
Socorro County	25 pages	\$5.00
Taos County	10 pages	\$2.00
Torrance County	5 pages	\$1.00
Valencia County	98 pages	<u>\$19.60</u>
		\$ 153.60

SAN MIGUEL COUNTY

Quad: El Porvenir 7½'

1. NM-135-2-1 Page 1
Sparks - Stone (Sparks Stone #1)

Quad: Honey Boy Ranch 7½'

1. NM-131-1-1 Page 2
High Peak(High Peak Claims)

Quad: Sabinoso 7½'

1. NM-139-2-1 Page 6
Sabinoso Uranium Coop. (Lujan Ranch) (Asco Mine)
2. NM-139-2-2 Page 10
Windy 9
3. NM-139-2-3 Page 12
Bish Claims
4. NM-139-2-4 Page 14
Verde (Hunt Oil Co. Sab)
*Unlocated on Sabinso Quad.

Date visited 9/20/1979

Mine name(s) Sparks-Stone (Sparks Stone #1) County San Miguel

Section 5 & 6 Twنش. 16 N R. 14 E

Quadrangle sheet El Porvenir 7 $\frac{1}{2}$ '

Mining district N. A.

Elevation 8,000' (estimate)

Nearest city and/or dwellings Blue Haven Youth Camp; 3 mi E.

The present investigators were unable to reach the Sparks-Stone mine site because of locked gates, no trespassing signs, and unavailability of landowners. The nearest point reached was the Blue Haven Youth Camp which is 3 miles away.

A July 1960, Office Memorandum of the U.S. AEC stated that officials of that agency tried to reach the mine during the month of July, but ran into blocked roads and signs stating "Road closed by court order." The memorandum further stated that reports made earlier by an agency certification engineer indicated previous road problems at "distances of 3 or more miles from the property." The memorandum concluded by stating, "No reserve is assigned the property as only 4 tons of .06% U_3O_8 and 13 tons of .13% U_3O_8 were shipped from it. Controller lost interest after the second ore shipment in mid-1956."

AEC records show the workings consist of a small open pit about 20' x 50', and 5' deep (Wm. Chenoweth, written communication, Nov. 1979).

References

1. U.S. AEC Office Memorandum, July 11, 1960
2. Wm. Chenoweth, U.S. Dept. of Energy, written communication, Nov. 1979

Date visited 10/20/79

Mine name(s) High Peak (High Peak Claims) County San Miguel

Section (Unsurveyed) NE $\frac{1}{4}$ 30 Twنش. 17 N R. 13 E

Quadrangle sheet Honey Boy Ranch

Mining district Willow Creek

Elevation 9160'

Nearest city and/or dwellings 1 $\frac{1}{2}$ mile NW of Emerson Ranch; 9 air miles NE of Peo

The High Peak Mine is located about 300' west of the Rito Atascoso which drains southward into the Rito Manzanares. The claim, which was never patented, lies within the Santa Fe National Forest about 1 $\frac{1}{2}$ miles NW of The Emerson Ranch.

At present the workings on The High Peak claim consist of 100' long open cut or trench which apparently had been an adit at one time, (A.E.C. - P.R.R.). The Honey Boy quadrangle, printed in 1961, shows an adit symbol at the mine site. A short adit about 15'⁰ deep remains at the west end of the trench, see photo (a); the trench trends N 57° W.

The dump extends eastward from the trench for some 50'-75'; ranges up to 100' wide in a N-S direction, and has a maximum height of 25'. A small, shallow depression between the pit and the west edge of the dump held some water but it is apparently a seasonal pond and represents no hazard. No scintillometer readings are available for this site.

The deposit consists of pegmatitic stringers in Precambrian granite according to Griggs and Henderson, 1951, (see Photo b). A somewhat later report by Romslo, 1954 (DMEA-3207) stated that:

"The Mora (High Peak) deposit contains small amounts of monazite sporadically distributed in a pegmatite dike that apparently contains little or no uranium ore, high grade mica, or other marketable products."

The same report goes on to quote an AEC letter of May 20, 1954 sent to the U.S.G.S. explaining that

"Because the monazite occurs as scattered, small segregations within the pegmatite, tonnage is apparently too low to warrant exploitation. Also the uranium content of the monazite is much too low to make ore."

Total production through 1954 was reported as a few hundred lbs. of monazite ore taken from float rock and 1.25 tons of hand sorted ore from 2 shallow trenches. Obviously the long pit and short adit photographed at the site during the present investigation were developed after 1954, but additional production data is unavailable.

No monazite was recognized in the pegmatite dikes by the present investigators.

turn

SM-2

A map of the High Peak claim area from Romslo, 1954 is included as figure 1.

- Reference:
- (1) Griggs, R. L., and Henderson, G. E., 1951, Geology and Ground-water Resources of San Miguel County, New Mexico; N. M. Bur. of Mines, Ground Water Report 2.
 - (2) Romslo, T., 1954, Mora Monazite Company High Peak Monazite claim, Willow Creek Mining District, San Miguel Co., N. Mex.; AEC DMEA-3207.
 - (3) U.S. A.E.C., 1956, Preliminary Reconnaissance Report (PRR) File No. ASO-132; in RME-160.

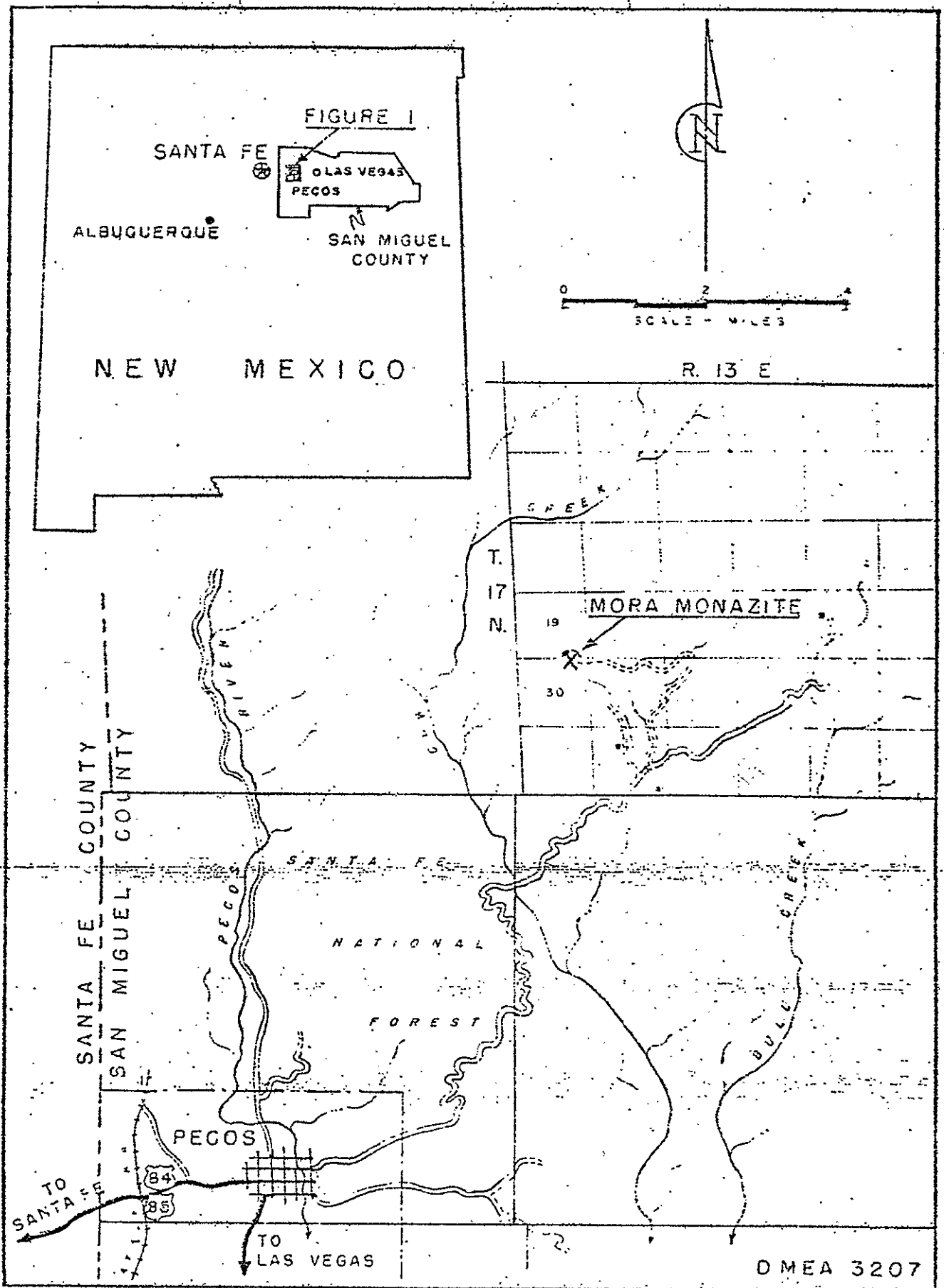


FIGURE I. - LOCATION MAP - MORA MONAZITE CO. HIGH PEAK CLAIM SAN MIGUEL COUNTY, NEW MEXICO

5/10/41



Photo (a) High Peak Pit.

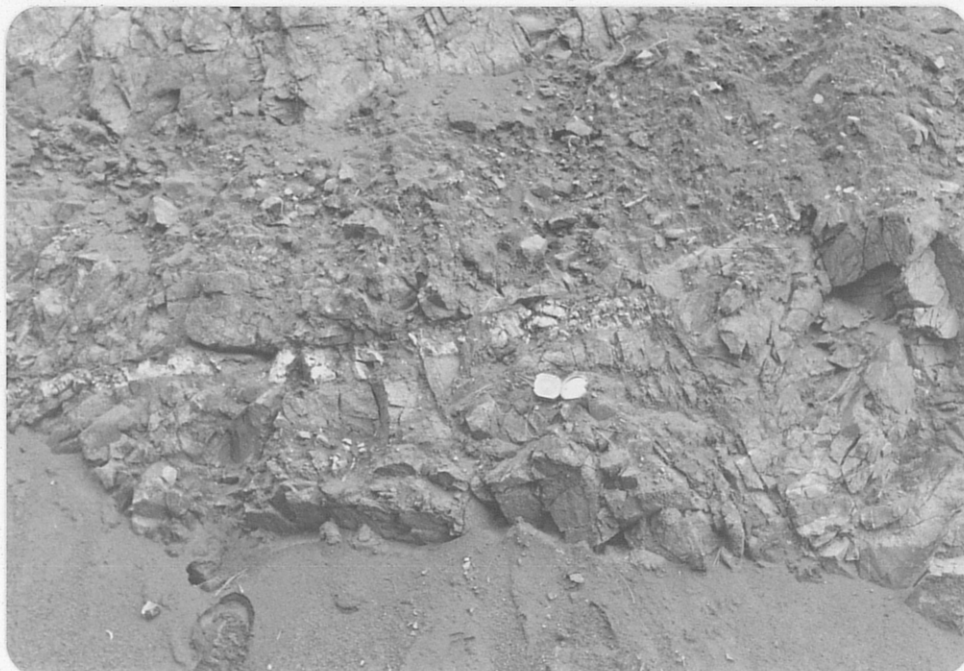


Photo (b) Close up of pegmatite veins in Pe granite; note Brunton compass for scale.

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Date visited 9/18/79

Mine name(s) Sabinoso Uranium Corp. (Lujan Ranch) County San Miguel
(Asco Mine)

Section SE $\frac{1}{4}$ 8 Twنش. 17 N R. 24 E

Quadrangle sheet Sabinoso

Mining district Sabinoso

Elevation 4840'

Nearest city and/or dwellings 7 mi. north of Sabinoso Village, $\frac{1}{2}$ mile SE of nearest farm.

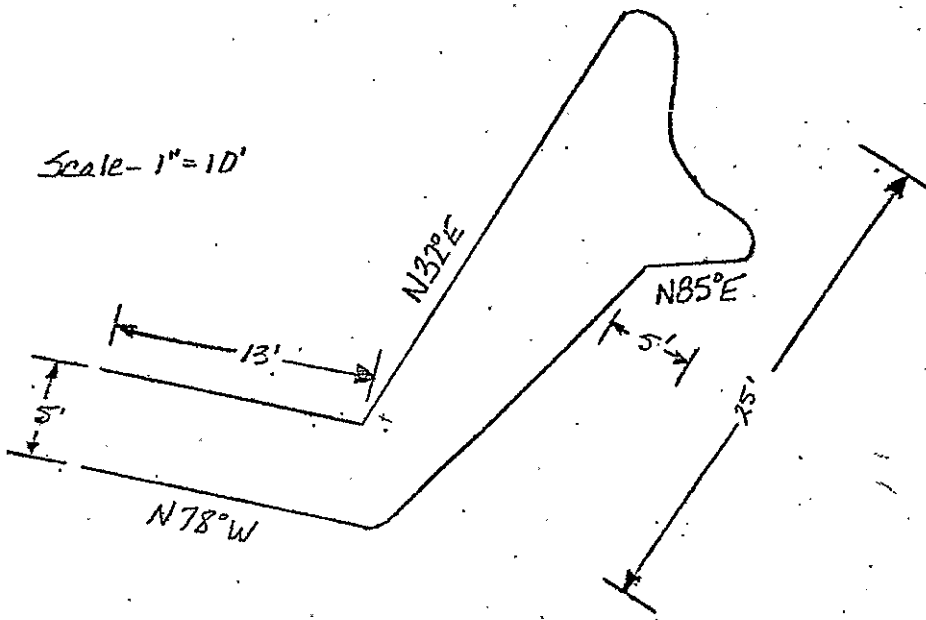
The Sabinoso Uranium Corp. workings are located on sandstone cliffs on the east bank of the Canadian River. The small adit is approximately 250' up the wall of the canyon. Access is by dirt road 7 miles north from the Sabinoso Church.

Workings consist of a small adit (see diagram), and a blasted face (photo a). The face cut is about 75' north of the adit. It is 30' long in a north-south direction, and 25' high. Maximum depth on the cut is 3-5'. The adit entrance is 6' high and 5' wide, and trends N 78° W for the first 13'. At this point it jogs left for 25'; and the roof is lowered 1' to make the clearance 5'.

The adit and cut are in the middle unit of the Chinle Sandstone (Finch, 1972). The stratigraphic sequence of the open cut is 1' of basal greenish gray mudstone or siltstone, 1' of red/green mudstone, shale, and sandstone, 5' of red conglomeratic sandstone lenses, capped by 18' of massive, fine to medium grained sandstone, which locally contains micaceous zones. The open cut was barren of visible mineralization; the adit contained pockets of carbonized plant debris (photo c), which may contain uranium and pyrite?

- References:
- (1) Finch, Warren I., 1972, Uranium in Eastern New Mexico, U.S.G.S., open-file rept., 19 p.
 - (2) Griggs, R. L., 1955, Tucumcari-Sabinosa area in Geologic investigations of radioactive deposits, semi-annual progress report, June 1 to November 30, 1955, U.S.G.S. TEI-590, p. 191-195.
 - (3) Baltz, E. H., Jr., 1955, A reconnaissance for uranium in carbonaceous rocks in southwestern Colorado and parts of New Mexico: U.S.G.S. TEM-91
 - (4) New Mexico State Mine Inspectors Office

Plan MAP - Sabinoso Uranium Corporation



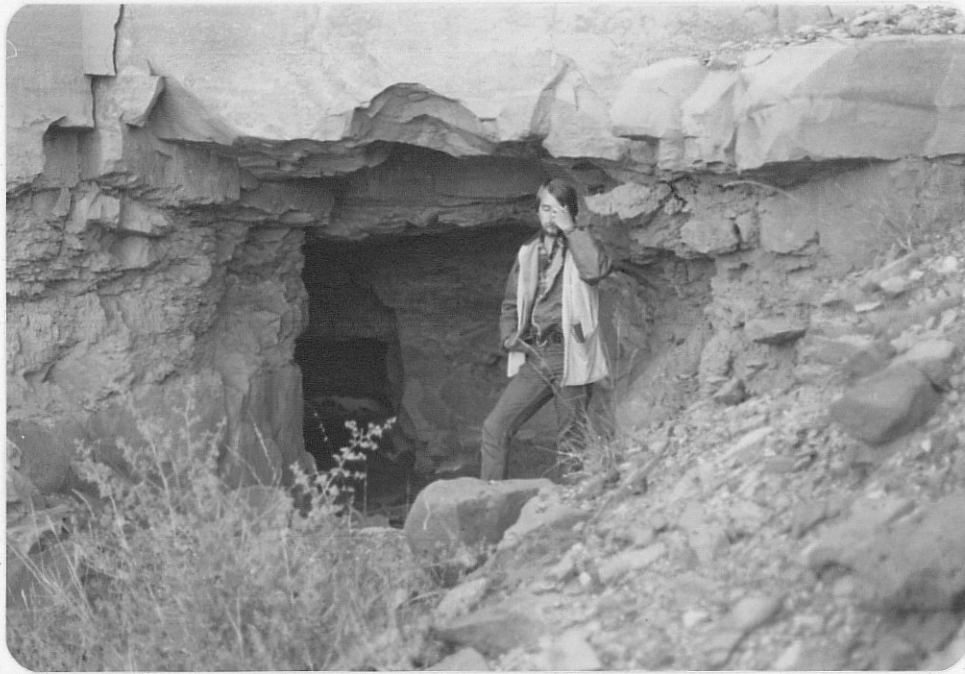


Photo (a) Face Cut-Sabinoso Ur. Corp.

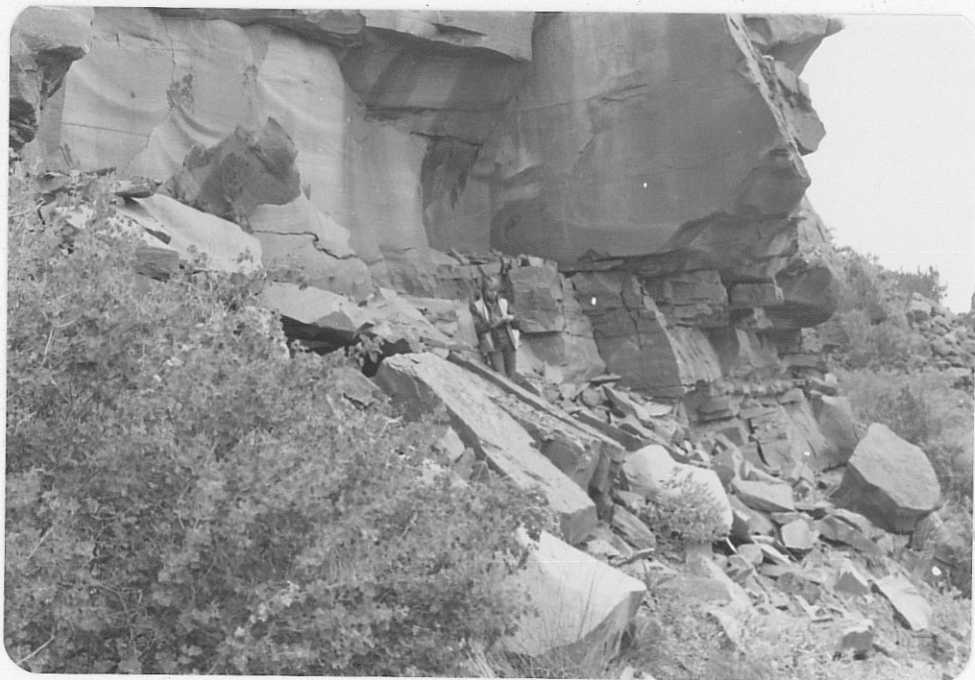


Photo (b) Adit entrance-Sabinoso Uran. Corp.



Photo (c) Carbonaceous trash zone-inside Sabinoso U. Corp. adit.

Date visited 9/18/79

Mine name(s) Windy 9 County San Miguel

Section SE $\frac{1}{4}$ 14 Twنش. 17 N R. 23 E

Quadrangle sheet Sabinoso

Mining district Sabinoso

Elevation 4920'

Nearest city and/or dwellings 2 mi. NE of Lewis Ranch; 3 mi. due west of Sabinoso

The Windy #9 is located 1/4 mile north of Canon Largo, 200' off the creek bed floor, on a series of low hills. Canon Largo drains eastward into the Canadian River, but there is no apparent danger of seepage of tailings into the river.

The bulldozing (photo a) covers a total of 3,600 linear feet (A.E.C., P.R.R.), and bedrock is exposed in only a few cuts. For the most part, only the soil cover was disturbed, and bedrock was not encountered. No scintillometer readings were available to determine anomalies in the lower, soil covered area.

The adit (photo b), is timbered by 6 x 8" cedar posts with poles on top at the entrance. The entrance is 6' wide, 5 $\frac{1}{2}$ ' high. Some filling of the floor has occurred at the entrance. The adit trends N 20° W for 25' where it bends to the right. No dump of appreciable size was noted.

The adit is in the middle unit of the Chinle Formation. Ore seems to be associated with a gray carbonaceous trash zone. Trial shipments totaling 80 tons were made from the Windy 9, Good Luck 1, and Little Rattler (Finch, 1972). No visible uranium minerals.

- Reference: (1) Finch, W. F., 1972, Uranium in Eastern New Mexico, U.S.G.S. open file rept.
(2) State Mine Insp.
(3) U.S. A.E.C. Uranium Mine Records

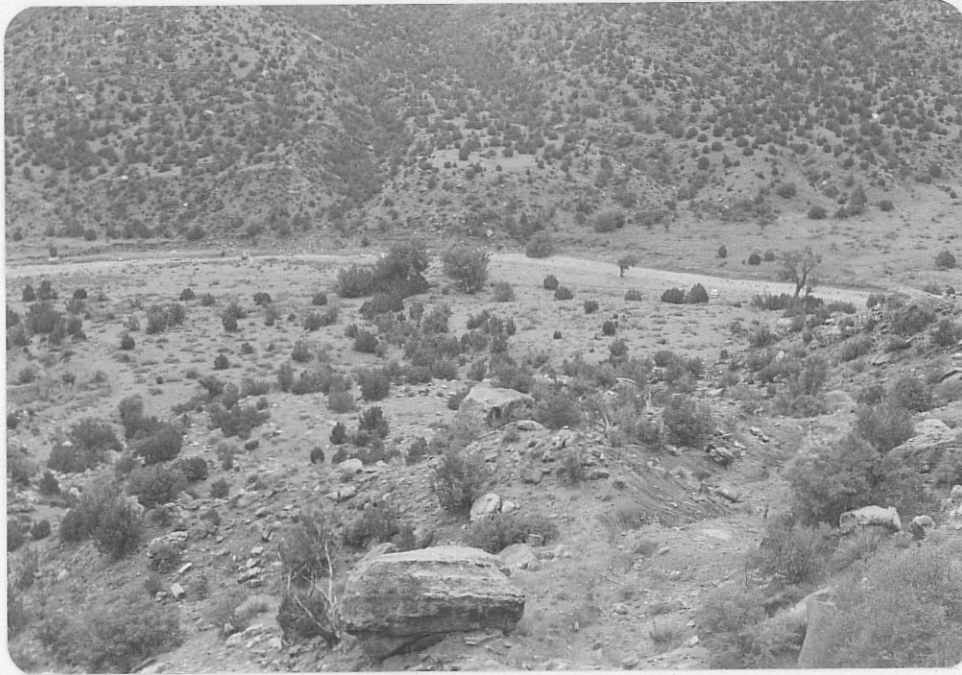


Photo (a) Bulldozer activity-Canon Largo in background.



Photo (b) Adit entrance Windy #9.

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Date visited 9/19/79

Mine name(s) Bish Claims County San Miguel

Section NE $\frac{1}{4}$ NE $\frac{1}{4}$ 31 Twنش. 17 N R. 24 E

Quadrangle sheet Sabinoso

Mining district Sabinoso

Elevation 4950'

Nearest city and/or dwellings 2 mi. SW of Sabinoso

The Bish Claims are located on the far southwestern corner of a NE-SW trending ridge, with Cerro del Miguel Antonio to the NE, and Canon Sabinoso $\frac{1}{4}$ mile over the ridge to the NW.

Evidence of an adit was found at the site, ore piles, timber, etc., and the State Mine Inspector makes reference to a tunnel, however, the entrance may be caved, as after an extensive search no adit was found*. There was evidence of extensive drilling activity, and 6 levels of drill roads were found (photos a and b).

According to Finch, (1972), the Bish #2 Mine yielded 30 tons of ore, averaging 0.10% U_3O_8 and 0.40% V_2O_5 .

Host rock is the middle member of the Chinle, which locally is a sandstone, limestone-pebble conglomerate (Finch, 1972), that contains carbonized plant remains.

- Reference: (1) Finch, 1972, Uranium in Eastern New Mexico, U.S.G.S., open-file report.
(2) U.S. A.E.C. Uranium Mine Records
(3) State Mine Inspector

* A report later obtained, courtesy of Wm. Chenoweth, by I. T. Fisk, a field engineer for the A.E.C., states that the adit was 75 feet in length. Mr. Fisk made his field check in August, 1960, and he states the portal was partly caved and the mine flooded 30' from the portal at the time of his visit.



Photo (a) Drill roads in the Bish Claims.



Photo (b) Close up of impassable drill road on the Bish Claims.

Date Visited 9/19/79

Mine name(s) Verde (Hunt Oil Co. Sab County San Miguel

Section W $\frac{1}{2}$ 29 Twsh. 17 N R. 24 E

Quadrangle Sheet Sabinoso 7 $\frac{1}{2}$ '

Mining district Sabinoso

Elevation 4780-4850'

Nearest City and/or dwelling Sabinoso 2 mi. NE

The Verde claims are located on the NW side of a NE-SW trending ridge leading to Cerro del Miguel Antonio on the NE. Canyon Sabinoso is 1/10 of a mile to the west.

No clear evidence of a mine exists. Mr. Martinez, a local rancher, indicated that there were some workings along the SE wall of Sabinoso Canyon in Sec. 29. During the field check evidence was found of an ore stockpile in the SE $\frac{1}{4}$ of 29, but other than old roads, no evidence of disturbed ground was noted. The host rock was probably Chinle sandstone.

- References:
- (1) State Mine Inspectors Office.
 - (2) Finch, 1972, Uranium in Eastern New Mexico, U.S.G.S. open file report.
 - (3) Field notes, 9/19/79.